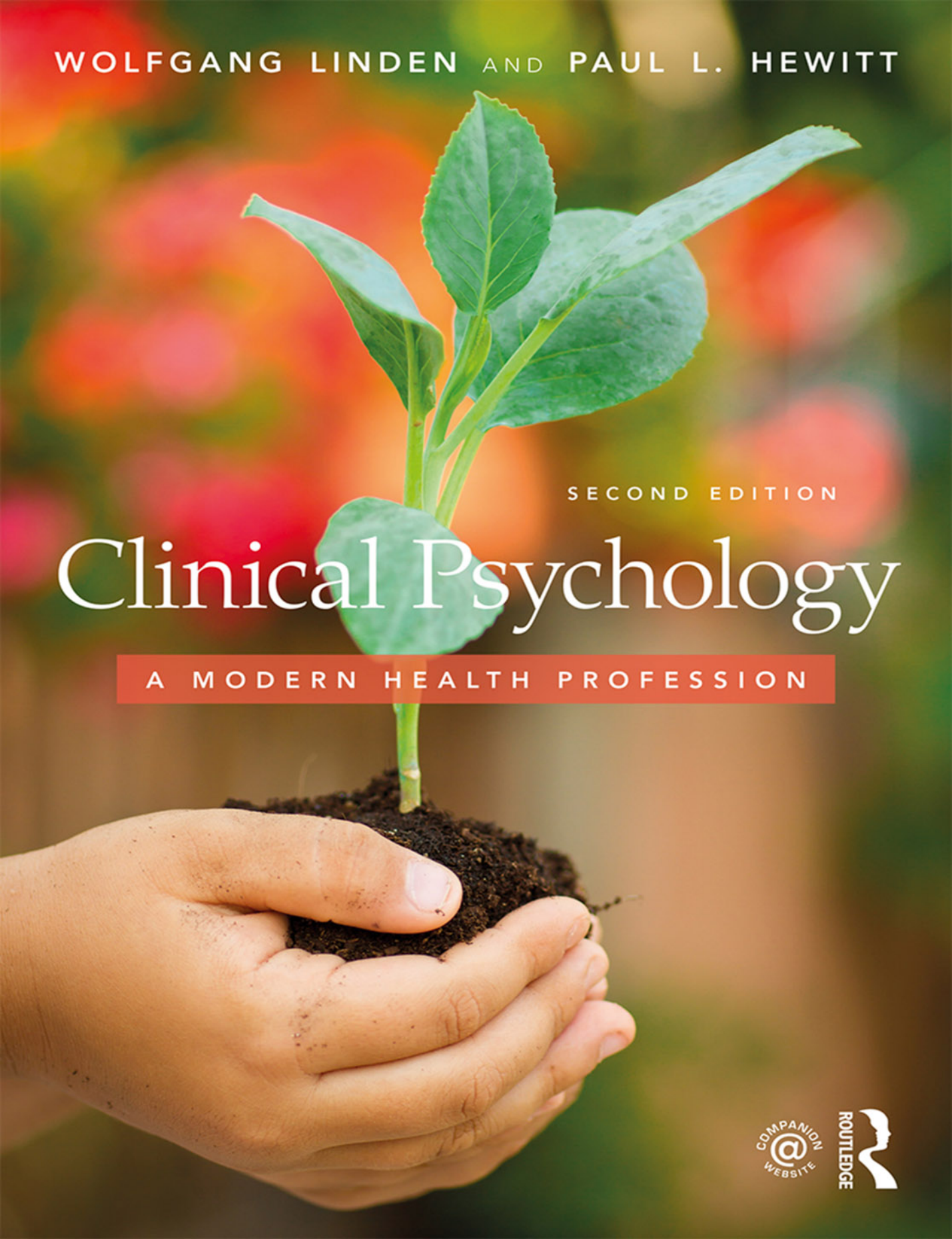
WOLFGANG LINDEN AND PAUL L. HEWITT
SECOND EDITION
Clinical Psychology
A MODERN HEALTH PROFESSION
COMPANION @ WEBSITE
ROUTLEDGE

Clinical Psychology

Clinical Psychology invites students to think like clinical psychologists and develop an integrated sense of how science, experience, ethical behavior, and intuition get woven into our professional identity. Built around typical psychologists and the problems they need to solve, it demonstrates that assessment is much more than testing, and explores how treatment rationales are tailored to the individual problems, histories, and environments of clients. Committed to training future professionals, this text navigates students through the career path of a clinical psychologist and provides guidance on evolving education and training models.

The text uniquely portrays clinical psychology as a modern health care profession that bridges physical and mental health and takes a holistic stance. It treats therapy as a dynamic process that benefits from the cross-fertilization of a range of different approaches. It also provides an international perspective, describing similarities and differences between how clinical psychology is practiced in different countries and contexts. It recognizes that clinical psychology changes as health care systems change, and stresses that training models and practice patterns need to match these changes.

This second edition has been fully revised and reflects *DSM-5* and *ICD-10-CM* guidelines. New and enhanced features include:

- Additional description of the continuing integration of therapy approaches
- Additional evidence on how to make psychotherapy cost-effective
- Upgrades on self-help and web-based treatment
- An expanded chapter on psychopharmacology, offering more information on mechanisms
- Expanded in-text pedagogy, offering more vignettes, ongoing considerations, key terms, and thinking questions
- PowerPoint slides and links to recommended resources.

Wolfgang Linden is Professor in Clinical and Health Psychology at the University of British Columbia with expertise in bridging clinical psychology and physical health applications. He has been very active in professional governance and advocacy for improved mental health care for over three decades.

Paul L. Hewitt is Professor in Clinical Psychology and a member of the Psychotherapy Division at the University of British Columbia. He is also a practicing clinical psychologist in Vancouver, Canada.

"The first edition of *Clinical Psychology: A Modern Health Profession* by Wolfgang Linden and Paul L. Hewitt was my first choice as a textbook. This second edition is now my first choice. Linden and Hewitt have used their extensive clinical knowledge to write a contemporary classic that describes how the vast psychological knowledge drawn from theory and research can inform and be integrated into evidence-based clinical practices from assessment to intervention. This is a dynamic and engaging book that will resonate with students, clinical trainers, and practicing psychologists."

—**Don Saklofske**, *University of Western Ontario, Canada*

"Linden and Hewitt's new edition substantively improves upon an already exceptional primer for students exploring the complexities of a career in clinical psychology. With sensitivity to both foundational principles as well as contemporary forces shaping the field, this new edition clearly outlines the essential role of clinical psychology in modern healthcare. It represents an invaluable resource to any clinical prep or field orientation course."

—**William S. Chase**, *Keystone College, USA*

Clinical Psychology

A Modern Health Profession

Second Edition

Wolfgang Linden and Paul L. Hewitt

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Preface

This is Edition II of a textbook for which the writing of Edition I was completed in 2010. The extensive changes were guided by a set of very helpful anonymous reviews coming from 13 different professors who teach this material elsewhere. We are deeply indebted to them as individuals and their joint wisdom. They also made our job easy because there was great overlap in their views in that the first edition was seen as comprehensive, well-sequenced, and at a suitable reading level. The reader will find first a listing of changes and upgrades. Then we largely repeat the contents of the Foreword for Edition I because our overall approach was meant to be unique and a reflection of who we, the authors, are and how we see our profession (. . . and we have changed little since then).

Friends and colleagues graciously read and commented on revised material. We thank Christian Schütz, MD, PhD, MPH for his critical reading of our material on Psychopharmacology. As well, we had several psychology students read the documents and give us feedback from students' perspective. In particular we thank Briana Smirfitt and Ariel Ko for their comments and suggestions. We would also like to thank Barbara Calvert who provided some original artwork for this book.

How does Edition II differ from the first?

- Updated references, tables, and figures to accommodate 7–8 years of additional publications.
- More information on training and career paths for Master's level trained practitioners.
- Additional description of the continuing integration of therapy approaches, further search for commonalities, and more emphasis on cognition.
- Offered is additional evidence on how to make psychotherapy cost-effective.
- Upgrades are offered on self-help and web-based treatment.
- The chapter on psychopharmacology was expanded to offer more information on mechanisms.
- Some treatments that were categorized as innovative and only partly tested (namely mindfulness meditation and acceptance and commitment therapy) are now seen as mainstream and were moved into the appropriate chapter (Chapter 12).
- For additional pedagogy we open each chapter with bulleted objectives.
- We added original artwork and some photos for visual enrichment.

We are not sure whether it can (or should) be called "remarkable" but . . . many topics and domains have seen relatively little change since 2010:

- Ethics principles and conflict resolution strategies are similar.
- Major struggles continue around health care system changes and the need to develop a more chronic disease and lifespan approach.
- Psychotherapy effectiveness is continuously affirmed.

- The basic underlying rationales, methods, and their limitations in assessment continue to exist even though tests are upgraded to newer versions and validity evidence keeps growing. Questionnaires and interviews continue to dominate whereas the promise and advantages of ambulatory, in-vivo assessments with sophisticated electronics are mainly used in research but not in routine clinical practice.

What was Edition I like and how did it get to be? The decision to write this textbook in its first edition had stemmed from Wolfgang Linden's experience of more than two decades of teaching a 4th-year undergraduate, introductory "Clinical Psychology" course, and from many conversations with representatives from college textbook publishers who just could not provide the kind of text he was seeking for his class. Of course, the textbook publishers' representatives who came to the university campus routinely said: "Why don't you write a textbook yourself that suits your needs?" As the existence of this book (now in Edition II) in your hands proves, the dam broke and two authors with complementary areas of expertise in clinical psychology joined forces to do just that. Paul Hewitt also believed that many of the existing clinical psychology textbooks missed critically important aspects of contemporary clinical and research work and revealed a sometimes not-so-subtle bias against particular domains of clinical inquiry. Hence, the authors decided to try to create a textbook that addressed the missing components. Moreover, the authors wished to provide an international flavor to the textbook so as to teach students about the larger field of clinical psychology, not the field of clinical psychology as it is narrowly practiced in any one country or jurisdiction. In the end, this was not particularly difficult because the similarities of the field between countries greatly outweigh the differences. However, at times, there are emphases on certain aspects of the field that different countries promote, and practitioners in different countries can inspire each other by sharing their knowledge. The fact that clinical psychology is embedded in country-specific systems of health care delivery also allows comparisons and identification of innovative strategies that may invite application elsewhere for the benefit of better patient care.

Why could we not find another book that satisfied our needs? There are many reasons. First of all, both WL and PH considered existing texts too narrow in their coverage and at times presenting somewhat antiquated views of the field. Also, a predominant habit of existing texts in clinical psychology books is to "start at the beginning," with a lengthy chapter on history. While we agree that it is important to understand the roots and the context for developments in clinical psychology, we think that more curiosity is raised in students by starting **today**, by appreciating what kinds of problems clinical psychologists solve every day, and by delineating the satisfactions that they derive from their work. This presentation of day-to-day realities sets the stage for appreciating the tools needed to complete the daily tasks and solve problems. To make this approach come alive, we present these tools, work our way through ethical considerations, assessment and treatment issues, deal with what works in therapy and what does not, and raise questions about where the future may take us. The objective of this book is not just to teach facts about clinical psychology but to encourage the student to think like a clinical psychologist, to develop an integrated sense of how science, experience, ethical behavior, and intuition get woven into our professional identity.

By attempting to make clinical psychology "real" and timely, we are seeking to arouse curiosity in the readers so that they truly want to move through the text and find the answers, just like in a good thriller where you will want to find out who did it, and why, and "how the gardener almost got away with murder"!

What else makes this book different?

- We portray clinical psychology as a modern **health care profession** that bridges physical and mental health, that is psychosomatic, and that takes a holistic stance; this book does not see clinical psychology as just a branch of mental health care.
- We recognize the importance of biological/physiological assessments because no existing text covers physiological measures beyond offering a mere mention (if that!).
- This book takes an international perspective, trying to describe similarities but also differences between countries and how clinical psychology is practiced in different contexts.
- Recognition is given to how clinical psychology changes as health care systems change, and stresses that training models and practice patterns need to match these changes.
- We try to breathe life into the dynamic nature of change in the therapy process, and how different approaches weave into one another, cross-fertilize, and grow.
- We tried to create excitement by building the text around fairly typical psychologists and the problems they need to solve, stressing how assessment is much more than testing, and how treatment rationales are tailored to individual problems, their histories, and the client's current environment.
- We show that psychoanalysis and psychoanalytic psychotherapies have not stalled and are not disappearing; instead they continue to develop and draw interest.

We know that clinical psychology is offered as a one-semester course in some colleges and universities but also as a full-year course elsewhere. Given that this book is meant to support 1-semester and 2-semester courses alike, it is not likely that instructors can cover all chapters of this book in full detail if their course spans only a single semester. Therefore, we planned the book such that a number of chapters and their corresponding topics could be left out altogether or left as assigned reading to students. This is most likely applicable to Chapter 2 ("how-to-get into graduate school" and psychologists' career paths), and the chapters or sections on subspecialties like Innovative Therapies, Health, Forensic, Child, Psychopharmacology, and the final chapter's "outlook into the future." The sequence of the chapter presentation is mapped onto the sequence of topics covered in Wolfgang Linden's course which is based on over two decades of teaching experience; student feedback had indicated that this order represented a good flow.

We want to alert the reader to certain issues of style and use of terminology that are germane to this book. Throughout the field of mental health, the individuals who receive services are called **patients**, **clients**, or **consumers**. The term "patients" is most likely used in hospitals or other medically dominated environments whereas the term "clients" is typically used in private practice environments. The notion of "patient" embeds the idea that the individual is in pain or distress and that a professional "healer" is involved, whereas "client" also harbors the recognition that there is usually a two-sided contract between the therapist and the client. "Client" also implies more client control over the therapy (or assessment) process than is typically true for patients in hospital environments. Philosophically, we hope that in the long run nobody is seen as a passive recipient of care and that instead we treat patients as partners in care. Given that this book provides numerous examples of clinical practice in widely different environments, we are using the terms "patients" and "clients" interchangeably, and do not want the reader to look for some profound rationale for choosing one term over another at different times.

The term **consumer** is most often used by individuals who work in volunteer mental health organizations or receive services by these organizations. The philosophy of these not-for-profit helping organizations is one of empowerment; they tend to reject the terminology of a more hierarchically organized medical world and its "pathologizing" labels. While we recognize and appreciate the reasoning and suitability of the term "consumer" in this environment, it is not routinely adopted for this textbook.

The world of clinical psychology consists of men and women, in provider and client roles, as well as people of different cultures, skin colors, religions, and sexual orientations. In order to recognize the full representation of both genders in all roles and to avoid the stilted (over-) use of the awkward term "they," we randomly alternate between "she" and "he" when we refer to either patients or psychologists or other individuals. In no case should the reader think that a gender-specific bias is implied if a police officer was referred to as "he" or a nurse was referred to as "she." In fact, we made efforts to occasionally use gender labels that go against such stereotypes.

When clinical psychologists enter the world of health care, they enter a world that is strongly dominated by two health-care professions, namely nurses and physicians. In fact, many people portray the health-care system as consisting of "doctors and nurses," and unfortunately this is equally prevalent in the media who use this descriptor ad nauseam. We want to encourage all clinical psychologists to actively contribute to raising awareness in the general public that there are many different health-care professions. In the university where we teach, there are no less than 11(!!) different professions being trained to become health-care professionals. True, there are more nurses and physicians in the health-care system than other health professions, but that simply means that these other health-care professionals need to make more noise to raise their individual visibility and market themselves. Along these lines we strongly discourage clinical psychologists from participating in the confusing and self-handicapping habit of referring to physicians as "doctors." For hazy reasons of tradition, medical professionals in North America are often referred to as "doctors" although the roots of the word "doctor" have no connection with medicine whatsoever. "Doctor" stems from the Latin verb "docere" which means to teach. Hence, a "doctor" is a teacher or scholar and, in fact, universities have a thousand-year-old tradition of awarding the title Dr. to the most extensively trained scholar. Interestingly, a British-trained physician is awarded a Bachelor of Medicine degree (MB) and not a doctorate title. Also, the title confusion does not exist in other languages such that Spanish-speaking people have a "Medico," the French their "Medicin," and the Germans their "Arzt." In order to take the place that psychologists deserve in the health-care system, we encourage doctoral level trained psychologists to actively use their hard-earned Dr. title and to avoid insidiously eviscerating the power of their own profession by referring to physicians as "doctors."

Writing an undergraduate textbook is a rather gargantuan undertaking that takes committed authors who put much of their lives on hold "until the textbook is done"; they need families that support them, colleagues who suggest, criticize, and occasionally praise, and an editor who fully stands behind them.

On our home turf, there were the diligent and hard-working editorial assistants Alena Talbot Ellis, PhD (who had actually taken Wolfgang Linden's course two years before working on the book), Roanne Millman, BA, and the tireless Victoria Bae, BA, Jacqueline Hewitt, BA, Melanie J. Phillips, MD, Heather Roxborough, MA, and Christopher Siu, BA, who read sections of the book and provided feedback. Friends and colleagues graciously read and commented on some chapters and we thank Charlotte Johnston, PhD, and Roy O'Shaughnessy,

MD, for their critical reading of our material on child clinical psychology and psychopharmacology, respectively. As well, many conversations with colleagues and students over the years have contributed ideas, critiques, and opposing points of view that have influenced the ideas presented in this work. The first major group to thank are the 1,000s of students who have taken Wolfgang Linden's and Paul Hewitt's Clinical Psychology courses over the years and who participated in, or triggered, lively in-class discussions on a myriad of topics. We thank them for their willingness to keep us on our toes but whose curiosity also kept us excited about our field. We greatly appreciate this, and especially thank Samuel Mikail, Gordon Flett, Simon Sherry, Dayna Sherry, Brandy McGee, Carol Flynn, and Lindsey Thomas who through many years of discussion helped shape how we think about the field and how the course is taught. We are greatly in debt to the staff at Taylor & Francis who were exceedingly professional and personable in preparing this second edition with us. We especially enjoyed working with Georgette Enriquez, who as our editor saw the potential of a second edition, and who went out of her way to assure that we had extensive and valuable anonymous reviewer feedback. Her steady support and enthusiasm for this project was a key in keeping us motivated and on track. Brian Eschrich assured further continuity in the editorial office and in correspondence and kept a firm grip on handling permissions and assuring completion of material. Lastly, we were impressed by Holly Smithson for her smooth handling of the editing process and the printing preparations.

Textbook authors also have the good fortune to receive input from (at least initially anonymous) colleagues who provide reviews and feedback through the publisher; their job is not to bolster the egos of the authors with flattering feedback but to take critical stances and comment on all aspects of the product, on style, appeal, comprehensiveness, depth, and so forth. We are profoundly grateful for this critical feedback that gave us a chance to make changes that we hope will maximize the attractiveness of the book for those colleagues who consider textbook adoption. Where things were done right we owe to all the individuals above; where things got messed up, it was our own doing. We truly welcome your feedback as readers; feel free to write to us, or comment on needed improvements for future editions.

1 Being a Clinical Psychologist

Chapter Objectives

The authors of this textbook strongly identify with the profession and the science of clinical psychology and have been ardent proponents and defenders of the idea that as a profession we are distinct. One objective of this first chapter is therefore to circumscribe this unique profession, make it come alive, and get you as excited as we are about clinical psychology even after decades of practice. The learning objectives for this chapter are:

- An appreciation of diverse types of problems that clinical psychologists face, the actual work being done, and the expertise needed to do this work competently.
- An understanding of the training that is involved in developing the identity and skills of a clinical psychologist.
- An appreciation for the blend of science, skill, intuition, and sometimes difficult ethical challenges that shape our professional lives.

Describing the Profession and Its History

Clinical psychologists see clients for formal assessments, conduct psychotherapy, do research, consult and educate. The claim for a "distinctness" of our profession, however, does take some explaining. Specialty areas within psychology are defined by certain subsets of questions or fields of inquiry. Developmental psychology, for example, is interested in growth and change, and biological psychology in the relationship of biology, physiology, and behavior. Of course, these two domains also inform other research domains and areas of practical application. Clinical psychology, on the other hand, denotes a profession that creates and applies knowledge from many subspecialties within psychology and uses these to solve everyday problems across all aspects of health care.

While the paragraph above describes what clinical psychologists do, it does not inform the reader how clinical psychologists think. Scientific training affects the view of a psychologist's own profession and the world at large and also explains the habits and values of clinical psychologists. Three such overarching principles were first described by Galileo (yes, that Galileo), and training in these creates an enduring mindset that permeates our approaches to research and practice. Machado and Silva (2007) describe them as:

1. Observation/experimentation, which essentially reflects the activities, such as methodology, that are used to generate theories and test hypotheses;

2. Quantification/mathematization, which reflects the use of statistical procedures and mathematics to obtain and test data to determine relationships;
3. Theoretical/conceptual analysis, which reflects the clear explication and detailed specification of concepts, constructs, and ideas that derive from or are the focus of research.

All three of these components are important to truly understanding the nature of relationships among psychological constructs; however, Machado and Silva (2007) argue that only the first two tend to be used in psychology research or taught in psychology training programs. For example, although there are courses and emphases in the field on methodological and statistical issues, the issues germane to conceptual analysis tend to be ignored (also see Machado, Lourenco, & Silva, 2000). Although you, as a student of psychology, know, already, a great deal about methodology and statistics from courses you have taken and even from sections of this book, you have likely not been taught about the importance or conduct of conceptual analysis. This means that the clarity and specification of concepts within the field is wanting, which creates incredible confusion. One of the better examples of this is the

IMAGE 1.1 Psychologists on a Date

use of the term "stress," which the literature refers to as nonspecific responses to events, the events themselves, or negative responses to events. Both authors of this text have experienced the problems with the lack of focus on conceptual analysis in their own respective research areas of perfectionism (e.g., Hewitt et al., 2003, 2008) and stress management (Ong, Linden, & Young, 2004). It is hoped that emphases on clear explications of theoretical concepts will be incorporated in both the training and the research in the field and it is one of the major objectives of this textbook to teach **concept clarity**.

Given the scientific training clinical psychologists actively research the questions they deal with in clinical practice, and vice versa; they use their clinical experience to feed new insights and ideas back to researchers. The most frequently used term to describe this two-way flow of ideas and actions is "**Scientist-Practitioner.**" Clinical psychology also can and needs to be defined by how it is different from related disciplines like **Psychiatry** and **Social Work** or **Counseling Psychology** (see Box 1.1) that describes the difference between clinical psychologist, psychiatrist, and social worker.

BOX 1.1 WHAT IS A CLINICAL PSYCHOLOGIST?

Brace yourself. If you are a clinical psychologist, or graduate or even undergraduate student in Psychology, you are prone to be asked at family gatherings or other social events what the difference is between a psychiatrist and a psychologist. Aside from colloquially referring to both as "headshrinkers," and to get that pesky questioner out of your hair, here are some standard definitions that you can supply:

A **Psychologist** is a scientist and/or clinician who studied psychology—the systematic investigation of the human mind, including behavior and cognition. Psychologists are usually categorized by their area of specialty. The most well recognized subgroup in the community is that of the "clinical psychologist," who provides health care, conducts assessments, and provides psychological therapy.

In North America, the typical **Clinical Psychologist** holds a Doctor of Psychology (PsyD) degree if she was trained in a professional school, or a Doctor of Philosophy (PhD) if she was trained in a university-based psychology department. It typically takes 6–7 years above and beyond a Bachelor's degree to become a clinical psychologist. What makes clinical psychologists stand apart from other mental health experts is the balance in their training requiring expertise in both science and practice (see Linden, Moseley, & Erskine, 2005; Linden, 2015 for a review). In much of Europe and Australia, clinical training is offered at the level of Master's degrees and may require additional supervised training before graduates can become independent practitioners and/or are allowed to do third-party billing. The trend in North America is to move toward doctoral level training as a minimal standard although many long-term practitioners hold only a Master's degree and there are still new MA and MSc psychologists getting licensed. When it comes to practice differences, Master's level providers are less likely to work in hospitals, are less often involved in the care of patients with psychosis, and conduct fewer assessments (Hunsley, Ronson, & Cohen, 2013).

Counseling Psychologists are in many ways similar to clinical psychologists but are more likely to become service providers at the Master's degree level (implying a total of 2–3 years of graduate training), have less training and expertise in formal psychodiagnostic assessments, and are less likely to work with populations that have psychoses or severe personality disorders.

Psychiatrists are physicians (and in North America usually doctors of medicine [MD]), who are certified in treating mental illness

using a largely biologically based approach to mental disorders. Psychiatrists first complete regular medical school and then acquire specialty training through a 4-year residency during which they may also go through training to conduct psychotherapy. But it is their medical, biology-based training that allows them to prescribe medication and that differentiates them from other mental health professionals. In North America, it typically takes 8–9 years above and beyond a Bachelor's degree to become a licensed psychiatrist.

The main tasks of **Professional Social Workers** are case management (linking clients with agencies and programs that will meet their financial and psychosocial needs), medical social work, counseling (psychotherapy), human services management, social welfare policy analysis, community organizing, advocacy, teaching (in schools of social work), and social science research. Some social workers, usually those with a graduate degree (MSW), also provide one-on-one clinical services, often in the area of child and family. The training background of social workers who function as psychotherapists can be quite heterogeneous.

The description of the different health professions does show existing overlap in areas of work but also draws boundaries between the different professions. Another way of highlighting these differences is to look at the total hours of training and clinical exposure various health professions have obtained. Murdoch, Gregory, and Eggleton (2015) have systematically compiled and compared the curricular and student training experiences of the professions described above and reveal the high level of preparedness for assessment and therapy that is imbued in doctoral level clinical and counseling psychologists.

Without going into excessive historical detail, the student of clinical psychology should be aware that the field really began to exist as a distinct specialty only after World War II. At this time, clinical psychologists made concerted efforts to define how the topic should be taught and what knowledge practitioners should have. Consistent with the scientist-practitioner model, it was decided that the knowledge base of clinical psychology was so thin and underdeveloped that all students were to be trained in the skills needed to continue building knowledge while also practicing and applying it. This decision was made at the so-called Boulder (Colorado) Conference in 1949 and the scientist-practitioner model is therefore also sometimes called the Boulder model. Today, clinical psychology is typically taught via well-structured, **accredited training programs**; these programs provide its graduates with an identity, and clinical psychologists now have an-established place in health care (Linden et al., 2005).

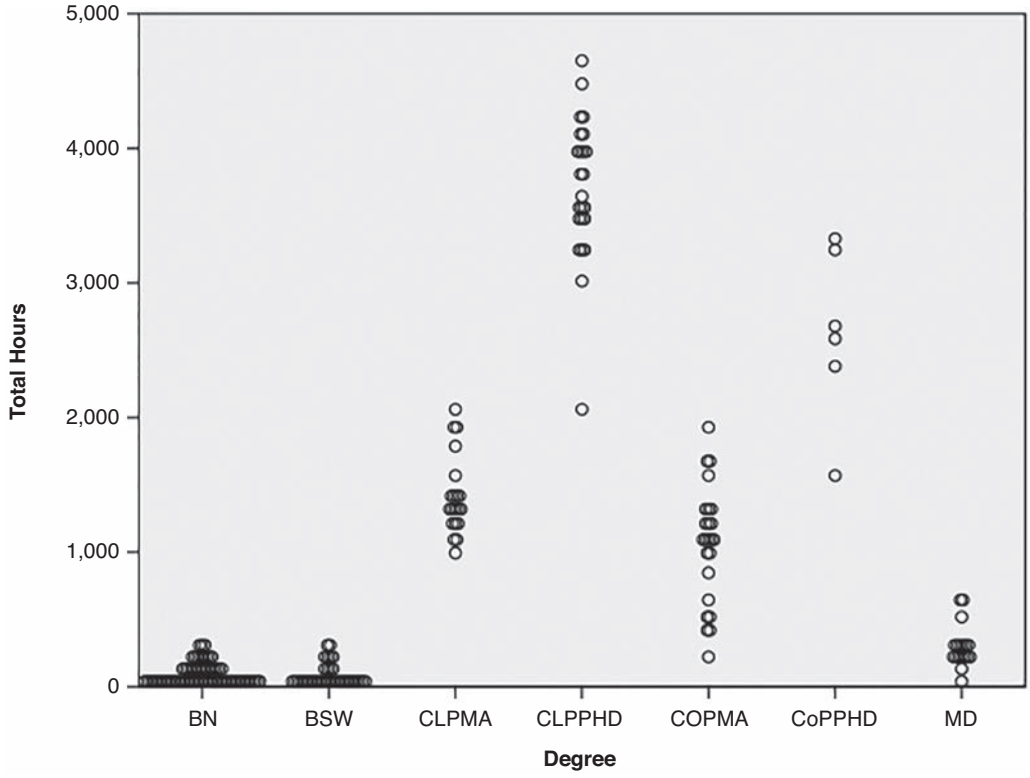
Rather than exposing the reader with more detailed history of the field, we will start by describing three currently practicing kinds of clinical psychologists and one clinical psychology graduate student. Typical work days and challenges will be illustrated.

The detailed descriptions of a graduate student's and the three psychologists' daily lives are amalgamations of the work that psychologists known to us really do and also covers tasks that we ourselves are involved in. None of the descriptions of specific work environments are to reflect critically upon an existing facility; they should be treated as fictional.

The clinical graduate student we describe is in the later portion of his academic training. The three clinical psychologists we introduce work in a hospital setting, in full-time private practice, and as a university professor, respectively.

FIGURE 1.1 Hours of Training in Mental Health for Various Health Professionals

From Murdoch, D. D., Gregory, A., & Eggleton, J. M. (2015) Why Psychology? An investigation of the training in psychological literacy in Nursing, Medicine, Social Work, Counselling Psychology and Clinical Psychology. *Canadian Psychology*, *56*, 136–146.



Note: BN = undergraduate Nursing; BSW = undergraduate Social Work Programs; CLPMA = clinical psychological Master's level program; CLPPHD = clinical psychology doctoral level programs; COPMA = counselling psychology Master's level programs; CoPPHD = counselling psychology doctoral level programs; MD = undergraduate medicine.

The Challenges and Responsibilities of Four Different Psychologists

A Clinical Psychology Student

Description of a Typical Day

Vincent S, is a 4th-year clinical psychology graduate student who entered a clinical psychology graduate program because of his strong desire to help others, a marked curiosity in understanding the way people function, and a desire to do both clinical work and research. A reasonably typical day in his life involves a busy schedule of training activities that involve both research and clinical work (Box 1.2).

BOX 1.2 A TYPICAL DAY OF GRADUATE STUDENT VINCENT S

Time	Activity
9 a.m.–12 p.m.	From 9 a.m. to noon, he participates in a 3-hour advanced seminar on psychopathology
12 p.m.	Meets his clinical supervisor to discuss the last therapy session
1 p.m.–4 p.m.	Eats a quick lunch and then researches articles pertaining to his dissertation topic, making notes
4 p.m.	Meeting of the lab team; an advanced graduate student gives a dry-run of her presentation for her upcoming thesis defense. The team then deals with logistical issues for setting up a study protocol for a new study in the laboratory
5 p.m.	Work-out in the university gym
6 p.m.	Dinner break
7 p.m.–9 p.m.	Vincent sees patients in the Psychology Clinic

The 3-hour seminar on psychopathology (i.e., abnormal behavior) involves a detailed analysis and discussion of models and treatment options for somatoform disorders. Based on assigned readings and on a critical analysis of those readings it was expected that Vincent, along with his other five classmates, evaluates the support, or lack of support, for various theoretical models. Following the clinical seminar, Vincent was scheduled to have supervision with his clinical supervisor who was overseeing Vincent's treatment of a patient who exhibited both marked depression and anxiety in response to upcoming applications to several very prestigious law schools. The issues of a strong desire for achievement and real concern over one's ability to perform at a high level were also concerns that Vincent, personally, had experienced and, at times, continues to experience. Vincent believed, correctly, that his own personal concerns with the same issues might interfere with the treatment he was providing or, at least, might cloud his judgment somewhat. The clinical supervision involved first discussing Vincent's personal issues over performance as well as a discussion of how his own views/feelings might influence the treatment process in order to help Vincent become better at the treatment. Following supervision, Vincent felt better able to deal with the patient's issues next session. Next, Vincent spent several hours reading research articles pertaining to his dissertation topic. The dissertation is to be a major original research project designed to have the student conduct an independent (although supervised by a faculty member), and relatively large-scale, research project that produces new knowledge within a particular field in psychology. Vincent was at the stage of formulating a research question within the area he had chosen, namely personality factors and their link to suicide behavior, and was working on a review of the relevant literature to determine areas that required further investigation. He would be meeting with his research supervisor in several days and go over a written document that detailed the rationale for several potential research questions.

Following a break for dinner, Vincent was slated to work in the departmental teaching clinic, seeing patients. The Psychology Clinic is kept open one evening every week to

accommodate clients with full-time jobs. The first appointment was with the client described earlier and, as a result of reviewing his notes and the supervision he received earlier, Vincent felt prepared. The second appointment was a couple who were having marital difficulties and this was a first session. Although Vincent had not previously seen any couples for treatment, he was simultaneously anxious and keen to see them. He had read extensively about marital therapy, taken a marital/family treatment clinical course last year, and had met with his clinical supervisor regarding this particular couple and discussed approaches for dealing with the first session. At the conclusion of the last treatment session, he completed case notes and made preparations for the next day.

Specific Concerns

- *How does Vincent critique, analyze, and synthesize both theoretical models and clinical research pertaining to those models and discuss these in a coherent fashion? (Chapters relevant: 4–13)*
- *How does Vincent suspect that his personal issues may be influencing his treatment of a patient and how does he know what to do about it? (Chapters relevant: 4, 10)*
- *Where does Vincent look for relevant literature for his dissertation and produce a clinically relevant research project? (Chapters relevant: 3–9)*
- *How does Vincent know that he has commenced marital therapy in an ethically appropriate fashion that will maximize helping the couple? (Chapters relevant: 4, 10–12)*

Clinical Psychologist A—Working in a General Hospital Setting

Dr. Marisa A is trained in clinical psychology with a subspecialty in **Behavioral Medicine**. She is employed full-time by a large general hospital and spends her time doing about equal portions of (a) direct service provision (providing individual and group treatments) for distressed patients who have been diagnosed with cancer or heart disease, and (b) consultation with various in-house services that might need her help on an ad hoc basis (e.g., the eating disorders program, or the organ transplant team). See Box 1.3.

BOX 1.3 A TYPICAL DAY OF HOSPITAL PSYCHOLOGIST MARISA A

Time	Activity
9 a.m.	Visits two patients on the surgical recovery ward who had a heart transplant and coronary bypass surgery, respectively. Discusses plans for their release and the need to make lifestyle changes
10 a.m.	Conducts an assessment of the suitability of a patient with alcohol problems for a possible liver transplant
11 a.m.	Meets with the multidisciplinary transplant team to determine who of three new referrals is suitable to go on to the wait-list for an organ transplant
12 p.m.	Attends Grand Rounds to learn about the latest in the sequelae of head injuries

1 p.m.	Lunch with a colleague who plans to set up a specialty clinic for borderline personality disorder and needs informal feedback on how to go about it
2 p.m.	Supervision session with three interns who go through various rotations while on internship in her hospital
3 p.m.	Catches up on e-mails and prepares for the 4 p.m. therapy group she leads
4 p.m.	Runs a 90-minute psycho-educational group for patients in curative cancer treatment
5:30 p.m.	Writes up progress notes from the psycho-educational group
6 p.m.	Goes home

She has completed two years of specialty training after she had completed her PhD in this type of hospital setting and has had multiple interesting job offers given the breadth of her skills. She has been at this hospital for 15 years and feels respected by her medical and nursing colleagues.

A particularly exciting and challenging request presented to Dr. A was to develop a distress-screening program for the cancer clinic. The cancer clinic had been told by an accreditation committee that it failed to have systematic procedures for identifying cancer patients in greatest need of professional psychological support. Although a family support and counseling service was available to patients, there was the suspicion that only those patients who were particularly vocal in asking for help ended up receiving it. There was a good chance that uneducated and unassertive patients were left out.

Dr. Marisa A decided to develop a **distress-screening** tool that was brief, easy to read even for patients with poor reading skills, and that would have the ability to quickly and precisely identify the patients most in need.

Specific Concerns

Dr. A made a list of questions she knows she had to tackle:

- *What psychological characteristics will be the most important ones to measure?*
- *Even if distress was readily measurable with this new tool, how will she know how much distress or anxiety is too much and require professional support?*
- *Will there be enough resources in the hospital or the community to handle the problems that screening will identify?*
- *Should screening actually go ahead if one knows ahead of time that identified needs cannot be met?*
- *How does one actually develop a test, write test items, and evaluate their usefulness? How can she establish that the test is measuring what it is supposed to and that it does so reliably?*
- *Once the test is developed, will the clinic staff readily accept and use it? How can it be applied most efficiently?*

The kind of information that Dr. A will need to meet these challenges covers issues of ethics (see Chapter 4), an understanding of the sometimes complicated administration and

internal politics of medical clinics and the health care system in general (see Chapters 17 and 19), as well as the more theoretical and practical questions of test development and test application itself (see Chapters 3, and 6–8).

Clinical Psychologist B—Working in a Private Practice Setting

Description of Typical Day

Dr. Ramin B is a clinical psychologist in general private practice in a small community; his work entails mainly clinical assessments and treatment of adults with a variety of psychological problems, although he also sees children and adolescents for assessment and treatment of specific disorders including depression and anxiety. See Box 1.4.

BOX 1.4 A TYPICAL DAY OF PSYCHOLOGIST IN PRIVATE PRACTICE RAMIN B

Time	Activity
9 a.m.	Reads a medical chart to prepare for an assessment to begin at 10 am
10 a.m.–12 p.m.	Conducts a formal clinical assessment of a depressed client currently on medical leave. This involves a structured interview and standardized personality tests to help prepare a report to the client's insurance company
12 p.m.	Scores the tests and dictates case notes while the memory is fresh
1 p.m.	Lunch and returning phone calls
2 p.m.	Has a lengthy conference call with a community care team regarding a care plan for an elderly, widowed patient with dementia
3 p.m.	Interpersonal psychotherapy for depression
4 p.m.	Psychotherapy with a client who presents with perfectionism and obsessive-compulsive cleaning habits
5 p.m.	Marital therapy with a couple considering divorce
6 p.m.	Writing up case notes and returning phone calls
6:30 +	Going home

Dr. B has, what he would term, an eclectic orientation, meaning that he pulls from a variety of clinical perspectives in assessing and treating individuals. He also endorses that his main theoretical perspective would be consistent with a psychodynamic perspective. He has been trained in both psychodynamic and cognitive-behavioral techniques and carefully chooses the one approach most suitable to the client's presenting problem.

A typical day might begin with an assessment of an individual who reported marked dissatisfaction with life including intimate relationships, work, and family, described long-standing dysthymia and a recent significant depressive episode. Dr. B was evaluating

data from an initial assessment he had completed on this patient and it was clear that the patient, on objective measures and during the interview, was quite defensive in his responding. Information from projective testing was consistent with a defensive and constrictive approach to processing information and Dr. B was attempting to determine recommendations for the referring agency in order to facilitate optimal treatment for this individual. Although wanting to respect the patient's desire not to be forthcoming, it appeared to Dr. B that this particular issue of not being entirely open and forthcoming in certain situations may be one of the contributing factors to his dysthymia and current depression. Moreover, this style of behaving could be problematic for the patient's relationships, including being able to establish a good working relationship with a therapist. He decided that these issues would be at the forefront of the feedback session he was going to provide the patient and would form the cornerstone of the core issues to address in treatment.

In addition to working on the assessment for the patient above, Dr. B was also preparing to see a long-term patient later that day. In the last session, this patient had begun to discuss suicidal tendencies that Dr. B immediately assessed using a sequence of questions designed to gauge the degree of risk. Dr. B had determined that there was little actual suicide risk for the patient, although he was reviewing his notes and attempting to determine what may have precipitated the suicidal tendencies. He planned on evaluating the suicidal tendencies when he saw the patient later that day and reviewed his options for responding including escorting the patient to an emergency room if suicide was deemed imminent, having the person sign a suicide contract which stipulated that if the patient was feeling suicidal, she would contact Dr. B, who in turn would then consider appropriate next steps of action. If suicidality was low or nonexistent, he would continue the treatment as is. Lastly, Dr. B was considering a consultation with the parents and, potentially, school officials, of a depressed 13-year-old boy whose depression was characterized by sadness, self-reproach, angry outbursts, and, at times, violent behavior. Based on an assessment of the boy, his family situation and support, support from the school, Dr. B wanted to help build a supportive environment for the patient and locate an appropriate child psychologist to treat the child and the family.

Specific Concerns

Although Dr. B was confident that the results from the projective testing he had conducted were valid, he is aware that there is a controversy in the field as to the utility of projective testing.

- *How does he reconcile both the validity of his assessment findings and the potential response of the referring agency to his conclusions based on the projective testing? (Chapters relevant: 3, 5–7)*
- *What are the ethical concerns with respect to ensuring the safety of the patient who is exhibiting some suicidal tendencies? What are the appropriate ways to assess risk and what are the appropriate responses the clinician needs to make? (Chapters relevant: 4–7)*
- *Is Dr. B appropriately trained for consultation with the adolescent, school, and parents? What is his responsibility in getting an appropriate clinician to aid in treatment? (Chapters relevant: 4, 9)*

Clinical Psychologist C—Working in an Academic Setting

Dr. Ann C is a tenured Associate Professor in a major university where she is one of nine faculty members in their accredited Clinical Training Program. She supervises five graduate students, runs a research program that focuses on cognitive-behavioral approaches for treating anxiety, depression, and pain. She teaches Abnormal Psychology at the undergraduate level, and provides clinical supervision for graduate students working in the department's teaching clinic.

Her recent research focuses on interpersonal factors in understanding pain and its management, and she is actively involved in a professional association where she is organizing the program for an upcoming international conference. She holds two large research grants, employs two full-time research coordinators, four part-time staff, and one post-doctoral fellow, and she has eight undergraduate student volunteers work in her laboratory. On any given day, this laboratory is a beehive of activity and Dr. C. occasionally complains about how much administrative work is involved in keeping such a large laboratory going! See Box 1.5.

BOX 1.5 A TYPICAL DAY OF CLINICAL PSYCHOLOGY PROFESSOR ANN C

Time	Activity
9 a.m.–12 p.m.	A 3-hour time block where she closes her office door to focus on scientific writing
12 p.m.–2 p.m.	Eats lunch with her research team, and over tuna sandwiches and orange juice, the team does "journal club" where all team members discuss a controversial recent article. Then 30 minutes providing individual feedback on a student thesis proposal
2 p.m.–4 p.m.	Teaches a graduate seminar in empirically based treatments
4 p.m.	Sees private practice patient
5 p.m.	Answers e-mails and phone messages
6 p.m.–9 p.m.	Goes home, dinner with family, helping children with homework
9 p.m.–10 p.m.	Cursory reading of latest issue of a psychology journal

A typical day begins with a 3-hour time block where she closes her office door to focus on writing. On one day this involves finishing an invited review paper for a major journal (which she thinks will be another step to get ready for promotion to Full Professor). From 12 to 2 she may have lunch with her research team, and over tuna sandwiches and orange juice the team does "journal club" where all team members discuss a recent controversial article. She then spends a half hour with one of her graduate students providing feedback on a thesis proposal. Almost 60% of her time is taken up with research-related activities and writing. Although she is very busy, she is adamant about protecting family time (she has two teenage children) and does not stay in the office beyond 6 p.m.

Specific Concerns Regarding a Current Clinical Problem

Dr. C maintains a small private practice outside of her academic responsibilities. A family physician has referred a patient with depression, anger, and chronic back pain. This physician has often sent her patients and she has helped a great many of them with pain management. Furthermore, this physician has been a collaborator with her on a clinical trial for an innovative pain treatment and he has found himself impressed with Dr. C's knowledge and professionalism. Pain medication had initially worked but does not seem to help this patient anymore. The patient has an unresolved claim with the Workers Compensation Board and he is hoping for a disability pension, given that his pain has remained steady for over a year and he seems unable to return to work. He is fortunate to have an employer-provided psychological assistance plan that will pay for a psychologist to help him cope with his back pain. Dr. C knows from the literature and her experience that clients with unresolved claims are often angry with the compensation process and sometimes unable to fully concentrate on helping themselves. Given that there is no medical evidence of a specific injury in his case, the Compensation Board is slow to make a decision, and Dr. C has to figure out whether the patient may have ongoing soft-tissue injury, and/or is now suffering from generalized pain worsened by the depression and physical inactivity that is typical with chronic pain clients.

- *Which tests will help her decide on the nature and origin of the pain, and to what degree is the patient's self-report of pain colored by the unresolved compensation claim? (see Chapters 6–8)*
- *Will she be able to provide relief? Maybe even to the point of allowing return-to-work?*
- *If she explained to her patient that treatment might not work unless he settled with the Workers Compensation Board first, would he be able to trust her judgment rather than feeling rejected?*
- *Given that her client does not directly pay for her services, who is her client? What are her responsibilities?*

To help Dr. C make the right decisions she will need to be well versed in ethical principles (Chapter 4), understand the options and limitations of various assessment methods for chronic pain and its psychological correlates (Chapters 5–9), and possess the skills and experience to help this pain patient in therapy (Chapters 10, 12–14, 17).

Practice Realities in Clinical Psychology

A learning objective of this chapter was to stimulate thinking by describing realistic problems and by highlighting the skills needed to be a competent professional, but we intentionally did not provide answers at this stage. This is meant to create a positive tension that the reader can relieve by working through the rest of the book.

The day-to-day activities of these four individuals served as an illustration. To get a full and simultaneously accurate picture of change in the whole profession is exceedingly difficult because the known surveys represent snapshots at one fixed time, and even repeated surveys asked different questions at different survey times. Although some of them had large samples and carefully worked at achieving representativeness (CPA, 2016; Robiner, 2006; Norcross & Karpiak, 2012), all respondents were volunteers and this self-selection creates its own biases. Nevertheless, there is consistency in the major trends regarding where clinical psychologists

typically work, how practice patterns have changed over time, what clinical psychologists spend how much of their time on, and what kind of compensation they can expect.

The major themes and changes in our field have been well documented in a 50-year review by Norcross and Karpiak (2012):

- There has been a dramatic increase in the number of female psychologists. What was a roughly 3:1 ratio of male to female clinical psychologists in the 1970s and 1980s now is the reverse.
- There has been a steady growth of psychologists representing minorities.
- The number of psychologists with PsyD degrees has jumped from 0% (at the time of the Boulder conference) to 31% (in 2008) among licensed psychologists.
- Psychologists now do fewer assessments overall and especially little projective testing.
- Approximately half of all psychologists now work in private practice.

We posit that most readers would have expected more psychologists to be working in hospitals and clinics. Over the last three to four decades, the single most pronounced change in the field has been a major shift away from salaried employee positions in hospitals and clinics to private practice where services are either delivered by individual practitioners who run their own business or by privately organized provider groups like Employee Assistance Programs (EAP) or Health Maintenance Organizations (HMO). Otherwise, the distribution of work settings for clinical psychologists has not changed very much over time. These figures clearly spell out a need for academic training programs to prepare clinical psychologists for a business model that requires knowledge in administration and self-promotion so that clinical psychologists are better able to educate the public about access to services as well as the benefit of clinical psychology.

In Table 1.1 you will find information on the typical activities of clinical psychologists and how much time they spend in each.

The numbers reflect averaged percent numbers describing the mix of daily activities as a function of work setting. A private practitioner on the one hand spends more than the

TABLE 1.1 Professional Activities of Clinical Psychologists

Activity	*% Percent Involved in*		*Mean % of Time Spent on This Activity*		
	1986	*2003*	*1973*	*1986*	*2003*
Psychotherapy	87	80	31	35	34
Diagnosis/Assessment	64	10	16	15	15
Teaching	55	49	14	14	10
Clinical Supervision	67	50	8	11	6
Research/Writing	54	51	7	15	14
Consultation	63	47	5	11	7
Administration	55	53	13	16	13

Source: Norcross, Karpiak, & Santoro (2005). Clinical psychologists across the years: The division of clinical psychology from 1960 to 2003. *Journal of Clinical Psychology, 61*, 1467–1483.

average clinical psychologist on assessment and therapy, and an academic psychologist more on research and teaching. Anecdotally, the least pleasant change over time reported by psychologists has been the greatly increased need for administration and paperwork given that we are living in an increasingly more litigious world and every action needs to be documented.

While this information reflects typical day-to-activities, a very pragmatic question is: "How much can I earn as a clinical psychologist?" Organizations like the American Psychological Association make ongoing efforts to learn of actual salaries of psychologists (see: http://research.apa.org/01salary/index.html or similar websites). In 2015, the median salary for a clinical psychologist in the United States was reported as $70,580 by the Bureau of Labor Statistics, while the 10th percentile earned up to $40,920 and the 90th percentile earned $116,960 or more. Psychologists with more experience or advanced certification may earn higher wages. Another significant factor in wage fluctuations is location. Use the map from this website to learn about salaries in the 10th, 50th, and 90th percentiles for each state in 2015 (www.learnhowtobecome.org/psychologist/clinical-psychologist/).

While of interest, such figures are likely to be somewhat out of date by the time the reader sees them here. Nevertheless, they are the relatively best source available and reveal many pertinent differences between employment settings, location, and salary differences between Master's level versus doctoral level providers. Realistic knowledge is bound to have a major influence on clinical psychologists' specific career decisions.

The most transparent sector of practice is that of psychologists being employees of government or other service agencies; there is not too much variation here in income, and adding years of seniority is associated with only modest gains in income. In fact, many senior psychologists in government-funded positions find it frustrating that there are few promotion possibilities and no big changes in their pay scales except inflation adjustments. Limited official knowledge is available about earnings in private practice but we do know that psychologists conducting forensic assessments may bill in the range of $200–300/hr. Even if more information was available, it would be difficult to figure out how many hours these practitioners actually had worked to obtain these incomes and those billing at top rates may want to downplay their earnings in public to avoid professional jealousy.

Academic careers are somewhat unique because they have a wide range of incomes as a function of seniority and prestige of the institution. A beginning level Assistant Professor typically earns only about half of what a Senior Full Professor can take home; in some universities that spread can be as wide as 3:1. The difference is largely performance-driven because only productive academics get promotions and reach the associated higher pay levels, and it is equally typical that the top performers get annual merit increases. "Productivity" is usually defined as bringing in grant money and publishing articles in scientific journals. Especially in the United States, there is a very wide margin between the pay scales of prestigious, Ivy League–type universities and the smaller, less well known universities or colleges that may not have graduate programs. In part, this derives from the fact that well-funded research professors can draw part of their salary from research grants, a phenomenon that does not exist in other countries, like Canada or Germany.

Not surprisingly, the earnings of clinical psychologists in private practice are exceedingly variable because they work highly different numbers of hours, with a portion only maintaining a small private practice in addition to a salaried position. Some psychologists work part-time because they are in partial retirement or they may be parents carrying a full load of childcare and home responsibilities at the same time. Also, there is no such thing as a guaranteed 35-hour/week schedule with job security and a benefits package for private practitioners! In many jurisdictions, the billing rates for third-party payer services are fixed

by edict or negotiation and can be as far ranging as $50/hour to $200/hour. Otherwise, there is negotiation between psychologist and client. Many use a sliding scale to adjust their fees to the client's ability to pay. Senior psychologists willing to engage in potentially litigious, forensic work involving assessment and court appearances can (and do) occasionally bill in excess of $200/hour. If they are also willing to work long hours and take few holidays, they can generate annual revenues in the range of $300,000–$400,000 from which, however, they have to deduct overhead for office rental and secretarial services, as well as health insurance and pension plan deductions for themselves.

While private practice can be lucrative for those with specialty skills, good business sense, and a willingness to work long hours, it is also riskier than employment (for tips on how to set up and run a private practice see the websites of state/provincial or national Psychology associations). One such example with information equally relevant for practice in different countries is found on the website of the Canadian Psychological Association (www.cpa.ca/cpasite/userfiles/Documents/publications/PAA%20Guidebook.pdf).

Based on many conversations and observations about the career path of our graduates and colleagues, we strongly suggest not to jump both feet first into private practice immediately upon graduation. A private practice can thrive when the practitioners have long-standing roots in the community, have built up their referral sources, and are known for particular skills. None of this can happen overnight and the most effective referrals are via word-of-mouth. Creating an appealing website for one's practice will, of course, also help but is not considered sufficient to jumpstart a private practice. For those aspiring to private practice it is still advised to spend a substantial number of years in employee roles to hone clinical skills and build the necessary connections for referrals to a strong private practice.

Little attention has been given so far to the fact that some clinical or counseling psychologists practice at the Master's level and many important differences exist as a function of length and depth of training. For example, the chance of landing an academic job as a clinical psychologist is essentially zero without a doctoral degree.

The Canadian Psychological Association conducted a very large, nationwide survey of individuals holding a terminal Master's or doctoral degree in psychology (results released December 2016). The final sample of 4,441 respondents included 1,785 terminal Master's graduates and 2,656 doctoral graduates, and is well balanced in terms of representativeness of male and female respondents, from all provinces and across different groups. Doctoral graduates were much more likely than Master's graduates to have received their highest degree in clinical (53.5% of doctorate vs 32.2% of Master's graduates), while Master's graduates were much more likely to have earned their highest degree in counselling (37.6% vs 8.6%) and/or school/educational psychology (16.0% vs 7.1%).

Despite the financial challenges of leaving graduate school with sizeable debt, 89.6% of respondents indicated that they were currently employed in some capacity, with an additional 5.7% retired and 2.0% on leave (from part-time or full-time employment). This leaves only 2.7% of the sample unemployed at the time of the survey, with Master's graduates more likely than doctoral graduates (4.7% vs 1.3%) being unemployed. Only 13% of Master's level psychologists reported earning more than 100,000/yr whereas among doctoral psychologists 48% reported earning more than 100,000.

How do psychologists feel about their career choice? For comparison, note that a survey of more than 27,000 people in the US (representative of different careers) revealed that fewer than half were satisfied with their jobs or careers (www.livescience.com/health/070417_job_satisfaction.html). Particularly unhappy were laborers (21%), clothing sales people (24%), food preparers (24%), and cashiers (25%). At the other end of the scale, psychologists were

pleased with their choice (67%), and find themselves in a similar neighborhood to special education teachers (70%) and writers (74%) but not quite as high as clergy (87%) or firefighters (80%). Not surprising is that the happiest psychologists are those who have achieved a career-work balance, experience control over work demands, have a good support network, and have relatively little paperwork to contend with (Rupert, Miller, Tuminello Hartman, & Bryant, 2012).

Conclusion

This chapter was not so much about facts that students can commit to rote memory as it was a chance to take an inside look into the profession, to experience "the flavor." The vignettes of four different psychologists offered a glimpse into the diversity of activities that clinical psychologists work on. Furthermore, it provided information to help interested students decide on Master's vs doctoral level training, to uncover which subfields they might be interested in and figure out what the right balance is (for them as individuals) between direct clinical work, administration, research and teaching.

IMAGE 1.2
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Ongoing Considerations

We anticipate that striking the right balance between clinical skill training and research training (i.e., living up to the scientist-practitioner model) will continue to find clinical psychologists differ in their preferences. The fact that there is a high demand but limited supply of training spots will not likely change and, unfortunately, the gap between demand for internship training spots relative to training opportunities has recently widened making it difficult for students to secure a training spot (Robiner, 2006). Academic training programs and service-based clinical psychologists need to work hard to convince other decision makers in the health care system to sustain this critical training environment and protect internships.

Key Terms Learned

Accredited training programs, 4
Behavioral Medicine, 7
Clinical Psychologist, 3
Concept clarity, 3
Counseling Psychologists, 3
Distress screening, 8
Professional Social Workers, 4
Psychiatrists, 3
Psychiatry, 3
Psychologist, 3
"Scientist-Practitioner", 3
Social work, 3

Thinking Questions

1. Which profession is best suited to train psychotherapists? And, why do you think so?

2. How much research training do clinical psychologists need? More specifically, do they need to be trained to be knowledgeable consumers of research publications or should all clinical psychologists have the skills and drive to expand this literature?

3. Should we have distinct subspecialties of counseling psychology versus clinical psychology?

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2 Becoming a Clinical Psychologist

Chapter Objectives

You likely took this course because you are considering clinical psychology or a closely related health field as a career. If so, this chapter raises issues of immediate and very personal concerns. Given that there is a great demand for clinical training spots and insufficient supply to meet these needs, we can at least try to bridge this gap with useful, practical information to boost your chances. Considering graduate school as a next career step requires diligent preparation because one can stop academic training with a Master's degree (which typically does not allow to become licensed or registered as a psychologist) or a doctoral degree (which could be either a PhD or PsyD depending on the chosen program). First of all, it is important to become knowledgeable about the type of work that different psychologists do and how these activities suit the student's personality, aspirations, and personal style and what degree is needed to do what kind of work. In Chapter 1 of this book, we tried to give "a flavor" of the profession, and you may by now have identified aspects of practice you can really get excited about.

The learning objectives for this chapter are:

- Identify factors relevant to career choice.
- Learn about needed preparations for the strongest possible application to graduate school.
- Raise awareness about stages in career development.

Considerations for Career Planning

When you are planning a career in the mental health professions, you need to learn about degree options and the job market. Here are key questions to ask yourself:

- In what profession and in what specialty field is there most work?
- How strong is your own academic background? Or, asked differently, how competitive is your application package?
- Will you go for a Master's degree (usually 2–3 years of graduate work) or a combined Master's and doctoral degree (6–7 years of graduate training)?
- Are you leaning more toward clinical work and less toward research? Then a professional degree (**PsyD**; Psychology Doctorate) may be your choice. The more you enjoy research,

the more you may want to seek out a **PhD** (Doctor of Philosophy) in a traditional university. As you will see below, there are training content but also financial reasons for choosing a traditional, university-based program.

Consider the following data to help with a decision. PsyD vs PhD programs differ greatly in (a) chances of admission (26% vs 7%), (b) fees (see more detail below), (c) class size (mean 37 vs 10), (d) percentage of students obtaining an accredited pre-doctoral internship (66% vs 93%), and (e) percentage of students receiving at least partial tuition remission and/or assistantships (14% vs 78%) (Graham and Kim, 2011). Sayette and collaborators reported that 95% of research-oriented PhD programs offered financial assistance but only 37% of PsyD programs did (Sayette et al., 2004). These data stem from two different sources that collected information at different times and using slightly different methods yet the resulting figures are (comfortingly) consistent with each other.

Interestingly, the applicants themselves are fairly similar in their mean undergraduate GPA (using letter scores to derive a 1–4 scale): 3.6 vs 3.4, and their combined verbal and quantitative scores on the GRE were 1256 vs 1116 (Graham and Kim, 2011).

The PsyD vs PhD decision is also affected by whether or not you possess an academic record needed that matches the requirements for the type of program you may seek and the caliber of students applying along with you. Lastly, there is the question of how to pay for your education and where you may want to, or need to, go to receive this training. In the United States, for example, there are huge differences in tuition costs depending on where the student enrolls. In public institutions in the US, tuition fees are usually two or even three times higher if you are not a state's resident. More specifically, in 2016, the American Psychological Association website reports median annual tuition costs for a Master's/PhD degree in clinical psychology (public institution) for in-state residents as: $8,286/$9,422; for nonresidents it is: $18,046/$21,606. The equivalent median fee rates (for MA and PhD) in private universities were $25,513/$32,883 (www.apa.org/pubs/databases/gradstudy/). Rates will, however, change frequently and no textbook can stay fully abreast of the very latest in pricing. If you are a strong applicant, a well-endowed research university often waives tuition fees but a freestanding PsyD program is usually unable to do that (see the greatly skewed probability of this above). Canadian and some other foreign universities by comparison are quite a bargain; tuition fees for Canadian citizens typically are ~ Can $6,000. For foreign nationals, rates may be higher but are still unlikely to exceed Can $10,000/annually.

These differential fees, of course, affect the success rates for applicants. The usual (not at all surprising) formula is: the lower the fees, the more students apply. Graham and Kim (2011) report an overall rate of 7% chance to receive an offer of admission from an accredited Clinical Psychology Program but this discouragingly low mean number hides great variability.

Table 2.1 provides additional details of some key distinguishing variables between various types of programs.

Not to be discouraged, the ultimate individual probability of admission success is of course a lot higher than the one for just one specific program because students apply to multiple programs. It is recommended to submit 10 or more applications and those lucky students who receive multiple offers can accept only one, of course. This clears the way for other applicants with slightly weaker records who are hovering on the waiting list.

TABLE 2.1 A Comparison of Charactistics of Different Training Programs

	APA-Accredited PsyD Programs		*Practice-Oriented and Equal-Emphasis PhD Programs*		*Research-Oriented PhD Programs*		
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*
Admission statistics							
No. of applications	149.7	81.1	133.7	83.5	168.5	87.4	3.2*
No. of acceptances	57.4[a]	39.1	18.5	19.6	14.1	10.8	54.1**
% accepted	41.3	19.8	16.8[a]	13.9	11.3[a]	10.3	66.2**
No. enrolled	33.1[a]	20.8	9.9	702	8.6	9.3	64.2**
% enrolled	59.3	13.5	62.7	19.3	60.0	17.2	0.7
Theoretical orientation							
Psychodynamic/ psychoanalytic (%)	29.4	17.7	29.6	23.1	12.0[a]	12.5	23.0**
Radical behavioral (%)	7.6	8.4	8.1	11.5	11.1	15.7	1.4
Systems (%)	18.9	10.2	20.6	17.8	14.5	15.9	3.1
Humanistic/ phenomenological (%)	11.2	8.4	11.7	49.0[a]	25.0	64.4[a]	20.7
Cognitive-behavioral (%)	32.8[a]	17.9	49.0	25.0	64.4[a]	20.7	30.2**
Financial aid							
Tuition waiver only (%)	7.9	16.6	5.2	15.3	2.2	11.8	2.4
Assistantship only (%)	19.5	22.6	25.7	37.4	8.5[a]	24.8	6.7**
Both tuition waiver and assistantship	17.5[a]	22.6	57.2[a]	41.7	84.2[a]	31.6	48.0**
Student characteristics							
Women (%)	69.9	8.6	71.6	8.1	70.8	11.1	0.5
Ethnic minority (%)	20.8	16.0	19.7	13.5	18.7	10.1	0.4
Possessed Master's (%)	35.2[a]	24.8	23.8[a]	17.1	17.2[a]	11.7	18.5**
Students entering APA internships (%)	74.4[a]	25.6	90.8	16.7	95.5	10.0	22.4**
Years to complete degree	5.1[a]	0.7	6.1	0.8	6.2	0.9	27.7**

Note: Sample sizes were 40–41 for APA-accredited PsyD programs, 71–74 for practice-oriented and equal-emphasis PhD programs, and 80–85 for research-oriented PhD programs.
a This group differs significantly from all other groups ($p < .05$ by Newman–Keuls procedure).
*$p < .05$, **$p < .01$.

Source: Mayne, Norcross, & Sayette (1994); Norcross & Sayette (2016).

Concrete Planning Steps

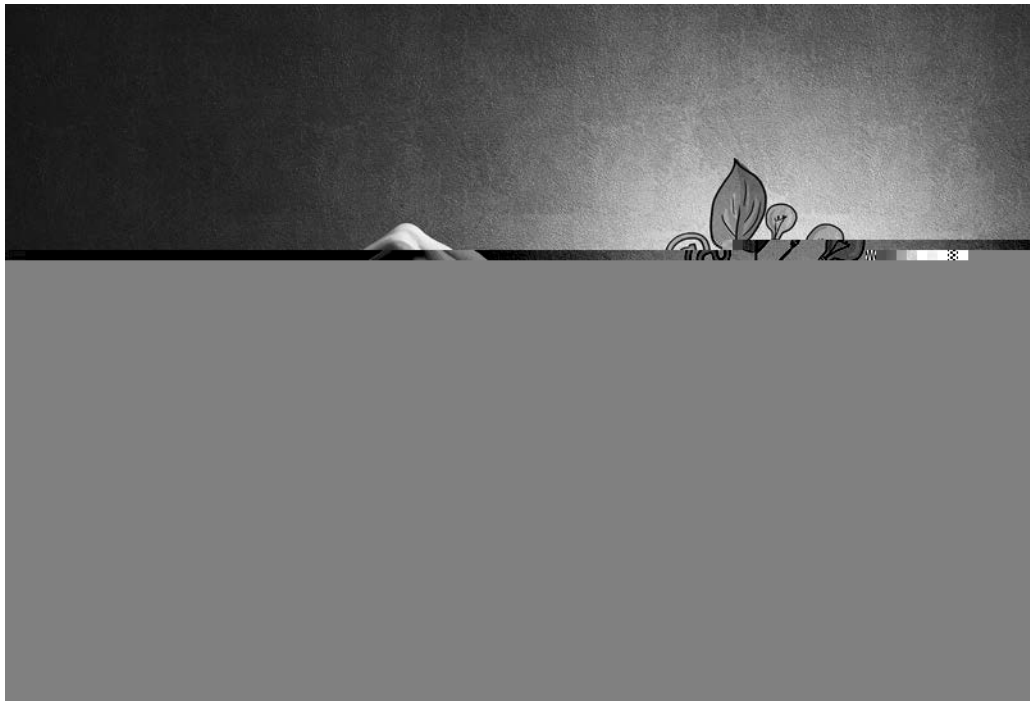
Much consideration needs to be given to the question of what program to apply to. Here is a tip, or a self-test, to get you started. Rather than being preoccupied by what name is given to your intended profession (like "I want to be a **Psychoanalyst**"), it may be better to ask more basic questions about who you are and what you like doing. By thinking forward to where you might want to be 20 years from now, consider the type of work that allows you to be happy. Here are some questions to guide this search process:

- Are you the kind of person who enjoys working alone or are you more in need of a group of people to work with? If you enjoy working alone, then maybe private practice is suitable for you.
- Are you prepared for the rewards and challenges of a leadership position or are you happy to share your work with a group of like-minded people? If you seek leadership, you may want to accept administrative responsibilities in a clinic or health care system, engage in advocacy for the profession, or as a researcher seek grant funding and build a research laboratory and team.
- Are you comfortable with routines or do you thrive on novelty, risk, and innovation? The routine seeker may like a government and agency job with clear expectations best.
- Are you willing to work long hours and take chances to gain a large income, or do you prefer to have a job that pays reasonably well, offers benefits and stability, and balance of work-life. Are you willing to accept limitations of opportunity for growth by trading it for security? The psychologist willing to work the long hours may be the one geared for a busy private practice.
- Do you plan to have a family and if so, how much time do want to devote to work versus family? This may require a discussion and agreement between the psychologist and her life partner. It could consist of an agreement that one partner puts his ambitions on hold and deals with more family issues until, for example, his partner has obtained a tenured position in a university; then they reverse the roles and balance of responsibilities for the sake of fairness.

The answers to these kinds of questions could emerge from having tried yourself in various part-time jobs even if they are not directly related to psychology. You can also learn from conversations with family and friends. Or, if you were planning a career in a field that sounds good from a distance but that you have little direct knowledge of, try job-shadowing for a day. You may be surprised how many people, including total strangers, will agree to let you do that simply because they are proud of their own profession. Once you figure out what type of work, and what kind of work environment you like best, it is time to think about what academic qualifications are required to gain admission to a training program that maximizes your own strengths and preferences.

Partly unrelated to scholarly strengths but nevertheless very pragmatic is the question whether or not you are geographically mobile. Given that admission to graduate school is so competitive, you should apply to multiple programs (we usually recommend > 10) including some that are not in your hometown, or even your home state or province. However, with applications fees probably averaging $100 each, this becomes quite an investment. If you are in a committed relationship you need to think about, and discuss with your partner, what is possible and reasonable for you both. If you had an initial kneejerk attitude about a particular program (like "I could never live in xxx because the winter is too cold"), you may prematurely

IMAGE 2.1
Shutterstock



close a door. Applicants sometimes see such a program in a new, appealing light when admission is actually offered. For a detailed listing of available programs and entry requirements, see the APA Guide to Graduate Study (2016) or go to the website of the Canadian Psychological Association which helps you find training programs in Canada. Some students may seek training in Europe or Australia but need to be forewarned that their training system may be very different; such applications require lots of preparation.

Once these overarching questions are answered, you can focus on building your application package. Having ample lead time is crucial; a strong application package is the result of years of careful planning and effort.

Maximizing Your Academic Preparation and Building the Best Possible Application Package for Graduate Training

Even if you apply to many different universities, you will be expected to assemble a very similar looking application package, typically requiring the following information:

1. An application form that is unique to the university to which the student applies
2. Official transcripts from *all* secondary institutions you have attended
3. Official documentation from the Educational Testing Service that you have completed the Graduate Record Examination with both the general test (and its verbal, quantitative, and analytical subsections) and also the psychology subject test

4. Three letters of recommendation, and
5. A statement of interest.

Let us take a look at each component and see what you can do to make these as strong as possible.

Application Forms

Not much needs to be said about completion of forms other than that neatness and completeness are important. There usually is little opportunity to "market yourself" here. Provide as much contact information as possible. Try not to leave boxes or fields in your form empty. For example, if you are asked for awards you have received you may be too modest to mention the $100 travel award to present your Honor's thesis at a conference or the book prize for the best essay in the History of Psychology class you took last year. Our tip: do mention them. If you are asked for publications in peer-reviewed journals and you do not have any, this needs to be left blank, of course. Another tip: if you have a paper under review, do list it but make sure it does not appear in the section under "publications" if it has not yet survived peer review. This kind of boasting will be held against you and reduces your credibility.

Grade-Point Averages

The most likely formats for the reporting of academic grades are letter grades (particularly true in the US) and percentage grades. We will comment on both separately because there is no agreed-upon formula how one of these can be converted into the other. Just to clarify this point, a student whose grades all fall between 75% and 78% will, of course, end up with a grade-point average of 76.5 % or a GPA of 3.0. The exact same percentage GPA, however, could also lead to a better GPA of 3.5 if this student had a good number of courses in which she obtained a letter grade of A and a similar number of courses where she obtained grades of B- or C. Not surprisingly, a GPA of 3.5 looks noticeably stronger than one of 3.0. Therefore, letter grades can be a bit deceiving. Percentage grades are less ambiguous because they employ no drastic cutoff values even though getting a 79% in a course is a rather frustrating experience when 80% would have meant an "A" equivalent in the letter grade system.

As a rule of thumb, it is unlikely that a student will be successful with an application to a prestigious clinical or counseling psychology program if he or she does not have a grade-point average of at least 3.5 (but even here there are exceptions!). The corresponding percentage number would be around 80%. As discussed earlier, it is considerably easier to obtain offers of admission from professional schools offering typically Master's or PsyD degrees. Up to a point, students can make up for a weak GPA by strong performance on the graduate record exam (GRE). Also, knowledge of performance on the GRE (which is fully standardized for all test writers) helps the programs that students apply to judge to what degree some universities engage in grade inflation or might be very conservative in their grading practices. Students graduating from universities that are known to be conservative graders often fear that they are disadvantaged relative to graduates from universities with liberal grading patterns. Professors (like us) who have participated in many admissions decisions have found that students with a mediocre performance on the GRE but strong academic performance (as reflected by high GPAs) may actually be less promising than applicants from University X who have only

moderately strong GPAs but typically score highly on the GRE. In the latter case, the faculty will know that a lower grade from University X is still descriptive of a very strong student. The take-home message regarding grades is, of course, obvious; it is important to do well throughout one's entire undergraduate career. It is fairly typical that students do much better in year three and four than they did earlier when they needed to take lots of required courses, and were struggling to adjust to university life.

Students often ask: "Will the admissions committee look at my overall grade-point average or only the last two years?" The answer is that anybody reading a student's application will see the entire academic transcript at once and creates a critical first impression. In addition, of course, admission secretaries may formally compute grade-point averages based on the transcripts provided. Often the GPA is computed and printed right onto the transcripts. Strategically, this means that students should withdraw early from a course in which they fear failure (either for reasons of personal emergencies or lack of giftedness in a particular domain). A letter grade of "F" does not look well in such a transcript. Sometimes, programs compute two sets of grade-point averages for consideration, one for the entire undergraduate years, and another one for the last two years in which students typically focused on their majors.

One question, often asked, is whether or not taking additional courses as an unclassified student is recommended to boost a grade-point average. Our personal view is that this rarely pays off. First of all, it would be naïve to presume that in a fifth year, a student will perform dramatically different than he has in the four years prior. Also, the mathematical averaging process is not to his advantage. If a student had a 75% grade-point average resulting from 40 different one-semester courses taken in years 1–4, and now added another eight one-semester courses where he succeeded in obtaining an average grade of 85%, he would still have increased his overall grade-point average only by 2%, and it would have taken an entire year to achieve this relatively small gain.

Having said that, students may have never taken a course in the biological basis of psychology and this is a notable gap in their academic record. In this case, it would make good sense to take such a course later. Or, a student may have done poorly in an undergraduate statistics course and feels that this is a blemish on his record that may impact graduate school admission chances (rightly so). He also knows that he could perform much better when not bogged down with having to juggle two part-time jobs and five other courses at the same time. In this case, it may indeed be wise to take this course over.

Another related question is whether one needs to have an undergraduate degree with a psychology major to be able to apply to a clinical psychology graduate program. While it is undoubtedly recommended to have a psychology undergraduate degree, and some programs are sticky about it, it is not absolutely necessary. In our own program, we have taken on students who were majors in Computer Science, Music, Social Work, Engineering, or Sociology. Such students nevertheless took additional courses in psychology to make sure that they were on the same level of knowledge when competing with others for graduate school, and also to prevent finding themselves at a grave disadvantage when indeed accepted to graduate school and sharing seminars with other graduate students who had majored in Psychology.

Graduate Record Examination (GRE)

The **GRE** is understandably unpopular in the eyes of many students because it is effectively a one-shot test of considerable importance where student performances are directly

compared with those of many others. It is also quite expensive. There are some programs that do not place great emphasis on GRE scores; however, most programs do. Because it is a single test occasion, one needs to seriously prepare for it to assure maximal performance on the test day.

One part of the GRE is referred to as the *subject test* and if you are applying to psychology, you may be writing the Psychology subject test. Note, however, that there is a general trend to move away from requiring subject tests because they are seen as redundant with grades in Psychology courses. Interestingly, however, thorough reviews concluded that the test score on the Psychology subject test is a consistently better predictor of graduate school success than is any individual GRE score or even the aggregated GRE scores (Kuncel, Hezlett, & Ones, 2001; Kuncel, Wee, Serafin, & Hezlett, 2010). The Psychology subject test is a multiple-choice test much like what you are familiar with from your undergraduate program; students who have obtained good grades in their psychology courses also tend to do well in this subject test. If students' grades in psychology courses are stronger than their performance is on the GRE psychology subject test, then readers of the student's application are more likely to judge students' potential by their grades rather the GRE subtest. If, however, you apply to graduate school and did not major in Psychology as an undergraduate, then the subject test performance allows the admissions committee to compare the readiness of the applicant with that of students who have taken many more psychology courses. In this case, it is particularly useful to prepare for the subject test. To assist with preparation, there are thick, reasonably priced, and very useful soft-cover texts, sold in university bookstores. In larger cities, there may be useful courses offered by commercial test preparation agencies. At a minimum, we recommend that prior to actually writing the GRE, students complete the practice tests in the preparation books, familiarize themselves with the material, and thus obtain feedback on their performance. Being in possession of realistic performance feedback allows you to judge how much preparation may be needed prior to actual test writing.

Strong performance on the general GRE test tends to be of greater importance than the actual subject test performance. The GRE has three sections, each rated on a 0–800 point scale and also expressed as percentile performance relative to how well other test takers performed. The **verbal** section assesses the candidate's vocabulary, comprehension, and overall grasp of the language. The **quantitative** section taps mathematical ability and comprises test questions on mathematical materials that were likely taught in early to mid–high school. The format of the **analytical** section has undergone a lot of changes and was at some point based on multiple-choice tests similar to what students might find in admissions tests to law school. In the early 2000s, the multiple-choice format was replaced by an essay, which is graded on a 0–6 scale. Given the many changes that the analytical subtest has seen in past years, it is difficult to advise people on how to prepare for it. The nature of the verbal and quantitative test sections has changed very little over the years; they use multiple-choice formats. Many universities will require a minimal achievement on the combined verbal/quantitative subtests; the cutoffs can range from 1000–1200. Each student's performance is not only expressed in absolute scores on this 800 point scale but is compared with the performance of others who have written the same test and is then expressed as a percentile score. Because the difficulty levels of the various forms of the GRE can vary, admissions committees rely mostly on these percentile scores to make judgments about a student's potential.

One question frequently asked by students who have written the GRE is: "What absolute number or percentile rank is a safe bet for admission?" This is tough to answer because each program has its own standards and the degree of competition for the limited number of training spots fluctuates somewhat from year to year. A suggestion based on many years

of reading graduate school applications is that students who scored on average in the 80th percentile or better should not consider rewriting the test in the hope to improve their score; they probably won't. An average performance of over 80th percentile is considered excellent and promising. Students averaging less than 50th percentile are unlikely to get admitted, and performance on any subtest of less than the 50th percentile may also be problematic.

A few observations are offered to help interpret the test scores and assist with test preparation efforts. The verbal test scores tend to be very stable over a lifetime and are a reflection of the test takers' literacy and erudition. Students who have done a fair bit of reading as a hobby do noticeably better than those who spent much of their childhood in front of the television or video monitor. Parts of the test evaluate knowledge of sophisticated vocabulary that often has Greek or Latin roots (think of words like "paramount," "expedient," "punctilious," or "obstreperous"). To some degree this knowledge can be improved by compiling word lists and learning them like vocabulary in a foreign language. The *Reader's Digest*, for example, offers 20 such terms in a quiz form at the beginning of each edition; also there are websites that offer assistance (try: www.wordmsith.org or www.bestvocab.com). Other parts of the verbal subtest are more difficult to prepare for, and there is a limited amount of gain to be expected from preparation for the GRE verbal subtest.

Unlike the verbal subtest, the quantitative subtest is much more easily influenced by preparation, and performance is greatly predictable by (a) how long ago the test taker has covered this material in high school and (b) how well he or she did in math at that time. In preparation for this test it is relatively easy to review math formulas and principles by pulling out old high school math books or GRE preparation books. A test taker who did poorly on the quantitative section first time around has an excellent chance of seeing improvement in the score when the test is taken again after relearning this material. At times, students do not do well in this subtest despite the fact that they had obtained good grades in undergraduate statistics courses. The admissions committees may still look favorably at such candidates because they tend to believe that having obtained an "A" twice in a semester-long course is a more meaningful indicator of a student's statistics learning potential than is performance on a single, one-shot test like the GRE.

Many students writing the GRE will have scores falling between the problematic cut-off of 50th percentile and the relative safety of an > 80% score, and need to make a decision for themselves whether they want to spend the time and money to prepare better and then rewrite the test. This decision should be based on a realistic assessment of what happened at the time of having taken the GRE the first time. If a student had been foggy-headed because of the party the night before or recovering from a nasty flu, then her performance may be an underestimate of her true ability. If, however, she has the perception that she did as well as she could, then she might decide to just let it be.

It is strongly advised to plan the timing of writing the GRE so that the test scores can be sent to the universities in time (namely prior to the application deadline). And it is even better to take the test so early that students can take it again if they are unhappy with their first test scores, and still get the results from their repeated test to the universities on time.

One additional note of caution is that the GRE is of questionable validity for applicants for whom English is a second language. This is particularly true for the verbal subscale. If a student with English as a second language applies from outside of the country, the universities usually expect these applicants to also have written the test of English as a Foreign-Language (TOEFL) and a performance of 550 to 600 (the best possible score is 800) is expected. When second-language applicants do show the predictable weak performance on the verbal

subtest, then it may be especially necessary that the writers of reference letters qualitatively assess and comment on the student's ability to perform in English, to make up for the seemingly flawed standard test performance on the GRE.

The Statement of Interest

Applicants are expected to write a personalized essay with each application and we urge you to invest a fair bit of time in preparing this essay. A good length is usually about two pages in which applicants will want to strike a good balance between pointing out how they have developed their career interests, how they have systematically prepared for graduate school, what they want to do for the rest of their career, and which topics within clinical psychology they find particularly exciting (Forsyth & Wulfert, 1999). It is a good idea to stress how a particular school that students are applying to will help meet those needs. The statement of interest is also an opportunity to demonstrate how applicants have met the specific requirements and represent a strong match with the mission statements of the universities they are applying to. It is not wise to talk about very narrow interests which few, if any, of the faculty may share with the applicant. For example, applicants will predictably run into trouble finding a mentor when they tell all the universities they are applying to that they are only interested in studying cognitive distortions in bald, middle-aged men who had parents with alcohol problems. Nor should applicants claim that they are willing to work on any topic as long as the university only admits them! It is more opportune to tell the story about how you've been fascinated by the problem of, for example, substance abuse and that you have taken courses to help understand the social and biological causes of substance abuse, and that you have done volunteer work in a local shelter for substance abusers (there is no need to point out that you learned about the disastrous effects of chronic substance abuse in your own family). A topic like this may be of interest to a number of the faculty in a reasonably sized department and they may clamor to work with the student who has been so thoughtful in preparing the application. While it is recommended to make this a clearly personal statement, it is not advisable to elaborate on great personal catastrophes like having been hospitalized six times for anorexia, or having survived abusive parents. Make sure your statement of interest is proofread by a professor who you work with or maybe a graduate student.

Many universities follow a mentor model where the admissions process is characterized by matching student interests to those of a particular faculty member who may agree to become a mentor, or supervisor, to this incoming student. When programs follow this model, it is very useful to write early (like three to six months prior to the application deadline) to all the individuals students are considering as mentors and ask them whether or not they are prepared to take on a new student in the following year. On this occasion, potential applicants can also point out their overlapping interests and may even include a copy of their résumé. It may very well be that this faculty member is going on sabbatical next year, or has just taken on a new student and has no intention of taking you on, irrespective of how brilliant you are. If there's no other mentor with similar interests in this particular department, the applicant might otherwise have wasted quite a bit of time and money to apply to this program. The majority of faculty we know are likely to give you a swift answer to this question although they will not comment on your chances of admission at this time.

Recall that we said earlier to carefully read the mission statements for clinical training programs. If a mission statement reads, for example, that a program in your hometown has a strong research component, and you happen to not care much about research but would still

like to get a degree from this program simply because you do not want to move, you are about to deceive yourself and the faculty. This kind of self-deception sets you up for a miserable experience! It is strongly discouraged to apply to programs whose mission and philosophy are mismatched to your own.

Letters of Reference

Letters of reference are considered important because they provide an opportunity for readers to learn something about applicants that is not apparent in standardized grade-point averages and GRE scores. Especially for clinical programs, the faculty are concerned about social skills and interpersonal sensitivity of applicants given that this information does not come through in academic transcripts. The very fact that senior psychologists will be needed to write reference letters for you also means that you need to make an effort to get to know individuals who would be good as authors for your reference letters in the future. This is one of many reasons why students volunteer or do paid work as a research assistant or volunteer in their community. If you approach a professor with whom you and 399 other students have taken a course, this person cannot write a meaningful reference letter. Only professors for whom you have worked as a research assistant or who have been involved in your honor's program will be able to provide meaningful commentary. Unsuitable references are friends of the family or the neighbors whose children you have babysat. They cannot speak to the probability of your professional success. Try to get all (or at least most) of your letters of reference from university professors because (a) some of the people reading your reference letters may actually know the letter writer and trust her judgment and (b) professors are very familiar with the admissions process and tend to write particularly strong letters on your behalf. When you do ask for letters of reference, ask this specific question: "Would you be willing to write me a *good* reference letter for admission to a clinical program?" Then listen carefully to the answer; if this professor is reluctant and provides all kinds of qualifiers and conditions, she may be telling you that the resulting letter may not be a strong one although she is principally willing to write one. In this case, an alternative letter writer is better. Give people at least two to three weeks' notice because you cannot expect that they drop everything for you and create such a letter from one day to the next. This would be unreasonable and will create a bad ambience that can affect the praise you might have otherwise received in the letter itself. Because professors are likely to have to write letters for many different people, each of whom may apply to a dozen or more programs, it is important to make it very easy by carefully preparing application packages, pre-stamping envelopes, providing all addresses, giving detailed instructions, pointing out deadlines, and providing clear information about which letters are to be sent directly to the universities versus which should be sealed and returned to the applicant.

Research or Clinical Experience?

The most important response to this question is that any experience is highly appreciated because it teaches useful skills and describes somebody with initiative. Having experience in both domains is, of course, preferable to having experience in only one. An important aspect to consider is the nature of the program that the student is applying to, and it will come as no surprise that a strongly research-oriented program will favor the research experience, or

that the more practitioner-oriented programs are likely to favor the practical experience. If one had to choose one over the other, our suggestion is to seek research experience because it brings potential graduate school applicants into closer contact with faculty who could write reference letters and ensures that students will spend at least some of their time interacting with graduate students who can provide them with tips and advice on how to get into graduate school and how to survive once you are there.

Timing Issues

In North America, there is a widely accepted agreement that application deadlines are mostly in December or January and that programs must make their first round of offers of admission no later than April 1. This means that the months of January to March are critical. Programs interested in particular students need to be able to quickly get hold of applicants to either invite them to come for interviews or conduct interviews over the telephone. Although it is unfortunately often a financial and logistical burden for students to fly, on short notice, to a different state or province for an interview, it is strongly advised to attend if an applicant is serious about this particular program. Whenever applicants are interacting with individual faculty who may serve as mentors or members of admissions committees, they should have some familiarity with the university and this person's work. For many students, this time period from application to actual admission decisions represents an emotional roller coaster because letters of rejection will arrive in the mail, and even if some programs make an effort to word these letters kindly, a rejection still means a painful "no." On the other hand, this situation may remind one of the old saying: "You cannot win in the lottery if you don't buy a ticket," and this means that students will also receive indications of interest, in some fortunate cases from more than one of the universities to which they have applied. When students actually feel that they are being pursued by prestigious academic programs rather than being the beggars themselves, it can be quite an emotional high and a moment of justified personal pride. Students with multiple offers then have the opportunity to do a bit of diplomatic bargaining about the financial packages offered by various universities.

At this time, it is strongly suggested that students who have applied to multiple programs also have established a clear hierarchy of the programs which they consider most attractive. If a student has applied to 12 programs, and was fortunate to receive offers from the ones ranked 11th, 4th, and 3rd, then it makes sense to focus on the top two choices and let the other program quickly know that she will not come. This will make other applicants with slightly weaker records very happy because they can now be considered without further delay. For those top two choices it is then recommended to visit in person if that has not already happened, and to learn as much as possible about program features that are not described in the brochures. For example, we think it is extremely smart to contact one or more graduate students in each of these programs and ask them questions about the inside scoop, like who are the most popular supervisors, how many students end up leaving the program without getting a degree, how much support (intellectual, financial, space, emotional) programs provide, and what the quality of life is on a day-to-day basis. Once you know all these things, you are ready to make your decision.

As much as the applicant needs to make personal decisions, it is also good strategy to think of the application process from the perspective of the faculty members looking at the applications. What do they look for? Typically, there is a large number of applications for very few spots and the process is one of winnowing down the applicant pool by looking for

weaknesses in the applications. This means that students should, early on, determine what part of the application is weakest and try to bolster it. Also, the faculty member, in the mentorship model, is considering taking on the student for the next 5–7 years and is evaluating lots of different components of the applicant, such as will this student fit well in the lab, get along well with the other students on the team and in the program, and so forth.

Getting the Most out of Graduate School

There are a number of good books and articles written about how to thrive and survive in graduate school and they can be easily located using various web search engines. The experience of graduate school can vary greatly from one student to the next as a function of whether she is well matched to the program and to her particular supervisor. Many students experience graduate school as demanding but also exciting because they enjoy their classmates, the intellectual stimulation and the prestige of a major university, and the interaction with the faculty. Yes, successful students will tell you that they have worked at least 60, if not 80, hours a week during graduate school but they also report the thrill of finally doing something practical, that is interesting, to actually seeing patients (rather than reading about them), and working on ideas and projects that they can clearly identify as their own.

Among many tips for doing well in graduate school are the following:

1. Make an effort to connect with other students in your cohort; they are smart, resourceful, usually supportive, and go through the same, or at least similar, trials and tribulations as you do.
2. Do not let unresolved situations drag on and communicate clearly and early with supervisors about problems and solicit their help.
3. Fully use supervisors and other students as supports and make plans together.
4. Get input from other students and friends to resolve problematic issues that can arise.

The big shift from undergraduate to graduate training is that no one can hide. In a graduate course with six students everybody knows if you're not there or show up late on a regular basis. If you felt that it was difficult to juggle many balls as an undergraduate student, you better get used to it in graduate school, and later on as a professional. You need to learn to prioritize and produce high-quality products in limited time rather than perfect products in unlimited time. The single biggest potential stumbling block is your own research, as programs typically require a Master's and a PhD thesis. This is new territory and the typical graduate student underestimates how long this process can take, and how many time-consuming logistical hurdles have to be jumped over (e.g., getting ethics approval on a controversial study, or recruiting 200 participants who are left-handed, depressed, and between 20 and 40 years old). Really good supervisors are very assertive about not letting students take on projects that cannot be completed with a good level of quality in a reasonable amount of time.

The good news about most graduate programs is that the faculty sees you as an investment, they have carefully chosen you from a very large pool of applicants because they believe you are bright and promising. Even if they do not tell you this very often, they think highly of you and want to see you succeed. Having graduated a first-class PhD is a source of great pride for academic supervisors. Also, program faculty often work hard to find financial support for students because they want to see them make swift progress and not get side-tracked by having to earn a living by working part-time in a coffee shop or as supermarket cashier on the late shift.

Graduates of scientist-practitioner programs have a great advantage at this stage, all kinds of career options are open. They can seek out specialty training at the post-doctoral level, set up a private practice (although definitely not recommended at this career stage!), apply for academic or hospital jobs, teach, or seek out consultancies.

Post-Doctoral Training

In nonclinical domains of psychology there are few well-developed career tracks outside of universities and colleges. It has become standard practice to complete additional training at the post-doctoral level because it offers additional time and opportunity to boost one's publishing record and acquire specialty skills. For people with degrees in clinical psychology this is notably less typical because not all licensing bodies require post-doctoral training. The extent to which supervised post-doctoral training is necessary for licensure varies from one state or province to another and candidates need to carefully study and compare these differences in requirements. There is a lot of ambivalence in the profession about the practical aspects and the need for post-doctoral training because it takes a significant amount of time, during which students earn little or no money.

So, should you do a post-doc after all? If you have broad-based clinical training but have identified a particular specialty area that you would like to practice in for the rest of your life, you might want to seek out post-doctoral training to make yourself look particularly competitive in this specialty area. A student from a generalist training program in clinical psychology might have discovered that she is really keen on neuropsychology and needs more training via a post-doc. If you are heading for an academic career, a post-doc can be a great opportunity to learn new techniques, develop a specialty, boost the publication record, and be seen as a hot commodity when applying for tenure-track academic jobs. For others, the main interest is to simply get out of school and into the labor market, finally earn some money, and start paying off debts. If the state where you want to live and practice requires post-doctoral training, you will need to do it, of course.

Getting Licensed

In North America and many other jurisdictions, clinical psychologists are expected to be licensed (also referred to as Registered or Chartered) to practice. Governments have put such licensing requirements in place to protect the public from harm that may arise from incompetent or unethical practice. This also means that insurance carriers are unlikely to make payments for psychological services to anybody who is not licensed. Therefore, getting registered or licensed is vital to financial well-being in the marketplace. Unfortunately, this is not a simple, quick or cheap process. Applicants are required to carefully document all their practical experience, provide transcripts, letters supporting their good character, have a criminal record check, write a standardized licensing exam (the examination for the Professional Practice in Professional Psychology, EPPP) and reach a passing score (usually 70%). Some jurisdictions also require a jurisprudence exam for licensing. On the web, one readily finds information about how well graduates from various programs are doing on the EPPP (http://c.ymcdn.com/sites/www.asppb.net/resource/resmgr/EPPP_/2016_Scores_by_Doctoral_Prog.pdf), and it is well established that the highest average performance is seen in graduates from research-oriented PhD programs, with noticeably weaker scores seen in

graduates from freestanding PsyD programs or Master's level graduates (Yu et al., 1997). The website of the Association of State Professional Psychology Boards lists EPPP scores for all universities whose students wrote the test. The pass rates for 2016 ranged from 100% for the top universities to a low of 25% pass, thus indicating highly varying degrees of preparedness of the typical student in a given program for this exam.

Once registered or licensed, practitioners are expected to engage in ongoing continuing education and avoid getting into problematic situations that may tempt patients to forward complaints about incompetent or unethical behavior on the part of the psychologist. Even if such a complaint does not lead to disbarment (it rarely does), the process is lengthy, expensive, and beset with uncertainty and fear. Paying good attention to Chapter 4 on ethics in this book can assist you in avoiding such trouble and save you much money! Going through a complaints process is draining and nothing is smarter than trying to practice in such a fashion that complaints are not forthcoming at all. Many complaints are around issues of confidentiality, perceived competence, and record-keeping. A therapist found guilty of sexual misconduct cannot easily claim ignorance given the intense and unequivocal teaching on this topic: no, you cannot have sex with your clients! (See Chapter 4 on ethics.) Sexual impropriety is also likely to be the type of complaint with the greatest probability of losing one's license over.

Once you have been in practice (as an employee or self-employed) avoiding the risk for *burnout* needs thought and planning. Burnout is especially likely if you are a solo practitioner and highly specialized, working with the same type of problems and clients for a long time. Anecdotal evidence suggests that engaging in a variety of professional tasks, participating in regular upgrades of skills, interacting with a network of peers, volunteering for your profession as an examiner or as a board or committee of a state association, and maybe participating in supervision and training of younger colleagues, are all activities that help to prevent burnout and maximize enjoyment of the career choice of clinical psychologist.

Conclusion

This chapter provided details and tips on the process of applying for graduate school and we hope that some of the tips may also help to improve the student's chances. Furthermore, steps were described about how to start the career after completion of graduate school and how to enjoy a lifelong career in clinical psychology.

Ongoing Considerations

There is much disagreement among the faculty of varying academic training programs about how much emphasis to place on GRE scores. At the level of personal opinion, the authors of this textbook find it very difficult to make good use of the analytical test portion of the GRE in making decisions about applicants. The debate over the usefulness of the GRE will continue and some subtests may see further changes in their format. Aside from issues related to the GRE, all future psychologists need to plan their career well ahead of time. It is surprising how much time is involved in getting the most out of this planning process and in maximizing opportunities (Kuther, 2006). Candidates have to make difficult, very personal, choices regarding Master's level versus doctoral training, and PsyD or PhD in clinical psychology, as well as where to apply.

Key Terms Learned

Analytical section, 26
Graduate Record Examination (GRE), 25
PhD, 20
Psychoanalyst, 22
PsyD, 19
Quantitative section, 26
Verbal section, 26

Thinking Questions

This chapter is not well suited as the basis for conceptual thinking or exam questions because there is much opinion offered that is based on decades of experience rather than "facts to be learned."

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3 Methods for Research and Evaluation

Chapter Objectives

The reader has likely received basic training in research methodology prior to taking course work in clinical psychology per se. Clinical psychology pulls together a number of different knowledge domains from psychology and applies them to real-world problems and populations. Therefore, there is inevitable overlap in the methods used in the practice of clinical psychology and those used to acquire core knowledge in psychology overall. General principles of experimentation in the laboratory are least relevant in this context and will not receive much attention here (for a review we recommend Howitt, 2005; Rosnow & Rosenthal, 2001). This chapter will therefore focus on research methods and introduce the relevant concepts that clinical psychologists should be particularly familiar with, namely:

- Test development and test validation.
- Evaluations of the effects of treatments and innovative clinical practices.
- Methods of research on psychopathological mechanisms.

Chapter Organization

Clinical psychology is a vibrant field that continuously renews itself and becomes involved in many knowledge applications, including being called on to add to validation work on existing tests and also to develop new tests. Recall that in Chapter 1 you read about psychologist A, who was supposed to develop a screening tool for distress in cancer patients. In addition, researchers are concerned with documenting the process of change in psychotherapy, helping us to better understand who gets better and by what process, as well as figuring out to what degree therapy success has made individuals fully functional again. This information, in turn, is then taught to the next generation of clinical psychologists.

The intent of making research directly serve the improvement of clinical practice sets clinical psychology apart from other branches of psychology. On the one hand clinicians want to know when and how their clients are getting better; and from a larger perspective, psychologists need to make a case for the cost-effectiveness of their work to health care administrators and policy makers. Psychologists involved in health care will have learned over the last few decades that professions that can demonstrate their cost-effectiveness are somewhat protected against cutbacks and sudden policy changes.

The following methods elaborated on in this chapter are particularly relevant for clinical practitioners and researchers:

Observational methods become the basic skills for conducting structured clinical interviews to learn from patients by carefully observing them in session or in their natural environments.

Surveys and **questionnaires** are frequently used in research and clinical assessment as self-report tools of personality and psychopathology. When psychologists work with standardized assessment tools (and they should), it is critical that they are aware of a tool's potential and limitations. It is unethical to use measurement tools that are not suitable for a given client or for presenting a problem, and in some circumstances, especially in court cases, psychologists are queried in great detail about the psychometric properties of tests they have used to aid their decision making.

Single case study methodologies are especially suitable when therapists work with new methods or new types of clients and want to evaluate how clients respond to innovative or experimental interventions. Knowledge thus acquired can then guide their future work with similar patients or problems and lead to the development of more formal clinical trial protocols and treatment manuals.

Therapy outcome studies are pivotal to document the value of existing or novel clinical interventions and help understand why and how interventions work. Therapy outcome can be studied with varying degrees of sophistication where randomized, controlled clinical trials are considered the gold standard for creating knowledge that can be trusted to drive clinical practice.

This chapter will therefore begin with a section on psychometrics and test development, then focus on research designs that help to document the outcome of therapy. Whether or not treatment works and for whom is only introduced later in this book (Chapter 13) when the reader has acquired an understanding how different types of therapies proceed, what they have in common, and what is specific.

Properties of Psychological Tests

When well-trained clinical psychologists read a manuscript in which the authors bluntly state that, "in this study we used the *xyz* test of depression that is reliable and valid" they see red, and so they should. Such a glib glossing over a very complex process of determining test reliability and validity is a disservice to the profession and is considered sloppy. Acknowledging that such descriptions are problematic then directs attention to the question of how can reliability and validity be established, and when it does exist, how should it be described?

Reliability

Reliability refers to a test's ability to produce the same results over its repeated administrations. There are many subforms of reliability but not all of them are applicable to every test. The degree of reliability a test possesses is described by the "reliability coefficient" or

coefficient *r*, for which scores range from 0 to 1.00, with high scores indicating high reliability. Interpretation of reliability coefficients is not as simple as it may appear at the outset.

Especially when it comes to observation of behavior, it needs to be recognized that human observers themselves have been shaped through their values, personal experiences, and habits. When we try to use human observers and maximize their reliability, the possibility of observer disagreement needs to be considered from the very beginning.

A good example for illustrating inter-rater reliability is that of a behavioral coding system for aggressive behaviors in children. Researchers may want to observe and videotape children in their natural environment; this can actually be done without the children paying much attention, which in turn increases the trustworthiness of results. When the children don't know that they are being observed, they're not likely trying to show their best behavior but are typically just themselves. In order to have a meaningful test, researchers need to define in behavioral terms what observers are expected to watch out for; this is the foundation of a reliable, structured coding system. Asking a coder whether or not a child behaved "aggressively" is potentially problematic because "aggressive" can mean different things to different observers and can be culture-specific, all of which can lead to low **inter-rater reliability** (the degree of agreement between two or more parallel observers). Concrete behavior descriptions like "pushed other children," "didn't listen," and "interrupted when others were talking" are more useful because they are distinct overt behaviors that different observers are still likely to perceive the same way. To illustrate how this works, Table 3.1 shows items from the direct observation form (DOF) of the child behavior coding system developed by McConaughy and Achenbach (2009).

IMAGE 3.1 Is That Aggressive or Just Lively Fun?
Shutterstock

TABLE 3.1 Achenbach Child Behavior Checklist. Please print. Be sure to answer all items.

For each item that describes the child during the 10-minute observation period, circle:

0 = no occurrence

1 = very slight or ambiguous occurrence

2 = definite occurrence with mild to moderate intensity/frequency and less than 3 minutes total duration

3 = definite occurrence with severe intensity, high frequency, or 3 or more minutes total duration

The 3-minute duration is a guideline for choosing between ratings of 2 and 3. Rate only the item that most specifically describes a particular observation. *Be sure to rate all items.*

0	**1**	**2**	**3**	1.	Acts too young for age
0	**1**	**2**	**3**	2.	Makes odd noises
0	**1**	**2**	**3**	3.	Argues
0	**1**	**2**	**3**	4.	Cheats
0	**1**	**2**	**3**	5.	Defiant or talks back to staff
0	**1**	**2**	**3**	6.	Brags, boasts
0	**1**	**2**	**3**	7.	Doesn't concentrate or doesn't pay attention for long
0	**1**	**2**	**3**	8.	Difficulty waiting turn in activities or tasks
0	**1**	**2**	**3**	9.	Doesn't sit still, restless, or hyperactive
0	**1**	**2**	**3**	10.	Clings to adults or too dependent
0	**1**	**2**	**3**	11.	Confused or seems to be in a fog
0	**1**	**2**	**3**	12.	Cries
0	**1**	**2**	**3**	13.	Fidgets, including with objects
0	**1**	**2**	**3**	14.	Cruel, bullies, or mean to others
0	**1**	**2**	**3**	15.	Daydreams or gets lost in thoughts
0	**1**	**2**	**3**	16.	Difficulty following directions
0	**1**	**2**	**3**	17.	Tries to get attention of staff
0	**1**	**2**	**3**	18.	Destroys own things
0	**1**	**2**	**3**	19.	Destroys property belonging to others
0	**1**	**2**	**3**	20.	Disobedient
0	**1**	**2**	**3**	21.	Disturbs other children
0	**1**	**2**	**3**	22.	Doesn't seem to feel guilty after misbehaving
0	**1**	**2**	**3**	23.	Doesn't seem to listen to what is being said
0	**1**	**2**	**3**	24.	Eats, drinks, chews, or mouths things that are not food, excluding junk foods (describe): _____
0	**1**	**2**	**3**	25.	Difficulty organizing activities or tasks
0	**1**	**2**	**3**	26.	Fails to give close attention to details
0	**1**	**2**	**3**	27.	Forgetful in activities or tasks

0	**1**	**2**	**3**	28.	Out of seat (see rating rules in Manual)
0	**1**	**2**	**3**	29.	Gets hurt, accident prone
0	**1**	**2**	**3**	30.	Gets in physical fights
0	**1**	**2**	**3**	31.	Gets teased
0	**1**	**2**	**3**	32.	Interrupts
0	**1**	**2**	**3**	33.	Impulsive or acts without thinking, including calling out in class
0	**1**	**2**	**3**	34.	Physically isolates self from others
0	**1**	**2**	**3**	35.	Lies
0	**1**	**2**	**3**	36.	Bites fingernails
0	**1**	**2**	**3**	37.	Nervous, highstrung, or tense
0	**1**	**2**	**3**	38.	Nervous movements, twitching, tics, or other unusual movements (describe): _____
0	**1**	**2**	**3**	39.	Loses things
0	**1**	**2**	**3**	40.	Too fearful or anxious
0	**1**	**2**	**3**	41.	Physically attacks people
0	**1**	**2**	**3**	42.	Picks or scratches nose, skin, or other parts of body (describe): _____
0	**1**	**2**	**3**	43.	Runs about or climbs excessively
0	**1**	**2**	**3**	44.	Apathetic, unmotivated, or won't try
0	**1**	**2**	**3**	45.	Responds before instructions are completed
0	**1**	**2**	**3**	46.	Disrupts group activities
0	**1**	**2**	**3**	47.	Screams
0	**1**	**2**	**3**	48.	Secretive, keeps things to self, including refusal to show things to teacher
0	**1**	**2**	**3**	49.	Avoids or is reluctant to do tasks that require sustained mental effort
0	**1**	**2**	**3**	50.	Self-conscious or easily embarrassed
0	**1**	**2**	**3**	51.	Slow to respond verbally
0	**1**	**2**	**3**	52.	Shows off, clowns, or acts silly
0	**1**	**2**	**3**	53.	Shy or timid
0	**1**	**2**	**3**	54.	Explosive or unpredictable behavior
0	**1**	**2**	**3**	55.	Demands must be met immediately, easily frustrated
0	**1**	**2**	**3**	56.	Easily distracted by external stimuli
0	**1**	**2**	**3**	57.	Stares blankly
0	**1**	**2**	**3**	58.	Speech problem (describe): _____

(Continued)

TABLE 3.1 (Continued)

0	**1**	**2**	**3**	59.	Wants to quit or does quit tasks
0	**1**	**2**	**3**	60.	Yawns
0	**1**	**2**	**3**	61.	Strange behavior (describe): _____
					_____
0	**1**	**2**	**3**	62.	Stubborn, sullen, or irritable
0	**1**	**2**	**3**	63.	Sulks
0	**1**	**2**	**3**	64.	Swears or uses obscene language
0	**1**	**2**	**3**	65.	Talks too much
0	**1**	**2**	**3**	66.	Teases
0	**1**	**2**	**3**	67.	Temper tantrums, hot temper, or seems angry
0	**1**	**2**	**3**	68.	Threatens people
0	**1**	**2**	**3**	69.	Too concerned with neatness or cleanliness
0	**1**	**2**	**3**	70.	Underactive, slow moving, or lacks energy
0	**1**	**2**	**3**	71.	Unhappy, sad, or depressed
0	**1**	**2**	**3**	72.	Unusually loud
0	**1**	**2**	**3**	73.	Overly anxious to please
0	**1**	**2**	**3**	74.	Whining tone of voice
0	**1**	**2**	**3**	75.	Withdrawn, doesn't get involved with others
0	**1**	**2**	**3**	76.	Sucks thumb, fingers, hand, or arm
0	**1**	**2**	**3**	77.	Fails to express self clearly
0	**1**	**2**	**3**	78.	Impatient
0	**1**	**2**	**3**	79.	Tattles
0	**1**	**2**	**3**	80.	Repeats behavior over & over; compulsions (describe):
					_____
0	**1**	**2**	**3**	81.	Easily led by peers
0	**1**	**2**	**3**	82.	Clumsy, poor motor control
0	**1**	**2**	**3**	83.	Doesn't get along with peers
0	**1**	**2**	**3**	84.	Runs out of class (or similar setting)
0	**1**	**2**	**3**	85.	Behaves irresponsibly (describe): _____
					_____
0	**1**	**2**	**3**	86.	Bossy
0	**1**	**2**	**3**	87.	Complains
0	**1**	**2**	**3**	88.	Afraid to make mistakes
0	**1**	**2**	**3**	89.	Other problems not listed above:
					_____
					_____

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It is critical to the usefulness of a coding system that observers notice the same behaviors and have similar views of the frequency or intensity. Because each observer brings to the task his or her own learning history and values, it is not safe to see even diligent observers as absolutely objective. They need to be trained to have the same understanding of what to look for and to push aside their personalized interpretations; observers need to agree on how often a distinct behavior like "hitting" may have happened during a given time. If researchers have trained their observers to extract the same information, then inter-rater reliability has been established. It is usually described on a scale from 0 to 1.0, using the correlation coefficient *r* or the methodologically more sophisticated coefficient "kappa" (Cohen, 1960). The kappa coefficient takes into account that raters can agree on the presence or absence of the same behavior, but also have one observer claim that the behavior was present while the other failed to see it. This translates into four possibilities: both observers agree the behavior was present, both agree it was absent, observer A thinks the behavior was seen but B disagrees, and vice versa. The kappa coefficient is computed using the following formula:

The value of kappa is defined as:

$$k = \frac{p_0 - p_e}{1 - p_e}$$

where p_o is the observed frequency of a behavior and p_e the expected or predicted probability by chance. The observer ratings should be independent of each other, and independence implies that pairs of raters agree about as often as two pairs of people who have flipped coins to make their ratings would. The maximum value for kappa occurs when the observed level of agreement is 1.0, which makes the numerator as large as the denominator. As the observed probability of agreement declines, the numerator declines. It is possible for kappa to be negative, but this rarely happens. In such a case, the value of kappa implies that there is no agreement between the two rates. Rater training usually proceeds until inter-rater reliability is at least 0.8. Experienced researchers know that it takes quite a bit of time and effort to train observers to achieve this level of reliability. When new coding systems are used, it is sometimes necessary to stop rater training when it takes too long to achieve a good level of agreement. In this case, researchers need better operational definitions of the behaviors to be coded, and coder training will need to restart.

When applying a behavioral coding system in clinical practice or research, it is ideal to have two or more observers present at all times to record the target behaviors. However, this practice would be very expensive and is therefore rarely used. It is, however, much more cost-effective to videotape the behaviors and thus have a permanent record for later rating in a quiet environment by multiple viewers. The recording process also assures that critical behaviors are not missed because they happened too quickly or were very subtle. Even in professional sports it is now common practice to record a game or performance so that the referees can replay critical moments. A generally accepted compromise is that one well-trained observer does all the ratings based on videotapes (if necessary, replaying the tape multiple times), and a second rater later extracts at random 10 or 20% of these videotapes and rates them again so as to assure that the primary rater had accurately used the coding system.

While inter-rater reliability may take time and money to bring rater accuracy up to acceptable levels, this is much less of a problem in self-evaluations of behavior where people provide information about themselves via a standardized test or score sheet. This might be a test anxiety evaluation on a scale from 1 to 5, using items like this: "During the night before

an exam I often sleep poorly because I worry about my performance." If the respondent then circles the number 4 on this 1–5 scale, there is little reason to fear that somebody scoring the test will misread this rating. It does, however, require that the respondent understands the meaning of a 1–5 scale that presumes interval-scale principles, such that the distance from 1 to 2 is the same as the distance from 3 to 4. For research purposes, it is still a good idea to have self-reported responses double-checked. Minimal training, if any, is needed for scoring such self-report tests. Researchers have begun to use tablet computers where the test taker just needs to mark the right answer on a touch-sensitive screen. When the test taker is finished answering questions, a built-in software program does the scoring and stores the data. Thus, much time and expense for hand scoring (with its in-built error proneness) can be saved.

Self-report tests of typical behaviors or preferences usually have many items; in the case of one of the most often-used psychopathology tools (see Chapter 7), it may indeed be more than 500 items. Tests with such a large number of items are not designed to assess a single phenomenon like test anxiety but are actually composite tests that try to tap as many as 10 or 12 different psychological constructs. If one took, for example, a self-report test of irritability, this test may consist of only 10 or 20 items that assess various aspects of irritability, so that together these 10–20 items capture the phenomenon of irritability well. One concern test developers should always have is to make the test as short as possible but also as comprehensive as necessary. This can be a difficult balance to achieve and takes effort in test development, involving multiple loops of test item writing, first evaluation of a pilot sample, revisions, application to a large first sample, and later factor analytic strategies to make sure that all the test items make a useful contribution to the measurement and decision-making process (Clark & Watson, 1995; Floyd & Widaman, 1995; Reise, Waller, & Comrey, 2000). To determine how useful each item is for measuring the overall construct, the test statistic to be computed is **internal consistency**, also referred to as Cronbach's alpha. Alpha coefficients, by definition, have to be between 0 and 1.0. It is not surprising that coefficients approaching 1.0 are considered to be more desirable than low scores are. A test where items average an internal consistency score of greater than 0.8 is considered very good. On the other hand, internal consistency of less than 0.6 typically means that a test is considered "noisy" and problematic. While it is desirable to have high internal consistency, achieving perfect internal consistency of 1.0 (i.e., what looks like a perfect score) is actually a problem. Why is that, you may wonder? Well, if, for example, somebody composes a test of irritability and used the hypothetical test item "I get easily ticked off" 10 times in a row, then it is probable that the internal consistency will be perfect. However, in this case not much good has been achieved; quite the reverse is true. You wasted a lot of the test takers' time because you made them respond to redundant test items. The ideal test is short and still has very high, but not perfect, internal consistency.

If the test has many similar items measuring, for example, short-term memory, then one can split this group of test items into two equal-sized halves and compare the reliabilities of each of this group of 50% of the items with each other. If the scores are very similar, then the researcher would have demonstrated **split-half reliability**.

Last but not least, psychological testing typically involves measurement of individual differences, and the resulting knowledge can aid in decisions like which child should be offered placement in an advanced math course. Any test that aids with decisions that have a long-term impact on a person's life presumes that the phenomenon we are trying to measure is actually stable. Imagine a test of communication skills to determine which of two boyfriends would make a good future husband. If communication skills are presumed to predict marital stability, but the responses on your test items change from one day to the next, then

it wouldn't be of much use to develop a test and use a test score to make a prediction about who makes a better husband. Therefore, as much as the construct itself should be reasonably stable, it needs to be shown that the tool that measures a construct such as communication skills also produces similar results when repeated at a later time. When a test has been taken twice, within, for example, a 6-month interval and still leads to similar test scores, we have a high **test-retest reliability**. As a rule, it is predictable and not problematic that test-retest reliability scores gradually weaken as the time interval between repeat tests grows because individuals make many new life experiences that may affect their moods or self-perceptions.

This section on the properties of good psychological tests began with a presentation on the different types of reliability that one can and needs to show in justifying the use of a particular test. Reliability was discussed first because it is the foundation for the establishment of good test properties.

Validity

In addition to being reliable, tests need to demonstrate that they actually measure what they purport to measure; a so-called intelligence test should really capture what intelligence is all about, and the test of depression should clearly identify those individuals who are gloomy and negativistic. When the test measures what it is supposed to measure, this is referred to as **validity**. The literature on test development and validity describes many different types of validity that to some degree overlap, and there is considerable potential to get confused by all the terminology used in the validity research literature. Given that this is not a textbook of just psychological testing, only a few types of validity will be discussed, namely, the ones specifically relevant to the practice of clinical psychology.

When clients take a test, they have at least some idea why they take the test and they form their own hypotheses about the implications of what they say, and they try to guess what the psychologist might want. The psychologist Norbert Schwarz (see Schwarz, 1999; Sudman, Bradburn, & Schwarz, 1996) has written extensively about this phenomenon, which is quite a threat to interpretability and ultimately the usefulness of the answers. When it is very obvious what a test is trying to measure, we have high **face validity**. Test takers who know right away what a test is trying to measure will have an easy time to bias their responses. This can be good or bad, depending on the circumstances. Let us presume that a questionnaire is asking questions about a person's gregariousness and social skills in a personnel selection environment where job applicants are screened for their suitability as sales managers. Here, the test taker will readily make the connection between what the test tries to measure and what one is supposed to say in order to be successful in this hiring process. Respondents likely know that the interviewer expects sales managers to have good social skills and be outgoing. Therefore, it is a problem to work with tests that have high face validity when important decisions of benefit (or disadvantage) to test takers are at stake. Of course, you want to look gregarious to get the sales manager job! And, yes, you want to look like a responsible parent in a custody and access evaluation that is completed as part of divorce proceedings. And you do not want to appear to be a high risk for re-offending when you undergo a parole hearing in prison.

Similarly, a bright but unfortunately depressed and suicidal person readily understands that she may end up being hospitalized against her will when she answers the question about suicidal intention in a positive way and may therefore rather deny that she has thought about killing herself. On the other hand, if there is no reason to believe that an individual will be negatively affected by knowing what the test is about (like telling a therapist about one's

ambitiousness at work), then it may simplify the situation if the psychologist uses a face valid test that directly targets what is to be learned. For example, one can ask a client who sought help with smoking cessation: "On a scale from 1 to 10, how keen are you to stop smoking tomorrow?" This test item has high face validity but the answer is still likely to be very meaningful because in this context there is no reason to believe that the test taker wants to fool the therapist or himself.

When a new test is being developed, it is not necessarily obvious what the right test items will be, and test item writers need to know what they should target with their questions. To assist with the task of developing a questionnaire on delusional thoughts, for example, a test developer may talk to a number of experts (let's say psychiatrists and psychologists who have worked for decades with delusional patients) and ask them what types of delusions are frequent, how they know that it really is a delusion, and so forth. When this information obtained from experts in the field had been used for test item writing, a test is considered to have **content validity**, which is defined as a test quality that taps into what experts think the construct is all about.

Another desirable feature of a newly developed test is that resulting test scores should be very similar to those obtained with other tests that measure similar psychological constructs. A test of generalized anxiety would be expected to correlate with other tests of anxiety. When that is the case, a test is described as possessing good **concurrent validity**. It is tempting to think of very high concurrent validity as a good thing when a newly developed test produces test scores that perfectly overlap with those of another test, but this is not much of an achievement because all we now have is two tools that do the same job; in fact, the entire effort of test development may reveal itself as redundant. Very high concurrent validity, on the other hand, might be a desirable feature if a new test helps to identify the same people but with only 30% of the length of another test. The bottom line is that test developers should not glibly refer to certain test characteristics as stable and superior when the context is actually critical to decide on the question of usefulness.

A test of generalized anxiety was referred to earlier. Seasoned clinical psychologists know that measures of negative affect intercorrelate with each other because all of them reflect emotional distress, and that is especially true for various measures of anxiety. The phenomenon of emotional distress is composed of many features, and the person with generalized anxiety is also more likely to be worrisome, pessimistic, or depressed. Therefore, a newly developed test in the area of anxiety would have to show the predicted linkages with other known aspects of anxiety; it needs to reveal natural and meaningful connections with other psychological constructs around the theme of distress. When that applies, a test is described as possessing **construct validity**.

Lastly, all tests are of course developed and used to have practical applications and help us in our decision making. A good test may help to answer questions like: (a) Is this patient well-adjusted and functioning, or is he suicidal and such a risk to himself that he needs the protection of a hospital? Or (b) Is this prison inmate who is considered for release on parole likely to re-offend and represents a risk to the public? Let us presume that a previous study had shown that high scores on such a test can differentiate who is at risk for harming himself or which offender has in the past re-offended; in this case the test has **criterion validity**. The test scores represent criteria to help us with real-world decision making.

Being able to make true and useful predictions about the future is particularly desirable as shown by the example of a formerly dangerous offender now being released to the community. It is extremely desirable for parole boards to be able to rely on test results for a sense of comfort about their decision to release an offender into the community. Therefore, a

particularly useful form of validity is that of **predictive validity**. Predictive validity is generally considered the most desirable subtype of criterion validity.

How Should Tests Be Described With Respect to Their Reliability and Validity?

As discussed at the beginning of this chapter, the following statement is unacceptable to professional psychologists: "We used test X to measure intelligence; *test X is reliable and valid.*" Having seen a more detailed description of how many ways there are to establish reliability and validity, the reader now has a clearer sense about why such a simplistic description of test properties is inappropriate, or even misleading. Consider a test that has excellent test-retest reliability over 12 months ($r = .88$), but has low internal consistency (alpha = .54); how could any one descriptive adjective capture this discrepancy? Well, it cannot. Simplistic statements like "the test is valid" also ignore the fact that tests are developed and normed for particular groups of people and specific purposes. Intelligence tests used frequently in North America have usually been developed using middle- and upper-middle-class respondents who grew up in an English-speaking environment (Neisser et al., 1996). It is rare that norms are available for subcultures like African Americans or immigrants whose mother tongue is not English. Especially in North America this is not trivial because at the time of writing this book about 10% of the US population is not born in the US and that number is even larger in Canada. In the United States there is a sizeable proportion of the population who speak only Spanish (especially in US states bordering Mexico), and a test may not be validated for this particular population. Doing poorly on an IQ test because the test taker was not educated in the language of the test and does not understand the instruction means only that the test is invalid, not that the test taker is low in intelligence.

Sticking with the example of intelligence tests, validation research strongly suggests that IQ scores are quite good in predicting school performance from elementary school levels to high school levels but do not have much predictive validity for later life job performance and career success (Hunter & Hunter, 1984; Neisser et al., 1996); hence, it makes no sense to glibly state that IQ tests have high predictive validity; for some age groups they do, but not for others. Therefore, a psychologist using IQ tests is expected to know for what the test has predictive validity and limits its use to those applications.

Instead of using the categorical (and highly inadequate) phrase: "Test X is reliable and valid," a more informative description would read as follows:

> *To determine the prevalence of depression in our sample, we used the ABC test of depression developed by Down and In-the-Dumps (1986). The ABC is a 25-item self-report scale of depressed mood, each item using a 1–5 scale where a larger number indicates higher depression. Scores obtained with the ABC have been shown to have a test-retest reliability of* r *= .91 for a 2-week test-retest and* r *= .74 for a 6-month interval, determined in an Australian college student population. ABC also has been shown to have an internal consistency coefficient of .86 which is generally considered to be very good. Test items were written by the researchers and were then validated using college students and adults living in the community. To avoid unnecessary length, the original 96-item list was reduced to 24 parsimonious items via factor analytic approaches which confirmed that ABC measures a single factor, named depression. Test scores derived with the ABC have been shown to have*

criterion validity in that they are sensitive to change in individuals undergoing psychological therapy, and they are able to differentiate recently diagnosed from not recovered depressive individuals.

Table 3.2 summarizes the newly introduced terms for the types of reliability and validity.

Measuring Change in Therapy

A very important question raised in the profession of psychology is whether or not our interventions are effective. Chapters 13 and 14 in this book provide extensive discussion on this issue, and this chapter refreshes the concepts that need to be clearly understood to get the most out of these later chapters. Even psychologists in private practice working with individual patients have an interest in knowing how much their patients improve and which of their interventions is particularly critical for this improvement. A hospital administrator wants to see that patients seen by the hospital psychology service are improving to such a degree that the existence of the psychology department and the associated budget are justifiable to the taxpayer, insurance companies, or government officials involved in health care. Researchers continue to carefully test which therapies are best suited for which kind of patient and seek to create a knowledge foundation to assist practitioners and answer questions such as:

- How many therapy hours are needed before patients start to make substantial improvements?
- How much therapist training is needed to create a pool of skilled therapists that can do the job in the most cost-efficient manner?

TABLE 3.2 Types of Reliability and Validity. Earlier in this chapter we have introduced and defined each of these new terms. To maximize learning, these new terms are listed here again in a summary format. Instead of providing the reader with pre-given answers, we believe more effective learning will happen when the students themselves complete the empty space with definitions in their own words.

	Definition (to be filled in by student)
RELIABILITY	
Internal consistency	
Test-retest reliability	
Inter-rater reliability	
Split-half reliability	
VALIDITY	
Face validity	
Content validity	
Construct validity	
Criterion validity	
Predictive validity	
Concurrent validity	

- Is the outcome of all therapies likely the same, or are some therapies superior to other treatments?
- Is therapy x better than y for anxiety but y better than x for marital problems?
- Is there one type of treatment approach best suited to preventing relapse from alcohol abstinence?
- What percentage of patients is likely to show meaningful improvement?
- Which specific trainable therapist skills are critical for maximizing good outcomes?

Methods Used to Learn About Therapy Outcome

Case Studies

In clinical psychology, a great deal of learning is achieved by carefully studying individual cases. Practicing psychologists discuss complex cases with each other, seek occasional help, or may even brag a little bit about particularly great success they achieved with a difficult client. Case conferences are one vehicle where ongoing cases are discussed, and supervisors and students engage in case conferences as part of the training process. Particularly interesting cases may be presented in hospital, Grand Rounds, or even get published in professional journals to assist others in developing protocols for similar types of clients. Essentially, the study of individual cases can follow one of two formats. Probably the most frequently used format is that of using a structured narrative where therapists present an interesting case like telling a story. There is no rigid format for such exchanges, but these presentations are likely structured the same way the therapist would structure a written intake report that the reader will learn about in Chapter 8.

Another way of studying individual cases is to see a single patient as an opportunity to conduct an experiment. This is particularly likely to happen in behavioral therapies (see Chapter 11), because they have the strongest roots in experimental methodology. Furthermore, because the target for change is usually overt behavior, the effect of various manipulations can be studied directly. Parents, for example, can conduct their own experimental case study by systematically studying the effect of screaming at their kids when they are fighting with each other, hoping that the fighting stops. If it fails to work (which is rather likely, and you will find out the reason in Chapter 12), then they could threaten withdrawal of the kids' weekly allowances (which might work if they are very consistent and the children are old enough to remember) or ignore the fighting (which incidentally has the most promise of success). As long as the strategies are tested in a structured format and the subsequent responses are carefully studied, this can be seen as an $n = 1$ experiment (where n denotes the number of subjects that have participated), and the results are informative about which strategies to use in the future. Similarly, a psychotherapist may work with a new presenting problem and try a creative approach that has not yet been described in the literature. This was exactly what Freud and other innovative therapists had to do because there was no literature on psychotherapy they could have consulted. When such treatments work, predictably the therapist will apply the same method to the next patient presenting with a similar problem and may ultimately treat a number of similar cases the same way. If the treatments and subsequent changes are carefully recorded, the therapist may even want to present this systematic study of multiple cases at a conference to other psychotherapists or write it up for publication in a professional journal. The *Journal of Behavior Therapy and Experimental Psychiatry and Clinical Case Studies*, for example, has a long history of publishing original and informative case studies that have helped many clinicians find tips for therapeutic work with their own

clients. Observation of individual patients and the conduct of a systematic case study is often the cornerstone of innovation in psychotherapy research and is a systematic tool for teaching psychotherapy. The early methods of psychotherapy were taught via case studies, and the corresponding psychotherapy textbooks are usually a blend of theory and descriptions of applications for individual cases (for examples see Frankl, 1963; Freud, 1949).

More detailed descriptions of how behavioral experiments within behavior therapy can be done and additional case descriptions will be provided in Chapter 12. Nevertheless, the basic methods are best explained in this chapter to provide the reader with the tools to get the most out of the subsequent chapters.

A particularly sophisticated way of testing the effect of a treatment with a single case design is via a four-phase protocol where baseline recordings and treatment phases alternate twice. The baseline data collection and treatment phases are referred to as the A phase and B phase, respectively; thereby an **ABAB design** gets created. It is pivotal that a baseline recording of the "normal" frequency of the behavior is obtained against which treatment effects can be contrasted (e.g., how much time does patient x spend on nail-biting in a given week?). Then a treatment stage follows with additional recordings to see whether the treatment works. Next the treatment is halted to create another phase without intervention, and finally a second treatment stage is reintroduced to see whether the success of the first phase can be repeated. If this approach shows that a treatment works for the active phase and ceases to work during the passive phase, and this phenomenon can be replicated, then a strong case has been made about the reliability of the intervention.

In addition to providing a convincing demonstration of the effectiveness of the intervention, the record of the changes also provides reinforcement for the client and even the therapist himself, because seeing these steady and seemingly predictable changes as a rising line in a chart is very satisfying.

Therapy Outcome Research Based on Groups

The trustworthiness of evidence regarding the effectiveness of psychological therapy is usually gauged by the quality and quantity of the studies that have been conducted using similar treatments for comparable problems. Not surprisingly, high-quality studies of treatment effects can be expensive and laborious to conduct. The simplest form of learning about treatment-induced change is via the so-called single-group, pre-post treatment design, where patients are assessed prior to treatment and then reassessed when treatment is completed. It is tempting to interpret any change that has occurred in between these two measurement points and to attribute improvements to the therapy that patients have received. Unfortunately, this is not a safe interpretation at all because this type of design cannot rule out many alternative explanations. It is possible that a group of depressed patients who had been assessed in January, then received 4 months of treatment, and were reassessed in May, improved because their depression was affected by the lack of light that is typical in Northern winters, and the arrival of spring had lifted their spirits; hence, the improvement would likely have happened without any psychological therapy in between. Or, a drug company may have released a new over-the-counter medication that seemed very promising and many patients participating in a psychotherapy study saw the ads and decided to try this new medication. This would be considered a **confounding treatment**, and any observed pre-post test changes could then be due to this medication, the psychotherapy, or a combination of the two, and unfortunately we would not know which component is effective.

Also, there is the well-known **placebo effect**, which indicates that people are likely to get somewhat better simply by believing that they are in active treatment. As will be described in Chapter 13, this belief is a very potent component of successful therapies that may account for as much as half of observed effects. These kinds of threats to the interpretability of observed changes are clustered together as the **history effect**, and this problem is remedied using a study design referred to as "**randomized, controlled trial**" where patients are randomly assigned to at least two groups, namely, an active treatment group and a control group that receives either no treatment or a control treatment and the treatments are provided over the same time period. The randomization helps to assure that two groups are being created who start therapy at a similar level of distress or anxiety and who are also similar on other possible moderator variables like gender, age, or travel distance to the clinic, for example.

What exactly is done to the control group will determine what conclusions can be drawn from a particular type of experimental design, and this will be elaborated on here. A comparison of the results of an active treatment group with that of a no-treatment control group permits the determination of whether or not treatment success would have happened anyway because of any outside influence that could not have been anticipated or controlled (like the drug company releasing the new over-the-counter antidepressant medication). A so-called **wait-list control group** means that the patients expect to be treated later, after the first treatment is completed and post-treatment measures have been taken. In this type of design, the effects of expectancy are controlled for. Also, wait-list control designs are popular because they motivate patients to enroll in studies given that they are guaranteed to get the desired treatment at least at some point, and it is ethically appealing to the researcher to ensure that no people in need of treatment go untreated. In fact, many Ethical Review Committees require such designs because they reflect fairness, in that patients should be offered comparable treatments or services; this requirement of equitable treatment is also referred to as the **equipoise** principle (Freedman, 1987).

Another possibility, in principle, is to use a placebo control treatment; however, this is problematic in psychotherapy research because the placebo concept was initially developed and is routinely used in drug treatment studies where researchers have a very clear idea about which active chemical ingredient in a drug is meant to produce the hoped-for benefits. In the case of a drug study, the definition of placebo is to give an empty pill to the patient, who does not know whether it contains active ingredients because the pill looks, tastes, and feels the same as the new drug to be tested that does have active ingredients. This type of study is described as a **single-blind study** because the patient is "blind" in that the patient doesn't know which of the two types of treatments he or she is getting. In this case it is possible that the physician prescribing the medication and looking after the patient in a drug study could be influenced by the knowledge of which patient is receiving the active medication and which one the placebo pill. If the treating physician knew that the patient was taking the sugar pill, he or she might unintentionally pay more attention to the patient and thus bias the results. The most conservative approach is therefore to also ensure that the researchers prepare the drugs in such fashion that the treating physicians themselves do not know whether the patient is on the active medication or a placebo pill. This is referred to as a **double-blind study** because neither the physician nor the patient know which condition the patient is actually in. Double-blind studies are considered the gold standard in this type of research. Applying these concepts to psychotherapy research is a dual problem because, first of all, it is inherently impossible to keep the therapists blind to the very treatment they are supposed to be administering. A psychologist providing psychoanalytic psychotherapy

knows what he or she is offering to their patients, and a behavior therapist is no different. Similarly, patients themselves have some understanding of what psychological therapy is; it is normal and ethical to explain to them what is about to be done and why, and how it works, and therefore it is not really possible or ethical for the patients not to know that they are in a placebo condition. Hence, double-blinding in psychotherapy cannot exist.

To some degree, it is possible for psychotherapy researchers to get around part of this problem by assigning patients to a treatment which they know from experience has a weak effect, let's say an unstructured discussion group where patients can talk about their feelings. It is also possible in biofeedback research to provide visual or auditory signals to clients that look like genuine biological signals (like heart rate), but that is actually false or noncontingent. This would provide some degree of blinding for the patient. Nevertheless, there is always an ethical concern when patients are actively deceived like this, and knowingly offering a treatment that the researcher knows is minimally effective is rarely acceptable.

While this may sound complicated enough, unfortunately there are more concerns. Usually, psychotherapy researchers want to know not only whether treatment produces desirable effects (relative to a no-treatment control group), which is also referred to as **efficacy**, but also whether the experimental treatment may be better than an already existing active treatment, and they may want to learn whether or not the treatment actually works for the reason that it is presumed to work. Seeking the answer to this question is a test of **treatment effect specificity** (see also Chapter 14). In the first case, it is a waste of time and money to develop and test a new therapy that produces the same results for the same amount of money as an already existing treatment. Of course, this is not a problem if the new treatment has been developed to help with a problem that was previously untreatable; in this case the new treatment would be called efficacious. It is, however, more likely that treatments shown to benefit at least some patients are already available; and showing that a new treatment is clearly superior to existing treatments is a significant challenge for therapy researchers. The second issue is important for those who are testing particular theories or models of psychotherapy in the hope of showing that this innovative intervention works for the reasons that the therapy researcher hypothesizes. In cognitive therapy, for example, it is presumed that depression is the result of irrational, negatively toned thought patterns that the cognitive therapist tries to identify and change. If cognitive therapy is to be demonstrated as having specific effects, then the researcher needs to show that the treatment affected these cognitions, and that the change in these cognitions toward a more optimistic outlook can be statistically shown to account for the mood improvement of the study patients (Table 3.3).

When data have been collected about change in psychotherapy, researchers conduct statistical tests to determine whether change was very small and likely due to chance, or, it is hoped, it was of much benefit to patients' quality-of-life. The typical statistical approach would be a significance test (typically an F-test) with a repeated measure (namely, before and after therapy). If the probability of an accidental difference between the pre- and post-treatment measures can be ruled out using a threshold of $p < .05$, by tradition this is called a **statistically significant effect** and usually makes researchers happy. However, what does all this mean in the real world, and is statistically significant effect always important? Let's say that the government invested $5,000,000 in an educational program to help 1,000 unemployed individuals with a history of schizophrenia to acquire job-hunting skills. Even 6 months after the end of the program, only 2 of the 1,000 participants had found work (and this difference is not statistically different from zero), but their scores on a self-report test of friendliness improved from 5.7 on a 10-point scale to 6.1, and this change is statistically significant with $p = .04$. From the perspective of the government who funded the program,

TABLE 3.3 Types of Therapy Outcome Study Design and Question Answered by Each

Type of Design	*Advantage*	*Weakness*
Pre-post evaluation	Simple, inexpensive, and allows computation of a statistic that describes amount of change; no problem with ethics because all patients received the treatment	Cannot rule out any alternative explanations or explain specificity
Two-group design: Experimental treatment versus no-treatment control	Controls for history effects	Cannot reveal specificity or untease treatment effect from expectancy effect; problem with ethics because typically half of the patients go untreated; patients are not very motivated to participate
Two-group design: Experimental treatment versus wait-list control	Controls for history effects, ethically acceptable because ultimately all patients do receive the treatment; patients are motivated to participate in this type of study	Cannot reveal specificity or untease treatment effect from expectancy effect; does not allow for long-term follow-up of the wait-list group because they have now been treated as well
Two-group design: Experimental treatment versus placebo or minimal treatment control	Controls for history effects and can clarify what part of the observed treatment effect was expectancy; this helps explain specificity	Problem with ethics because patients received treatment of unequal value; cannot reveal whether new treatment is superior to existing active treatments
Three-group design: Experimental treatment versus no-treatment or wait-list control versus competing active treatment control	Controls for history effects and can clarify what part of the observed treatment effect was expectancy; this helps explain specificity; also shows whether a new treatment is superior or just equivalent to other available active treatments; if active treatments were equivalent in benefit, principally, it allows for long-term follow-up without confounding	Complicated and expensive; somewhat unpopular with patients who have a low probability to be assigned to the treatment they were originally interested in

these results are not **clinically significant** because the main variable the program wanted to influence was unemployment. No politician will dare to go back to taxpayers and tell them that for $5,000,000 the unemployed now feel slightly friendlier. The take-home message is that success is usually defined by a blend of statistical significance and change in an outcome that has a value to society.

This section revealed that to answer the many relevant questions that psychotherapy research tries to address, fairly complicated treatment designs may be needed; and more likely than not, multiple studies will have to be conducted (LaVaque, Hammond, Trudeau,

TABLE 3.4 Quality Criteria for Therapy Outcome Research Protocols

1	Random assignment to conditions
2	Adequate control conditions (balance of ethics and scientific rigor), controlling for passage of time, nonspecific effects, patient expectations
3	Avoidance of treatment confounds
4	Specific, reliable measures valid for the purpose of the study
5	Therapists who are well-trained, adhere to a protocol, and are bias-free
6	Samples with adequate power
7	Follow-up
8	Intent-to-treat principle in analysis (means that data from drop-outs should also be included in the analyses)

Monastra, & Perry, 2002). A comprehensive trial usually involves one group receiving a new experimental treatment, another group not receiving any treatment at all, maybe a third group receiving a treatment that controls for expectancies, and a fourth one receiving an active therapy that is considered the industry standard. Provided that the samples for these studies are large enough to actually allow for sufficient statistical power in the analyses (Cohen, 1977), careful analysis and interpretation of the changes observed in all these treatment groups permits determination of to what degree the observed outcome is unique to the novel treatment, or due to nonspecific but still beneficial effects of psychological therapy, or simply a random effect.

In the last two or three decades, researchers have engaged in thousands of therapy outcome studies, and the standards for a high-quality study have grown substantially (at times to the chagrin of researchers learning this important craft). Today, a really good study is one that meets all the requirements listed in Table 3.4.

Once a number of therapy outcome studies have been published, they are likely to get reviewed by individual writers or consensus committees, and the evidence is judged via the use of a rating system regarding its quality and trustworthiness. There are multiple such systems around, but the good news is that they are quite similar. The one described here has been used by the Association for Biofeedback and Applied Psychophysiology (LaVaque et al., 2002) and overlaps with the one used by the American Psychological Association. Here are the levels of quality of evidence (low score = weak evidence) and their definitions:

> **Level 1**: Not empirically supported: Supported only by anecdotal reports and/or case studies in non-peer-reviewed venues.
>
> **Level 2**: Possibly efficacious: At least one study of sufficient statistical power with well-identified outcome measures, but lacking randomized assignment to a control condition internal to the study.
>
> **Level 3**: Probably efficacious: Multiple observational studies, clinical studies, wait-list controlled studies, and within-subject and intrasubject replication studies that demonstrate efficacy.

Level 4: Efficacious:

a. In a comparison with a no-treatment control group, alternative treatment group, or sham (placebo) control utilizing randomized assignment, the investigational treatment is shown to be statistically significantly superior to the control condition, or it is equivalent to a treatment with established efficacy in a study with sufficient power to detect moderate differences.

b. The studies have been conducted with a population treated for a specific problem for whom inclusion criteria are delineated in a reliable, operationally defined manner.

c. The study used valid and clearly specified outcome measures related to the problem being treated.

d. The data are subjected to appropriate analysis.

e. The diagnostic and treatment variables and procedures are clearly defined in a manner that permits replication of the study by independent researchers.

f. The superiority or equivalence of the investigational treatment has been shown in at least two independent research settings.

Level 5: Efficacious and specific: The investigational treatment has been shown to be statistically superior to credible sham therapy, placebo control treatment, or alternative bona fide treatment in at least two independent research settings.

Consistent with this category system, the greatest value is usually placed on randomized controlled studies and aggregations of such studies via **meta-analysis**. In essence, meta-analysis is a quantitative review method that selects similar studies from the literature (e.g., all studies using psychological treatments for "fear of flying") and then extracts the same information about mean change and variability of change from each study. It treats many possible small studies, as if they had actually been one large study; and each patient in these trials is treated as contributing the same valuable information to the conclusion. More detail about meta-analysis procedures and findings is found in Chapter 13. Meta-analysis has the advantage that it goes beyond the evidentiary possibilities inherent in narrative reviews. However, it also has a variety of limitations, which need to be carefully considered in order to arrive at meaningful conclusions. Meta-analysis has the unique advantage of allowing aggregation of nonsignificant singular results, which when pooled may show clinically meaningful and statistically significant effects after all. We will not provide a detailed criticism of all potential flaws of meta-analysis here, but refer the reader to Rosenthal's (1987) excellent review. Note that the most critical features to be considered are the following:

1. Publication bias (given that studies with positive results are more likely to get published than those with null findings)
2. Retrieval bias (referring to the tendency of researchers to ignore or find flaw with studies that do not fit with their hypotheses)
3. Extraction of truly comparable studies (e.g., having similar proportions of men and women, or high vs low level of the target problem)
4. Clear definitions of target populations

5. Randomization and blinding (removing biases in treatment allocation)
6. Drop-out analysis (identifying whether or not those who respond poorly to therapy also drop out early)
7. Presence or absence of follow-up (capturing the fact that some initial positive treatment effects don't last and other participants only get better when treatment is actually over)
8. Description and statistical handling of confounds (such as competing treatments that study participants engaged in although not encouraged to do so by the researchers)
9. Treatment integrity (referring to therapists actually following a form of manualized or somewhat standardized treatment)

Qualitative Research

Clinical psychology research has greatly benefited from the rigors of experimental methodologies, and the acceptance of clinical psychology in health care systems is in good part due to this research tradition. Nevertheless, there has been well-argued criticism that hypothesis formulation and testing via strictly quantified approaches has inherent limitations, in that one cannot learn anything beyond what has been specifically targeted for inquiry. It is easy to miss important information when a search is overly focused. The kind of thinking that leads from casual observation to experimentation has become a process of intense study itself, and a certain amount of rigorous questioning and systematic analysis has also been applied to this stage. The methods used in this arena are clustered together under the label **qualitative research**.

Qualitative research is not strictly hypothesis-driven, does not block knowledge acquisition outside the hypotheses to be tested, and therefore allows for discovery of new insights. In order to be meaningful, qualitative research needs to extract observations and categorize them into themes or patterns. For example, we may have no idea what it is like for a depressed, middle-aged man to convince others in his social network that he cannot motivate himself to get going in the morning. A qualitative researcher may conduct partially structured interviews with open-ended answer options to provide a forum where depressed male patients try to describe their experiences. The patients' statements will be videotaped or audiotaped and transcribed so that a permanent record exists that can be subjected to look for commonalities between these patients' experiences. Some statistics packages are currently available to assist with the search for underlying themes, improve replicability of findings, and save time for the researcher analyzing the data. Determining which themes are the most important is nevertheless partially subjective, and there is opportunity for researcher bias to slip into this analytical process. One, now widely accepted, criterion for a strong methodology in qualitative research is that the researcher does not undertake all the research steps himself or herself. Interview questions should be clearly defined a priori, and either the interview or the analysis part (or both) should be conducted by an unbiased individual, not by the researcher (Mays & Pope, 2000).

Qualitative research does not have a strong foothold in clinical psychology although it has gained considerable popularity in education, anthropology, sociology, counseling psychology, and nursing. It is debatable whether it is the typical embedding of clinical psychology training programs in quantitatively oriented, experimental psychology departments or the nature of the typical questions asked in clinical psychology research that accounts for its lack of enthusiasm for qualitative research methods. Here are the key criticisms leveled against qualitative methods:

- Problems with reliability in the data acquisition process
- Reliability of extraction methods
- Subjectivity of interpretation processes

The publication of guidelines for high-quality qualitative research (see Mays & Pope, 2000; Moher, Altman, Schultz, Simera, & Wager, 2014) has helped proffer against this criticism.

Program Evaluation

The typical training program in clinical psychology follows the scientist-practitioner model that endeavors to provide sufficient training so that clinical psychologists can function in research as well as clinical settings with the implicit expectation that this type of training allows their clinical work to be guided by empirical evidence and to ensure that research is relevant for clinical practice. As Linden, Moseley, and Erskine (2005) have shown, this dual-target approach to professional training is unusual in the health care field and provides clinical psychologists who work in applied settings with a stronger research base and more methodological skills than is seen with the other health care providers (Linden et al., 2005; Linden, 2015). It is therefore likely that clinical psychologists will initiate or be drawn on to assist with evaluating new programs that are being developed in clinical settings. Typically, such programs are meant to reflect and guide clinical practice without suffering from the stringent requirements of clinical trials that often limit recruitment of patients to groups with very clean diagnoses and few comorbidities, thereby limiting their ultimate generalizability. The goals and methods of **program evaluation** are therefore distinct from the methods of randomized clinical trials. Program evaluation seeks to find whether a particular service is useful and needed and, if so, whether it would be taken up if offered, and by whom, and whether it would produce the desirable effects. A typical approach in program evaluation follows a four-step sequence (Posavac & Carey, 2003).

1. Assessment of Needs

Simple economics dictates that no new program should be offered to a community or a hospital without an awareness of whether indeed there is a need for such a program. A very simple example would be to ask residents in a seniors' home whether they are interested in participating in a set of evenings where somebody teaches them the card game Bridge. The implicit hope is that a card game will get people together, help build social support networks, and keep seniors mentally alert. There would be no point in scheduling such an evening and hire a trainer if none of the residents indicated an interest.

2. Program Planning

Once it has been established that a reasonable number of residents are interested, it makes sense to find out how many evenings a course should last, what time the class should begin and how long it should last, and whether there is a particularly good or bad time of year to begin such a program. Also, one can tackle questions like whether to charge a fee, either to recuperate expenses or to get people to make a salient commitment to their enrollment.

Clearly, if the proposed service was a complex program of activity, and maybe even politically "loaded," like a safe-injection site for drug users, this planning process needs to be broader and politically astute; locations are critical, neighbors need to be consulted, risks need to be assessed and minimized, funding needs to made stable, and so on (Linden I., 2007).

3. Formative Evaluation

This particular phase follows along with the actual implementation of the program to make sure that the original plan is indeed being executed. It would be silly to evaluate a program that exists only on paper but that has never actually been implemented.

4. Summative Evaluation

This fourth step is similar to a post-test in treatment research, but researchers are not so much interested in whether people have actually changed; this step seeks to answer the question of whether the program should be continued, modified, or abandoned. Do benefits outweigh disadvantages and costs? In addition, this would allow for some parallel quantitative evaluation where a researcher might track whether implementing a regular Bridge night in the seniors' home also makes participants happier and results in fewer visits to the nurse's station with vague health complaints.

As is apparent from the earlier example, how program evaluation is conducted will depend very much on the environment, the nature of the program, and the type of people involved.

Conclusion

This chapter did not attempt to provide an overly broad review of research methods in psychology but focused on research methods of particular interest to clinical psychologists. As such, we reviewed the concepts of reliability and validity for the kinds of standardized tests and observational methods that are often used in the field. We have illustrated how multifaceted reliability and validity is and why a statement like "test x is reliable and valid" is much too coarse and primitive as a descriptor of a test. The second major domain of interest was the measurement of change in therapy. This information is very helpful to better understand our coverage of therapy outcome research discussed in Chapter 13, and it also assists the presentation of innovative therapies in Chapter 14.

Ongoing Considerations

The basic logic and most of the concepts used for dealing with test reliability and validity have been essentially unchanged for decades and are not controversial. They do represent, however, standards that require a lot of work to meet. Many psychologists, including the authors, deplore explosive growth of standardized tests that often duplicate previous efforts and may be published and used before a reasonable level of reliability and validity research has been demonstrated. We advocate for higher standards in test development and strongly support detailed descriptions of test psychometrics in publications.

Key Terms Learned

ABAB design, 48
Clinically significant, 51
Concurrent validity, 44
Confounding treatment, 48
Construct validity, 44
Content validity, 44
Criterion validity, 44
Double-blind study, 49
Efficacy, 50
Equipoise, 49
Face validity, 43
History effect, 49
Inter-rater reliability, 37
Internal consistency, 42
Meta-analysis, 53
Observational methods, 36
Placebo effect, 49
Predictive validity, 45
Program evaluation, 55
Qualitative research, 54
Questionnaires, 36
Randomized, controlled trial, 49
Reliability, 36
Single-blind study, 49
Single case study, 36
Split-half reliability, 42
Statistically significant effect, 50
Surveys, 36
Test-retest reliability, 43
Therapy outcome studies, 36
Treatment effect specificity, 50
Validity, 43
Wait-list control group, 49

Thinking Questions

1. Can a test be valid when it is not reliable?

2. What does it mean when a self-report test has a perfect internal consistency score of 1.0?

3. Is high face validity of a test good or bad?

4. How can qualitative and quantitative research methods complement each other?

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4 Ethical Decision Making

Chapter Objectives

Defining ethical behavior and consistently acting on the underlying principles can be a difficult-to-grasp content area of clinical psychology because it comes with few facts, some principles, and a lot of ambiguity and occasional headaches (Keith-Spiegel & Koocher, 1985; Pope & Vasquez, 2016). Still, concern about behaving ethically needs to be ever present for clinical psychologists and in fact all health professionals. Awareness of ethics ideally works like a virus-detection program that is always running in the background of the computer.

This chapter has the following objectives:

- Ease the reader into the spirit of what ethical behavior is all about.
- Teach how to differentiate legal and moral requirements.
- Provide a description of the facts, rules, and guidelines that can help you to make sound decisions.
- Finally, we walk through an example, using a principle-guided decision-making process.

Setting the Tone

In Chapter 1, we described the typical work activities of clinical psychologists and these activities involve daily, often subtle clinical judgments that can have both constructive and harmful effects on the clients they work with. All judgments made by clinical psychologists are governed by expectations for high professional competence and moral standards. Unlike most of what students learn in their undergraduate training, ethical behavior and decision making is rarely black or white, right or wrong, because the context and circumstances are ever-changing and ethical dilemmas are not absolutely preventable, even by the most skilled and seasoned psychologist. The first thing we teach students when discussing ethics is that beginning clinical psychologists need to learn the **process of ethical decision making** and need to be familiar with the **ethical principles** that guide this process. These are the critical tools clinical psychologists need to have at their fingertips; we cannot afford to become complacent and just trust our gut. Even equipped with these tools, ethics is one area of clinical psychology practice where necessity requires that we learn to live with some degree of uncertainty. Students new to the topic of ethics usually want to jump right ahead and find

out from the professor what the right answer is. The reader will surely be dissatisfied by our routine response to such requests to offer quick solutions because we stress that, yes, there are ethical guidelines for practice but the best answer for each scenario lies in reflection and the use of a systematic process. We discourage any belief that a perfect and obvious solution lies right around the corner or that even very experienced psychologists have them at our fingertips either.

Defining What Ethical Behavior Is

The core of ethical decision making is derived from principles of religion and philosophy that are thousands of years old, focusing on respect and dignity toward others. The same thinking has shaped early views of medical practice, which has been summarized as, "above all, do no harm" (the Roman physician Galen, quoted on: www.medscape.com/viewarticle/543882), and this is no different in psychology.

But how do we know that we are doing the right thing, or at least following the right process? It helps to think of moral, professional behavior as happening on a continuum where one extreme end is criminal behavior, well-defined by laws and subject to punishment by the authorities. At the other end of the spectrum is selfless giving for the benefit of others, exemplified in the behavior of famous people awarded sainthood or Nobel Prizes for Peace (see Figure 4.1). The one extreme end is, of course, illegal behavior governed by criminal codes that are quite easy to understand because they are long lists of do-not-do behaviors: "Do not kill another human being" or "do not steal."

Unfortunately, the prescription of "do nots" in criminal law is not sufficient to define the right way to behave in everyday clinical practice and to tell us what represents an acceptable standard of moral behavior. Nevertheless, the two extremes on this spectrum bracket a wide middle ground where psychologists struggle to make ethical decisions. Mandated behaviors are easiest to understand for practicing psychologists when nonobservance may not be outright criminal but still borders on felonious behavior such as "do not double-bill for your services." An imperative like "treat your clients with respect and dignity" on the other hand is much, much harder to define. How exactly does one 'show respect'? Another way of looking at this spectrum of right and wrong is to think of one end as a threshold or minimal level (as in "do no harm") and the other end as **aspirational**, meaning that the behavior is a long-term goal that we should continuously strive for even if we are not likely to fully reach it. The major principles defining ethical behavior are not particularly difficult to understand because they arose out of religious and philosophical teachings readers have already been exposed to in their families, churches, and schools. We are expected to be honest, be caring, try hard to do a complete and competent job, and protect and look out for our clients and others around

FIGURE 4.1 From Criminal to Laudable. The Continuum of Ethical Behavior.

us. Most violations of these principles are fairly obvious as in the case of the therapist who has sex with his teenaged client, the marital therapist who immediately sides with one partner in a troubled relationship (instead of listening to both), or the psychologist who (mis-) uses a complex test that she has never been trained to use and interpret (Housman & Stake, 1999). A more subtle set of skills to acquire are those that prevent future problems, like good record-keeping, clear contracts, maximizing practice setups for **confidentiality**, and considering the consequences of one's own actions. We will provide overarching principles that assist with these types of decision making later in this chapter.

The real difficulties arise when two or more principles, each one a good, moral principle on its own, are in conflict with one another.

To flesh out the idea of ethical decision making and ethical conflicts, we begin with three vignettes of ethical dilemmas from everyday practice that are reality-based but have been modified to prevent recognition of any particular individuals (Box 4.1). The first vignette describes what was actually a fairly transparent situation but where the psychologist created unnecessary problems because he did not try to minimize complications while still being fair to all parties.

How the dilemmas represented in vignettes 2 and 3 can be solved is discussed later in this chapter. On the other hand, we believe that the presentation of rationales and the history of the development of ethical codes will be a lot more meaningful and stimulating when the reader knows what these codes and problem-solving steps can be used for. The chapter will then finish with a demonstration of how ethical principles and problem-solving steps can actually be applied to resolve one of the dilemmas presented in Box 4.1.

BOX 4.1 HANDLING OF AN ETHICS CHALLENGE

Vignette 1. Dr. Marisa A has completed a neuropsychological assessment on a patient with a major personality disorder who is seeking compensation in a car accident case. The patient (Suzy Q) senses that Marisa A's report is probably not going to help her court case and complains bitterly about Dr. A to her long-term therapist John D, who has been working with Suzy Q in his private practice helping with her adjustment. Suzy Q claims that A was mean (maybe not being aware that building of a therapeutic alliance is not part of formal assessment for court) and suggests incompetence. John D is inexperienced and does not really know that this pattern of complaining is typical of some personality disorders; he asks some leading questions to Suzy Q and concludes that Marisa A was unprofessional and incompetent in her assessment. Rather than informing Suzy Q that she is free to complain to the College of Psychologists, he takes it upon himself to make a complaint about Marisa A who purportedly conducted an unprofessional assessment. The complaint was fully processed; Marisa A had to provide reams of documents to the investigation committee and waited 6 months for a decision. The complaint was ultimately dismissed because there was no evidence of wrongdoing on Marisa A's part.

Author comment: This is a disguised but true event. Why describe it here? It is offered as an example because one of the decision-making guidelines is that the first attempted solution to a potential problem is to minimize the number of people involved and the damage that may arise from rash decision making. In this case, the guidelines state that it was John D's responsibility to first contact Marisa A and get her side of this story. Had he done that Marisa A could have described her role in this case, provide the context,

and point out to John D how the personality disorder that Marisa had diagnosed in Suzy Q had likely aggravated Suzy Q's dissatisfaction. Had John D followed the guidelines and talked to Marisa first, colleague to colleague, he would have likely realized that there was no substance to Suzy Q's complaining. This was not a particularly difficult situation, and it was clear what the right thing to do was. If the conversation with Marisa A had been highly unsatisfying and possibly making him believe even more that Suzy Q was right, he was still free to make a formal complaint about Marisa A. Instead, however, his rash response cost Marisa A a lot of time and stress for nothing. Nevertheless, if psychologists are routinely encouraged to first talk to each other, this could possibly be seen by outsiders as trying to hide something and some Licensing Boards may actually insist that such complaints should directly go to their Complaints Committee to avoid any appearance of cover-ups.

Vignette 2. Clinical psychologist Dr. Ramin B (who we introduced to you in the first chapter) has received specialized training in marital therapy and follows the recommended routine of meeting each partner separately when first beginning joint marital therapy. A couple came for therapy because they agree that their marriage is "on the rocks." The husband convinced his wife that therapy might be the answer and made the appointment. Both partners provide similar descriptions of the sad state of the marriage. The husband does not understand how things got this bad and wants to work things out. The wife, on the other hand, in the one-on-one session, tells the psychologist that she has been having an affair with a distant mutual acquaintance for the last year, and she does not want to end this affair. She absolutely forbids the therapist to tell the husband who seems to have no clue; yet, the wife still wants to engage in therapy because she thinks that the husband is basically a good man, and the economic stability that the marriage currently offers is good for the children and herself. Can the psychologist still conduct meaningful conjoint marital therapy when he has important information about one partner that the other one is not allowed to know about? Common wisdom among marital therapy experts is that such therapy cannot work because the partners are not on the same level of willingness to repair the relationship, and the therapist runs a high probability of "slipping up" by accidentally revealing something about the wife's affair although he is strictly forbidden to do so. What can the psychologist do?

Vignette 3. Dr. Anne C (whom you met in Chapter 1) is a faculty member in a clinical psychology program. She lives in the same neighborhood as an undergraduate student who is taking a small seminar class with her ("S"). She accidentally overhears a conversation her teenage children are having revealing that "S" is a frequent marijuana user and a small-scale dealer, supplying the neighborhood with marijuana. Her children don't know that "S" is taking a class with their mother. "S" uses the proceeds of his marijuana sales to fund his education. What, if anything, is Dr. Anne C expected to do?

Our Profession's Commitment to Ethical Standards of Practice

Currently, any academic program that seeks accreditation for its clinical psychology training is required to have an organized and systematic way of teaching ethical decision making. Furthermore, in order to become licensed or registered as a psychologist, applicants will have to write the professional practice exam described in Chapter 2, which has a section on ethical behavior. The applicants for licensure will also need to complete either written or oral exams (often both) on ethical behavior and local legislation before they are given the right to practice independently.

What can be learned from the problems that are known to arise? In determining what features of ethics are most in need of teaching, let's look at the most frequent reasons why psychologists receive complaints against them (Hall & Hare-Mustin, 1983). The College of Psychologists of British Columbia listed the following three types as the most frequent complaints (www.collegeofpsychologists.bc.ca/documents/Summary%20of%20Discipline%20Information%20-%202006.pdf):

1. Inappropriate assessment procedures (37.3% of all complaints)
2. Lack of professional competence (13.5%)
3. Client relationships—key problems here are confidentiality and boundary violations (13%)

In order to learn from this listing of frequent trouble spots, researchers have investigated the attitudes, beliefs, and context variables that can lead to these ethical violations. An important predictor for complaints received is **area of practice**. As the above-mentioned data on the frequency of complaints suggest, assessment results may have a major impact on people's lives: Children may not qualify for certain remedial treatments, or adults may not receive the disability pension they think they have a right to. Another relatively frequent problem is a **boundary violation**; examples might be that a psychologist asks a police officer who received help for depression to "fix" a parking ticket as a favor to the psychologist. Another example of a boundary violation is to sexually exploit a client who is enthralled by the therapist. Boundary violations have received much attention over the last two decades. For example, clinical psychologists' and "nonpsychiatric physicians" attitudes and behaviors in sexual and confidentiality boundary violations were examined and compared (Rubin & Dror, 1996). The 171 participants' responses were analyzed by profession, sex, and status (student, resident, professional) and on their interpretation of boundary violation vignettes. Psychologists rated sexual boundary violation as more unethical than did physicians. Both professional groups agreed that there were times in a therapist-client relationship when a client is particularly vulnerable. Actual violators (based on self-report) rated vignette violators more leniently than did nonviolators.

Lack of professional competence may indeed harm a patient and is therefore taken very seriously; however, incompetence is also difficult to quantify and requires expensive and laborious inquiry. Typically, this type of complaint, if found to be substantive, leads to a reprimand and a request to take a course or workshop rather than loss of license. Violations of confidentiality are particularly unfortunate insofar as they are usually irreversible. For example, if a psychologist revealed at a party (after a few drinks too many) that he had a famous local person as a patient (with an embarrassing personal problem), leakage of this information to the public means that the damage cannot be reversed. Even sincere apologies may not suffice here.

Legal Facts and Ethics

It is very important for psychologists to be familiar with the laws of their country (or state or province) and what may look like a difficult ethical decision can be easy to solve when there is a pertinent law or legal precedent. Unfortunately, there are not many examples of potential ethical dilemmas that laws have resolved for us, but the ones that do exist are clear in their implications. In order to obtain a license, clinical psychologists need to familiarize themselves with local legislation. Often, the most critical legislation to know about is provincial or

state legislation. For example, in all provincial and state jurisdictions that we know of, there is a mandatory reporting requirement for **neglect and physical and sexual abuse of children**. A clinical psychologist and other health care providers have no choice under these laws but to report suspected abuse even if that means violating client confidentiality. The reporting usually involves contacting child welfare agencies, ministries of child development, or similar government bodies.

The psychologist also needs to be familiar with legislated **limitations on confidentiality**. A judge can order a psychologist to provide his or her case files if the client is involved in a trial; this includes *absolutely every document* that a psychologist has on this particular client (Committee on Legal Issues, American Psychological Association, 2016). In consequence, it is also good practice to ask the client at the beginning of an assessment or therapy process whether or not the client is involved in an ongoing or pending court procedure. This knowledge can and should shape how the psychologist keeps the client's records and chooses words in a report, guided by the question: "Is this written material factually correct and complete, and is it expressed in a constructive, nonoffending language?"

Another widespread requirement is the duty to inform the Department of Motor Vehicles when the psychologist learns that a client is operating a motor vehicle although the client's competence is impaired due to senility or brain injury, for example. While this makes sense for the protection of others, the psychologist needs to anticipate that a patient who is about to lose his or her driving license (and associated mobility) may be very unhappy with this decision, and this will likely impact the relationship between the psychologist and the client.

The issue of limits to confidentiality has received much publicity in a famous California court case (typically referred to as "The Tarasoff decision") that is summarized in Box 4.2 (extracted from: www.adoctorm.com/docs/tarasoff.htm).

BOX 4.2 THE "TARASOFF" DECISION

A Landmark Court Ruling: *Tarasoff v. The Regents of the University of California*, Supreme Court of California, 1976

(Authors' note: This text is a slightly shortened version of the website reprint; we removed procedural legal details of limited interest for psychologists' ethics.)

Facts: Prosenjit Poddar, an Indian graduate student studying naval architecture at the University of California, Berkeley, started to date a fellow student named Tatiana Tarasoff. He kissed her a few times and felt he had a special relationship with her. He was totally unfamiliar with American mores and had never had a date before. He felt betrayed when Tatiana flaunted her relationships with other men. Because of his depression he went to a psychologist, Dr. Moore, at the University Health Service. He revealed his intention to get a gun and shoot Tatiana Tarasoff. Dr. Moore sent a letter to the campus police requesting them to take Mr. Poddar to a psychiatric hospital. The campus police interviewed Mr. Poddar but he convinced them that he was not dangerous. They released him on the promise that he would stay away from Ms. Tarasoff. When the Health Service psychiatrist in charge returned from vacation, he directed that the letter to the police be destroyed and no further action taken. Mr. Poddar moved in with Tatiana's brother over the summer while Tatiana was visiting her aunt in Brazil. When Tatiana returned, Mr. Poddar stalked her and stabbed her to death.

The parents of Tatiana sued the campus police, Health Service employees, and Regents

of the University of California for failing to warn them that their daughter was in danger.

Decision: In 1974, the California Supreme Court held that a therapist bears a duty to use reasonable care to give threatened persons such warnings as are essential to avert foreseeable danger arising from a patient's condition. This is known as the Tarasoff decision which is based on the following court conclusion:

> "When a therapist determines, or pursuant to the standards of his profession should determine, that his patient presents a serious danger of violence to another, he incurs an obligation to use reasonable care to protect the intended victim against such danger. The discharge of this duty may require the therapist to take one or more of various steps. Thus, it may call for him to warn the intended victim, to notify the police, or to take whatever steps are reasonably necessary under the circumstances."

The defendants contended through amici briefs, including an APA brief, that psychiatrists were unable to accurately predict violence. The Court replied that they did not require therapists to render a perfect performance, "but only to exercise that reasonable degree of skilled care ordinarily possessed by members of their profession under similar circumstances." Proof, aided by hindsight, is insufficient to establish negligence. In the Tarasoff case itself, the therapist did accurately predict Poddar's danger of violence.

The Tarasoff decision reveals two important things for psychologists. On the one hand, it reveals how far they are expected to go to protect their clients. Furthermore, this case represents a strong precedent for guiding future decisions regarding their duty of care.

Practice Guidelines/Codes of Conduct

In addition to outright legal requirements for definable, specific situations, licensing bodies in psychology have spent much effort accumulating information about areas of frequent psychology practice and have provided concrete **practice guidelines** on how to handle certain predictable professional responsibilities. Having such guidelines is tremendously helpful for psychologists because, if followed, the psychologists will be difficult to challenge in court by a disgruntled client who may not like the recommendation she made. It is much easier to defend oneself when the recommendation made at the end of a report was logically derived and came from an assessment process that experts consider a 'standard'. Given that many situations in professional training, research, assessment, and treatment are similar, one can indeed spell out how to behave in many such situations. Such practice guidelines are typically clustered together in what is called a **code of conduct**, and practicing psychologists should be thoroughly familiar with, or at least have ready access, to these guidelines which take up a fairly thick binder.

We will also talk about **basic principles of ethics** because the same organizations that wrote practice guidelines discovered quickly that the individual circumstances and context variables do not always fit these generic guidelines. The specific circumstances need to be diligently considered in the decision-making process. But first, let's look at the use of practice guidelines. Here, the reader will find a number of examples from practice guidelines that offer concrete help in making decisions. These examples are just samples from many existing lists of guidelines that are easily accessed on websites

of national and state licensing bodies. Next, for demonstration purposes, we discuss one specific set of practice guidelines, namely, those used in **custody and access assessments**, which can be very controversial and litigious (Weithorn, 1987; Zumbach & Koglin, 2015).

To illustrate here are four examples of guidelines from various domains of practice (www.apa.org/ethics):

Example 1

2.01 Boundaries of Competence

(a) Psychologists provide services, teach, and conduct research with populations and in areas only within the boundaries of their competence, based on their education, training, supervised experience, consultation, study, or professional experience.

Example 2

3.10 Informed Consent

(a) When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons except when conducting such activities without consent is mandated by law or governmental regulation or as otherwise provided in this Ethics Code.

Example 3

5.05 Testimonials

Psychologists do not solicit testimonials from current therapy clients/patients or other persons who, because of their particular circumstances, are vulnerable to undue influence.

Example 4

6.03 Withholding Records for Nonpayment

Psychologists may not withhold records under their control that are requested and needed for a client's/patient's emergency treatment solely because payment has not been received.

Guidelines for custody and access reports are a particularly good example of useful guidelines. Given their training and experience, clinical psychologists can provide valuable services when it comes to assisting parents with respect to child custody and access decisions in a divorce process. In the overwhelming portion (90%) of divorce custody cases, parents agree on custody arrangements without the help of courts (and save themselves extensive legal fees in the process) (Melton, Petrila, Poythress, & Slobogin,

1987). However, the cases that do go to court tend to be complex, bitter, and vexatious. One potential explanation for such complicated and litigious approaches is that a disproportionate number of custody cases that do go to court (rather than quickly settle) have at least one parent with a major personality disorder which greatly aggravates the length and complexity of legal proceedings (Eddy, 2006). Such individuals are likely to be particularly unhappy with decisions and lash out at psychologists for their dissatisfaction by charging them with incompetence or bias. Religiously following the guidelines in custody and access assessments provided by local licensing boards is the best insurance a psychologist can buy.

Codes of Ethics

Having access to detailed codes of conduct greatly simplifies the life of clinical psychologists, and many situations that could become problematic are avoidable by simply following these codes. However, even if the psychologist has followed this code of conduct to the letter, dilemmas are sometimes forced upon them, just like in the two problem vignettes described at the beginning of the chapter. By definition, being in such a dilemma means that no answer is readily available, and we hope that in the end the psychologist will minimize damage while realizing that one or the other principle has to suffer.

Given that the details of such dilemmas and context variables are highly situation-specific and a conflict of principles cannot always be avoided, the psychologist needs tools to resolve the situation while doing the least harm. Furthermore, the construction of a specific code of conduct requires a foundation of basic, shared underlying values. This kind of foundation is reflected in what we call **codes of ethics**, which are very general listings of prescriptions for professional behavior with a high moral standard. Beginning with the release of the first codes of ethics in the United States in 1953 (American Psychological Association, 1953), psychologists in essentially all state and national jurisdictions have spent endless hours assembling and discussing codes of ethics that reflect their values and advertise that psychology professionals are of high moral virtue. These codes of ethics are revised and expanded on a regular basis (American Psychological Association, 1985, 1992, 2003). Comparing codes of conduct across different countries gives you an overwhelming impression that psychologists do care about the same things and that as a profession we have shown impressive maturation and growth. The most basic, overarching principles underlying the codes of ethics of the American Psychological Association (www.apa.org/ethics) are the following:

1. Beneficence and non-maleficence (desire to help clients and prevent harm)
2. Fidelity and responsibility
3. Integrity
4. Justice
5. Respect for people's rights and dignity

Given that these principles are global, further detailed description of what each means is offered in Box 4.3.

BOX 4.3 GENERAL PRINCIPLES OF THE APA CODE OF ETHICS

This section consists of General Principles. General Principles are aspirational in nature. Their intent is to guide and inspire psychologists toward the very highest ethical ideals of the profession. General Principles, in contrast to Ethical Standards, do not represent obligations and should not form the basis for imposing sanctions.

Principle A: Beneficence and Non-maleficence

Psychologists strive to benefit those with whom they work and take care to do no harm. In their professional actions, psychologists seek to safeguard the welfare and rights of those with whom they interact professionally and other affected persons, and the welfare of animal subjects of research. When conflicts occur among psychologists' obligations or concerns, they attempt to resolve these conflicts in a responsible fashion that avoids or minimizes harm. Because psychologists' scientific and professional judgments and actions may affect the lives of others, they are alert to and guard against personal, financial, social, organizational, or political factors that might lead to misuse of their influence. Psychologists strive to be aware of the possible effect of their own physical and mental health on their ability to help those with whom they work.

Principle B: Fidelity and Responsibility

Psychologists establish relationships of trust with those with whom they work. They are aware of their professional and scientific responsibilities to society and to the specific communities in which they work. Psychologists uphold professional standards of conduct, clarify their professional roles and obligations, accept appropriate responsibility for their behavior, and seek to manage conflicts of interest that could lead to exploitation or harm. Psychologists consult with, refer to, or cooperate with other professionals and institutions to the extent needed to serve the best interests of those with whom they work. They are concerned about the ethical compliance of their colleagues' scientific and professional conduct. Psychologists strive to contribute a portion of their professional time for little or no compensation or personal advantage.

Principle C: Integrity

Psychologists seek to promote accuracy, honesty, and truthfulness in the science, teaching, and practice of psychology. In these activities psychologists do not steal, cheat, or engage in fraud, subterfuge, or intentional misrepresentation of fact. Psychologists strive to keep their promises and to avoid unwise or unclear commitments. In situations in which deception may be ethically justifiable to maximize benefits and minimize harm, psychologists have a serious obligation to consider the need for, the possible consequences of, and their responsibility to correct any resulting mistrust or other harmful effects that arise from the use of such techniques.

Principle D: Justice

Psychologists recognize that fairness and justice entitle all persons to access to and benefit from the contributions of psychology and to equal quality in the processes, procedures, and services being conducted by psychologists. Psychologists exercise reasonable judgment and take precautions to ensure that their potential biases, the boundaries of their competence, and the limitations of their expertise do not lead to or condone unjust practices.

Principle E: Respect for People's Rights and Dignity

Psychologists respect the dignity and worth of all people and the rights of individuals to privacy, confidentiality, and self-determination. Psychologists are aware that special safeguards may be necessary to protect the rights and welfare of persons or communities whose vulnerabilities impair autonomous

decision making. Psychologists are aware of and respect cultural, individual, and role differences, including those based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, and socioeconomic status and consider these factors when working with members of such groups. Psychologists try to eliminate the effect on their work of biases based on those factors, and they do not knowingly participate in or condone activities of others based upon such prejudices.

Quoted directly from the APA Ethical Principles of Psychologists and Code of Conduct, available at www.apa.org/ethics/code/

These general principles are then applied to the following specific areas of practice, also referred to as 10 ethical standards:

- Resolving ethical issues
- Competence
- Human relations
- Privacy and confidentiality
- Advertising and other public statements
- Record-keeping and fees
- Education and training
- Research and publication
- Assessment
- Therapy

The full APA ethics code took effect on June 1, 2003; and information regarding the code can be found on the APA website (www.apa.org/ethics).

While being in accord with the principles of the APA code, the Canadian Psychological Association devised its own code of ethics that takes a number of important concepts a step further (Canadian Psychological Association, 1998; Pettifor & Sinclair, 1992; Sinclair, 2017). There are nine unique features that set the Canadian code of ethics apart from others, and they are designed to maximize the usefulness of the code for ethical decision making. Note that the practical features of this code are useful in any jurisdiction.

The nine core features of the Canadian code of ethics are:

1. In order to write this code the authors began with a critical analysis of many other existing codes.
2. Particularly innovative in this code is the inclusion of what is called a **social contract** that calls for respect for one's own profession, which in turn is embedded in a similar contract with other professionals and the population at large.
3. The code was developed using a series of vignettes that were tested on practicing psychologists, and their feedback was used to revise the listing of ethical principles.
4. The principles underlying this code are organized around four major ethical principles (a list of the major and minor principles is provided in Box 4.4).
5. Given that an ethical dilemma involves not being able to honor all principles of ethics alike, the Canadian Psychological Association decided that to assist decision makers it would be helpful to assign differential weights to the importance of the four major principles. Principles on the left of the tabular display are considered the most important, and those further to the right are of lesser importance.

6. Another important feature is that not only are principles offered with differential weighing, but the code comes with an explicit set of 10 steps of ethical decision making, which are listed in Box 4.5.
7. As the fourth major principle indicates, Canadian psychologists see themselves as having a professional conscience that goes beyond mere ethical behavior toward their individual clients, and they also consider the larger societal good.
8. This code embraces the idea of minimal standards (like "do not harm," "do not deceive") as well as more idealistic and aspirational standards like expectations to "acquire knowledge about culture" or "contribute to the knowledge base of the profession."
9. The APA and CPA codes of ethics are considered to be umbrella documents, which means that the authors perceive them as a good foundation for the development of specific practice guidelines (like the ones on child custody evaluations we described earlier) and that this document will require regular review and potential revision.

BOX 4.4 THE FOUR ETHICAL PRINCIPLES OF THE CPA CODE OF ETHICS WITH THEIR RESPECTIVE VALUES AND STANDARDS

I Respect for the Dignity of Persons	**II Responsible Caring**	**III Integrity in Relationships**	**IV. Responsibility to Society**
1. *General Respect:* respect others and abstain from degrading others	1. *General Caring:* protect welfare, avoid harm, and accept responsibility	1. *Accuracy/honesty:* fraud, credentials, competency, and research findings	1. *Development of knowledge:* contribute to knowledge base
2. *General rights*: respect human rights	2. *Competence/self-knowledge:* training, self-development, know own biases, self-care	2. *Objectivity/lack of bias:* self-reflection and distortion of facts	2. *Beneficial activities:* participated and contributed to continuing education, contribute to the profession (e.g. accreditation), volunteer or pro bono work
3. *Nondiscrimination:* do not practice discrimination, seek to correct it, and develop research to address	3. *Risk/Benefit Analysis:* know who is affected, pilot work, carry out work only if benefit > harm	3. *Straightforwardness/ openness*: results of assessment, honor contracts, and role clarity	3. *Respect for society:* acquire knowledge about culture and know laws
4. *Informed consent:* seek full and active participation in consent process, ensure that purpose and nature of activity, confidentiality, and risks and benefits are understood	4. *Maximize benefit:* coordinate services, keep good records, monitor own work, teach, and research	4. *Avoidance of deception:* use only if there is no other alternative, debrief fully, re-establish trust, and give option to remove data	4. *Development of society:* research, advocacy, and reporting of data

I Respect for the Dignity of Persons	II Responsible Caring	III Integrity in Relationships	IV. Responsibility to Society
5. *Freedom of Consent:* ensure that consent is not given under coercion, pressure, or undue reward	5. *Minimize harm:* power differential, record keeping, termination of services	5. *Avoidance of conflict of interest:* dual relationships	5. *Extended responsibility:* encourage others to exercise responsibility
6. *Fair treatment/ due process:* for research, fees, compensation	6. *Offset/Correct Harm:* termination, physical harm, debriefing	6. *Reliance on discipline:* know and follow rules and regulations and seek consultation 7. *Extended responsibility:* Encourage others to relate with integrity and assume responsibility of supervisees	

BOX 4.5 10 STEPS TO ETHICAL DECISION-MAKING

1. Identify all people (individuals and/or groups) who may be affected.
2. Clarify which ethical issues and principles apply to the situation.
3. Consider whether or not you may have personal biases, conflicts of interest, or may be experiencing personal stress that may unduly affect your decision-making in this situation.
4. Outline multiple possible plans of action without immediately judging them as "good" or "bad."
5. Weigh the risks and benefits of each possible action, and consider possible short- and long-term effects of each.
6. Make a relatively best choice after careful weighing of the relevant existing ethical principles.
7. Act on your first-choice decision, and accept responsibility for your action.
8. Carefully evaluate whether or not your action was a constructive one once you see the results of your action.
9. Continue to accept responsibility such that a second course of action may be needed to correct unforeseeable consequences or that another action is needed to resolve the situation.
10. Review the events with a view toward prevention of similar problems for the future.

Adapted from the Canadian Code of Ethics (1991), Ottawa, Ontario, Canada.

These three items, namely, an understanding of the unique features of the Canadian code of ethics, the four basic ethical principles (and general, more detailed principles listed within each), as well as the 10 steps to ethical decision making, can serve as the major toolbox in helping psychologists to resolve dilemmas such that they can defend their ultimate decisions.

To illustrate how the process is meant to work, we now consider the second vignette (depicting a dilemma that the psychologist did not initiate or otherwise cause but unfortunately still has to solve) and demonstrate how following the 10 steps can assist with decision making. We explicitly don't repeat this exercise for the second vignette because there now is an excellent opportunity for the student to apply what he or she has learned to resolve the dilemma described in the second vignette.

Example: Reasoning Through the Decision-Making Process

Step 1: Identify People and Groups Affected

The key individuals to be considered are the psychologist Dr. B (henceforth B), the wife (W), the husband (H), and the wife's lover (L).

Step 2: Identify Relevant Issues

On the surface, the decision to be made is whether or not to continue with therapy. Principles that the psychologist needs to consider (moving from left to right, from major principles 1 to 4) is that patients have the right to make their own decisions, that psychologists cannot act without informed patient consent, that they have an obligation to care for the well-being of their patients, to avoid or minimize harm, and that the therapist needs to be honest and open, avoiding deception. In this case, there does not appear to be an imminent threat to major principle 4, namely, Responsibility to Society. In this particular case, the problem largely arises from the fact that the psychologist has a couple as a client but also two individuals who make up this couple. If he respects the wife's wish to keep a secret, then the husband remains uninformed of a critical issue for therapy, and there is very high likelihood that the therapist does not have an honest shot at successfully responding to the husband's request for joint marital therapy.

Step 3: Consideration of Personal Biases

Dr. B, as an experienced marital therapist, has, of course, heard of marital infidelities and marital problems before and is not likely shocked by this scenario. Nevertheless, Dr. B needs to ask himself whether he might have a particular moral stance on the topic of marital infidelity that could be different from those of his two clients and that his personal values may interfere with the wife's request of not revealing the critical information.

Step 4: Alternative Courses of Action

Dr. B sees two possible courses of action: (a) the first course would be to attempt to continue with therapy, and (b) the second would be to stop therapy after the wife's revelation because Dr. B is convinced that he cannot offer effective treatment to this couple; he does not want to take their money for a process that cannot work.

Step 5: Analysis of Risks and Benefits of Available Courses of Action

If the psychologist continues with the therapy, he would indeed respond to the original quest of both individuals to conduct marital therapy. He may see a chance that the wife would at some point either stop the extramarital affair or inform her husband about it, or both. If that was the case, there would be no secret anymore, and he would be able to continue therapy in an equitable fashion for both partners. However, he is also painfully aware that it is extremely difficult to treat both parties fairly when he holds back on critical information that one of the two parties is not allowed to know about. Furthermore, he has reason to be afraid that he may somehow, somewhere, slip up and inadvertently reveal something to the husband that would open his eyes, thereby violating the instruction of the wife to maintain confidentiality that he had effectively promised by continuing with the therapy. He has to gauge the probability that he may be able to persuade the wife over the next few sessions to be honest with her husband. Should that not be the case, he has reason to believe that the treatment cannot succeed because the wife's stated objective of wanting to collaborate in the marital therapy endeavor is clearly undermined by her continuing involvement with her lover.

The second course of action is to stop therapy after the wife's revelation because Dr. B believes that the therapy cannot succeed and that the husband has a right to openness; due care is unacceptably violated, and it makes a mockery out of conjoint therapy. If, however, the therapist refuses at this stage to continue with therapy, it is also quite likely that the husband will want to know why, and it will be exceedingly difficult to come up with a credible reason that would not somehow draw attention to the wife's ambivalence and dishonesty.

Step 6: Choose Course of Action

Once the wife reveals the affair to the therapist, the therapist has some time to work with her and explain the bind that he finds himself in. As described earlier, both courses of action on part of the therapist are very problematic, and it is not immediately obvious which one is superior (or at least less harmful). It makes sense for the therapist to try to convince the wife to be honest with her husband and thereby set the stage for a possible constructive continuation of marital therapy, given that now both would be at a similar level of honesty with each other. The therapist can also point out that it is likely going to be difficult, if not impossible, for the wife to continue the illicit affair and pretend goodwill in therapy and that this alone may be a good reason to come forward and find the courage to be honest now. Should the wife at this point agree to openly discuss the affair with her husband, a solution with the least harm in the long run would be achieved. The price, of course, will be a very distressing revelation for her and her husband.

Another alternative might be to work with the wife to come up with an explanation about why the couple should not engage in marital therapy and she could tell the husband about her intention not to continue. At a minimum, the advantage is that the therapist does not need to violate confidentiality. However, it would also mean that the therapist is incapable of being honest with the husband and is not able to act on the husband's wish to engage the therapist in trying to improve the marriage.

A third possibility is to try to balance the wife's desire for keeping her husband in the dark and the husband's wish to improve the marriage by attempting at least a brief period

of therapy while keeping a close eye on possible progress. Should it come clear within a few sessions, but it is simply not possible to maintain the secrecy about the wife's ongoing affair, he would still have an obligation to terminate the therapy because he knows he cannot succeed.

Step 7: Action

The most promising action appears to be to put considerable pressure on the wife to be open with her husband and not continue with the therapy unless she's willing to do so on a "level playing field." It may be necessary for the therapist to be blunt and declare this being the fairest solution. Continuing therapy with a secret in the closet, or sudden declarations of not wanting to continue, is very problematic and not fair to the husband. Either of these actions is inferior to the first suggestion of getting the wife to reveal her affair to her husband.

Step 8: Evaluating the Results of the Course of the Action

If the wife makes a revelation to her husband and both continue with the therapy hoping to rebuild trust, the therapist would be able to witness the result of this difficult choice and, it is hoped, be able to play a constructive role in rebuilding the relationship. If therapy would cease, Dr. B is unlikely to hear about the long-term effects of his decision.

Step 9: Taking Responsibility for the Consequences of Action

The wife's desire to keep a secret is clearly putting the therapist into an impossible situation that will probably force his hand, one way or another. Having reasoned through the possible courses of action and attempted the least harmful option first, the therapist ought to be able to comfort himself that the right thing has been done.

Step 10: Prevention of Future Occurrences

Given that the problem was not initiated by the therapist and may be endemic to marital therapies, there does not appear to be a guarantee that such a situation can be avoided in the future by a change in the therapist's behavior. The therapist could, of course, choose to abandon the practice of marital therapy or never have individual sessions again with each of two partners; however, people need quality of care and would not benefit from such evasive action.

Conclusion

The topic of ethical behavior is fascinating, critical to the survival of our profession and its public image, and often very frustrating. It is easy to understand and empathize with

the desire to do the right thing but when it comes to ethics, there is often no perfect solution. Contexts change frequently and are important to consider, and many of our decisions are imperfect even though they represent the best that we can do. This raises the question of how we can comfort ourselves to accept this perpetual ambiguity. At one extreme, laws tell us clearly what not to do and what the punishment is when we violate such laws. Practice guidelines are meant to help with more routine practice decisions although they cannot tell you what happens when you violate these guidelines. The overarching ethical principles are very general and have to be fitted to each individual situation and circumstance.

Ongoing Considerations

We cannot encourage psychologists to ever feel totally safe. Using the earlier analogy of the virus-check on your computer, you don't turn off your virus-check even if you have not had a virus in all of the last year. Just the opposite, you want to upgrade your virus program on a regular basis just as much as you want to remain sensitized to ethical challenges. Aside from the fact that licensing bodies expect psychologists to regularly update their knowledge on ethical decision making, we urge all psychologists and psychology students to build and nurture a network of psychologist friends with whom they can discuss ethical dilemmas, who understand the frustrations, and who can assist by being the second conscience that is sometimes required to make sound, reasoned decisions. Complaints investigation committees of licensing bodies tend to provide regular feedback to registrants about the nature of complaints that have been brought forward; these make interesting reading, and it is comforting to read that the majority of complaints were avoidable if only the clinical psychologists had been familiar with the content of this chapter and had followed the instructions provided.

Key Terms Learned

Area of practice, 63
Aspirational principle, 60
Basic principles of ethics, 65
Boundary violation, 63
Codes of conduct , 65
Codes of ethics, 67
Confidentiality, 61
Custody and access assessments, 66
Ethical principles, 59
Limitations on confidentiality, 64
Neglect and physical and sexual abuse of children, 64
Practice guidelines, 65
Process of ethical decision making, 59
Social contract, 69

Thinking Questions

1. How does an aspirational principle differ from practice guidelines?

2. Practice guidelines are useful but what are their limits?

3. How different (or not) are the codes of ethics in different countries?

4. What specific practices and habits should clinical psychologists develop to protect themselves from complaints being brought forward against them?

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Web-Based Resources

American Psychological Association, www.apa.org/ethics/code2002.html
www.kspope.com/consent/index.php

Web-Based Course

http://webclientsit.captus.com/cpa/courses.html
www.cpa.ca/docs/File/Ethics/cpa_code_2000_eng_jp_jan2014.pdf

5 The Nature of Psychopathology

Chapter Objectives

In this chapter we will not be describing types and kinds of abnormal behavior, as is done in most abnormal psychology texts. Rather, we will try to address several important and overarching issues pertaining to psychological problems that are of importance to research and practice in clinical psychology. These issues reflect the processes by which behavior is considered to be maladaptive or abnormal. The learning objectives for this chapter are:

- An appreciation of diverse types of problems that clinical psychologists face, the actual work being done, and the expertise needed to do this work competently.
- An understanding of how clinical psychologists determine whether certain behaviors or constellations of behavior are in need of assessment and treatment and should, thus, be the focus of research.
- An appreciation of the kinds of behaviors that constitute abnormal behavior (also known as **psychopathology**).
- An appreciation of issues involving the current classification systems that are in use.
- Appreciation of how the clinical psychologist makes determinations about peoples' psychological problems and the kinds of disorders that exist today.

Assessment and Four Different Psychologists

We will begin with case vignettes that illustrate day-to-day issues with psychopathology that clinical psychologists are involved with. Students will recognize that some of these issues involve questions about the specific nature of psychological problems, the importance of how to define problems in different contexts, and how best to characterize the psychological problems that people experience. These are some of the topics discussed in the chapter.

Vignette 5.1

Vincent, the clinical psychology graduate student, is completing a project for a course that describes different ways of understanding psychological problems that people have in order to determine appropriate treatment. The paper he is writing deals with issues regarding whether a person's psychological problems stem from long-standing issues, such as interpersonal relationship problems, that underlie the symptoms or whether the symptoms themselves constitute the disorder and the focus of treatment. He has been reading in several different literatures in the field and has gained important knowledge from these different sources. Vincent discusses the issues such that, in the former model, where the underlying causes produce the symptoms, treatment should focus on changing those underlying causes whereas in the second model, changing the symptoms themselves becomes the focus of treatment. He provides an example whereby the focus of one treatment for a *DSM*-diagnosed depression is not directly on symptom reduction but instead with the underlying purported cause of the symptoms (interpersonal style, current relationship problems, and so forth) versus another treatment that focuses simply on reducing the symptoms of the depression.

Vignette 5.2

Dr. A is assessing the psychological status of a father whose 4-year-old daughter has been diagnosed with cancer. Dr. A is attempting to determine whether the father has an adjustment, depressive, or anxiety disorder or some other form of psychological difficulty, how the symptoms and characteristics of the disorder(s) might affect the daughter and other family members, and how to best deal with these overwhelming affective responses. The psychologist is particularly interested in determining whether the reactions and behaviors of the father are normal (but very distressing) responses to a devastating life event, or whether the responses and behaviors would constitute a diagnosable disorder. That is, she was interested in determining whether the distress the patient was experiencing was abnormal or not. Knowing the answer to this question will influence the interventions the psychologist would recommend for the patient. For example, if the responses are expected or normal responses to a major stressful event, then a supportive treatment that helps the father cope with the diagnosis of his daughter would be appropriate. On the other hand, if the responses and behaviors represent a formal psychological disorder, then a more in-depth treatment would be appropriate that aims at both reducing symptoms and helping the father acquire new behaviors to reduce the likelihood of relapse.

Vignette 5.3

During a multidisciplinary case conference, psychologist Dr. B was asked for an opinion on a patient who had been provisionally diagnosed with Borderline Personality Disorder. He decided to present a description of the kinds of signs and symptoms found in the kind of psychopathology the patient exhibited and also a description of some of the underlying potential causes of the disorder. Dr. B began to discuss the symptoms (frequent depressive episodes, an overwhelming fear of rejection, and pervasive difficulties with emotion regulation) that the patient exhibited, commensurate with descriptions in the *Diagnostic and Statistical Manual of Mental Disorder*, Edition 5 (*DSM-5*), one of the more frequently used diagnostic systems available. In addition to indicating how the patient's symptom picture met the diagnostic criteria of the *DSM-5*, Dr. B also discussed how there are different personality constellations that can underlie a BPD and have a significant influence on the symptom picture, prognosis, and treatment options. He discussed how one personality constellation focuses on self-definitional and autonomy features, whereas another constellation focuses on interpersonal relatedness and relationships with others. These were presented to provide a point of discussion to understand the nature of the patient's difficulties, to determine the best treatment options, inform other clinicians regarding potentially difficult issues that may arise in the treatment, prognosis, and, finally, potential causal factors for the BPD.

Vignette 5.4

Psychologist Dr. C has a particular interest in attempting to understand the underlying causes of psychological difficulties. Although there have been many descriptions of the nature of both depression and pain in the literature, she had noticed in her practice that chronic pain (her specialty area) is often associated with depression. However, it has remained unclear whether the depression causes additional pain, influences the experience of pain, or whether the depression is a consequence of the pain. She therefore engaged in designing a research project looking at some of the psychological variables that may be predictive of the onset of depression. From several different perspectives, vulnerability to depression is seen as including dysfunctional attitudes and thoughts that engender harsh self-criticism, interpersonal styles of relating to others based on early attachment styles developed in childhood interactions, and the experience of a loss of an important relationship in childhood. Each of these factors have been espoused to predispose an individual to depression and Dr. C wants to establish, empirically, whether these experiences are relevant in depression and which ones might be most important. She is engaged in designing a grant proposal with several studies addressing these issues.

IMAGE 5.1 Not Good Enough
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Psychological Problems That Clinical Psychologists Focus On

When an individual, couple, or family enters a clinical psychologist's office, how does that clinical psychologist determine what behavior is normal (and by definition should not be altered or changed) or what behavior is abnormal or maladaptive? The answer to this question is rather complex and not necessarily easy to answer. The question can be broached broadly in two ways. The first deals with the processes of determining how a person's behavior is defined as abnormal or maladaptive. The second deals with what processes clinical psychologists pay attention to when trying to make a determination whether some behavior is abnormal or maladaptive.

Defining Psychological Problems

There are at least three major approaches in defining abnormality that are used in research and clinical work. Each of these approaches has strengths and limitations and can be used, in some cases, simultaneously or in combination by clinical psychologists.

Statistical or Normative Approach

In this approach to defining abnormality, a judgment is made whether a person's behavior conforms, generally, to the standards, expectations, or norms of a particular society or social group. Although different cultures and societies may have different standards or expectations, all cultures and societies have standards for appropriate behavior (Gorenstein, 1992). If a person's behavior falls outside of the norm, that person's behavior is considered to be abnormal, problematic, and in need of amelioration. Thus, behaviors that are unusual, occur rarely, or otherwise are not engaged in by most people, can be considered to be abnormal. For example, viewing an individual having an animated and emotional conversation with a telephone pole would likely result in an interpretation that that individual's behavior is abnormal because the majority of people do not have conversations with telephone poles.

Although this statistical approach captures or defines many individuals who do exhibit psychological problems and who can likely benefit from treatment, there are several difficulties or shortcomings of this approach. For example, there are many cultural differences in terms of behavior that falls within norms. What is seen as normal in one culture may be viewed as abnormal in another. Likewise, there are many individuals with behaviors that fall well outside of the norm (e.g., Mozart, Rembrandt, Einstein are all examples of individuals whose creativity is far outside normative standards) but would neither be considered problematic nor in need of changing. In fact, typically we revel in these kinds of individuals' deviations from the normative standards.

Subjective Interpretation (Psychological Pain)

In this approach, individuals themselves make judgments as to whether their own behaviors are abnormal, maladjusted, or otherwise in need of changing. Thus, rather than using standards or norms from a particular society or culture, the person himself or herself makes a judgment of the adaptiveness or abnormality of his or her own behavior. An individual may view himself or herself as exhibiting behavior that, technically is not a disorder, but is nevertheless bothersome or distressing. For example, a couple may notice an increase in arguments that is not statistically different from couples within the culture, but the couple may want to work to decrease the number of arguments nonetheless. Thus, the couple (or individual) defines their own behavior as abnormal and in need of attention. This kind of defining of abnormality is what likely brings the majority of patients to the therapist's office.

Judgments of Maladaptive Functioning

In this approach, typically an expert makes a judgment as to whether a person's behavior is abnormal or maladaptive. This would normally be clinicians who make this judgment and it is based, generally, on whether the person's behavior interferes with his or her ability to work and/or his or her ability to develop and maintain relationships (APA, 2000, 2013). This approach does not rely on statistical norms nor does it rely on an individual's own level of discomfort to make a decision about abnormality or maladaptiveness. Rather, a judgment of whether the person's behavior is maladaptive based on their functioning in two broad domains: work and interpersonal relationships. For example, a clinician may conclude that

someone has a drinking problem, even though the frequency and amount consumed is within statistical norms. The person in question may not view his own drinking behavior as distressing or problematic but because he cannot hold down a job and/or has lost significant long-term relationships, he is deemed as having a psychological problem. Individual patients may not agree with these experts' opinions and choose not to seek help; alternatively if forced into therapy by a judge or a spouse threatening divorce they are likely unmotivated and very difficult to work with.

Issues in Defining Psychological Problems

Although these approaches represent ways in which individuals are defined as exhibiting abnormal behavior, the astute reader may note that what is defined as abnormal may or may not represent formal psychological disorders (see Box 5.1). In fact, many problems that come to the attention of clinical psychologists might be better labeled as **problems in living** (Szasz, 1961) rather than diagnoses. For example, it is often assumed that clinical psychologists research, assess, and treat only formal psychological disorders. Although likely the majority of problems that clinical psychologists study, assess, and treat will meet diagnostic criteria for some disorder (i.e., disorders listed in one of the current diagnostic manuals in use), there are many problems that clinical psychologists deal with that do not necessarily constitute formal diagnostic entities yet can be extremely painful to the individual or to loved ones of

BOX 5.1 WHAT IS NORMAL BEHAVIOR?

Clinical psychologists struggle with this issue as they often need to make judgments about whether or not a person's behavior is abnormal or in need to treatment, how abnormal a person's behavior is, and when a person returns to a state of normality. Although there has been extensive research and theorizing on abnormal behavior, less attention has been directed at normal or healthy personality. Early attempts to describe healthy personality includes work by Sydney Jourard (1958) who grounded his conceptualization of normal personality in terms of expression of values. He stated that a healthy personality involves the ability to meet and satisfy needs with behavior that conforms to both the norms of a society and the requirements of the person's conscience. More recently, there have been attempts to describe normality in terms of psychological well-being. For example, Carol Ryff (Ryff, 1989) described six dimensions of psychological well-being, including the presence of positive relationships, autonomy, personal growth, self-acceptance, purpose in life, and environmental mastery. The *Psychodynamic Diagnostic Manual* (to be discussed later) is the only formal diagnostic manual that attempts to describe normal behavior. It details seven characteristics or capacities that healthy personalities have and that individuals with abnormal behavior lack or have difficulties with. These include the capacities to: (1) See both the self and others in complex, stable, and accurate ways; (2) Maintain intimate and satisfying relationships; (3) Experience the full range of emotions; (4) Regulate emotions and impulses adaptively and flexibly; (5) Function in a fashion consistent with morals; (6) Appreciate conventional notions of what is realistic; and (7) Respond to stress resourcefully. Each of these capabilities can provide benchmarks for contrasting a person's behavior in order to help determine whether behavior is abnormal.

that individual. For example, people will seek assessment and/or treatment of (and clinical psychologists will conduct research on) issues such as:

Relationship problems (e.g., intimate relationship difficulties, relationship breakdown, problematic work-related relationships, family problems);

Personal difficulties (e.g., self-esteem problems, identity-related problems, or lack of general satisfaction in life);

Achievement problems (e.g., feelings of stagnation and dissatisfaction with work, test anxiety, job or life transition);

Physical problems (e.g., weight control, reduction of blood pressure, sleep problems);

Problems that reflect normal but distressing processes (e.g., grieving losses arising from death, divorce).

These problems in living can produce significant distress and disruptions for individuals, couples, or families suffering from these issues. Moreover, it can often be the case that when treating individuals with psychological disorders, problems in living often accompany many formal disorders and can become the focus of treatment (Bergin & Lambert, 1978).

It may seem that in the determination of some behavior as abnormal that the behavior is viewed as entirely negative or pathological and in need of elimination. It is also tempting to view the abnormal behavior as similar to a pathogen, like a virus, that is foreign and invasive, and needs to be eradicated. However, it is important to understand that abnormal behavior is often a part of an individual's total behavioral repertoire and is often tightly intertwined with the individual's personality, interpersonal relationships, and their general environment. It can be the case that what is determined as abnormal or pathological at one point in time can have been very adaptive at another time. For example, if a woman has severe social anxiety that interferes with her ability to find satisfying work and to develop an intimate relationship because she cannot present herself as someone who "stands out from the rest," everyone would likely agree that she has a significant psychological disorder or problem. On the other hand, this exact behavior may have been extremely adaptive if, for example, this woman grew up in an abusive family where she observed an older sibling experience severe physical abuse by parents. This woman, as a young girl, may have learned that if she stands out or is noticed by others, it is dangerous and she learns not to stand out in any way. That is, she "blended into the woodwork" so as not to be noticed or focused upon, and, by doing so, avoided the same abuse her sister experienced. Thus, her behavior that involves not being noticed or standing out is maladaptive in one context or at one point in time, and extremely adaptive in another context or time. Moreover, some pathological states, such as some forms of depression, have been described not as negative and maladaptive, but as necessary and positive processes of disengaging from goals that are not met or are inappropriate to pursue (e.g., Klinger, 1975). Likewise, the processes involved in grieving losses are seen as both necessary, and, at times, indistinguishable from symptoms of major depression, which is viewed as psychopathology. This suggests that the mere presence of certain behaviors or constellations of behavior that can be defined as pathological is not necessarily pathological. Thus, it is extremely important to take the context of the person into account when defining abnormal behavior.

Lastly, in terms of defining what is abnormal, it must be remembered that the judgments of abnormality tend to be subjective and are reflective of the culture and society (see Box 5.2 on homosexuality as a disorder). Moreover, what is defined as abnormal and in need of treatment depends greatly on the cultural context and the prevailing norms, standards, and mores.

Some Important Concepts in Defining Psychological Problems

Before we discuss the specific processes and focuses of abnormal behavior, we need to define and discuss features of a person's behavior that are informative to the clinician, namely, **sign, symptom,** and **syndrome**. In addition, we will also discuss the concept of **mental disorder**.

Sign

A "sign" is thought to be a problem or abnormality that can be observed by a clinician but that is not necessarily perceived by the patient. They are considered to be an "objective manifestation of a pathological condition" (APA, 2000, p. 827). For example, the use of neologisms (words that do not exist in language) can be seen as a sign of schizophrenia because the person may not be aware that the words do not make sense.

Symptom

A "symptom" is thought to be an abnormality or complaint that is perceived by a patient, although the term is often used to refer to any indications of a patient's experience or behavior that reflects a particular disorder. Thus, symptoms are considered to be "subjective manifestations of a pathological condition" (APA, 2000, p. 828). Some characteristic of a patient can be both a sign and a symptom if both the patient and the clinician observe that characteristic. For example, some newly acquired speech difficulties, such as inability to articulate words, can be both a sign and symptom. Some characteristics, such as particular thoughts, pain, or emotions, can only be symptoms as they cannot be directly observed by the clinician.

Syndrome

A "syndrome" represents a group or set of signs and/or symptoms that, in combination, reflect a specific health-related condition. The co-occurrence of the signs and/or symptoms is often thought to reflect underlying pathology.

Mental Disorder

The definition of mental disorder is tricky. Although there is very good agreement on definitions of sign, symptom, and syndrome, there is no generally agreed-upon definition of mental disorder. In fact, the concept of psychological or mental disorder has various definitions depending on the society, theoretical orientation, or the purpose for the need to define mental disorder (WHO, 2005). According to the *International Classification of Diseases* (WHO, 2005), a "disorder" is normally thought of as a term used to imply the existence of a clinically recognizable set of signs, symptoms, or behaviors that often produce distress and interference with personal functions. The authors of the *Diagnostic and Statistical Manual of Mental Disorders IV-TR* likewise state that "no definition adequately specifies precise boundaries of the concept of mental disorder" (APA, 2000, p. xxx; also see APA, 2013), although they suggest that a disorder constitutes a manifestation of a behavioral, psychological, or biological dysfunction in an individual. Thus, we can think of a mental disorder as a recognized

amalgamation of signs, symptoms, and behaviors which likely causes distress for the person or others, and interferes with the person's ability to behave in a healthy and adaptive fashion.

It is tempting to think of the diagnostic process as a process of discovering an underlying fact (i.e., the presence of a distinct disease); this makes sense for the assessment of a stomach pain as a sign of an infected appendix or a blood test for the presence of the AIDS virus. We cannot just adopt this model to psychological problems because we often deal with complex presentations that may have arisen from an interaction of genetic, early learning, personality, and current contextual factors.

Psychological Problems: What Processes Are Affected?

When people experience psychopathology (which can be mild, moderate, or severe, and can be slightly or significantly debilitating) what behaviors or processes do clinical psychologists pay attention to? Psychopathology can be thought to be problems or difficulties that affect numerous processes in people's functioning. In many cases the amalgamation of the behaviors can reflect problems in the person's personality whereas in others the problems may be seen as outside of or separate from the person's personality. For example, an individual may have anger/hostility problems that are long-standing and evident in almost all of his or her interactions. Another person may develop, at some discrete point, debilitating anxiety related to a discrete entity, such as presence of snakes. In the former, the difficulties are seen as part of the person's personality and make-up whereas the latter may be seen as situation-specific and distinct from the personality. Although not all clinical psychologists will place a great emphasis on personality per se, for most, personality variables are the key features for assessment, treatment, and research. For example, various personality traits (e.g., dependency or conscientiousness) are considered pathological when they are extreme and there are numerous personality processes (e.g., the interpersonal expression of traits; Hewitt et al., 2003; Hewitt, Flett, & Mikail, 2017) that have also been shown to be relevant in psychopathology.

Some processes or characteristics that we will be discussing can be directly observed, whereas others can only be inferred. Likewise, some can be thought of as causes or as manifestations of psychopathology. A discussion of some of the major processes and characteristics follows. Depending on the theoretical perspective, they can be viewed as descriptors of the problem(s), maintenance factors of the problem(s), or as causes of the problem(s).

Emotions and Emotional Regulation

Emotion or affect is a major domain that is affected in psychopathology and is a focus of much research and clinical work. In fact, there are at least two sets of disorders, Depressive Disorders and Anxiety Disorders, that have marked emotional disturbance as the primary symptom and by far the majority of other disorders and psychological problems have negative emotional components (Clark & Watson, 1991). Although any emotion can be viewed as pathological in extreme cases, we typically see anxiety, depression, and anger as the most predominant emotions reflective of psychological disorders. As well, problems with the ability to control the experience and expression of negative emotions, known as **emotion regulation**, is also seen as a significant contributing factor in psychological problems. Lastly, reduced emotional expression, known as blunted or flat affect, or an absence of certain emotions, such as empathy, remorse, or guilt, or an inability to process emotional content are considered indicative of some psychological problem.

Thoughts/Cognitions, Intellectual Functioning, Information Processing

Another domain of importance, and one that is paid close attention to by clinical psychologists, involves thoughts and thought processes as well as intellectual functioning. With many forms of distress, psychological problems, and mental disorders, whether mild, moderate, or severe, have compromised cognitive features. For example, with serious psychopathology, such as with disorders reflecting schizophrenia, individuals can have unusual or bizarre beliefs not shared by most people (i.e., delusions), and very odd, eccentric ways of thinking. Likewise, with several disorders, there can be significant information processing difficulties whereby individuals interpret and focus on only negative aspects of the world, the self, and the future (e.g., Beck, Rush, Shaw, & Emery, 1979) or on potential sources of threat. Moreover, rumination, seen in numerous disorders, reflects a lack of ability to control thoughts and in extreme cases can be debilitating to people (e.g., obsessive-compulsive disorders). Lastly, cognitive processing and intellectual functioning problems are seen in many neuropsychological issues involving brain damage in addition to other disorders.

Perceptions

Perceptual processes involve cognitive processes that give rise to perceptual experiences. Again, in the severe range of psychopathology, perceptual difficulties, such as hallucinations (e.g., hearing voices, seeing images) are important indicators of psychopathology such as schizophrenia. At less extreme levels, there are various forms of person perception whereby the individuals respond to others based on inaccurate perceptions or they perceive the world as inordinately hostile, dangerous, or depressing. For example, individuals with social anxiety or avoidant personality disorder will respond as if others are consistently critical and judgmental (Taylor & Alden, 2008).

Interpersonal Processes

Another important domain that is focused upon by clinical psychologists involves interpersonal processes. There is a great deal of attention paid to issues such as the capacity, history, and stylistic aspects of relationships with others. This includes not only intimate relationships, but also friendships, networks of social support, and relationships with family and co-workers. In addition, the relationship schemas or representations of others (i.e., **object relations**) that individuals develop (St. Clair, 2004) and the relationship a person has with herself is also of interest (Sullivan, 1953). By this we mean self-esteem and self-regard, which are issues in numerous kinds of psychopathology whereby the individual's view of the self is unrealistically low, unrealistically high, or too reactive.

Regulatory or Coping Behavior

Everyone experiences demands, stressors, and anxiety that require adaption and coping. An important domain that clinical psychologists focus on deals with not only whether a person can cope with life's demands, but also the manner in which the individual does attempt to cope and whether it is effective. For example, it is assumed that there are adaptive and

maladaptive ways of coping (Lazarus & Folkman, 1984) and both mature and immature defenses (Vaillant, 1977) that can help or hinder an individual in dealing with the internal and external world. It is believed, generally, that coping inappropriately can produce or increase psychological and physical problems (Anna Freud, 1946). Furthermore, several theorists have suggested that inflexible coping or defending (i.e., using only one or two strategies irrespective of the situation) can have a decided effect on psychopathology (Sullivan, 1953).

Development

Developmental issues are always important to consider in determining abnormality but these issues are most commonly focused on with children or adolescents. In this regard, the clinical psychologist pays attention to presence or absence of meeting developmental milestones as well as expectations of normal development, whether it is normal child cognitive development or adult social development. One domain of child clinical psychology, known as **descriptive psychopathology**, views psychopathology from a developmental perspective (see also Chapter 15 in this textbook). That is, what is normal for a child at one age may be indicative of a psychological problem for a child at another age. Moreover, most clinical psychologists are interested in understanding parts of the past in a person's life, whether it is to understand previous level of functioning, onset of the problem or concern, determine learning histories, explorations of early formative relationships, or difficulties with establishment of identity. Lastly, based on experiences over the course of a lifetime, various existential issues (e.g., dealing with one's own death, death of loved ones, meaningfulness in one's life) can also become a focus. Thus, developmental issues are often an important component in the work clinical psychologists do.

Environment

It is safe to say that all clinical psychologists will pay careful attention to environmental issues for people they are working with. As discussed in an earlier section, in terms of defining abnormality, the clinical psychologist needs to take into account the environmental context and issues that can influence the psychological problems. Moreover, the environment can play a key role in causing and maintaining psychological difficulties, and helping the individual, couple, or family alter the environment can be a focus of treatment. In the section on behavioral treatments (Chapter 12) the importance of the environment in either maintaining or reducing a behavior will be apparent.

Although the list of focuses of clinical psychologists in dealing with abnormality is not exhaustive, the domains discussed represent some of the major ones. Psychologists from particular orientations will emphasize or focus upon certain problematic behaviors over others, both in terms of the research conducted and in terms of clinical work engaged in. In addition, there are aspects of these domains that exist in individuals experiencing all manner of physical ill health (see also Chapter 17). Whether it is depression or anxiety that exists in just about any major physical health problem (e.g., osteoarthritis, or heart disease) or existential processes and the emotional and cognitive upheaval in being diagnosed with a serious or terminal illness, it is important to understand that these behaviors can become important focuses for research, assessment, and treatment.

Conceptualizations of Psychological Problems

Historically, definitions and conceptualizations of psychopathology shifted and changed over time. As knowledge accumulates, theoretical perspectives accommodate to new information, new perspectives appear, or, often re-appear, and, as values of society shift, definitions of psychopathology likewise shift. Just as views of the nature, causes, and treatments of psychological difficulties shifted between demonological models and more "scientific" or natural perspectives over the past centuries (Ellenberger, 1970), current conceptualizations of psychopathology used in clinical psychology are not necessarily uniform or static, nor are components necessarily generally agreed upon. What is seen as a disturbance or problem today may not be seen as psychological disturbance tomorrow. There can be many causes of this phenomenon. For example, some disorders appear to be decreasing in frequency due to either an actual decrease in the incidence (i.e., the development of new cases) of the disorder due to treatment and prevention (e.g., conversion disorders; American Psychiatric Association, 2013) or to a refinement in diagnosis so that other disorders or problems that are similar to the disorder in question are no longer lumped together (e.g., schizophrenia and bipolar affective disorder; attention deficit disorder and hyperactivity). This can result in true decreases in a diagnostic entity or in decreases due to a redefinition of the behaviors as not indicative of a psychological disorder (e.g., see Box 5.2).

BOX 5.2 IS HOMOSEXUALITY A DISORDER?

Until the 1980s, homosexuality was considered to be a psychological disorder, but in 1980, with the American Psychiatric Association's publication of a new version of a commonly used diagnostic manual, homosexuality was removed from the list of disorders and was not considered to be a form of psychopathology. Based, in large part, on political pressure from various groups in the United States (Spitzer, 1981) and from a more accepting view of homosexuality during the 1970s and 1980s, homosexuality was no longer viewed as a disorder. The dropping of homosexuality from the diagnostic system is an example of how societal values can influence what is defined as abnormal and demonstrates that what is defined as abnormal is not necessarily static.

Philosophical Underpinnings of Orientations to Psychopathology

As outlined throughout this book, the work that clinical psychologists do is strongly influenced by their theoretical orientation and the field of clinical psychology is not necessarily a unified whole with only one or two theoretical orientations. Instead, working from one of various theoretical orientations provides the clinical psychologist with a philosophical stance, tools, techniques, and skills in order to deal with particular clinical or research issues. One of the fundamental underpinnings of the theoretical orientation involves the clinical psychologist's views of the nature of psychopathology, how people function normally, and how people function abnormally. The adherence to a particular paradigm influences the actual work that will be done by a particular clinical psychologist. For example, psychologists working from a behavioral perspective or cognitive-behavioral perspective will not only conduct

psychological interventions in a different manner than psychodynamic psychologists, but will also have fundamental beliefs in the nature of the person's problems that differ substantially from psychodynamic psychologists. The perspective determines what information is viewed as relevant to clinical or research questions, what kind of information is sought and focused upon, the particular assessment procedures and protocols used to obtain information, the kind of information that is not emphasized, and the focus and type of treatment (e.g., symptom reduction, re-educative goals, supportive treatment, exploratory psychotherapy, and so forth). What are these philosophical underpinnings?

A historical review is beyond the scope of this chapter; however, a brief description of past conceptualizations of psychopathology can aid in understanding the basic orientations toward views of people, the problems they have, and, ultimately, the manner in which the problems are treated. Zuckerman (1999) has described an approach that Emil Kraepelin used in the late 19th and early 20th centuries to attempt to understand psychopathology and categorize disorders into a classification scheme. Kraepelin believed that the best way to establish diagnoses and diagnostic entities was to use observable behaviors and symptoms. Followers of Kraepelin's approach (known as the Neo-Kraepelinians) developed **classification systems** listing psychological disorders based solely on descriptors or observable signs and behaviors. This approach results in a **descriptive classification** system as exemplified today in the *Diagnostic and Statistical Manual of Mental Disorders–5th Edition*(*DSM-5*; American Psychiatric Association, 2013). The *DSM-5* is purported to be an atheoretical (i.e., not based on any one theory) descriptive classification scheme that focuses on observable behaviors in defining various disorders.

In contrast, a contemporary of Kraepelin, Sigmund Freud, and followers, proposed diagnostic entities that, rather than being simply descriptive, were based on presumed theoretically derived causes of the signs, symptoms, and syndromes (Zuckerman, 1999). That is, based on various aspects of his theories of psychoneuroses and character disorders, Freud and his followers developed diagnostic entities that were based upon or incorporated presumed causes of the disorders rather than descriptors of the behaviors constituting the disorder. The presumed causes were reflected in the personality, developmental patterns, and history of individuals, and, although the causes have shifted and evolved as the psychodynamic approaches have shifted and evolved, there is still an emphasis on theoretically derived causes in classifying psychopathology. This approach is reflected in several classification schemes including the *Psychodynamic Diagnostic Manual* (PDM Task Force, 2006) used mainly in the United States, and the *Operationalized Psychodynamic Diagnostics* system (OPD Task Force, 2008) in use mainly in Europe.

These approaches have developed and evolved as better and more accurate descriptions of disorders have been developed and as theoretical models of underlying causes have evolved and can be viewed as being reflected in the field of clinical psychology. One trend focuses on overt behavior or signs and symptoms in defining disorders and the other focuses on underlying processes that produce the symptoms. Both domains have very different fundamental views of psychological issues, problems, disorders, and treatments and each has evolved in quite significant ways over the decades. One fundamental difference between these two broad domains is reflected in how the characteristics of psychopathology or maladjustment are viewed. The former tends to view symptoms as the essence of the disorder, hence the focus on treatment is on the manifestation or the symptom level, and the latter tends to view psychopathology or symptoms as the result of some underlying process, typically involving the interplay of psychological and biological variables, in nature and origin. The underlying process is thought to cause the existence of the signs, symptoms, syndromes which are viewed as markers or manifestations of the underlying process. The focus of treatment is on the underlying process. A depiction of the two approaches is detailed below.

Symptom as Focus

1. Conceptualizes psychological problems as a group of symptoms or observable behaviors and the cause of the difficulty with the psychological problem as the presence of the symptoms and behavior.
2. Focus of assessment and treatment is to delineate the symptom picture and focus on eradicating the symptoms. The assessment instruments and techniques are designed to ferret out the symptoms and elicitors of the symptoms and treatment would focus on symptom or behavior reduction.
3. It can be argued that this is the orientation of the behavioral school as well as the orientation of the *ICD* and *DSM* nomenclatures.
4. It can also be argued that this has been embraced by managed care and insurance companies that are unlikely to pay for treatment unless it is treatment for a diagnosable disorder.

Underlying Cause as Focus

1. Conceptualizes psychological problems as caused by some underlying process that may or may not be inherently pathological but that at the current time creates difficulties for the person, the manifestation of which are the signs and symptoms.
2. Focus of assessment is to determine what the causal and contributing factors are in the production of the psychological problem (i.e., personality, interpersonal styles, defensive or coping styles, and so forth). The instruments and techniques for assessment would have the focus of determining the underlying cause of the psychological problem and the focus of treatment would be on the cause rather than on the symptoms.
3. This is the orientation of the psychodynamic schools, interpersonal schools, cognitive schools, and the *PDM*.

Current Conceptualizations of Psychopathology

Generally, a good indication of the current views of psychopathology can be seen in the diagnostic schemes that are in use. These diagnostic schemes have historically derived from the field of medicine, psychiatry in particular, and set the standard for definitions of mental disorders used by clinical psychologists as well as other mental health professionals. These classification systems define what constitutes psychological disorders and provide details as to what specific criteria are necessary in diagnosing those disorders. Two of the most commonly used systems are the *International Classification of Diseases*, **Chapter V** (*ICD-10*) and the *DSM-5*. Also, recently, the *Psychodynamic Diagnostic Manual* (PDM Task Force, 2006) has been published as a supplementary classification in diagnosis of psychopathology that is used to complement the *DSM-5* or *ICD-10*. These will be described below. The *DSM-5* and the *ICD-10* reflect descriptive classifications by using observable signs and symptoms, whereas the *PDM* reflects a classification scheme that incorporates proposed etiological or causal components. These are not the only classification schemes that have been developed for psychopathology but do represent two of the most commonly used (see Box 5.3).

BOX 5.3 CLASSIFICATION SYSTEMS AROUND THE WORLD

Although the *ICD* and *DSM* are used broadly, there are numerous other classification schemes that exist in other countries. For example, there is the Chinese Society of Psychiatry's *Chinese Classification of Mental Disorders* (*CCMD-3*; Chinese Society of Psychiatry, 2001), which in some ways is similar to the *ICD* and *DSM* although there are many disorders that are more culturally distinctive. Similarly, the *Latin American Guide for Psychiatric Diagnosis* and the *Cuban Glossary of Psychiatry* also incorporate more culturally appropriate diagnoses that the *ICD* and *DSM* do not list (Berganza, Mezzich, & Jorge, 2002; Otero-Ojeda, 2002). Also, there are other systems that have been discussed as alternative to the diagnostic approaches, an example of which is termed "Interpersonal Diagnosis" (Benjamin, 1996). In this approach, because the essence of being human involves interpersonal connectedness, it is argued that the causes, diagnosis, formulation, and treatment of psychological disorders is also inherently interpersonal. Thus, Lorna Benjamin has developed an elaborate approach to categorizing psychological problems based on interpersonal behaviors. Finally, the *Operationalized Psychodynamic Diagnosis OPD-2 (OPD-2)*, a multiaxial system that is used in psychodynamic classification and diagnosis, is in wide use in Germany and other European countries (OPD Task Force, 2008). It represents a theoretical approach to classification and uses four axes to make diagnoses:

1. Illness Experience and Treatment Assumptions, which reflects the patient's motivation and markers to evaluate appropriateness of psychodynamic treatment.
2. Interpersonal Relationships, which focuses on the relationship schemas that a patient has developed and how this can translate into transference and countertransference issues.
3. Mental Conflicts, which includes seven basic conflicts (such as dependence vs autonomy, submission vs control, and so forth).
4. Structure, which reflects degree of integration (i.e., disintegrated, low, moderate, or high integration). Integration refers, essentially, to the development of an autonomous self that exhibits psychological strength to tolerate conflict or stress.

Diagnostic Classification Systems

Diagnostic classification systems represent current conceptualizations of psychopathology and provide a means by which clinical psychologists can define and identify psychological disorders. **Classification systems**, in general, are a basic part of scientific attempts to understand the nature of areas of inquiry and these classification systems (also known as **nosologies**) attempt to make information meaningful, accessible, and less cumbersome than long descriptions of the entities of interest. Although these classification systems can be used for any domain of science, for our purposes, the classification systems provide a listing and a means of identifying mental disorders that constitute a compendium or list of psychological disorders as defined at this point in time. Classification systems are always under revision as new scientific knowledge accumulates and as societal values, judgments, and standards change.

Not only do classification systems represent our current conceptualization of psychological disorders, but there are several other purposes that classification systems serve such as the following.

Descriptions

They provide good descriptions of disorders such that the disorders and problems can be identified reliably and validly. We need to know what constitutes and what does not constitute a particular disorder in order to do meaningful research and clinical work.

Communication

In order for clinicians and researchers to communicate effectively about people with particular psychological problems or about psychopathology, there needs to be a common language and definitions of concepts and terms.

Research

This is similar to the previous point and refers to the notion that in order for appropriate research to be done, it is imperative that good definitions and operationalizations of the constructs (i.e., disorders) exist. For example, in attempting to advance our knowledge of schizophrenia, different researchers need to be studying the same disorder and there must be agreement for what constitutes that disorder. If researchers use different definitions of schizophrenia, it is impossible to truly advance our knowledge of schizophrenia.

Theory Development

With research of well-defined disorders, models and theories of those disorders and psychopathology more generally can be revised, abandoned, or new theories and models can be espoused.

Treatment

It is often assumed and hoped that appropriate and careful diagnosis can lead to appropriate and differential treatment choices. Certainly knowledge of the diagnosis is one important component in making treatment choices.

Education

The diagnostic systems, as indicators of current knowledge and conceptions of psychopathology, are useful in the training and education of clinical psychologists and other health professionals.

Insurance and Reimbursement

The classification systems are used by governments and insurance agencies to provide resources and to pay for assessment and treatment of disorders. There may be differences in rates of reimbursement for the treatment of certain disorders and treatment for some disorders may not be reimbursable at all. A classification system can be used for the purpose of guiding these decisions.

Epidemiological Information

Classification schemes can be vital in assessing increases and decreases in disorders in a population. This is important to keep track of changes in incidence and prevalence of different kinds of disorders.

Overall, then classification systems give us a snapshot of what behaviors are viewed as abnormal and what constitutes psychopathology and serve a variety of purposes.

Specific Current Classification Systems

Although there are numerous classification systems that exist with respect to psychopathology, we will discuss two widely used systems, the *ICD-10* and the *DSM-5* and one system that is newer, namely, the *Psychodynamic Diagnostic Manual*.

International Classification of Diseases (ICD-10)

One of the first formal classification systems that included psychological disorders was the *International Classification of Diseases*. This is a system (actually a family of classification systems) that was originally developed to classify causes of death and represented a combination of German, French, and Swiss systems. Although earlier versions had different names (e.g., the first version was known as the *List of Causes of Death*), the *ICD-10* is thought to be the most commonly used system for clinical work internationally (Sorensen, Mors, & Thomsen, 2005).

The *ICD-10* was developed by the World Health Organization (WHO) and provides diagnostic information on diseases and causes of death. Included in this nosology is one chapter (albeit a 267-page chapter!) the *ICD-10 Classification of Mental and Behavioural Disorders*. Within the chapter, both a description of the clinical features of disorders as well as associated features of the disorder are presented. There is an indication of the number of symptoms required for a "confident" diagnosis as well as provisions for tentative diagnoses when the clinician is less sure of an accurate diagnosis. The *ICD* is used worldwide and has been translated into at least 42 languages.

The *ICD* is a descriptive classification scheme and there are 10 major categories of disorders and within each category there are numerous disorders with specific diagnostic criteria. These categories include:

1. Organic mental disorders (e.g., Various Dementias, Delirium)
2. Mental and behavioral disorders due to psychoactive substance use (e.g., Acute Intoxication, Dependence Syndrome)
3. Schizophrenia, schizotypal, and delusional disorders
4. Mood disorders (e.g., Mania, Depressive Episode)
5. Neurotic, stress-related and somatoform disorders (Anxiety, Dissociative Disorders)
6. Behavioral syndromes associated with physiological disturbances and physical factors (e.g., Eating Disorders, Sleep Disorders)
7. Disorders of adult personality and behavior (Personality Disorders, Sexual Disorders)
8. Mental retardation
9. Disorders of psychological development (e.g., Speech and Language Disorders, Autism)
10. Behavioral and emotional disorders with onset usually occurring in childhood and adolescence (e.g., Conduct Disorders, Emotional Disorders).

Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5)

The *DSM-5*, developed by the American Psychiatric Association (2013), is a detailed and comprehensive manual that provides specific criteria for the diagnosis of psychological disorders as well as other information relevant to understanding the nature of various mental disorders. It has been developed, especially in later editions, paying close attention to the *ICD* criteria and often provides more specific detail regarding diagnostic entities. It has become one of the most commonly used diagnostic systems in the field for conducting research, and although it has existed in various versions for over 50 years and translated into many languages, it is likely most commonly used in the United States. Like the *ICD-10*, the *DSM-5* attempts to take a descriptive approach with respect to mental disorders. The clinician determines whether the symptoms are present, and, if so, makes a diagnosis.

Whereas the *ICD-10* and the *DSM-5* emphasize the specific signs, symptoms, and behaviors that reflect the diagnostic criteria for clinical diagnoses, the *DSM-5* also takes into account other features of the disorder and of the individual experiencing the disorder. For example, a particular mental disorder will include:

> *Diagnostic Features:* The type and number of diagnostic criteria necessary in order for a diagnosis to be assigned;
>
> *Associated Features Supporting Diagnosis*: Behaviors or characteristics that often accompany the mental disorder;
>
> *Diagnostic Markers:* Findings from a variety of tests that aid in definitive diagnosis;
>
> *Culture-related, Gender-related, Features:* Information that can be helpful in understanding the characteristics that may or may not be present depending on age, culture, or gender.
>
> Moreover, there are other descriptions of issues that can aid in arriving at the diagnosis.

Although in past versions of the *DSM* there were multiple axes (e.g., *DSM-III* and *-IV* used five axes) used to make a diagnosis (i.e., including medical conditions affecting diagnosis, psychosocial and environmental problems, and global assessment of patient's functioning), the current *DSM-5* does not use a multiaxial approach. It states that "the multiaxial system in *DSM-IV* was not required to make a mental disorder diagnosis" (p. 16). The *DSM-5* has 22 broad groups of disorders and within each group there are multiple disorders listed. It lists over 400 mental disorders or problems that are being considered to be disorders for future editions of the *DSM*. Within each description of the disorders there is contained information pertaining to diagnostic features (i.e., signs and symptoms), associated features (features that help in the diagnosis), as well as prevalence, development and course, risk and prognostic factors, culture and gender-related diagnostic issues, as well as other information.

Although the *DSM* has been used extensively in research pursuits, recently the National Institute of Mental Health in the US has taken a stance that the symptom-focused *DSM* approach to defining disorders is no longer appropriate, and that, instead, an approach addressing the underlying causal mechanisms should be embraced in order to move research and clinical work ahead. Thus, the Research Domain Criteria (RDoc) was developed as an alternative system of classification that focuses on issues such as biological

and behavioral components of abnormal functioning. As Lilienfeld and Treadway (2016) suggest, this change in approach to defining and classifying psychological disorders may represent the beginning of a major paradigm shift in viewing and understanding psychological problems.

Psychodynamic Diagnostic Manual

Recently, a diagnostic manual has been published that takes a different view of disorders than either the *ICD* or *DSM*. According to Greenspan, McWilliams, and Wallerstein (PDM Task Force, 2006), the *PDM* is a "diagnostic framework that describes the whole person—both the deeper and surface levels of an individual's personality and that person's emotional and social functioning" (p. 4). Rather than attempting to be atheoretical and solely descriptive, the *PDM* was written from a psychodynamic perspective by numerous psychodynamic and psychoanalytic organizations and attempts to incorporate knowledge based on current neuroscience and treatment outcome studies as well as contemporary psychodynamic theory based on Object Relations Theory, Attachment Theory, and Psychoanalysis (PDM Task Force, 2006). The *PDM* is suggested to be used as a complement to the *DSM* or *ICD* rather than supplanting either of them. In essence, rather than focusing solely on observable signs and symptoms the *PDM* attempts to focus on a person's "full range of feelings and thoughts (personal experience) in the context of his or her unique history" (PDM Task Force, 2006, p. 6). That is, the *PDM* offers a system that attempts to provide an understanding of the whole person and his or her psychological difficulties.

The proponents of the *PDM* suggest that there is more to people than what is contained in the *DSM* and it attempts to describe and categorize elements in individuals not found in the *DSM* such as both surface elements and deeper ingrained elements of mental and interpersonal functioning (Cierpkacier et al., 2007). The system focuses on three major components of a person's functioning and describes:

1. Healthy and disordered personality functioning
2. Individual profiles of mental functioning involving relationships, expression and understanding of emotions, coping and defenses, self-awareness, and forming moral judgments
3. Symptom patterns that involve the idiosyncratic and subjective experience of symptoms.

In order to address the three major components, the *PDM* uses a multidimensional approach with three axes for adults.

> *Personality Patterns and Disorders (P Axis):* This axis, which focuses on the personality of the individual as the starting point for diagnostic work, includes two components, the first being the person's location on a continuum of healthy to disordered personality functioning and the second being the characteristic or idiosyncratic mental functioning and how the person interacts with the world.
>
> *Mental Functioning (M Axis):* This axis involves a more detailed description of emotional functioning including information processing, forming and maintaining relationships, expression and understanding of emotion, and characteristic coping and defense strategies.

Manifest Symptoms and Concerns (S Axis): The third axis describes most of the clinical syndromes found in the *DSM-5* or *ICD-10* (as well as others) and extends the descriptions to include the person's subjective experience of the difficulties and behavioral patterns found to be associated with each of the syndromes. This allows viewing the syndromes in the context of the person's unique personality and context.

Although the *DSM-5*, *ICD-10*, and the *PDM* all attempt to provide good descriptions of psychopathology and aid in the research and treatment of psychological problems, there are many differences among them. For example, although both the *ICD-10* and the *DSM-5* represent descriptive classification systems and there are many similarities between them, they differ in terms of the kinds of disorders that are included and how personality disorders are categorized. The *PDM*, as an **etiological classification system**, attempts to classify and focus on the underlying and contextual components of psychopathology. It also includes disorders that the *DSM* and *ICD* do not.

A major difference between the *DSM* and *ICD* on the one hand and the *PDM* on the other (see Box 5.4) is that the *PDM* starts with personality as the beginning point of thinking about psychopathology with mental disorders and symptoms. The *DSM* and *ICD* start with the clinical syndrome as the beginning point and incorporate personality (only disordered personality) and other components of the person's context only secondarily.

BOX 5.4 DIAGNOSIS OF DISORDERS IN CHILDREN

Although the *DSM* and the *ICD* include childhood disorders to a degree, the focus with these two systems has clearly been on adult disorders. For example, with the *DSM*, many of the diagnostic criteria for various disorders were used for children and adolescents, although there is a section called "Disorders first evident in Childhood." The *PDM* has emphasized diagnostic issues with children and adolescents and there is a strong emphasis on the developmental context of psychological problems. Also, there have been several newer classification systems and approaches to aid specifically in the diagnosis of childhood disorder psychological difficulties. The *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC: 0–3)* (National Center for Clinical Infant Programs, 1994) is used to help in the identification of mental health needs for infants and toddlers. Finally, Achenbach (1966; Verhulst & Achenbach, 1995) developed an empirically based assessment and taxonomy for psychopathology in children and adolescents. Using ratings from a number of domains of specific behaviors, they obtain empirically derived syndromes of psychological problems that are used to identify specific types of psychological problems.

Conclusion

Overall, the current chapter has attempted to provide an overview of some of the relevant issues in defining, conceptualizing, and understanding psychopathology. We presented information regarding the means by which clinical psychologists determine abnormality and discussed issues regarding the kinds of behaviors that constitute domains of importance in making judgments of abnormality. Finally, we described several of the current classification

systems that are in use that help the clinical psychologist make determinations about people's psychological problems.

The student should have an understanding of the processes involved in defining abnormality and some of the issues, processes, and procedures that are used in determining what is considered to be abnormal behavior. Moreover, it should be apparent that there are numerous different conceptualizations of psychopathology, and there is a dynamic nature to defining, categorizing, and understanding psychopathology.

Ongoing Considerations

It should be clear to the student that diagnostic systems and even disorders themselves can shift and change. All of the diagnostic systems discussed are either under revision or are being considered for revisions. This underscores the dynamic nature of our understanding of psychopathology, and, as research findings accumulate and our understanding of psychopathology broadens and deepens, there will be further changes.

With the exception of the *PDM*, because it is relatively new, the existing diagnostic systems have been criticized over the years and are seemingly always being revised. For example, preparations for the next version of the *ICD* have been underway for some time and are planned to be implemented in 2018 with some major changes being proposed. The *PDM* has been received very well since its publication in 2006 and numerous studies have been reported on its utility in clinical work and research in North America as well as many other countries. Moreover, although the *PDM* is clearly psychodynamic, recent work has suggested that the *PDM* has "received highly favorable evaluations by all psychologists, irrespective of theoretical orientation" (Lingiardi, McWilliams, Bornstein, Gazzillo, & Gordon, 2015, p. 99). As with other classification systems, the *PDM* is currently under revision (*PDM-2*) with the aim to enhance the connection between the new *PDM* and the new *DSM* and *ICD* editions. Moreover, the *PDM-2* will provide more empirical research addressing the descriptions of disorders and expansion of conceptualizations with the *PDM* axes as well as provide specific measures for clinicians. Finally, the *PDM* will include a section dealing with psychopathology among the elderly.

Key Terms Learned

Classification systems, 90, 92
Descriptive classification system, 90
Descriptive psychopathology, 88
Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), 80
Emotion regulation, 86
Etiological classification system, 97
ICD-10 Classification of Mental and Behavioural Disorders, 94
International Classification of Diseases, Chapter V (ICD-10), 91
Mental disorder, 85
Nosologies, 92
Object relations, 87
Operationalized Psychodynamic Diagnostics (OPD), 90
Problems in living, 83

Psychodynamic Diagnostic Manual (PDM), 83
Psychopathology, 78
Sign, 85
Symptom, 85
Syndrome, 85

Thinking Questions

1. What are the two philosophical issues underlying clinical psychologists' views of psychopathology? How do they influence decisions that clinical psychologists make?

2. Compare and contrast the *DSM-5* and the *PDM* in terms of philosophical stance and how they define psychological disorders.

3. What are some arguments as to why psychological disorders should not be considered to be like pathogens or alien entities in people?

4. We described two general types of diagnostic systems, one based on descriptive characteristics and one theoretically based. Which kind of diagnostic system do you believe is most appropriate? Why?

5. Describe the types of behaviors that clinical psychologists tend to be aware of when making judgments about psychopathology. Are there any others that you can think of that you believe might be relevant?

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6 Overview of Assessment

Chapter Objectives

The current chapter provides an overview of some of the principles, aims, and procedures involved in conducting various kinds of psychological assessments. The learning objectives of this chapter are:

- Appreciation of the commonality and importance of psychological assessment for clinical psychologists' work in addition to issues regarding the training of graduate students in assessment practices.
- Be introduced to what constitutes psychological assessment broadly as well as the specific aims and purposes of assessment and different types of psychological assessments used in research and clinical practice.
- Appreciation of the kinds of issues related to clinical decision making that arise from psychological assessment and how the decisions can have an impact on people's lives.

Overview

Very generally, psychological assessment has been and continues to be an important component in the training and the work of clinical psychologists as well as other kinds of psychologists. Psychological testing began in early 1900s with attempts by Alfred Binet in Paris, France, to determine appropriate classroom placement for school children based on test scores and by attempts in the United States to screen military recruits to separate out those military personnel with emotional or cognitive problems (Gregory, 2004). Psychological testing was viewed as an effective way to quickly understand multiple aspects of people's functioning and was used to try to predict success in a variety of domains. It was embraced by the psychological community, especially in the United States, and became an important tool for psychologists, and provided the impetus for the further development of psychological assessment as an important clinical activity.

Psychological assessment has been seen as one of the defining and unique roles that clinical psychologists play in health-related activities. Many types of assessments, in particular neuropsychological, psychophysiological, and multidimensional personality assessments, are almost exclusively aligned with the field of clinical psychology and for these domains we have essentially no competition in the marketplace. Although other health professional groups can provide treatments for, and in some cases, diagnoses of, individual patients, couples, and families, this does not apply to psychological assessment. As well, the assessment

practices have extended from the more traditional mental health and educational related work to other domains such as neuropsychology, medical, industrial, and forensic psychological practices, and many clinical psychologists earn a very good living specializing in this work. Psychological assessment is used not only for clinical decision making in mental health but also in assessing variables by health psychologists, functional status and rehabilitation potential in injuries by rehabilitation psychologists, brain-related problems, adjustment to living with chronic illnesses, strengths in brain-injured persons by neuropsychologists, and assessment of various crime-related behavior and treatment by forensic psychologists.

Assessment-Related Issues of Four Psychologists

To start out, first a few vignettes of psychologists working on assessment-related issues in the field.

Vignette 6.1

Vincent, the clinical psychology graduate student, was in the process of learning clinical interviewing skills and was trying to determine the differences between a structured clinical interview that focuses on carefully determining a *DSM-5* diagnosis for research purposes and a semi-structured clinical interview that emphasizes understanding the symptom picture, the context the person exists in, and process-related variables such as motivation of the patient, and how the problems are likely caused and maintained. He was going to be completing his first clinical assessment on a young woman who was having difficulties in university due to problems such as inability to focus, emotional reactivity, initiate projects, and maintain personal relationships for any significant period of time. Vincent was attempting to provide a rationale for the interview and other assessment tools that would be presented to his clinical supervisor for approval to use with the patient. The interview was going to form the basis of a clinical assessment that would include other assessment techniques and tests.

Vignette 6.2

Dr. A is presenting some psychological assessment data to a case conference group regarding contributing factors to a patient's anxiety and hypertension. The focus of the presentation was on the signs and symptoms the patient was exhibiting as well as personality features, including interpersonal and relationship variables that may have contributed to coronary artery disease. Specifically she was focusing the presentation on the levels and types of hostile interpersonal relationships the patient exhibited and how this interpersonal style may also interfere with treatment of the patient. The data presented involved information from self-report instruments and from psychophysiological monitoring of heart rate and blood pressure in a variety of simulated interactional situations. The information was presented to the case conference group in order to contribute to the clinical picture of the patient.

Vignette 6.3

Dr. B was conducting a complete psychodiagnostic assessment on a patient who had been referred from a psychiatrist to his private practice. The patient presented a very complicated diagnostic picture and it was not clear to the psychiatrist whether the patient exhibited a schizophrenia-like disorder, a bipolar affective disorder, or some organically based disorder and what sorts of treatments might be most appropriate. Dr. B had completed a clinical interview with the patient and an interview with the patient's parents. As well, the patient completed several psychological tools including the Minnesota Multiphasic Personality Inventory 2, an objective measure of psychopathology and personality, several specific rating scales, and the Rorschach Inkblot Technique and Thematic Apperception Test, two projective measures of cognitive and perceptual processing and interpersonal relatedness variables, respectively. Dr. A was in the process of attempting to synthesize and integrate the clinical interview and testing material to aid in determining the diagnostic picture of the patient. In addition, he was also attempting to establish factors that may have contributed to the development of the psychological problems and factors that might be maintaining or exacerbating those problems. He will be creating a report for the psychiatrist, who referred the patient, and also preparing feedback on the assessment that he will be providing to the patient.

Vignette 6.4

Dr. C has been interested in studying the effects of pain on children and attempting to develop strategies to help young children deal with pain that accompanies some medical procedures and some medical problems. The challenge she faced was not only developing cognitive strategies for young children that might help them cope with their discomfort but also developing appropriate, reliable, and valid measures of pain and changes in pain for young children who may have rather limited verbal abilities. The measure was especially important so the strategies could be evaluated in terms of how effective they might be. She was starting at "square one" as she believed there were no appropriate measures available. Although there has been a great deal of research and writing on measurement of pain and change in pain for adults that she was familiar with, there was relatively little work done on appropriate and effective means of measuring pain behaviors in young children. She had started accessing and carefully perusing the literatures on nonverbal expressions of emotion, coping strategies for children as well as the cognitive development literature, and psychological assessment in children. Moreover, she was also planning a meeting with several other child clinical psychologists, graduate students, and staff from a pediatric department to brainstorm potential strategies that might be effective. She was hoping to develop several different measures that could be evaluated in several research projects.

What Is Psychological Assessment?

There have been numerous and broad characterizations of assessment offered by psychologists over the years. Groth-Marnat (1999) suggests that psychological assessment involves the evaluation of an individual who is experiencing some difficulty so that the information gleaned can become useful in dealing with the problem. Cohen, Swerdlik, and Phillips (1996) define psychological assessment as:

> the gathering and integration of psychology-related data for the purpose of making a psychological evaluation, accomplished through the use of tools such as tests, interviews, case studies, behavioral observation, and specially designed apparatuses and measurement procedures.
>
> (p. 6)

Building upon these definitions, we can state that psychological assessment involves a clinical psychologist who has expertise in human behavior, psychological problems and strengths, assessment tests and techniques, and the genesis and treatment of psychological problems. The clinical psychologist gathers, synthesizes, and integrates the psychological, historical, contextual, and collateral (i.e., from other sources) data to generate and test hypotheses regarding behavior. This is done in an effort to develop descriptions, explanations, predictions, and recommendations regarding the psychological difficulties a person experiences. The ultimate goal is to provide quality information that can aid in the treatment of the patient's difficulties.

When undertaking an assessment, the clinical psychologist needs not only to collect and analyze data from multiple sources in order to describe problems and characteristics, but also, and perhaps most important, to integrate the information so as to gain an understanding of the problems and the person who exhibits the problems in order to aid that person. The clinical psychologist is attempting to answer fairly specific questions and to engage the individual, couple, or family in a collaborative and supportive process that, in and of itself, can initiate the therapeutic process.

Psychological Testing Versus Psychological Assessment

Although sometimes the terms *psychological assessment* and *psychological testing* are used synonymously, there is a critical difference between the two. **Psychological testing** is thought of as the process of administering, scoring, and interpreting standardized psychological tests (Maloney & Ward, 1976). Test scores provide some of the information that the clinical conclusions, decisions, and recommendations are based upon (Cohen et al., 1996). **Psychological assessment**, on the other hand, goes much beyond mere test scores and uses many sources of data (including tests) to come to conclusions regarding psychological problems that an individual(s) is seeking help for. For example, an assessment may be conducted on a child that has fallen behind in academic expectations. Figuring out why that happened and what can be done, it goes way beyond merely determining a child's potential with an intelligence test. The psychologist needs to first figure out what domains of knowledge are important (e.g., current family stress, learning disabilities, "raw" intellectual potential, etc.), choose a variety of assessments, and finally, offer a comprehensive answer once testing is complete. This broad approach is stressed by Maloney and Ward (1976) who posit that psychological

testing measures the issues, problems, concerns, strengths, and limitations a person has, and extends this to also include how and why the person developed the problems and how the problems are maintained. Thus, psychological assessment is much more encompassing than mere psychological testing.

A psychological assessment is usually thought of as very formal with extensive coverage of behavior and used in treatment or remediation planning for a patient (Butcher, 1995). However, psychological assessment can be more specific and address a limited number of components of behavior or functioning for use in selection of appropriate placements or monitoring symptom levels over treatment (see Beck, Rush, Shaw, & Emery, 1979). Although traditionally, assessment has been thought of as an activity relevant only for individual patients, assessment practices and protocols have been extended to couples and families (Krishnamurthy et al., 2004).

Psychological Assessment in Practice and Training

How much of a clinical psychologist's work is dedicated to assessment activities? There has been some variation over the years in the time spent conducting clinical assessments by clinical psychologists; however, assessment remains a focus of clinical work and research for clinical psychologists. Aside from provision of treatment, clinical assessment has been found to be the second most frequent activity for clinical psychologists (Meyer et al., 1998). For example, in several surveys of clinical psychologists from Britain and North America (e.g., Lucock, Hall, & Noble, 2006; Norcross, Karpiak, & Santoro, 2005; Wright et al., 2017), it was estimated that clinical psychologists spend about 13–24% of their time in assessment-related activities and approximately 90% of clinical psychologists engage in some kind of assessment-related activities. Moreover, assessment is seen as an important activity in the training of clinical psychology graduate students and in a recent conference dedicated to establishing training goals and directions for clinical psychology (The Competencies Conference: Future Directions in Education and Credentialing in Professional Psychology), there was widespread consensus that every practicing psychologist should continue to have exposure to and training in psychological assessment (Krishnamurthy et al., 2004).

In the Competencies Conference, it was determined that there are specific **core competencies** (i.e., areas of expertise) related to psychological assessment that were deemed "essential to all health-service practices in psychology, transcending specialties" (p. 732). These competencies provide not only an example of the extensive coverage and training necessary to develop assessment skills in clinical psychology but also point out the knowledge and skills that would likely be focused upon in graduate school for training.

The majority of clinical psychology graduate curricula cover psychological assessment, and graduate students are trained not only in diagnosis based on current classification systems, but also in test construction, administration, scoring, interpretation of assessment material based on knowledge of psychopathology, normal behavior, and treatment. Moreover, there are training emphases on the synthesis of relevant data in coming to an understanding of the nature of a person's difficulties (Krishnamurthy et al., 2004). Although the specific focuses or emphases of assessment may depend on the theoretical orientation of the program, the curricula of most schools and internships indicate that interviewing, behavioral observation, objective and projective testing forms a basis for clinical assessment (Childs & Eyde, 2002).

Purpose of Assessment

Psychological assessment can be thought of as having one of two overarching purposes. The first purpose is to understand an individual, couple, or family and the psychological issues that pertain to that individual, couple, or family. This is known as an **idiographic** approach to assessment that provides specific, detailed, and idiosyncratic information about a particular patient, couple, or family's difficulties and any other information related to the difficulty or the treatment of the difficulty. Idiographic approaches are typically done in a clinical context and can be used mostly for psychodiagnostic and treatment-planning purposes. For example, the assessment of a person with depression would be done in order to determine, for the specific individual, the severity and type of depression (e.g., unipolar versus bipolar depression, mild, moderate, or severe symptom severity, and so forth), the specific nature of the symptoms and potential causes of depression (e.g., mainly biological symptoms, family history of depression, lots of stressful life events, personality features that might create vulnerability to depression), maintenance factors of depression (e.g., presence of chronic stressors, poor social network), and so forth. The idiographic approach attempts to develop a model of how a person functions and both how and why the person's psychological difficulties arose and are manifest.

A second approach to assessment is known as the **nomothetic** approach whereby, rather than focusing on an individual, couple, or family, assessments are done on groups of individuals in order to understand broader issues or constructs pertaining to types of problems or treatments. That is, to develop and test models or theories of how psychological constructs work. Whereas an idiographic approach is used in direct clinical work, a nomothetic approach tends to be used in research in order to understand how certain variables that exist in people, couples, or families are related to other relevant clinical variables such as treatment outcomes, efficacy, or process. For example, in order to determine whether certain family environments contribute to the maintenance or worsening of symptoms of depression generally, psychological instruments measuring various family environments, depression symptom severity, duration, and intensity might be administered.

The Tools of Psychological Assessment

Clinical psychologists have access to large toolbox for the assessments of an individual's problems. Two major types of tools can be seen in psychological assessment: tests and techniques. **Tests** can be thought of as highly reliable and validated instruments that have been developed to measure specific aspects of a person's functioning. Typically, patients are asked to report on their own behavior (e.g., make ratings of how sad they feel) and the tests produce scores in one or more domains. Those scores can be compared to normative information in order to determine whether an individual scores the same as or different from a normative sample. In the development of the tests, careful attention is paid to issues of both validity and reliability of the measures (see also Chapter 3 in this book). Examples of tests, some of which are described in detail in Chapter 7, are listed below.

1. Wechsler Intelligence Tests, including multifaceted tests of intelligence or memory functioning (e.g., Wechsler, 1997)
2. Minnesota Multiphasic Personality Inventory 2, which is a broad self-report measure of personality features and psychopathology (Butcher, 1990)

3. Child Behavior Checklist, which is a broad measure of psychological difficulties for children (Achenbach & Edelbrock, 1992)
4. Behavioral Anger Response Questionnaire, a multidimensional measure of anger coping styles used in cardiac health-related research and treatment (Linden, 2006).

Techniques in psychological assessment can be thought of as tools that provide relevant clinical information that does not necessarily involve the patient reporting on his or her own behavior and that are often, but not always, compared to norms. The approach is thought to provide important information for the clinician either in the form of hypothesis generation, hypothesis confirmation or disconfirmation, or information germane to a variety of treatment issues. These tools are seen as going beyond simple test scores and measuring information that is not so easily accessed by the patient himself or herself. Examples of a few clinical techniques that are used are:

1. Semi- or unstructured clinical interviews
2. Projective techniques such as the Thematic Apperception Test or Drawing Tasks
3. Collateral reports
4. History taking
5. Behavioral observations

There is a great deal of concern that both tests and techniques provide useful and high-quality information and that they are both valid and reliable. If necessary, the reader can refresh knowledge on reliability and validity concepts in Chapter 3. Both tests and techniques have strengths and weaknesses. For example, tests have to have demonstrated levels of reliability and validity to be used in clinical work; however, sometimes, in efforts to have very good reliability and validity, the depth of information gleaned from tests is quite restricted. For example, some symptom rating scales, that measure simply the presence of a list of symptoms, give only information regarding level of severity of symptomatology. Techniques can often provide a good deal of depth and breadth of information but some are viewed as having less than ideal levels of reliability and validity. For example, unstructured clinical interviews are thought to have quite poor reliability and validity (e.g., Dougherty, Ebert, & Callender, 1986) yet are used extremely commonly. Lastly, it should also be added that some assessment tools have been considered to be both tests and techniques (e.g., Rorschach Inkblot Technique; Rose, Kaser-Boyd, & Maloney, 2001).

Types of Psychological Assessment

One of the most comprehensive approaches to clinical assessment in mental health was based on work initially developed at the Menninger Foundation (Rapaport, Gill, & Schafer, 1968) that was referred to as **psychodiagnosis**. Psychodiagnosis is not simply a procedure of determining a diagnosis or symptom picture. It is a process that uses both psychological tests and psychological techniques to gather data in order to provide comprehensive information about a unique individual and his or her assets, liabilities, strengths, defenses, conflicts, symptoms, vulnerabilities, and so forth, in order to provide important information regarding the nature and origins of problems for treatment planning. This approach has provided a template that most clinical assessments have followed.

There are different types of and numerous purposes for psychological assessments. Below we outline numerous types of assessments that clinical psychologists perform. Several of these

are described in detail in subsequent chapters. It should be noted that these assessments are often combined and most of these assessments will use the same tests and techniques. Moreover, the assessments can be done for idiographic purposes to aid in the understanding of clinical issues for an individual or for nomothetic purposes in order to understand more general principles. These are used in both children and adults. The types of assessment are presented below.

Psychodiagnostic Assessment

This type of assessment focuses on issues such personality variables, symptom picture, environmental influences, personality structure including underlying dynamics and conflicts, and other issues that contribute to the psychological problems the patient is struggling with. This often involves either assigning a formal diagnosis or describing diagnostic impressions, and a description of the nature and potential causes of the problem as well as suggestions for treatment of the difficulties (Wolber & Carne, 2002). The assessment described in the first vignette is an example of a psychodiagnostic assessment.

Intellectual/Cognitive

This assessment approach deals with the determination of intellectual and cognitive functioning. It focuses on both the strengths and liabilities of functioning. One particular type of cognitive assessment is known as neuropsychological assessment which assesses intellectual, cognitive, and behavioral strengths and liabilities of brain functioning in brain-injured individuals.

Behavioral

In behavioral assessment, there is an attempt to determine antecedents, reinforcement histories, maintenance issues for psychological or behavioral problems. The focus tends to be on environmental determinants of the patient's behavior. For example, the clinical psychologist might focus on the assessment of specific drinking behavior, cues or contexts that influence drinking behavior, and situations or stressors that impact on desire for drinking.

Health

With respect to health-related assessments, the clinical psychologist attempts to determine behaviors, personality structures, and environmental features that influence a patient's physical health status. For example, when assessing contributions to hypertension, there may be a focus on assessing anger styles and levels of hostility, ability and strengths in managing stress reactions, and cognitions related to interpersonal problems.

Psychophysiological

In this type of assessment, the focus is on assessment of physiological processes, such as heart rate, skin temperature, or muscle control that are factors in physical and psychological health problems. For example, in the assessment and treatment of sex offenders, there may assessments of sexual arousal in response to specific types of stimuli.

Rehabilitative

In rehabilitation assessment, clinical psychologists attempt to determine the functional capacity of individuals following psychological or physical injury. This can take the form of cognitive assessments following head injuries or more broad assessments of functioning following a traumatic experience or physical injury.

Forensic

In forensic assessments, clinical psychologists assess factors that may have contributed to criminal behavior, likelihood of re-offending, and treatment of issues pertaining to criminal behavior.

In each of these types of assessment, the clinical psychologist is attempting to gather information in a reliable and valid fashion, develop and test hypotheses, develop an understanding of the nature of the problem including the development and maintenance of the problems or difficulties, and offer suggestions for remediation or treatment.

Goals of Psychological Assessment

Although there will be some differences in emphases depending on the theoretical orientation of the clinical psychologist and based on the type of assessment, there are several major goals of a clinical assessment. These are:

Problem explication

Formulation

Prognosis

Treatment issues and recommendations

Provision of therapeutic context

Communication of findings

Problem Explication

A major concern of the clinical psychologist is, of course, to have detailed information about the problem for which the person is seeking help. This entails establishing detailed descriptive features and information regarding the nature of the problem(s). Often, this takes the form of establishing a formal diagnosis based on one of the classification systems that exist or a description of the diagnostic picture without providing a formal diagnosis. For example, an individual may exhibit behaviors (i.e., signs, symptoms, and/or syndromes) that are consistent with one or more of the *DSM-5* or *ICD-10* diagnostic categories. The types of assessments that could involve actually assigning a diagnosis (or diagnoses) are psychodiagnostic, intellectual, neuropsychological, and forensic assessments; whereas the other types of assessment, for the most part, may be concerned more with detailed descriptions of the

problems rather than providing a diagnostic label. Behavioral assessment is an example of this (for more detail see Chapter 9).

Although diagnosis is an important component in clinical assessment, it is often thought to be the only relevant component, but the authors of this textbook do not share this narrow view. The diagnostic label is seen as critical and sufficient for determination of treatment by some clinicians/researchers, and it is seen as almost irrelevant by others who see other purported causal issues of the psychological problems to be of more importance in treatment rather than the mere diagnosis. For example, much research on the empirical validation of certain treatments view the diagnosis of a clinical disorder as a sufficient defining feature for determination of appropriate treatment. A basic assumption in this process of diagnosis is that there is uniformity of the psychological disorder. That is, even though there are numerous diagnostic criteria for the various disorders and individuals have to meet a certain number of criterion items in order to be diagnosed, the assumption is that depression is still depression even if individuals have different constellations of the symptoms. It is this assumption that allows clinicians and researchers to discuss various diagnostic entities based on the current nomenclature. On the other hand, other clinical psychologists view the diagnosis as important but not sufficient to determine treatment. Instead they focus on variables such as personality, interpersonal and family relationships, cognitive/intellectual abilities, environmental variables, and so forth in determining appropriate treatment rather than diagnostic label (see Hewitt, Habke, Lee-Baggley, Sherry, & Flett, 2008). The assumption here is that diagnosis, by itself, does not sufficiently inform the clinician about the person, but rather provides information about the presence or absence of a diagnostic entity. Information about the person and his or her characteristics and dynamics are often seen as more germane to appropriate treatment choices (Blatt, Auerbach, Zuroff, & Shahar, 2006).

Irrespective of whether diagnosis is seen as the most important goal of assessment or not, diagnosis based on a nosology is one general purpose of the assessment. For example, if using the *DSM-5*, one would gather information pertinent to the different disorders of the *DSM*. This could take the form of using a structured clinical interview, or, more often, using a semi- or unstructured clinical interview, and the possibility of using objective testing and projective techniques, behavioral, and physiological techniques.

One of the difficulties with diagnosis in clinical assessment is that individuals seeking treatment or assessment may not fully meet the diagnostic criteria for any particular psychological disorder. Numerous individuals will endorse psychological problems and distress and seek psychotherapy or treatment for some difficulties that do not meet the criteria for current definitions of a disorder (American Psychiatric Association, 2013). This does not mean that these individuals are not in psychological pain or are inappropriate for treatment. Another potential difficulty with diagnosis, as stated above, is that establishing the diagnosis does not necessarily provide the most relevant information as to the appropriate treatment. Often factors other than the diagnosis will play a greater role in determining appropriate treatment. For example, issues such as how currently distressed the person is, the chronicity of the disorder, availability of resources, strengths and resources the patient has can all be determinants of appropriate treatment recommendations.

Not all assessments will establish diagnoses. Many may emphasize detailed descriptions of the nature of the difficulties. This can take the form of narrative descriptions or indicators of the presence of a variety of symptoms or signs of psychological difficulties. For example, behavioral assessment involves assessment techniques that provide detailed descriptions of various components of behavior that will inform the treatment (Ciminero, Calhoun, & Adams, 1986).

Formulation

Problem explication does not necessarily inform the clinical psychologist about some important information that is directly germane to understanding potential causes, maintenance factors, or treatment-related issues (Blatt et al., 2006). Thus, an additional concern of clinical psychologists when conducting assessment is the **formulation.** A formulation (see Box 6.1) involves attempts to determine the causes, maintenance factors, and interplay of issues that influence the genesis and continuation of problems or difficulties. It can be seen as an idiographic model of how psychological, environmental, interpersonal, and other factors interact with one another to produce and maintain the problems for a particular individual, couple, or family and provides information and guides to appropriate treatment (see Hewitt, Flett, & Mikail, 2017; McWilliams, 1999). The formulation differs in the various types of assessments, but, essentially, almost all forms of assessment attempt to determine how and why the person(s) developed the difficulties experienced and what variables or conditions might cause, maintain, and exacerbate the difficulties. This can involve assessing personal characteristics, attributes, and behaviors as well as assessing interpersonal relationships, historical information, and environmental issues.

Formulations are usually done based on the theoretical orientation of the clinical psychologist who may focus on some components of functioning and exclude others, based on his or her theoretical orientation. For example, a clinical psychologist from a behavioral orientation would likely attempt to understand reinforcement histories and current reinforcement contingencies, whereas a psychologist from a cognitive-behavioral orientation would likely want to understand dysfunctional cognitions, self statements, and underlying dysfunctional attitudes (Beck et al., 1979). Finally, a psychodynamic orientation would likely emphasize histories of interpersonal relationships, the establishment and development of interpersonal styles, and current relationship patterns (e.g., McWilliams, 1999).

Case formulation has always been emphasized by psychodynamic therapists as a cornerstone of psychodynamic treatment and in behavior therapy a functional analysis serves a similar purpose. For example, the purpose of a psychodynamic case formulation is "to increase the probability that psychotherapy for a particular person will be helpful" (McWilliams, 1999, p. 11). It is an attempt to understand the idiosyncratic way a person organizes knowledge, cognitions, emotions, and behavior so the therapist can have an understanding of the dynamic or holistic nature of the individual's difficulties. Recently there has been an interest in the cognitive-behavioral literature for more comprehensive case formulations in order to facilitate treatment, especially for complex cases that may not be amenable to manual-driven treatments (e.g., Persons, 2006). Although case formulation can be a complex component of the assessment in the attempt to establish hypothesized causal judgments about the genesis and maintenance of a disorder (Garb, 1998), it does provide highly relevant information, especially with respect to treatment.

As discussed previously, diagnosis assumes that the diagnostic entities are uniform; whereas formulation assumes that the symptom patterns, causal or developmental pathways for the symptoms, personality of the individual(s), coping and defenses, and context are all idiosyncratic or demonstrate individual differences. Thus, formulation involves the person; diagnosis involves the diagnostic construct. Some potential difficulties or problems that can influence formulations involve the fact that they can be based on different theoretical orientations, and, therefore, may emphasize different behaviors, maintenance factors, and potential causal factors. Moreover, they can be difficult to complete due to the

complexity of human behavior and the need to incorporate often disparate and contradictory findings.

What sorts of information are used in the formulation?

1. *Intra-individual issues* (e.g., motivation, dynamics, learning history, cognitive styles, interpersonal styles, reinforcement history)
2. *Interpersonal issues* (e.g., ability to establish relationships, social network, intimate relationships)
3. *Environmental issues* (e.g., types of traumatic or other events, current situation the person is living in, presence of relationships, past and current family environment, events that can reinforce maladaptive behaviors)
4. *Process-related issues* (i.e., variables related to the person in a clinical context, such as behaviors exhibited in the interview such as openness, motivation and willingness to participate in treatment, level of anxiety in interacting with the psychotherapist).

BOX 6.1 EXAMPLE OF A PSYCHODYNAMIC FORMULATION

The following is an excerpt from McWilliams (1999, p. 43) who describes a formulation to a patient:

> It sounds like you are shy and sensitive by temperament, but it seems that no one in your family knew how to help you get braver around people. With the best intentions, they made things worse by forcing you into social situations, where you clutched. Because you had one after another failure socially, you began to think there was something very strange about you, and eventually, you related only to yourself and your thoughts. You were lonely, but the idea of being close to someone terrified you. Then when your boss criticized you, you retreated even further into yourself, to the point that you were hearing voices. We need to work on getting you more comfortable with others, including me, and part of that will involve looking at things that you believed makes you so alien. Once we understand the meaning of some of your preoccupations, I think you'll find you're not so bizarre. In the meantime, if you're still hearing voices, you may want to consider seeing someone who will prescribe antipsychotic medications. Does that make sense to you?

Prognosis and Treatment Outcome

The term **prognosis** refers to the expected course of a disorder and the expected degree and speed of recovery from the disorder. This component entails determining what can be expected in terms of the problems worsening or getting better either with or without treatment. An important component of an assessment is to provide information on the likely outcome of the difficulties in terms of expectations regarding improvement or worsening of difficulties and potential effectiveness of available treatment options. The current research on empirical validation of treatments provides valuable information on the treatment of *DSM*-based disorders and is helpful in determining potential outcomes. On the other hand, because the groups typically chosen in this kind of research are carefully diagnosed, exhibit little if any comorbidity, and there is an attempt to control coping strategies (e.g., not

abusing drugs, alcohol, etc.), it is not necessarily clear what the prognosis may be based solely on diagnosis information. Based on the clinical psychologist's knowledge of psychopathology, the obtained formulation, the nature of the individual's psychopathology and other psychological problems and issues, results of the assessment, rapport established, available resources, and so forth, the clinical psychologist makes professional judgments regarding the prognosis and appropriate treatment options. Obviously, a large number of variables need to be considered when making judgments regarding prognosis.

In addition to the disorder itself, there can be other issues that affect prognosis. For example, motivation to get better, ability to form a therapeutic alliance, availability of treatment, social and family support, and finances can all have an influence on prognosis.

Treatment Recommendations

Although one of the major purposes of clinical assessment is to determine what the difficulty is and why the difficulty exists, the ultimate purpose is to try to facilitate appropriate treatment of the difficulties the person is experiencing. The assessment, of course, provides invaluable information for appropriate treatment and for determining issues that might interfere with or be particularly helpful with respect to therapy. Based on the clinical psychologists' knowledge of efficacious treatments (see also Chapters 13 and 14), the diagnosis and formulation inform the assessing clinical psychologist about potentially appropriate treatments. Moreover, various aspects of the person's functioning can also be informative with respect to not only what treatment options are appropriate, but what sorts of issues might be particularly challenging for the treating clinician or what issues may have a negative impact on the treatment. For example, information as to whether the person has a history of or the capacity to form relationships can strongly influence whether a therapeutic alliance will be established. Because a therapeutic alliance is seen as the basis from which good treatment outcomes arise (Rogers, 1961), this is crucial information. As well, interpersonal styles, such as difficulty with authority figures, dependency, excessive hostility, passive/aggressive interpersonal behavior, or desire to get better can all have an impact on treatment (see Bergin & Lambert, 1978). An important component of treatment recommendations is availability of treatment options in the geographic area. It makes no sense to recommend treatment that is impossible for the patient to access.

Also, treatment recommendations can be influenced by factors such as intelligence, tolerance of anxiety, and psychological mindedness. **Psychological mindedness** refers to an individual's ability to observe his or her own internal life, see patterns in their own behavior, and develop insight. Some people are more fragile and cannot tolerate anxiety or other emotions as effectively as others. The term for this concept is **ego strength** and it derives from psychoanalytic theory. Most often treatment of psychological issues involves emotional experiences and a degree of anxiety. Whether the treatment involves a behavioral exposure to a feared object (e.g., exposure treatment for a spider phobia) or long-term treatment of a personality disorder, the treatment process involves many anxious moments for the patient. Thus, patients need to be able to tolerate certain levels of anxiety or other emotional states in order to participate and benefit from treatment. Also, the context of the patients is highly relevant. For example, if a clinical psychologist is going to recommend a behavioral program to treat some behavioral difficulties a child is experiencing, the clinical psychologist needs to have the cooperation, agreement, and a commitment from the parents to follow through. Thus, the environmental context of the person is crucial for appropriate treatment of problems.

Provision of a Therapeutic Context

In an assessment, it is important to establish a collaborative, positive, and therapeutic experience for the person(s) being assessed (Groth-Marnat, 1990). Although psychological assessment is often seen as an activity separate from treatment or therapy, it is important to understand that the assessment itself can be therapeutic for patients. For example, the assessment can often be the first exposure the patient has to the clinical enterprise and the clinical psychologist conducting the assessment may be the first clinician the person will have contact with. This provides an important opportunity to create an atmosphere that is conducive to a good clinical outcome for the person. Certainly the clinical psychologist must exhibit the same clinical stance as in conducting psychotherapy, namely, warm, open, nonjudgmental, and professional demeanor, in conducting the interview and testing and this kind of clinical stance has been seen as very helpful to people. Moreover, it can be pivotal in helping to establish a positive or optimistic attitude toward the clinical enterprise and provide both hope and optimism for obtaining help with the problem which has also been implicated in good clinical outcomes (Frank, 1973).

Communication of Findings to Referral Source and to the Patient(s)

A psychological assessment typically begins with either the patient or a referring professional who requests answers to specific questions regarding the patient's difficulties being experienced. The clinical psychologist communicates his or her findings to the referral source. This typically takes the form of a psychological report (see Box 6.2 for a description of a psychological report) that outlines the problem, formulation, prognosis, and treatment recommendations.

BOX 6.2 EXAMPLE OF PSYCHOLOGICAL REPORT

The following is an example of a psychological report presented in Wolber and Carne (2002). The student can see that although a formal *DSM-IV-TR* or *ICD-10* diagnosis is not given, the diagnostic impressions of the psychologist are described in detail.

Confidential psychological evaluation

NAME: Jane Q. Patient OCCUPATION: Unemployed
DATE OF BIRTH: 8/26/73 MARITAL STATUS: Single
AGE: 28 REFERRAL SOURCE: H. E. Goode, PhD, Clinical Psychologist
SEX: Female DATE OF EVALUATION: 9/21/01

REASON FOR REFERRAL: Ms. Jane Q. Patient was referred for psychological evaluation by H. E. Goode, PhD, Clinical Psychologist and the subject's therapist. Dr. Goode stated that Ms. Patient has been experiencing problems with sleep and appetite and has been complaining of problems with concentration. He stated that she has been having crying spells and reports feeling sad much of the time. Dr. Goode also reported that Ms. Patient has reported hearing "voices." Dr. Goode requested evaluation to differentiate between psychosis and major depression as

well as to assist with clarification of psychodynamic factors.

NOTIFICATION OF PURPOSE AND LIMITS OF CONFIDENTIALITY: The purpose of the report was explained to Ms. Patient as well as the limits of confidentiality. She was told that the report would be sent to Dr. Goode, her therapist, and possibly used to assist with her treatment. She indicated that she understood and agreed to continue with the assessment.

EVALUATION INSTRUMENTS AND SOURCES OF INFORMATION: Wechsler Adult Intelligence Scale-Third Edition (WAIS-111); Wide Range Achievement Test, Third Revision (WRAT-3); Bender-Gestalt; Minnesota Multiphasic Personality Inventory, Second Edition (MM P1–2); Rorschach Inkblot Technique; Thematic Apperception Test (TAT); Incomplete Sentences; Kinetic Family Drawing; interviews with subject, Jane Q. Patient, and subject's mother and father, Mary and George Patient; consultation with H. E. Goode, Clinical Psychologist (subject's therapist), review of subject's medical records from Central County Hospital; review Social History (MSW, 4/24/00).

BACKGROUND INFORMATION: Subject Demographics and Developmental History: Jane Q. Patient is a 28-year-old, single, Caucasian female who lives in Anytown, USA with her parents, Mary and George Patient. According to Mrs. Patient (mother), the subject's birth was uncomplicated and she met developmental milestones at age-appropriate times. Mrs. Patient also reported that her daughter "was a rather shy child" who had few friends and would "prefer to be alone." She went on to report that Ms. Patient dated one male peer in high school and this relationship lasted for about 6 months. Mrs. Patient stated that she does not believe that her daughter has ever been the victim of physical or sexual abuse. Ms. Patient reported the same. The subject's mother also stated that Ms. Patient has an older brother, age 37, who is currently married and, reportedly, doing well. Mrs. Patient is a housewife and her husband is retired from the military.

Familial History and Significant Relationships: Ms. Patient has not been married nor does she have children. She reported that since high school, she has been in two relationships, both of short duration. She described these relationships as "unsatisfactory" and that the males with whom she was involved had "many problems." She described her relationship with her parents as "OK" but "distant." She reported that she currently has one "friend" with whom she "has dinner or goes to a movie once in a while."

Education and Employment History: Ms. Patient reported that she is a high school graduate. She also stated she did not participate in special education classes nor was she diagnosed as learning disabled. She reported that her grades were "good—mostly A's and B's." Her mother indicated that Ms. Patient was not a behavioral problem in school but "stayed mostly to herself." She further stated the subject played an instrument in the band for 1 year but stopped in order "to concentrate on her grades." Ms. Patient enrolled in college but left school after 2 years citing "emotional problems" as her reason for not continuing. She is currently unemployed but has held a variety of jobs including secretary, sales clerk, and legal assistant. Her longest period of employment was 6 months; however, her mother indicated that when she did work, she was a reliable and conscientious employee. She does not receive any form of benefits nor was she in the military.

Medical and Psychiatric History: Ms. Patient reported, and her mother confirmed, that she has no known major medical problems. Both the subject and her mother denied that Ms. Patient has ever experienced seizures, significant head trauma, diabetes, hypertension, or thyroid problems. Her mother reported that she had "asthma as a child" but "outgrew it." Ms. Patient did report that "Sometimes, I have bad headaches and feel light-headed." Ms. Patient has a documented history of psychiatric problems for approximately the last 10 years. Her medical records indicate that she first experienced emotional problems in 1991 concurrent with self-destructive ideation. At that time, she was hospitalized at Central County Hospital for 30 days and was given a discharge diagnosis of Major Depression, Single Episode. She was placed on Zoloft, an antidepressant, with follow-up care with the Anywhere Community Mental Health Center. Her compliance with medication and attendance for therapy was described as "poor." Ms. Patient was again hospitalized

on 7/3/97 for a period of 2 weeks. She had cut her wrist in an apparent suicide attempt. This attempt was described as "serious," requiring several sutures. Ms. Patient has been in outpatient therapy with H. E. Goode, PhD, for the past 3 months and is currently hospitalized following another suicide attempt (i.e., again cutting her wrist).

Alcohol and Drug History: Ms. Patient, according to her medical records and her mother, has used alcohol excessively during "binge drinking." Ms. Patient admitted to use but indicated that she only "has a few beers on the weekend at the most." She also reported that she has tried marijuana in the past. She denied any other drug/alcohol involvement.

Factors Prompting Referral: As indicated above, Ms. Patient is currently hospitalized following a suicide attempt. Her therapist, Dr. Goode, reported that she had been missing her therapy appointments and not taking her medication. He also reported that when he did see her, she appeared to be experiencing problems with concentration, sleep, and appetite and reported that she felt sad much of the time. He further stated that she had again been hearing voices of a self-deprecating nature (e.g., "You don't deserve to live"). Dr. Goode referred Ms. Patient for psychological evaluation to aid in clarification of diagnosis and to assist in determining psychological dynamics.

BEHAVIORAL OBSERVATIONS: Ms. Patient arrived to the evaluation session on time. She was brought by a mental health technician on the staff of the hospital in which the evaluation took place. She was neatly dressed and hygiene good. She stands approximately 5 ft. 6 in. tall and she reported that she weighs about 150 lbs. The purpose of the evaluation was explained to Ms. Patient. She was told a report would be developed concerning her psychological functioning and the results shared with her therapist, Dr. Goode, and possibly other staff of the hospital involved in her treatment. She indicated that she understood and agreed to continue with the assessment. Ms. Patient completed all test tasks asked of her and she was cooperative throughout the assessment. She gave poor eye contact, spoke in a soft, hesitant voice, and offered little verbally beyond that which was asked of her. She seemed to easily comprehend instructions but did not initiate tasks or conversation on her own. Periodically, Ms. Patient had to be refocused on the task and tended to stare off into space. When she did offer spontaneous comment, she spoke in a self-deprecating manner about herself and her life. During the clinical interview, Ms. Patient answered questions but seemed reluctant to offer information about her feelings and thoughts. Ms. Patient did not exhibit grossly inappropriate behavior, such as delusions or hallucinations, during the entire evaluation.

INTELLECTUAL AND COGNITIVE FUNCTIONING: Ms. Patient was oriented to time, person, and place. She also was aware of the circumstances under which she was evaluated. Ms. Patient's sensory-perceptual functioning seemed intact, although she reported that she sometimes wears glasses; however, she also reported that she did not need them most of the time and did not appear to have any difficulty seeing items related to the testing. Her concentration and attention appeared impaired, probably as the result of emotional problems.

On the test of intelligence, Ms. Patient scored a Verbal IQ of 118, a Performance IQ of 102, and a Full Scale IQ of 109. This places her at the upper end of the Average Range of intelligence. Subtest Scale Scores are as follows:

VERBAL		*PERFORMANCE*	
Information	14	Picture Completion	12
Similarities	12	Picture Arrangement	11
Vocabulary	15	Block Design	9
Arithmetic	11	Digit Symbol	11
Comprehension	12	Matrix Reasoning	9
Digit Span	14		

A disparity of 16 points between Verbal and Performance Subtests was evident, likely due, at least in part, to psychomotor retardation related to motor slowness and possibly the effects of medication. Given this, it is estimated that Ms. Patient's potential level of intellect likely falls within the High Average Range. Ms. Patient scored highest on subtests of the test of intelligence which have been

found to measure one's vocabulary and fund of general information as well as the ability to recall material immediately after it has been presented. She scored significantly above average on these subtests. She scored somewhat above average on subtests measuring the performance of verbal abstractions, the ability to evaluate a situation and respond appropriately, and the capacity to discern the important details from a total situation. Her next highest scores, which were slightly above average, were on subtests that measure the ability to perform mental math, employ eye-hand motor coordination and speed, and arrange events in an appropriate sequence. She scored just below average on subtests of the test of intelligence that assess visual organization and visuomotor organization.

Ms. Patient's immediate, recent, and remote memories appeared intact, although she reported that she has difficulty remembering recent events. This seems likely to be related to some difficulty with concentration as the result of emotional factors. Ms. Patient, at times, exhibited some difficulties with attention but was quite capable of remaining focused on task. Her capacity to express herself and understand what was said also seemed intact. On a screening test of academic achievement, she scored on a college level for both reading and spelling. On a separate test of visuomotor integration, Ms. Patient exhibited mild deficits, likely the result of observable tremulousness. Overall, in terms of intellectual and cognitive functioning, Ms. Patient scored within the Average Range of intelligence which likely is an underestimate of her potential, given emotional factors and the effects of medication. Her verbal abilities, including vocabulary, were well above average, and she exhibited some motor slowness, likely the result of psychomotor retardation and/or problems with concentration. On a screening test of academic performance, she scored on a college level for both reading and spelling. Screening for possible central nervous system impairment was negative.

PERSONALITY FUNCTIONING: Ms. Patient was well oriented. During the evaluation, she exhibited flat affect, or emotional level, for the most part. Her speech was hesitant and slow and, as indicated above, she exhibited some psychomotor retardation, some of which may be due to the effects of medication. She exhibited periods of tearfulness when discussing her life circumstance, especially relationship issues. Ms. Patient's speech was logical and coherent and she did not exhibit indications of looseness of associations, tangential thinking, or pressured speech. She experienced problems with concentration. Assessment did not reveal indications of psychosis, underlying or overt. She denied current hallucinations both visual and auditory; however, she did report that she has heard a voice in the past of a degrading nature, telling her "You don't deserve to live." She stated that the voice is that of a female and that it comes from inside her head. Ms. Patient did not exhibit delusional thinking during the assessment, and collateral information does not support the existence of past delusional thought. She reported that she has been feeling depressed and sleeping much of the time. She also reported that her appetite is "too good" and she has little interest in activity of any type. Ms. Patient denied current suicidal and homicidal ideation, although she reported that she has had self-destructive thinking as recent as the day prior to this examination.

On an intrapsychic level, assessment revealed that Ms. Patient experiences problems integrating emotional experience; that is, she is sometimes overwhelmed by her emotions to the extent that she is unable to think clearly. She reported significant feelings of depression and on projective assessment Ms. Patient produced themes of sadness. She admits to problems with emotional control (i.e., periods of crying and anger). On exploration, Ms. Patient reported that she sometimes wakes up in the morning and "I feel like breaking something." Ms. Patient tends to deny and minimize the extent of her problems and resulting emotional unrest. These feelings build and are discharged in a sometimes uncontrolled manner. Ms. Patient tends to take a passive stance to her anger, internalizing her feelings, which results in depression. She often feels remorseful and guilty about her behaviors in an intropunitive manner. This results in feelings of self-rejection and self-destructive ideation. Ms. Patient has a strong need to be seen in a positive light by others. This not only serves to compensate for feelings of inadequacy but also serves as

a defense mechanism (reaction formation) to protect against the expression of hostile impulses which she would consider unacceptable. Her auditory hallucinations, which are of a self-condemning nature, act as a form of self-punishment. Although Ms. Patient has a strong need to be seen in a positive light by others, she also has a need to be viewed as having severe emotional problems. This allows her to rationalize to herself and others the lack of meeting her own internal standards and her passive stance. Assessment revealed that Ms. Patient is pessimistic about the future with little hope of her life improving. Her thoughts about herself are of a negative nature and maintain her passive and self-deprecating posture. All of this contributes to frustration, confusion, and an extremely poor self-image. Although Ms. Patient denies current self-destructive intent, the above psychological symptoms and dynamics are indicative of significant risk for self-destructive behavior in the future. While Ms. Patient does exhibit some insight into her problems, recognizing she experiences significant difficulty with depression, she does not realize that she contributes to her own problems via her negative thought patterns and passivity.

On an interpersonal level, Ms. Patient relates in a passive-dependent fashion. She resents her dependency upon her parents but feels inadequate to separate from them. Although she desires to please her parents, she believes that she has not met their expectations for her and projects feelings of rejection onto them. Personality assessment indicated that Ms. Patient feels alienated from her family and from society in general. She does not feel that she is part of any social group and believes she is viewed as inferior by others. Ms. Patient feels uncomfortable in social settings and tends to withdraw and isolate.s. She experiences considerable anxiety about relating to the opposite sex. Her hostility and inappropriate behaviors (e.g., self-destruction and social avoidance) result in rejection by others. This rejection serves to reinforce her underlying hypothesis about herself that she is inferior, and adds to feelings of lack of self-worth.

IMPRESSIONS: Overall, Ms. Patient appears to be experiencing significant feelings of depression with periodic psychotic symptoms which seem to be consistent with her depressed mood. Assessment did not support the existence of severe personality disorganization or a major psychosis. She also exhibits dependent personality characteristics and has experienced problems with substance abuse/dependence.

SUMMARY: Ms. Patient is a 28-year-old, Caucasian, single female who has been referred for psychological evaluation to assist in differentiating between major depression and psychosis. She is currently hospitalized following an attempted suicide. Ms. Patient was well oriented to time, person, and place. She also was well aware of the circumstances under which she was evaluated. On the test of intelligence, she scored within the Average Range although it is estimated that her potential level of intellect is within the High Average Range. On a screening test of academic achievement, she scored at a college level for both reading and spelling. Assessment revealed indications of psychomotor retardation, probably due to emotional factors and/or the effects of medication. This likely had a negative impact on her performance on the test of intelligence; it is estimated that Ms. Patient's potential level of intellect falls within the High Average Range. Screening measures for neuropsychological dysfunction did not indicate impairment. Assessment did not reveal that Ms. Patient was experiencing a psychosis, and her perception of reality appeared generally intact. However, there were indications that, when stressed, she may exhibit psychotic symptoms (auditory hallucinations) consistent with her depressed mood. When overwhelmed with emotion, her thinking becomes confused. Ms. Patient appears to be experiencing depression of major proportion. This depression also seems to be relatively longstanding. Assessment also revealed underlying hostility and feelings of a lack of self-worth. Interpersonally, she relates in a hostile-dependent manner. She tends to repress unwanted emotions and project feelings of rejection onto others. Ms. Patient also tends to isolate and withdraw from social contact. Although she denies current suicidal and homicidal ideation, she has tried to harm herself in the recent past and assessment reveals self-destructive tendencies.

RECOMMENDATIONS: Ms. Patient was cooperative during the evaluation session and completed all tasks asked of her. Although she did not appear to be experiencing a major mental illness that would significantly distort her perception of reality, there were indications of considerable emotional conflict. Problem areas, along with strengths, are discussed below with recommendations.

1. *General Psychological Functioning:* At the time of this assessment, Ms. Patient did not appear to be experiencing psychosis with significant personality disorganization. However, assessment did reveal that she has been experiencing a major mental illness for some time which appears to be a recurrent Major Depression with psychotic features. Given the degree of her depression and self-destructive behavior, continued hospitalization and stabilization of her mood is recommended at this time. Ongoing evaluation and monitoring of her medication is imperative. Continued individual psychotherapy is also recommended to address her depression, social withdrawal, and lack of activity in her life. A cognitive-behavioral approach to this may prove beneficial. It is also recommended that she be supported in the constructive expression of anger and that her destructive hostile behaviors be addressed through anger management.
2. *Educational/Vocational Issues:* Ms. Patient was, reportedly, a good student while she was attending school. She completed 2 years of college but left school for "emotional" reasons. On the test of intelligence, she scored within the Average Range, although psychological factors, as well as the effects of medication, likely lowered her score. It is estimated that her potential level of intelligence is within the High Average Range. On a screening test of academic achievement, she scored at a college level for both reading and spelling. Given these scores, Ms. Patient appears to have the potential to perform well in educational/training pursuits. Also, when she was employed, she had been described as a reliable employee who performed well. It is recommended that these strengths be integrated into her treatment as a means of increasing her sense of positive self-esteem. Assisting Ms. Patient in developing vocational/educational goals is recommended.
3. *Lack of Treatment Compliance:* Ms. Patient has not been compliant with treatment in the past, both in terms of taking prescribed medication and attendance to therapy. It is recommended that this lack of compliance be explored with her in therapy, as it relates to possible resistance/passive aggressive behavior. It is imperative that she remain medication compliant and develop an emotional investment in therapy.
4. *Substance Abuse:* Ms. Patient appears to have a history of substance abuse/dependence. Her substance of choice has been alcohol. She likely has used substances as a means of self-medicating her depression. Alcohol consumption can have a negative impact on medication effectiveness and retard psychological growth. Alcohol use can also negatively affect judgment, disinhibit emotional controls, and contribute to central nervous system damage. It is recommended that Ms. Patient participate in services to address her substance involvement and to monitor closely for use/abuse, especially alcohol. If use is suspected, random drug screens may be appropriate to monitor for use and to assist with determining level of denial.
5. *Suicidal Ideation/Behavior:* Ms. Patient has exhibited suicidal behavior on at least three known occasions. Her last suicide attempt appeared serious and was relatively recent. She cut her wrist deeply requiring several sutures. Although she currently denies any self-destructive intent, her depression and history of attempts to harm herself places her at risk for future self-destructive behavior. It is recommended that she be monitored closely for suicidal ideation and that she remain compliant with her medication. It is also

recommended that self-destructive tendencies be explored with her in therapy as well as developing means to identify when she begins to experience self-destructive thoughts. Alternative behaviors to self-harm and cognitive intervention may prove beneficial. Given her recent suicidal attempt and level of current depression, continued hospitalization is recommended at this time.

6. *Social Withdrawal and Lack of Activity:* Ms. Patient, as stated above and prior to her suicide attempt, was reportedly withdrawn and isolated. In addition, she had not been involved in any known positive activity. It is recommended that behavior shaping be employed to address this issue. Given that she reportedly functioned well when she was working, vocational pursuits may also help with socialization. Reports revealed that Ms. Patient has had an interest in music, which could be another possible avenue for activity. Exploration of relationship issues is also recommended along with assessment of her social skills and thinking about herself concerning social withdrawal as well as lack of positive activity.
7. *Dependency Issues:* Psychological assessment indicated that Ms. Patient is dependent on her parents but that she resents this dependency. This contributes to her hostility. Exploration of issues of autonomy versus dependency in therapy is recommended with the goal of Ms. Patient achieving independent functioning to the extent appropriate.

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In addition to providing feedback to the referral source, the clinical psychologist must provide clear and detailed feedback to the patient regarding the findings, recommendations, and suggestions based on the assessment, and this provides an additional opportunity where the therapeutic benefits of the assessment can be enhanced. Several studies (e.g., Newman & Greenway, 1997) have found that providing patients with specific and detailed feedback from the assessment can increase patients' self-esteem and reduce indicators of distress, both of which are seen as therapeutic. Newman and Greenway suggest that the therapeutic benefit comes from patients not only being able to name and explain some of their distressing experiences but also from understanding the nature of their difficulties and feeling more optimistic about dealing with them.

Research

Assessment can play a very important role in a variety of forms of research, for example, establishing effectiveness of various treatment regimens for specific disorders. Normally, a great deal of attention is paid to clearly diagnosing potential participants in the research project and detailed assessments are often done on the participants (e.g., Imber et al., 1990). The assessments are done in order to be certain that the experimental group clearly has the disorder of interest and that the control groups do not have the disorder of interest or any similar disorder. In addition, the assessments provide information regarding the nature of the disorder (e.g., severity and chronicity of symptoms, comorbidity or co-occurrence of other symptoms, and so forth). Assessments would be completed prior to treatment and following treatment in order to determine whether the treatment had an effect on the signs or symptoms of the disorder.

This research is done in order to determine the efficacy of treatments for specific disorders, and to, of course, contribute to research knowledge regarding psychological interventions. It is also the case that, in individual clinical practices, clinical psychologists are encouraged to gather data in a similar fashion so that they can assess their own clinical work and evaluate the effectiveness of their own treatments. The ethical principles and standards of practice from numerous countries indicate that this should be done. Moreover, clinical psychologists are encouraged to publish their own work, including case reports, because information on assessment data can contribute to the quality of assessments in the future.

Importance of Context

Gender, race, socioeconomic status, family history, history of the symptom picture, history of interpersonal relationships, history of functioning, current symptoms, relationships, functioning, and culture are all important factors to take into account to understand and help a patient(s) who is seeking treatment. For example, knowing that a person who meets the diagnostic criteria for Major Depressive Disorder in the *DSM-5* has received the diagnosis following the death of his children and who has worked diligently and successfully in a competitive building construction environment and desires strongly to be rid of the depression may be dealt with clinically in a very different manner than an individual who has the same diagnosis but has had it for 20 years, has never worked for more than a few months, or established or maintained any relationships, and has adapted to the level of depression.

Thus, interview information, scores on psychometric instruments, and other information collected during a clinical assessment must be interpreted given the context of the person's life, gender, history, living circumstances, and culture.

Interpretation, Decision Making, and Prediction

In the work of clinical psychology, clinical psychologists are seemingly always weighing alternatives, interpreting responses and scores, making decisions, and drawing conclusions. Whether the decisions reflect clinical issues such as diagnosis or formulation, prediction of specific behavior such as suicide potential, or research issues such as selection of appropriate measures to be included in a study or which statistical test to use, appropriate choices and conclusions need to be made. It is most often the case that contradictory or counterintuitive findings are found and the clinical psychologist must reconcile these. People are very complex and the clinical psychologist uses his or her training and expertise in a variety of domains to understand the person and the difficulties of that person.

There is often an enormous amount of information the clinical psychologist has when conducting assessments, and, at times, judgments and decisions need to be made based on information that may or may not have good reliability or validity. Information from the referral source, initial interviews, reports from family, psychological testing data from several different psychological instruments, as well as clinical impressions, all provide data relevant to the assessment. It is normally expected that some information gleaned from the data collection in assessments will be complex, and, at times, contradictory, ambiguous, and inconsistent. It is the job of the clinical psychologist to reconcile or understand the complexities and inconsistencies, to integrate this information, and make appropriate clinical decisions. How does the clinician come to conclusions and make appropriate decisions? Generally, there

are two approaches, both of which can be used in clinical assessments: the **quantitative or actuarial approach** whereby scores on measures are used in statistical formulae in making decisions and the **clinical judgment approach** whereby clinical experience and clinical intuition is used in making judgments.

Quantitative or Actuarial Approach

The nature of some of the data in a clinical assessment lends itself to fairly straightforward interpretation. With psychological tests, scores that a person or persons obtain on the tests can be compared to normative data in order to determine whether the person scores, generally, low, average, or high on the measure and then a clinical judgment can be made. Thus, there is little interpretation or subjective judgment needed in understanding the level of the score. When the process of making decisions or predictions involves the clinical psychologist assigning a score to some characteristic of a person and the use of statistical formulas or cutoff scores, it is known as a **quantitative approach**. That is, rather than using clinical impressions or basing decisions on clinical experience, the clinical psychologist uses the scores from tests or other information in a statistical fashion in order to make decisions or come to conclusions.

Clinical Judgment or Subjective Approach

In assessment there are many decisions that are made based on clinical experience, intuition, subjective impressions, and idiosyncratic information relevant to the individual patient. When the process of making decisions is based on these kinds of processes, it is known as **clinical judgment**. This is often based on information that can be quantitative, qualitative, or impressionistic in nature. At times, the information used can be somewhat unclear and ambiguous on the one hand, but can provide information that is broader and deeper due to the exploration of issues, psychological processes, and symptoms. For example, interpretation of interview and historical information can often be ambiguous and potentially inaccurate, not because people are trying to create inaccurate pictures of themselves, but because people are not very good personal historians (Kerns, 1986). The clinical psychologist will need to integrate this information and determine first if the information is reliable or accurate and second, the best way to integrate the information.

Although it is possible to use both actuarial approaches and clinical judgment in some assessments, there has been a great deal of attention paid to how accurate each approach is in making clinical predictions. In 1954, Paul Meehl published a landmark paper that suggested that when attempting to make specific clinical decisions using data from assessments, actuarial methods of decision making in clinical work were better than decisions based on clinical judgment. These findings created quite a controversy within clinical psychology, and a great deal of research has been done on this issue since the original article. The findings of this research, in general, provide evidence that statistical models are better than or equal to clinical judgment (Grove, Zald, Iebow, Snitz, & Nelson, 2000) in some, but not all, clinical decisions. It is important to note, however, that both approaches are utilized in clinical assessment and other aspects of a clinical psychologist's work. Each type of decision-making process has shortcomings and a place in making clinical judgments.

Clinical Decision Making and Errors in Judgment

Although there is always concern for good decision making, clinical psychologists are human and susceptible to some of the cognitive and decision-making errors or biases that everyone is prone to. This stems from the fact that clinical psychologists use the same processes in making decisions and judgments that others use and can be susceptible to the same errors that others make in decision making. This can be the case in both clinical work and in research of the clinical psychologists (Tversky & Kahneman, 1974) and, of course, the decisions can often have a major impact on people's lives and the quality of their lives can be, sometimes, profoundly affected.

In fact, there seems to be consensus within the field of clinical psychology that making clinical decisions can be compromised because of cognitive errors that clinicians can make. For this reason, a good deal of attention has been paid to the possible sources of error in the clinical decision-making process. What are some of the major sources of error that may be particularly relevant to clinical psychologists?

Base Rate Issue

In making judgments or predictions, clinicians can make errors by not taking account of the rate that particular behaviors, traits, symptoms, or disorders occur in the general population. For example, in making judgments about low-frequency events, it is easy to view these events as more common than they actually are due to not taking **base rates** into account.

Barnum Effect

A variation on the base rate issue is the notion of Barnum statements, named after P. T. Barnum, the American showman and circus owner who was known for creating hoaxes and for his famous quote: "There's a sucker born every minute." The idea with the **Barnum effect** is that statements can be made of an individual that sound idiosyncratic and uniquely descriptive, but are actually so commonplace among people that they become meaningless for the particular person. For example, read the following description:

> This is a person who can handle stress reasonably well, but, at times, can feel somewhat burdened and overwhelmed by demands. At these times he or she may feel less than self-confident and exhibit low self-esteem, especially if the stress involves some type of event that has resulted or may result in a failure of some sort. He or she may also feel somewhat depressed or anxious at times, and, in times of significant distress, feel somewhat helpless. This is especially the case if the person experiences a personal loss of some sort.

Although this paragraph may sound like it pertains to a particular person, it describes many, many individuals who are actually well adjusted overall. Re-read the paragraph and see if it describes you.

Illusory Correlation

Based on steadfast beliefs in the relationship between certain clinical variables, clinicians may make judgments based on these nonveridical relationships. For example, many people

believe that the full moon will produce untoward and chaotic responses in individuals. Even though there are no data supporting the supposed correlation between phase of moon and erratic behavior, many people maintain this belief. This is known as an **illusory correlation** and can be seen with clinicians who believe that certain signs or behaviors may be indicative of some meaningful clinical entity when, in reality, there is no relationship.

Preconceived Ideas and Confirmatory Bias

This source of error is similar to the illusory correlation in the sense that, based on preconceived ideas or on a theoretical perspective, clinicians will look for evidence to **confirm** their prejudged or preconceived notions, and, importantly, ignore disconfirming information. In continuing with our example of the moon and erratic behavior, one way that the myth is maintained is that people with notice and pay attention to times and situations where there is a full moon and erratic behavior is evident, but not notice or pay attention to times and situations where there is a full moon and there is no evidence of erratic behavior or when there is no full moon and lots of erratic behavior. In effect, the model, that full moon produces behavior, does not get evaluated or modified based on the disconfirming evidence.

Inappropriate Use of Heuristics

Heuristics are cognitive shortcuts that normally serve us well in making quick judgments and decisions (Elstein, 1988). Errors can occur when the heuristics are used inappropriately or in inappropriate situations. Two heuristics, in particular, can come into play in clinical work**,** the **representativeness heuristic**, which leads to the erroneous belief in the reliability and validity of small numbers, and the **availability heuristic**, which leads to putting too much weight on vividly recalled information (Grove et al., 2000). For example, the availability heuristic involves the belief that the more easily we can bring an event to mind, the more frequently that event must occur. The availability heuristic is at play when we believe we are in danger of crashing when flying because we can easily recall horrific airline crashes or when buying a lottery ticket we may believe we have a good chance of winning the lottery because we can recall photos of winners in the newspapers or on television. In terms of clinical judgment, because some low-frequency event may have occurred in a dramatic fashion (e.g., suicide), the clinician may have the belief that that event occurs more frequently than it actually does.

Fortunately, in the training of clinical psychologists there are strategies taught that can combat these and other sources of bias and error in the work of clinical psychologists (Turk and Salovey, 1988). One such important strategy is to acquire knowledge about factual base rates of problems like suicide or schizophrenia or alcohol dependency.

Conclusion

Overall, the student should have an overview and a general understanding of the domain of clinical assessment for clinical psychologists. It is an important component of a clinical psychologist's work and can provide extremely important information regarding the difficulties a person, couple, or family experiences as well as options regarding attempting to treat the difficulties. Moreover, it is assessment that is one of the unique abilities that clinical psychologists utilize that other mental health professionals do not have the training or expertise to perform.

Ongoing Considerations

Assessment has a long history in clinical psychology and remains one of the truly unique aspects of the identity of clinical psychologists. There has been some concern that assessments were becoming less relevant to clinical psychology; however, it is clear that this type of activity remains one of the important tasks that clinical psychologists perform. Recently there has been concern that psychological assessments procedures, like psychotherapy, have to have empirical support in order for these procedures, be they tests or techniques, to be used. There certainly has been a long-standing tradition of demonstrating the reliability and validity of assessment procedures; however, there are even higher expectations of the efficacy and utility of psychological assessments. Furthermore, clinical psychologists need to remain sensitive to the fact that every assessment modality has unique strengths and weaknesses and that the hallmark of competence in assessment is knowing how to aggregate an assessment package where the various modalities balance each other's strengths and weaknesses.

Key Terms Learned

Actuarial approach, 123
Availability heuristic, 125
Barnum effect, 124
Base rate issue, 124
Clinical judgment approach, 123
Confirmatory bias, 125
Core competencies, 106
Ego strength, 114
Formulation, 112
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Psychological assessment, 105
Psychological mindedness, 114
Psychological testing, 105
Representativeness heuristic, 125
Quantitative approach, 123
Techniques, 108
Tests, 107

Thinking Questions

1. What are the differences between diagnosis and formulation? What role does each play in an assessment?

2. Explain the major goals of psychological assessment.

3. What are the similarities and differences between tests and techniques in assessment?

4. Describe the different types of psychological assessments and give examples of each.

5. Clinicians, like other people, can make cognitive errors when making judgments or decisions. Describe the kinds of errors. What sorts of effects do you believe these errors can have? Give examples.

6. Why do you think it is important to provide feedback to patients following an assessment?

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7 Psychodiagnostic Assessment

Chapter Objectives

In the previous chapter, we discussed the role of the clinical psychologist in psychological assessment as well as the purposes of assessment in practice and research. The next three chapters will provide descriptions and critical evaluations of the many tools available to the clinical psychologist for assessing individual differences, for making diagnoses, formulations, treatment recommendations, and tracking progress in therapy. In this current chapter the learning objectives are:

- An understanding of one particular type of clinical assessment, namely, the psychodiagnostic assessment and its uses.
- An appreciation for the techniques and tools used to conduct this kind of assessment.
- An understanding of the uses, strengths, and limitations of the clinical interview, objective tests, and projective tests.

Psychodiagnostic Assessment

One of the more common kinds of assessments done by clinical psychologists is the psychodiagnostic assessment, which is done either at the beginning of therapy to guide case formulation and treatment process, or is conducted for the sole purpose of establishing a diagnosis and/or case description. These kinds of assessments are also referred to as personality assessments, diagnostic assessments, pretreatment assessments, or just plain psychological assessments. In these assessments, patients' problems and concerns are delineated, diagnostic status is determined, as are issues pertaining to the formulation of the problem, contextual features of the individual and situation, and issues regarding appropriate treatment for the particular patient. Although the choice of particular tools used in assessments and the inferences made from these tools can vary somewhat from clinician to clinician, based on the theoretical orientation of the clinical psychologist, the most comprehensive assessments usually include a clinical interview and psychological testing. Colleges of Psychology require the psychologist to actually meet the person who is to be assessed. The tests may include

- objective (e.g., self-report questionnaires) and
- projective techniques (e.g., responses to ambiguous stimuli)

- information from collateral sources (i.e., reports from other mental health clinicians, referral information, and information from family members)
- a feedback session that clarifies issues in the assessment, presents a description of the relevant findings, and presents the treatment options to the patient
- a report to the referral source.

An example of a comprehensive psychodiagnostic assessment is presented in the previous chapter (see Box 6.2). Readers are strongly encouraged to return to that example as they work through this chapter.

Although there are large numbers of possible assessment tests and techniques, for the most part, there are relatively few that are used commonly and these have been refined and revised over the years. In the following sections, we present information on some of the tests and techniques that are used commonly in psychodiagnostic assessment. It should be noted that the well-trained clinical psychologist uses a **multimethod approach** in assessment to balance out the relative strengths and weaknesses of any one single instrument and no one instrument is used solely. All information needs to be considered and both confirming, and, as discussed in the previous chapter, disconfirming evidence as well as contradictory evidence needs to be taken into account.

What Are the Tests and Tools Used in Psychodiagnostic Assessment?

Several surveys have been done over the years to determine which psychological tools are used most frequently by clinical psychologists. Typically, these studies survey clinical psychologists to determine what instruments are used in their assessments, and, essentially, tally up the numbers and present a percentage of the sample using a particular instrument. Not all psychological tests used in assessments will necessarily show up in these surveys; however, the major instruments certainly do.

The majority of the surveys have focused on American samples and there is a surprising consistency over the years. Three of the most recent surveys (Camara, Nathan, & Puente, 2000; Watkins, Campbell, Nieberding, & Hallmark, 1995; Wright et al., 2017) assessed samples of American Psychological Association members who indicated that clinical psychology was their specialty and asked numerous questions about their assessment practices. The most frequently used tests are included in Table 7.1 for these studies. The top 10 instruments are similar in both studies suggesting a surprising consistency in instruments used over the years. In fact, many of these same instruments or revisions of the instruments show up in similar surveys from decades before (e.g., Lubin, Wallace, & Paine, 1971). Both objective (MMPI-2) and projective techniques (RIT, TAT) were in the top 10 suggesting that these assessment instruments are consistently and frequently used.

One study on assessment practices outside of North America, Bekhit, Thomas, Lalonde, and Jolley (2002), assessed 158 supervisors from a British university regarding assessment practices and instruments used. Approximately 13% of the clinical psychologists' time was spent in clinical assessment. Most commonly, clinical interviews were mentioned and there seemed to be less use of formal objective and projective assessment instruments than in North America.

TABLE 7.1 Frequency of Test Use

Test	*Watkins et al. (1995) Ranking*	*Camara et al. (2000) Ranking*	*Wright et al. (2017) Ranking**
Clinical Interview	1	–	–
Wechsler Adult Intelligence Scale	2	1	3
MMPI-2	3	2	2
Sentence Completion	4	–	(6)
Thematic Apperception Test	5	6	(6)
Rorschach Inkblot Technique	6	4	5
Bender-Gestalt	7	5	(6)
Drawing Tests	8	8	(6)
Beck Depression Inventory	9	10	1
Weschler Intelligence Scale for Children	10	3	4
Wide Range Achievement Test	–	7	–
Wechsler Memory Scale	–	9	

Note: Not all measures were used in the Wright et al. (2017) study. The (6) denotes tie for "other projectives." Also, "–" denotes that the instrument was not included in the study.

Clinical Interviews

As suggested by the information in the Watkins et al. (1995) study, the clinical interview is likely the mainstay of clinical assessment and used in essentially all clinical endeavors. Irrespective of the clinical orientation of the clinical psychologist, the clinical interview (also known as the initial interview) serves numerous purposes:

1. It is a means of gathering clinical data and provides information on the difficulties the individual has as he or she perceives them.
2. It provides information about **process-related variables** such as how comfortable the patient is with the clinical enterprise, whether the person is forthcoming with information, is the person likely to engage in the therapeutic process, or is the patient aloof and hostile, to name a few.
3. It provides, for many people, the first clinical exposure he or she has (in their first clinical encounters, many patients have some inaccurate preconceived notions of what the process might entail. For example, the only information people may have about psychotherapy might be from television sitcoms or B horror movies) and provides an opportunity for the patient to have a positive clinical experience.
4. It provides an opportunity to initiate and develop a good therapeutic alliance, which is crucial for proper assessment and to facilitate effective treatment.
5. It provides a context for understanding the nature of the difficulties and the important contextual variables that can contribute to treatment.

An interview can be thought of as a one-sided conversation with an agenda of attempting to understand the patient from a clinical perspective. By this we mean the clinical psychologist engages the patient in a dialogue that focuses on the personal issues the patient is

requesting help with. The dialogue is not a two-way dialogue, as in social situations where both participants discuss and disclose personal aspects of their lives, but rather, focuses solely on the patient's issues. The clinical psychologist gathers information by observing and questioning, discussing, and clarifying aspects of the patient's behavior. Importantly, the clinical psychologist learns about the patient not only from what the patient says about himself or herself, but also by how the patient says it and how he or she presents in the interview. A second objective of this clinical interview, especially when it marks the likely beginning of psychotherapy, is the initial building of a therapeutic alliance.

The clinical psychologist has to create an environment that is safe, secure, and private, free from interruptions so the patient feels free to talk about issues that are often deeply personal and that may have never been revealed to others. The clinical psychologist needs to create this atmosphere of acceptance, warmth, and professionalism so the patient can feel as comfortable as possible in revealing personal information. The skills a clinician must have conducting interviews involve the following:

1. The ability to listen closely and in a nonjudgmental fashion to the content of the patient's utterances
2. Ability to listen for how the person says things
3. Being aware of nonverbal behavior and subtle changes (e.g., tone of voice, facial expressions) in the behavior of the patient during the interview
4. Drawing connections among disparate kinds of information
5. Having knowledge of probing questions to ask in order to uncover relevant information.

Typically the interview is the first task the clinical psychologist engages in with a patient and rather than simply passively sitting, the clinical psychologist is very busy during an interview gathering data from multiple sources and processing and connecting that information, formulating and testing hypotheses about the patient, looking for confirming and disconfirming evidence, keeping track of time, remembering what aspects of personality and psychopathology to tap, and so forth. This is done so the clinical psychologist can derive some tentative conclusions regarding the diagnostic picture and the clinical formulation. These hypotheses and conclusions come not only from what information the patient provides or what he or she says, known as the **content information,** but also the manner in which the person behaves and provides information, known as **process information**. For example, a patient may provide information regarding feelings of disconnection and feelings of unreality (known as **derealization**) but does so in a vague, nonforthcoming manner. Both aspects of the information, the presence of derealization and the vague presentation of the information, will be processed by the clinical psychologist in helping to come to conclusions regarding the assessment of difficulties and treatment possibilities.

A very useful general approach to assessment derives from a concept that Sigmund Freud described known as **psychic determinism**. Essentially the idea with psychic determinism is that everything (i.e., every overt and covert behavior) has some goal, meaning, purpose, and cause. Thus, the clinician needs to be aware of and pay attention to all (or as many as he or she possibly can) behaviors the patient exhibits. It is important to understand that paying attention to all behavior does not mean that the clinical psychologist will necessarily know the meaning or cause of every behavior of a patient, but what it does is orient the clinician to pay attention to as much of the patient's behavior as he or she can. Much of this information may be particularly useful in the assessment. Thus, the gathering of information about a person starts with such things as the initial contact on the telephone, when meeting in the waiting room, paying attention to dress, how the person interacts with receptionist,

and so forth. The clinical psychologist must always have his or her clinician's hat on when interacting with a patient!

The areas usually covered in a clinical interview include the following:

1. *Demographic information*: Name, age, sex, marital status, people in family, religion, race, occupation, marital status, contact information, and so forth.
2. *Presenting problem and reason for referral*: What are the major complaints that the patient is seeking help with and what are the specifics of the problem (e.g., signs, symptoms, duration and severity of signs and symptoms)?
3. *History of problem and psychological history*: How long have difficulties been present and what are the events or situations that may have triggered the initiation of the symptoms/difficulties? What significant or traumatic events has the person experienced? What other disorders, syndromes, or symptoms have bothered the patient in the past? An often very revealing question is why the patient is seeking help at this particular time given that most presenting problems have a lengthy history.
4. *Medical history and present medical conditions*: What are the significant events in the patient's medical history and what medical conditions are currently present?
5. *Current and past social situation*: What is the nature and quality of the current living situation, intimate relationships, friendships, social network, and sources of support? What were past relationships like? What are current relationships like?
6. *Family history*: Are there psychological difficulties among family members? What family stressors exist?
7. *Childhood, adolescence, early adulthood history:* What was the family environment when the patient was growing up? Was the patient exposed to adverse events as a child (e.g., abuse, neglect, parental drug use, poverty). Was the family or parents supportive and available? How well did the patient perform academically and socially?
8. *Previous treatment sought*: Has the patient ever sought treatment for current problem(s) or sought treatment for other issues in the past? Was the help provided helpful and did the patient connect well with the therapist?

Although we have presented these areas as discrete sections of the interview, in reality, the clinical psychologist will cover these areas not necessarily in a step-wise fashion but in a more flowing interaction with the patient. **Open-ended questions** (i.e., questions that are not typically answered with a one-word, yes-no answer, such as "What was it like growing up in a logging camp?") are typically utilized in the interview. In order to get specific information, at times, the clinical psychologist will follow up open-ended questions with more specific **closed-ended questions** (i.e., questions that ask for very specific information such as "Did you feel isolated in the camp?"). The clinical psychologist will attempt to have the interview be like a warm social interaction rather than a rather stilted automated gathering of information.

An additional interview component is used, and, typically, it is incorporated throughout the clinical interview. This component is known as the **Mental Status Exam** (MSE). The MSE is thought of as the equivalent of a physical examination in medicine and attempts to cover most areas of functioning that reveal signs and symptoms of psychological problems. The domains that are focused on either explicitly (i.e., directly questioned) or observed include the following:

1. *Appearance*: Patient's appearance and dress
2. *Behavior*: Oddities of speech, behavior, involuntary movements, and so forth
3. *Orientation*: Patient's **orientation to time** (i.e., knows year, month, date), **orientation to place** (i.e., knows where he or she is), and **orientation to person** (i.e., knows who he or she is)

4. *Memory*: Patient's memory for recent and distant past events
5. *Sensorium*: Problems with any of the five senses
6. *Psychomotor activity*: Patient's behavior, such as exhibiting slowness of behavior (psychomotor retardation) or agitation/accelerated behavior (psychomotor agitation)
7. *States of consciousness*: Patient's level of awareness ranging from confusion and bewilderment to being clearly alert and aware
8. *Affect*: The patient's emotional expression as well as the level and appropriateness of affect (e.g., laughing while disclosing sad events)
9. *Mood*: The patient's general mood in the interview (e.g., angry, sad, apprehensive)
10. *Personality*: General terms used describe the patient (e.g., extroverted, manipulative, stubborn)
11. *Thought content*: The presence of **hallucinations** (seeing, hearing, smelling, or otherwise experiencing perceptions of things that are nonexistent) or **delusions** (i.e., untrue, unfounded beliefs—such as belief of being followed by government agents, aliens communicating with him or her)
12. *Thought processes*: Patient's speech in terms of whether it is logical, is rambling, or whether the patient has disconnected thoughts, loosening of associations (i.e., jumping very quickly from topic to topic, idea to idea), tangential speech, and so forth
13. *Intellect*: The judged level of intelligence of the patient, often based on the vocabulary of the patient
14. *Judgment and insight*: The quality of the patient's decision making, and his or her own understanding of his or her problems.

In addition to the MSE, there may be specific clinical concerns that the clinical psychologist has that are also addressed in the interview. For example, if there is reason to believe the patient may be suicidal or homicidal, the clinical psychologist will do a suicide or homicide risk assessment. A procedure used to assess imminent suicide or homicide risk is presented in Box 7.1.

BOX 7.1 ASSESSMENT OF SUICIDE RISK

Although completed suicide is a rare event, it is a real concern for individuals with a variety of disorders and psychological problems. Because suicide tends not to be an impulsive act but rather an act that has been thought about, considered, and sometimes even talked about with others (Yufit & Lester, 2005), the risk of making a suicide attempt can be evaluated. In the assessment of suicide or homicide risk, the patient is asked a series of questions that reflects the degree to which a person has considered suicide. A positive response to each question increases the risk. The questions involve:

1. Are you thinking of suicide?
2. Do you have a plan, and, if so, what is the plan? (The more detailed the plan, the greater the risk.)
3. Do you have the means to follow the plan out (i.e., do you know which bridge you are going to jump from, do you have a gun at home with bullets, etc.)?
4. Are you going to attempt suicide? Have you ever attempted it in the past?
5. If not, what is keeping you from making the attempt, that is, what are some reasons you are not making the attempt? The clinical psychologist is interested in determining if there are significant reasons for living—such as religious beliefs or protection of the person's family from the devastation suicide would cause.

Unstructured Interviews

Initial interviews can vary in terms of structure. For example, the previous description of a clinical interview is based largely on an unstructured or semi-structured interview that is likely by far the most common type of clinical interview (Mohr & Beutler, 2003). Some interviews will be almost completely unstructured whereby there is no standardized format. Moreover, these interviews can be very flexible in that the clinician allows the patient to talk about whatever issues come up and the clinician may probe further into some aspects of the patient's functioning based on his or her clinical judgment. These sorts of interviews are used often by psychodynamically trained clinicians and by those who work from a client-centered perspective. Because of the lack of structure and the clinical judgment that is inherent in these unstructured interviews, they have been viewed by some as lacking in reliability and in some forms of validity. Some of the benefits and drawbacks of the unstructured and semi-structured interviews are below.

Pros of Unstructured Interviews

1. Facilitates rapport with patient.
2. Flexibility of interview that can shift and alter based on patient's responses.
3. The interview can be modified both before the interview and "on the fly."
4. The interview is not limited by certain tools or norms.

Cons of Unstructured Interviews

1. It is difficult to know the reliability and validity of the interview given the variation from clinician to clinician.
2. Unstructured interviews lack reliability.
3. The interviews may be susceptible to clinical biases.

Structured Interviews

Other interviews that are used, especially in research settings, are highly structured and are used specifically for establishing diagnostic or symptom information. These types of interviews are known usually as **Structured Diagnostic Interviews** and are typically based on the diagnostic criteria of the *DSM-5* or some other diagnostic system. The major purpose of the Structured Diagnostic Interview is to provide a clear diagnosis and not necessarily provide information on other domains of clinical interest. In these interviews, the clinical psychologist follows a specific regimen of questions and covers very specific topics. A finite list of signs and symptoms associated with various disorders are spelled out and all the questions are prepared beforehand with specific phrasing and specific decision trees to follow based on the responses of the patient. Also, typically, choices for responses are also given. According to Mohr and Beutler (2003) the Structured Clinical Interview for Diagnosis (SCID; First, Spitzer, Gibbon, & Williams, 1997) is the gold standard for establishing *DSM*-based diagnoses.

Structured Diagnostic Interviews are used mainly in research contexts because the structured nature of the interview enhances the reliability of the diagnosis. These kinds of interviews are not typically used in clinical contexts due, likely, to the length of time it takes to complete the interview and the clinician is often interested in more information than simply the presence or absence of signs and symptoms.

Pros of Structured Diagnostic Interviews

1. High levels of reliability of diagnoses.
2. Good tools for research settings.
3. Can have modules for specific disorders.

Cons of Structured Diagnostic Interviews

1. The interview's content is constrained only to diagnosis.
2. Time-consuming to conduct the interview.
3. Does not give information pertinent to treatment other than diagnosis.
4. Interview not as conducive to establishing rapport.
5. Process information not seen as relevant.

Objective Tests/Self-Report Inventories

Most times, clinical psychologists want to quickly and efficiently assess a variety of factors related to psychopathology such as symptom levels, personality factors related to the development and maintenance of psychopathology, and factors related to treatment of the psychological difficulties. The clinical psychologist can use what are termed **objective tests** or tests that have carefully worded self-report questions to be answered or items to be rated. Objective tests are structured tests that usually take the form of presentation of a series of items (e.g., "I am sad" or "I am afraid of people") assessing some facet of personality or psychopathology, and a rating of the items with a limited range of responses (e.g., True or False, Agree or Disagree, or ratings of agreement on a scale from 1 to 7). The tests are objective in the sense that the items and possible responses are predetermined, measure aspects of functioning that the patient is aware of and can rate, and are amenable to scoring in an objective fashion (i.e., often by just summing the ratings!).

Objective tests, also referred to as **self-report inventories**, have been used historically, frequently, and in a variety of settings and represent an important tool for clinical psychologists. The tests, very generally, assess conscious aspects of a person's functioning. That is, the patient provides ratings of his or her own behavior and rates his or her behavior based on their own knowledge and awareness of their own behavior. Thus, information that is not necessarily accessible to the individual (e.g., process-related issues, unconscious processes, defenses) is not tapped.

Although objective tests have many advantages including ease of administration, economy in terms of time and cost (e.g., self-report inventories can be administered to large groups of individuals at one time and can be completed without a clinician present), ease of scoring, and, frequently, ease of interpretation. On the other hand, the objective tests can be problematic for the patient in the sense that there are no opportunities to qualify answers or expand upon and explain what each response means. As well, due to the ease of scoring and seeming ease of interpretation, self-report measures can be open to being used inappropriately.

One particular difficulty that exists by virtue of the fact that the objective tests assess behaviors the patient is aware of is that patients can answer in ways that present a false picture of themselves to the clinician. For example, some individuals may want to present themselves in the best possible light (e.g., if being assessed for custody or if being assessed for early parole from jail) or in the worst possible light (e.g., being assessed for psychological trauma from a car accident for insurance purposes; trying to get quicker access to services). These

are known as **response sets** or **test-taking attitudes** and they can influence the accuracy of the assessment data being gathered. There are numerous types of response sets including the following:

1. *Under-reporting of psychopathology*: The patient attempts to present himself or herself in an overly positive or favorable light.
2. *Over-reporting of psychopathology*: The patient attempts to present himself or herself in an overly negative or unfavorable light.
3. *Acquiescence*: The patient agrees with whatever the item states.
4. *Nonacquiescence*: The patient disagrees with whatever the item states.
5. *Carelessness or inconsistency*: The patient is not being consistent in responding or not paying attention or responding randomly to items.
6. *Self-deception*: Patients may chronically underestimate problems or may be overly optimistic and positive.

Thus, when conducting an assessment it is important to assess and control these response sets to determine whether a particular patient's responses are valid or not. Test developers have come up with some very creative ways to tackle these issues. It should be noted that although the measurement of response sets is used to determine whether the test results are accurate and valid and whether the instrument itself should be interpreted, these measures themselves can also provide important information regarding how the patient is approaching the clinical experience, and, potentially, aspects of the person's personality (e.g., Butcher, 1990). For example, it is very useful to know that the person tends to be, for example, dishonest in his or her participation in the clinical process. How the response biases are dealt with varies from test to test and will be described in the context of a number of very popular psychodiagnostic tests that require extensive training to allow for proper interpretation.

Minnesota Multiphasic Personality Inventory (MMPI), MMPI-2, and MMPI-2 Restructured Form (MMPI-2-RF)

The MMPI (Hathaway & McKinley, 1940) and its revision, the MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is one of the most frequently used and most researched self-report clinical personality instruments (Nichols, 2001). It has a long history of usage in clinical psychology and has been used in assessments since its development in the 1940s. Initially developed by the psychologist Starke Hathaway and the psychiatrist John McKinley to aid in the quick diagnosis of psychiatric patients in Minnesota, the MMPI quickly developed into one of the most accepted and frequently used self-report psychological assessment instruments in the world. It also has received an incredible amount of empirical attention with thousands of research articles published on the MMPI itself or using the MMPI in a research protocol (Nichols, 2001). Although the MMPI was seen as an extremely useful measure, over the years, numerous shortcomings of the instrument were identified (e.g., poor normative sample and inappropriate wording and word usage), and it was revised in August 1989, under the name of the MMPI-2. In the revision, there was an attempt to retain both the strengths of the original MMPI and to correct some of the more problematic issues such as use of a more appropriate normative sample, correcting grammatical errors, updating the language, and incorporating new items and subscales of clinical significance.

TABLE 7.2 Minnesota Multiphasic Personality Inventory-2 Scales

Scale Name	*Description*
Validity Scales	
L (Lie)	Defensiveness
F (Infrequency)	Over-reporting of Symptoms
K (Correction)	Subtle Defensiveness
TRIN (True Response Inconsistency	
VRIN (Variable Response Inconsistency	
Clinical Scales	
1 (Hypochondriasis)	Body Complaints
2 (Depression)	Depression
3 (Hysteria)	Hystrionic Defenses
4 (Psychopathic Deviation)	Psychopathy
5 (Masculinity/Femininity)	Gender Role Identity
6 (Paranoia)	Paranoid Thoughts and Ideas
7 (Psychasthenia)	Obsessive Rumination, Anxiety
8 (Schizophrenia)	Psychotic & Social Withdrawal
9 (Hypomania)	Mania or Sub Manic Behavior
10 (Social Introversion)	Social Introversion

The MMPI/MMPI-2 is appropriate for adults aged 18 years and above and has been used for a variety of purposes in addition to psychodiagnostic assessments such as initial screening for psychopathology, personnel selection, marital therapy and marital suitability, and treatment outcome studies (Greene, 2000). It has a total 15 scales including 5 validity scales used to assess test-taking attitudes and 10 clinical and personality-related scales. Table 7.2 presents the names and brief descriptions of the scales. In addition, the MMPI-2 has incorporated numerous additional clinically relevant scales.

Validity Scales

Hathaway and McKinley identified early on that response sets of patients were going to be an issue and in order to control for these response biases, three subscales were developed and are referred to as the Validity Scales. Validity, in this case, refers to how valid the test results are for a particular patient. A high score on one or more of the validity scales can either invalidate the entire test results and with more moderate scores the response set must be taken into account when interpreting the findings.

There are two measures of defensiveness or under-reporting of psychopathology. The **L Scale**, originally called the Lie Scale and designed to measure defensiveness, contains items that reflect behaviors that are somewhat negative but are also quite common, such as, "I do not always tell the truth" or "I get angry sometimes." If a person is not prepared to reveal anything negative or unfavorable about himself or herself, then that person will score highly on this

measure. The **K Scale**, which was also developed as a means of assessing frankness and desire to present an overly positive image of the self, is used as a correction for certain kinds of psychopathology where being defensive or overly critical may be a part of the disorder. The items of the K Scale are more subtle than those of the L Scale (e.g., "People often disappoint me" and "I like to let people know where I stand on things"), and, hence, are less susceptible to overt conscious attempts to over- or under-report psychopathology. Finally, the **F Scale** (also known as the Infrequency Scale) is a measure of unusual attitudes and behaviors seen in severe psychopathology or in individuals seeking to present the self in a negative and unfavorable light. Items that reflect the unusual content of the F Scale such as "When I am with people, I am bothered by hearing strange things" and "No one cares much about what happens to you." The scores on these scales and particular patterns among the three scales can provide information on test-taking attitudes and aspects of the person's personality styles (Graham, 2000).

In the MMPI-2, the three validity measures were retained and several other measures assessing test-taking attitudes and the consistency of responding (i.e., assessing whether the person was consistent in responding throughout the test) were added to facilitate the assessment of response sets.

Clinical Scales

With respect to subscales assessing clinical syndromes and personality features more specifically, both the MMPI and MMPI-2 have 10 major clinical scales with labels that are, in some cases, somewhat antiquated but indicative of the nomenclature of the time of the development of the MMPI. Nowadays, rather than use these old terms, the subscales are referred to by numbers, as indicated in Table 7.2. There are four clinical scales that assess disorders within the neurotic spectrum: Hypochondriasis, Depression, and Hysterical Neuroses, and Psychasthenia (Scales 1, 2, 3, and 7), one that measures behaviors consistent with psychopathy, called Psychopathic Deviation (Scale 4), and three that measure disorders in the psychotic spectrum: Paranoia, Schizophrenia, and Hypomania. Finally, the last two clinical scales measure clinically relevant personality characteristics relating to social inhibition and introversion, known as Social Introversion Scale, and traditional gender role identity, known as the Masculinity/Femininity Scale.

Although the clinical scales mostly bear the names of various disorders, the clinical scales actually measure behaviors and characteristics that are evident in individuals with those disorders rather than behaviors that are uniquely diagnostic of the disorder. For example, according to Groth-Marnat (1990) Scale 1 (the Hypochondriasis Scale) indicates "a variety of personality characteristics that are often consistent with but not necessarily diagnostic of hypochondriasis" (p. 200). Thus, elevations on this clinical scale *may be* suggestive of a diagnosis of hypochondriasis but are more indicative of personality characteristics and behaviors that reflect high concern with illnesses, tend to be dissatisfied, immature, pessimistic, and controlling of others. Other clinical scales are understood as measuring characteristics of the disorder rather than the disorder per se.

Interpretation

The MMPI was originally designed to be able to aid in the quick diagnosis of patients with one or more of the commonly occurring disorders of the time. It was thought that one or two of the clinical scales would be elevated in a patient and that the elevations could aid in quickly diagnosing the individual. Instead, it became clear that patients' profiles did not conform

to such a simple notion and that, often, numerous clinical scales were elevated (Graham, 2000). The initial purpose of the MMPI was not met in terms of quick diagnosis but the interpretation of patterns and configurations of elevations was found to be very useful and is, essentially, the procedure that is used today. Many of the relevant clinical correlates of the scales and combinations of scales, through the extensive research that has been done over many years, form the basis for interpretation of the MMPI and MMPI-2. So, for example, in addition to providing diagnostic and symptom information, the MMPI-2 provides other kinds of information relating to interpersonal issues, personality characteristics, coping and defenses, issues related to personality disorders, and so forth.

The actual process of interpretation involves a multistage process that is pretty consistent with the interpretation of any measure used in clinical assessment. First, the clinical psychologist must ensure that the proper conditions for testing were established. Second, the clinical psychologist needs to determine the validity of the test responses and ensure that the protocol is valid. Third, the clinical psychologist interprets the clinical scales and patterns of scores. Fourth, the clinical psychologist interprets the other scales in the MMPI or MMPI-2 (e.g., supplementary scales and other content scales) to facilitate and fine tune the overall interpretation.

An example of an interpretation of the MMPI-2 profile of "Greg" is given in Box 7.2.

BOX 7.2 MMPI SCORES AND INTERPRETATION OF "GREG"

Scale	*Raw Score*	*T-Score*
Validity Scales		
Frequency	17	90*
Back Frequency	11	87*
Lie Scale	5	55
K Scale	10	39
VRIN	8	60
TRIN	10	63
Clinical Scales		
Scale 1 Hypochondriasis	10	42
Scale 2 Depression	18	50
Scale 3 Hysteria	12	33
Scale 4 Psychopathic Deviate	24	52
Scale 5 Masculinity/Femininity	27	52
Scale 6 Paranoia	18	79*
Scale 7 Psychasthenia	30	56
Scale 8 Schizophrenia	44	81*
Scale 9 Mania	25	62*
Scale 10 Social Isolation	25	50

Note: * Score is above the clinical cutoff of 65.

The validity scales (L, F, & K) indicate that Greg approached the MMPI-2 in a valid manner. His L- and K-Scale scores are not indicative of defensiveness. His T score of 89 on the F Scale suggests that he was admitting to a large number of deviant attitudes and behavior. However, the F-Scale score is not high enough to suggest random or fake-bad responding.

The high score on the F Scale, two clinical scale T scores higher than 75, and the 8–6 two-point code (highest elevations) are indicative of serious psychopathology. This impression is reinforced by significantly elevated scores on six of the content scales and by the positive slope (left side of profile low, right side high) of the clinical scale profile. The absence of high scores on scales 2 and 7 suggests that Greg is not feeling overwhelmed by emotional turmoil.

The 8–6 code type, with both scales quite high and both higher than the scale 7 score, indicates that Greg is likely to be experiencing frankly psychotic symptoms. His thinking is likely to be autistic, fragmented, tangential, and circumstantial, and thought content is likely to be bizarre. Difficulties in concentrating and attending, deficits in memory and poor judgment are likely. Delusions of persecution or grandeur and hallucinations may be present, and feeling of unreality may be reported. Greg is likely to have difficulty handling the responsibilities of daily life, and he may withdraw into fantasy and daydreaming during times of increased stress.

The MMPI-2 data are consistent with an Axis I diagnosis of schizophrenic disorder, paranoid type. No direct inferences can be made concerning Axis II diagnoses for Greg. However, the symptoms and personality characteristics suggested by the MMPI-2 scores are consistent with a diagnosis of schizoid personality disorder.

Source: Based on Graham (1993, pp. 256–257). Adapted with permission.

Reliability and Validity

It is incumbent upon clinical psychologists to ensure that the tools used in assessments have both reliability and validity for the particular client's culture and the testing objective. These concepts should be familiar to the student from previous course work and Chapter 3. The MMPI and the MMPI-2 have had extensive attention to assessing their reliability and validity, and there are many studies attesting to the psychometric strengths of the instruments. In terms of reliability, the MMPI-2 has been shown to have reasonable levels of reliability with estimates ranging from .58 to .92 for the clinical scales (Butcher et al., 1992). With respect to validity, using a variety of strategies, designs, and methodologies, the accumulating evidence suggests that the MMPI-2 shows appropriate levels of validity with diverse samples and methods, and, according to some authors, is a real strength of the MMPI/MMPI-2 (Graham, 2000; Nichols, 2001).

Overall, the reliability and validity of the MMPI-2 appears to be adequate. Most researchers would agree, however, that there are still aspects of the MMPI-2's psychometric picture that need to be filled out and replicated.

In summary, there are numerous positive features as well as shortcomings of the MMPI-2. These are listed below.

Pros of the MMPI-2

1. Strong and extensive empirical basis for interpretation.
2. Long-standing body of research.

3. Adequate reliability and validity for clinical and research purposes.
4. The measure is familiar, popular, well known, and respected.
5. Lots of clinical information is available on MMPI and MMPI-2.
6. Ease of administration and can be used with a variety of populations.
7. Objective, if somewhat complicated, scoring of the MMPI-2.
8. Assessment of a broad range of symptoms, syndromes, and personality features.

Cons of the MMPI-2

1. Excessive length of the instrument in comparison to other similar measures.
2. Although standardization sample is better than original, it may also be problematic.
3. Not sure if research on the MMPI can truly be generalized to the MMPI-2.
4. The labels for the subscales use antiquated terms which can produce some confusion.
5. Normative sample has a high level of education and socioeconomic status that may not be representative.
6. Interpretive process can be quite complicated.

MMPI-2 Restructured Form (MMPI-2-RF)

A newer extension of the MMPI-2 has recently been developed by Ben-Porath and Tellegen (2008) as a briefer, more comprehensive, and sophisticated measure of the validity and clinical scales in the MMPI-2. It was developed not to supplant the MMPI-2 but to be used as an alternative, and it focuses on psychological variables relevant to and underlying psychopathology. The authors developed new validity and clinical scales using the same items as the MMPI-2. This, purportedly, clarifies the validity and clinical scales providing cleaner measures of the relevant variables. These new scales are known as the Restructured Scales and are reflective of current models of psychopathology and personality. The MMPI-2-RF is being used in a broad range of settings and its utility has been demonstrated.

MMPI-A

Although the MMPI-2 is appropriate for adults, there is also a version that is suitable for use with adolescents, the MMPI-A (Butcher et al., 1992). This instrument is patterned after the MMPI-2 and is appropriate for ages 14 to 18 years of age. In the past, the MMPI was used with adolescents, arguably inappropriately. While the MMPI was being revised into the MMPI-2, there was also an attempt to develop a version of the MMPI appropriate for adolescents (Butcher et al., 1992). The scale comprises the majority of original items from the MMPI, after dropping some inappropriate items, re-wording some items, and including additional items that were pertinent to adolescents. The validity and clinical scales are the same as in the MMPI-2 for the most part, although some of the clinical scales have fewer items than the adult version. In addition, the supplementary scales are similar to the MMPI-2, but there are several supplementary and content scales relevant to adolescents. Although reliability and validity evaluation studies have not been done as extensively as with the MMPI/MMPI-2, several reports suggest that it is psychometrically strong and there seems to be a good degree of confidence in its clinical utility (e.g., Arita & Baer, 1998).

Other Omnibus Self-Report Measures

Millon Clinical Multiaxial Inventories

Although the MMPI-2 has dominated the field as the omnibus inventory for clinical use, Theodore Millon and colleagues have developed several clinical measures that are in use by clinical psychologists for use with adult clinical samples, adolescent clinical samples, and adult medical samples. The MCMI (the current version is known as the **MCMI-III;** Millon, 1997) is a 175-item measure of personality and psychopathology that is increasing in popularity. It was designed differently than the MMPI-2, uses a different scoring system for determining whether an individual exhibits psychopathology, and closely follows the *DSM* in the types of disorders assessed.

In two revisions, the MCMI-II and the MCMI-III, the original measure was revamped to directly accord with the *DSM* diagnostic criteria of the time. It has 28 subscales to measure validity of the test completion, response biases, personality patterns, and clinical syndromes.

It is important to note that the MCMI-III has been validated only on clinical samples and is appropriate for use only in clinical populations. Millon and associates have developed two other measures very similar to the MCMI-III, the Millon Adolescent Clinical Inventory (MACI) that has subscale measures of 12 basic personality styles, 8 expressed concerns common to adolescents, and 7 clinical syndromes. Finally, there is also a measure of psychological variables relevant in the development and treatment of physical health problems that has been developed. The Millon Behavioral Medicine Diagnostic measures response patterns, coping styles, psychological symptoms, stress-related variables, treatment issues, and problem health behaviors.

The strengths and weaknesses of the MCMI, as outlined by Strack (2002), are listed below.

Pros of the MCMI-III

1. Developed from a comprehensive theory.
2. Reflects current diagnostic system of the *DSM* and especially useful with personality disorders.
3. Provides diagnostic accuracy by taking into account base rates.
4. Strong test construction approach used.
5. Ease of administration.
6. Length of the measure is 175 items, which is shorter than other omnibus measures.

Cons of the MCMI-III

1. Imbalance in number of True and False items (Items that reflect psychopathology most often have a "true" response, therefore test is susceptible to acquiescence response set).
2. Test is weak in assessing subclinical levels of psychopathology.
3. Validity problems.
4. Subtypes of personality disorders not measured.
5. Normative sample is relatively small and may not be representative of minority groups.
6. Few validation studies.

The Personality Assessment Inventory (PAI)

A third objective measure that is gaining prominence in clinical settings as an omnibus measure of personality and psychopathology is the PAI developed by Leslie Morey (1991). The PAI is a 344-item measure that has 22 subscales that measure validity of the test responses, response biases, clinical syndromes, and personality variables. Morey also included some variables that are not available in other measures but are clinically significant such as suicide level, stress, treatment response indicators, and two variables reflecting the interpersonal style of the individual completing the test. Rather than attempting to measure the presence versus absence of a clinical disorder, the PAI was developed to try to measure dimensions of symptoms of disorders from mild to severe and to measure the underlying pathology. Although the test is somewhat newer than the MMPI-2 and the MCMI measures, its use seems to be increasing.

Rating Scales

At times clinical psychologists may want briefer measures of specific types of symptoms and there are numerous ratings scales that have been developed, typically for the purpose of attempting to measure the severity of symptoms of a particular syndrome. This can be done either for screening purposes or to monitor symptoms over the course of treatment. Although there have been several general symptom rating scales developed, such as the Symptom Checklist–90 Revised (Derogatis, 1994), that have subscale measures of symptom clusters (e.g., depression, anxiety, interpersonal sensitivity) often even more specific rating scales have been used. For example, Aaron Beck has developed two rating scales that are used quite commonly in clinical assessment, the Beck Depression Inventory and the Beck Anxiety Inventory. Both of these measures are 21-item scales that list depression and anxiety symptoms, respectively, and ask the patient to rate the severity of the symptoms. With respect to these scales, it should be noted that all measures of psychological distress, such as anxiety and depression symptoms, correlate highly with each other, typically in the $r = .50$ to $= .80$ range and that it is very laborious to develop a truly original scale that does not "re-invent the wheel." Our own experience with developing the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991) and the Behavioral Anger Response Questionnaire (Linden et al., 2003) bear witness to this claim.

Projectives

Whereas objective tests and the content of interviews provide information on aspects of patients' behavior that they have conscious awareness of, known as surface level of behavior, projective techniques attempt to assess behavior that is at a deeper level and that the person may not be aware of. The assessment of material that is not consciously available to the patient in question is particularly important in process-oriented treatments and treatments that do not focus solely on symptom reduction. Process aspects of the interview, or even the objective test administration, can inform the clinical psychologist about some of these deeper issues but only sometimes and only to a certain degree. Thus projective testing can be very useful for treatment planning. Moreover, an assessment of this kind of material can

also aid in the determination of vulnerabilities to forms of psychopathology, such as potential psychotic behavior, that objective tests cannot access.

Projective techniques take the form of the presentation of ambiguous stimuli wherein the patient is asked to interpret into a meaningful response and report on that response. The projective techniques sometimes provide standardized administrations, similar to objective tests, but the possible responses are not predetermined alternatives and the stimuli are ambiguous as opposed to objective. They are thought to provide information about deeper aspects of the person's personality and difficulties such as conflicts, defenses and coping strategies, interpersonal and cognitive/perceptual styles, motivations, and so forth. While there appears to be much criticism of projective techniques from some academic circles, the use of projectives remains a stable and important part of psychological assessment as indicated in the surveys of test usage in clinical assessment presented earlier.

Early on, the idea behind the projective technique was thought to be based on what is known as the **projective hypothesis**: Stimuli are perceived and organized according to an individual's motives, needs, emotions, conflicts, perceptual sets and cognitive structures that often operate outside the individual's conscious awareness (Teglasi, 2001). That is, responses to projective techniques reflect a projection of underlying or unconscious needs or conflicts onto the ambiguous stimuli. However, several prominent projective experts, including Hermann Rorschach who developed the Rorschach Inkblot Technique, suggested that projective techniques do not necessarily reflect the operation of the defense mechanism projection. In fact, it is thought that the responses to the stimuli are based on psychological characteristics including personality styles or traits, the current psychological state of the person, and a selection of one or more responses from a larger number of possible responses. Thus, what is seen as relevant in projective techniques is the organization of a response based on the individual's psychology rather than projection itself. This means that it is not so important that, when presented with an inkblot, the patient sees a bat. Rather, what is important is what aspects of blot were used by the patient to interpret the inkblot as a bat.

There are a large number of projective techniques that have been developed over the years and we will discuss some of the more commonly used.

Rorschach Inkblot Technique

The Rorschach Inkblot Technique (RIT; Rorschach, 1921) was developed in the 1920s by Dr. Hermann Rorschach, a Swiss physician who was interested in attempting to understand the perceptual and psychological processes involved in organizing responses to ambiguous stimuli. His belief was that responses to ambiguous inkblot stimuli reflected perceptual organizational principles and that there was a link between perception and personality (Klopfer & Davidson, 1962). Rorschach himself did not set out to develop a clinical instrument, but rather a research instrument to aid in understanding how diagnostic groups differed in terms of their "psyche." He believed that by studying how individuals cognitively and perceptually organized responses to inkblots, some important principles could be discerned. Important in Rorschach's mind was (and continues to be important) not the content of the response but rather how the person organized or perceived the inkblot as a percept. That is, as we stated earlier, what is important is not what the person sees, but how he or she sees it. Although some proponents of the RIT suggest that it provides a picture of the whole personality or the whole person, for example, coping styles, stress tolerance, psychotic disturbance, interpersonal perceptions, and personal issues, others have suggested that it is a measure of cognitive/perceptual organization (Allison, Blatt, & Zimet, 1988).

Although use of the RIT caught on quite quickly after its development, there evolved no less than 5 major scoring systems and, often, these systems were contradictory, at odds with one another, and created confusion in terms of understanding, researching, and using the RIT clinically. As a result of this, it is not surprising that, over years, the RIT came under attack from a variety of sources, and these attacks centered on issues of:

1. Poor psychometric performance (i.e., issues of reliability and validity).
2. Nonempirical basis for scoring and interpretation.
3. Methodological flaws in research.
4. Lack of standardized procedure for administration, scoring, and interpretation.

During the late 1960s John Exner, an American clinical psychologist, attempted to address these criticisms and provide an empirical basis for the appropriate use and interpretation of the RIT. He directed his focus on:

1. Gathering a large and broad normative sample.
2. Developing a standardized procedure for administration, scoring, and interpreting the test.
3. Evaluating and incorporating the most sound elements of the previous scoring systems.
4. Adding special categories for a variety of components of personality including both state and trait components.
5. Providing an empirical basis for the scoring and interpretation of responses.

Exner's work has received a great deal of attention and the standard now for administration, scoring, and interpretation is the system he developed known as the **Comprehensive System**. Through his work, the RIT has gained further acceptance and status among many clinical psychologists due, in large part, to the Comprehensive System which has overcome previous problems with lack of standardized administration, scoring, and inter-rater reliability.

The RIT itself involves a set of 10 black-and-white or color bilaterally symmetrical inkblots that are printed separately on cards that can be used for children and adults. The cards are presented one at a time to a patient who is asked to report on what he or she believes the inkblot image might be. The clinical psychologist administering the inkblot is to adhere to a strict protocol in terms of instructions and presentation of the inkblots. The verbatim responses of the patients are recorded as is the reaction time to the first response for each card. Following the presentation of the cards, known as the **Free Association Stage**, each card is presented again to the patient and he or she is asked to explain what features or components of the blot contributed to the perception. This latter part of the administration is known as the **Inquiry Stage** and the features are used to score the responses. The responses are then coded and the codings are then used to create a structural summary of scores. Interpretation involves two stages: The first, the **Proposition Stage**, involves the patient's scores being compared to means and standard deviations of nonpatient and select patient groups and hypotheses are generated based on the comparisons. The next stage, known as the **Integration Stage,** involves interpretation based on 7 clusters of scores tapping particular domains that provide a focus of the interpretation. The domains include:

1. Information Processing (i.e., effort, efficiency, and quality of information processing).
2. Cognitive Mediation (i.e., reality testing, conventional versus idiosyncratic personality).
3. Ideation (i.e., conceptualization).

4. Capacity for Control and Tolerance for Stress (i.e., person's experience of stress).
5. Affect (depression and vulnerability to depression and other similar affect states).
6. Self-perception (i.e., self-directed or self-focused).
7. Interpersonal Perception and Relations (i.e., cooperation, aggression, need for dependency, coping).

Some writers have suggested that issues of reliability and validity of the Rorschach have created one of the greatest controversies in the history of psychology (e.g., Groth-Marnat, 1990) and one that continues to rage today although it seems that issues of reliability are essentially resolved and demonstrations of validity also been advanced further. There are die-hard opponents who state that there is no evidence whatsoever for the use of the Rorschach and die-hard proponents who state that opponents either aren't able or willing to read the literature on the efficacy and utility of the RIT.

Exner has indicated that much of the criticism of the RIT is based on one or more of the old scoring systems, poorly trained clinicians or examiners, and poor methodology of studies. In fact, when focusing only on appropriate research articles with good methodology, there is evidence of both adequate reliability and validity (Groth-Marnat, 1999). We will discuss some this below.

Reliability and Validity

Reliability of the RIT has tended to focus on inter-rater reliability (i.e., do 2 independent scorers score and interpret a protocol with the same results); there are reports that when the independent scorers are properly trained and the same scoring system is used, inter-rater reliability can be very good with estimates ranging between .88 and .90 (Parker, 1983; Rose, Kaser-Boyd, & Maloney, 2001). Once the foundation of inter-rater reliability had been demonstrated, researchers then turned to conduct research on validity. When the RIT is used appropriately by trained clinicians, there is evidence of its validity and utility in assessing various aspects of functioning (Weiner, 1996; Weiner & Greene, 2017). For example, Parker, Hanson, and Hunsley (1988), in a meta-analysis, showed that the validity evidence for the RIT was appropriate and did not differ from validity indicators of other commonly used clinical instruments such as the MMPI and the WAIS measures. Similarly, in another meta-analysis, Mihura, Meyer, Dumitrascu, and Bombel (2013) assessed construct validity of 65 Rorschach scores and found evidence that 40 of the scores showed modest to good validity and that the remainder had little or no support. The scores that showed the best validity were the scores measuring cognitive and perceptual processes (also see Wood, Garb, Nezworski, Lilienfeld, and Duke (2015). On the other hand, like other instruments in the field, the construct validity of some specific scores seems somewhat weaker (Rose et al., 2001) and according to Mihura et al. (2013) these appear to reflect either more newly developed scores or scores that are rarely used. Overall, there does appear to be evidence of the validity and reliability of the RIT that is commensurate with other clinical instruments in use (Parker et al., 1988; Weiner, 1996; Weiner & Greene, 2017). Moreover, the use of the RIT in a variety of settings, such as forensic/court and clinical settings, continues with ongoing demonstrations of its utility and validity (Weiner & Greene, 2017). Although there may be continued controversies with the RIT, as Garb, Wood, Lilienfeld, and Nezworski (2002) stated, "Even psychologists who are critical of the test generally agree that some scores from various Rorschach systems can be helpful for detecting thought disorder, diagnosing mental disorders characterized by thought disorder, measuring dependency, and predicting treatment outcome" (p. 105).

Pros of the RIT

1. Easy to administer.
2. Exner's Comprehensive System.
3. Standardized administration, scoring, and interpretation.
4. Large normative sample and normative data for various scores.
5. Evidence of acceptable reliability and validity.
6. Taps information that was not tapped by objective tests.
7. May be resistant to faking.
8. Second-most researched personality assessment instrument.

Cons of the RIT

1. Not originally developed for the purpose it is currently used for.
2. Early research with different systems has created confusion and bias.
3. Lack of research and normative information for minorities.
4. Additional reliability and validity is needed, especially on specific scores, given that the RIT has a large number of possible uses and for each use there needs to be separate validation.
5. Complexity and scoring and interpretation.
6. May be of limited use in children especially over the long term.

Thematic Apperception Test/Technique

Another commonly used projective technique involves story telling in response to specific stimuli and probably the best example is the Thematic Apperception Test (TAT; Murray, 1943). Although the name of this instrument includes the word "Test" we refer to it as a technique. The TAT was originally developed by Henry Murray as a measure of underlying needs and motives consistent with his theory of motivation. A children's version, known as the Children's Apperception Test (CAT), is similar to the TAT.

This type of projective is thought to involve not just perception and organization of a perception as the RIT does, but the respondent also needs to impose meaning on the stimulus when telling a coherent story. The interpretation of the responses is completed in light of the clinician's theoretical perspective and the assumption is that the recurring themes, interactions, characterizations, in the stories are reflective of underlying processes. The TAT is thought to measure, not psychopathology or maladjustment or diagnoses per se, but rather motivational, interpersonal, and social cognitive aspects of a person's functioning (Teglasi, 2001) that can contribute to formulation of a patient's difficulties.

The TAT itself consists of a series of 31 pictures on cards that depict a variety of ambiguous scenes, many of them involving one or more people (one card is totally blank). The stimuli themselves are generally less ambiguous than the inkblots from the RIT and certain cards have been described as having certain "pulls" for content. The clinician selects a subset of cards (often based on the clinician's own preference), and the patient is asked to create a story about what is being depicted in the scenes. According to the administration procedure (Bellack, 1975), the patient is asked to make up as dramatic a story as he or she can including a description of what is currently happening in the picture, what led up to the current scene, the thoughts and feelings of the characters, and the outcome of the story. Responses are

recorded verbatim and the story content is scored and interpreted, as indicated, based on the theoretical framework and the intent of the TAT.

Although the interpretation of the TAT has been characterized as following only impressionistic ideas and clinical intuition, there have been several interpretive schemes that have been developed. For example, early on, McLelland (1961) and others developed scoring and interpretive frameworks for measuring achievement, affiliation, and power motivations, and Bellak (1993) has proposed a more broad interpretive scheme that follows from a psychodynamic theoretical stance and focuses on six major categories:

1. Unconscious Structures.
2. Drives.
3. Relationship to Others.
4. Conflicts.
5. Defenses.
6. Ego Strength.

As well, interpretations have been based on cognitive models such as schema theory, social cognitive theories, and object relations theory (e.g., Teglasi, 1998; Westen et al., 1991). For example, the responses to the TAT stimuli are thought to reflect underlying cognitive or social cognitive structures (i.e., schemas) that are internal representations of past experiences that aid in processing environmental information. It is believed that story-telling responses in relation to ambiguous stimuli are illustrative of the schemas or structures that are used to organize and process information in the world and inform the clinician about the patient's self-related and interpersonal worlds.

Westen and colleagues have developed the **Social Cognitions and Object Relations Scale** (SCORS; Westen, 1991) which provides scoring and interpretation based on object relations theory. Used to understand the level of object relations in children or adults to aid in psychotherapy, four categories or domains are tapped including the following:

1. Complexity of Object Relations (i.e., capacity to distinguish self from others, self and others are stable and multidimensional, and awareness of motives and experiences in self and others).
2. Affect Tone of Relationships (ranging from benevolence to malevolence).
3. Capacity for Emotional Investment in Relationships (ranging from mutual caring to need gratification).
4. Understanding Social Causality (i.e., causal attributions regarding social behavior).

Reliability and Validity

Establishing reliability and validity, in the traditional sense, has been rather difficult with respect to responses to the TAT and some have suggested that TAT is not an instrument to be scored but rather interpreted. This is likely due to the fact that there has been no agreed-upon scoring system, administration procedure, norms, nor is there a generally agreed-upon interpretive framework. As well, there is a great deal of variability in the content of stories that are told to the cards. Having said this, there has been concern that the instrument demonstrates appropriate reliability and validity and there is some evidence that when clear interpretive

criteria are used with well-trained interpreters, or when evaluating specific motivations such as achievement, affiliation, and power motivations, the reliability of the instrument seems to be adequate (e.g., Lundy, 1985). Moreover, there is also support for the reliability and validity of specific scoring and interpretive schemes (e.g., Westen's SCORS) and when specific scoring methods are used (Groth-Marnat, 1999; Lilienfeld, Wood, & Garb, 2000). On the other hand, there appears to be less support for the broad interpretations or descriptions of personality based on impressions or clinical intuition.

Pros of the TAT

1. Potentially valuable tool to assess deeper aspects of personality.
2. Focuses on global aspects of a person's interpersonal and motivational world.
3. Aids in development of rapport.
4. Adequate reliability and validity of some scoring and interpretive schemes.

Cons of the TAT

1. No standardized administration or normative data.
2. General reliability and validity are difficult to establish.
3. Subjectivity in scoring and interpretation.

Drawing Tasks

One other projective technique that is used with regularity involves drawing tasks, typically drawings of people. The idea behind the drawing process is that the drawing that is produced will access parts of the personality that are either not accessible with objective tests or will bypass the defenses or resistances that a patient might have. It is thought that the task provides information regarding the person's inner predispositions, conflicts, and dynamics, as well as other aspects of the person's functioning that are not readily accessible to the patient or that can be tapped by objective tests. Drawing tasks are quite popular with many clinicians and are reported to be easy to administer, score, and interpret. They have been used as tools to interpret personality broadly and to assess interpersonal relationships and are most frequently interpreted with an intuitive approach (Kahill, 1984). The most commonly used drawing tasks are the Draw-a-Person, developed originally by Machover (1949) and revised and refined over the years, and the House-Tree-Person drawing task (Buck, 1948).

Essentially, the patient is provided with a blank piece of 8 ½ x 11 inch paper, a pencil (sometimes colored pencils), and asked to "Draw a person" or to "Draw me a picture that includes a house, a tree, and a person." There can be variations in terms of also requesting drawings of a person of the opposite sex, of the self, or of the patient's family. No further instructions are to be given other than to state that it is up to the person when asked specific questions. An inquiry phase can be incorporated whereby the clinician may ask specific questions about the drawing in order to aid the clinician in interpretations. There are specific instructions and scoring criteria that have been developed, although it has been argued that most interpretive work is based less on the specific scorings and more on clinical intuition and clinical experience (Groth-Marnat, 1999).

The scoring and interpretive process involves several steps including the following:

1. Objective scoring: Score the drawing based on an objective scoring system.
2. Overall impressions: The clinician considers the drawing as a whole in order to determine qualities such as general mood, message, or themes of the drawing.
3. Cautious consideration of specific details: The clinician considers, for example, size, shading, distortions present.
4. Integration with other assessment material.

Reliability and Validity

Establishment of the reliability and validity of these tasks has been difficult given the nature of the tasks (i.e., variation in one drawing to the next) and the subjective nature of the interpretation. When using the specific scores, reliability and validity have been reported as adequate, especially when scoring more global aspects of the drawings such as adjustment, anxiety, and maturation (Groth-Marnat, 1999). On the other hand, when the focus is on more specific components of the drawings or specific components of personality, less adequate reliability and validity is evident.

Pros of Drawing Tasks

1. Ease of administration, scoring, and interpretation.
2. Can be used with children, adolescents, and adults.
3. Show some reliability and validity with certain components of patients' functioning.
4. Can be used with patients with poor verbal skills (e.g., intellectually disabled, those with poor verbal skills, etc.).

Cons of Drawing Tasks

1. Subjectivity in the scoring and interpretation.
2. No agreed-upon scoring and interpretive system.
3. Questionable as to whether drawings accurately reflect the underlying personality features.

Conclusion

Overall, the current chapter has covered a lot of ground in terms of issues pertaining to psychodiagnostic assessment. This type of assessment remains one of the most common types of psychological assessment in dealing with psychological problems. The procedures involved include clinical interviews, objective tests, and projective techniques, each of which provides different kinds and levels of information and each has its own strengths and weaknesses. Each procedure also seems to have an important role in psychodiagnostic assessments as the consistency and frequency of the test usage testifies.

Ongoing Considerations

Although there has been some global criticism of psychodiagnostic testing as too time-consuming and inefficient and not being conducive to managed care principles evident in the United States, it is still viewed as an important clinical activity for clinical psychologists and one that can inform, influence, and establish a successful therapeutic experience (Allison et al., 1988). Projective techniques have been the source of much controversy, but most especially with respect to the RIT. It is difficult to understand why this technique in particular seems to be the brunt of so much criticism. On the one hand, many proponents of the RIT have suggested that many of the criticisms of the Rorschach are inappropriate and that many of the criticisms could be directed at any other clinical instrument or technique. On the other hand, the criticisms, if intended to eliminate the Rorschach from use, have actually resulted in more attention being paid to determine and demonstrate adequate reliability and validity as well as its utility. In any event, the data speak fairly clearly that even though some of the instruments used in psychodiagnostic assessments have been criticized, they remain important tools in the clinical psychologists' arsenal.

Key Terms Learned

Closed-ended questions, 134
Comprehensive System, 147
Content information, 133
Delusions, 135
Derealization, 133
F Scale, 140
Free Association Stage, 147
Inquiry Stage, 147
Integration Stage, 147
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K Scale, 140
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Multimethod approach, 131
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Orientation to person, 134
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Projective hypothesis, 146
Proposition Stage, 147
Psychic determinism, 133

Response sets, 138
Self-report inventories, 137
Social Cognitions and Object Relations Scale, 150
Structured Diagnostic Interviews, 136
Test-taking attitudes, 138

Thinking Questions

1. What are the differences between objective and projective assessment tools? What kinds of information does each provide and why is this important in an assessment?

2. Describe the concepts of content and process variables and how each is useful in psychodiagnostic assessment.

3. Describe the MMPI-2 and its utility as an assessment test. What the pros and cons of this instrument?

4. Describe the RIT and its utility as an assessment technique. What are the pros and cons of this instrument?

5. What is the importance of unstructured or semi-structured interviews? How do they differ from structured diagnostic interviews? What purposes does each type of interview serve?

6. As a fun question, think about how much overlap there is in the purpose of a first date relative to a psychodiagnostic interview.

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8 Cognitive and Neuropsychological Assessment

Chapter Objectives

In the previous chapter, we discussed one type of psychological assessment, the psychodiagnostic assessment, which assesses the individual's personality in relation to psychological difficulties he or she may be experiencing. The learning objectives of this chapter are:

- An understanding of the purpose of cognitive assessment and how it is conducted.
- An understanding of nature and measurement of intelligence.
- An appreciation of the measures that are used in cognitive assessments.
- An understanding of the purpose of neuropsychological assessment.
- An appreciation of the measures and procedures utilized in neuropsychological assessment.

In this chapter we will consider two related kinds of assessment, intellectual assessment and neuropsychological assessment. The first type, intellectual assessment, is conducted in order to assess various aspects of a person's cognitive abilities, which normally entails focusing on intelligence or components of intelligence and attained levels of achievement with respect to cognitive abilities. These sorts of assessments aid in making decisions regarding placements in school or employment positions, remedial training, and determination of learning and developmental problems. The second type of assessment, neuropsychological assessment, is also completed to assess intellectual and cognitive functioning, but is done to determine the behavioral functioning, both deficits and strengths, of a person who has a brain injury or is suspected of having some brain damage.

Intellectual Assessment

As described Chapter 5, the history of the development of clinical psychology is inextricably intertwined with the testing of intelligence and other cognitive abilities. Although testing of some mental or cognitive abilities had been developed in the 1800s (Boake, 2002), it was Dr. Alfred Binet and Theodore Simon, in the early 1900s in Paris, France, who made some of the first comprehensive attempts to test children's intellectual levels and determine appropriate school placement for children (Binet & Simon, 1905). This work represents one of the first operationalizations and measures of intelligence and intellectual functioning. Binet

attempted to differentiate among children who were mentally retarded, behaviorally problematic, or of normal intelligence and to make school recommendations accordingly. This was done with a series of 30 tests such as measures of language skills, reasoning, and memory and performance on the tests formed a composite score known as mental age. Although not particularly interested in understanding the construct of intelligence per se, Binet and Simon's work set the stage for the assessment of intellectual functioning.

The ideas and the test that was developed by Binet and Simon were introduced to North America by Lewis Terman at Stanford University in 1916 who translated and modified the measure somewhat to reflect experiences that American children would have had. The test was standardized on Americans and the first Stanford-Binet Intelligence Scales were developed in 1916 (Terman et al., 1916). Intellectual assessment began in earnest in North America. Then, as today, the emphasis or focus in intellectual assessment is on intelligence and related cognitive abilities.

Purpose of Intellectual Assessment

What are the specific purposes of clinical psychologists conducting intellectual assessments? There are numerous reasons why understanding the level and efficiency of intellectual functioning can be helpful for individuals. For example, intellectual assessments can be useful to:

1. Assess intellectual functioning and determine whether an individual meets the diagnostic criteria for cognitive disability and other psycho-educational problems. For example, in the *DSM-5*, intelligence test scores are used both to make the diagnosis of cognitive disability and to provide information as to severity of the disability.
2. Aid in the selection of individuals into groups based on intellectual functioning and/or to aid in the provision of remedial training (e.g., remedial classes, specific occupational or training programs) and other interventions. Similarly, intellectual assessment helps in predicting academic achievement.
3. Aid in psychodiagnostic and forensic testing in terms of getting a complete picture of a person's current intellectual and cognitive functioning.
4. Determining cognitive strengths and weaknesses in comparison to peers and to evaluate outcomes of interventions, programs, or special training.
5. Provide a baseline for intellectual or cognitive functioning that can be used to track improvements or decrements in functioning.
6. Conduct research on intelligence, cognitive abilities and processes, and other issues germane to intellectual assessments.

Domains Assessed in Intellectual Assessment

Although there are some differences depending on the theoretical approach to intelligence, there are several domains that are relevant for assessment in intellectual assessment. Of course, intelligence is one of the main focuses of this kind of assessment, and, typically, both verbal and nonverbal tests of intelligence will be administered. Attention is paid to what has been termed **fluid intelligence** (which involves speed, flexibility, skill in learning, abstraction and reasoning) and **crystallized intelligence** (which involves the knowledge that an individual has accumulated). Moreover, specific domains of cognitive abilities that constitute

intelligence are also assessed, although these domains vary depending on the testing instrument used. In the descriptions of two of the most commonly used intelligence tests, the Stanford-Binet Scales and the Wechsler Intelligence Scales, specific domains that are of interest will be discussed. In addition to intelligence, intellectual assessments often also measure achievement which is, essentially, the level of cognitive ability actually attained, normally in a scholastic context.

In the next section, we will discuss some of the definitional issues pertaining to intelligence (see Box 8.1) and cognitive abilities, different conceptualizations of intelligence, and describe various measures that are used to assess intelligence and related cognitive abilities (see Box 8.2).

BOX 8.1 DEFINITIONS OF INTELLIGENCE

"It seems to us that in intelligence there is a fundamental faculty, the alteration or the lack of which, is of the utmost importance for practical life. This faculty is judgment, otherwise called good sense, practical sense, initiative, the faculty of adapting one's self to circumstances. A person may be a moron or an imbecile if he is lacking in judgment; but with good judgment he can never be either. Indeed the rest of the intellectual faculties seem of little importance in comparison with judgment" (Binet & Simon, 1916, pp. 42–43).

"Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment" (Wechsler, 1944, p. 3).

"a set of skills of problem solving—enabling the individual to resolve genuine problems or difficulties that he or she encounters, and, when appropriate, to create an effective product . . . the potential for finding or creating problems—thereby laying the groundwork for the acquisition of new knowledge" (Gardner, 1993, pp. 60–61).

"Intelligence is not a single, unitary ability, but rather a composite of several functions. The term denotes that combination of abilities required for survival and advancement within a particular culture" (Anastasi, 1992, p. 613).

BOX 8.2 WADA TESTING

One type of neuropsychological assessment concerns itself specifically with localization of language or memory functioning. One of the authors (PLH) participated as team member for WADA testing (Wada & Rasmussen, 1960), also termed "Intracarotid Sodium Amobarbital Procedure." This is a procedure that is done to determine, for example, which hemisphere language function tends to be localized in for patients who may be undergoing neurosurgery. Localizing language functioning can allow a prediction of possible effects of the surgery. In the procedure, while the patient is awake, a catheter is inserting into one of the carotid arteries (provides blood to one hemisphere of the brain) and sodium amobarbital is administered to the patient via that artery. This, effectively, shuts down that hemisphere for a brief window of time during which the neuropsychologist administers some tasks to determine whether the functioning hemisphere can process or produce language. If so, then language is thought to be localized in the functioning hemisphere; if not, then language is thought to be localized in the hemisphere that has been de-activated.

What Is Intelligence?

As Neisser et al. (1996) have described, intelligence is a very difficult concept to define, and, although there is agreement on some aspects of intelligence, different experts will give somewhat different definitions. Very generally, intelligence involves cognitive abilities that reflect an individual's abilities to understand complex ideas, engage in various forms of reasoning, effectively solve problems, adapt to environmental demands, and to learn from experience (Neisser et al., 1996). Groth-Marnat (1990, p. 110) suggests that although there have been numerous and varied definitions of intelligence, all appear to include five broad domains including:

1. Abstract thinking
2. Learning from experience
3. Solving problems through insight
4. Adjusting effectively to new situations
5. Focusing and sustaining one's abilities in order to achieve a desired goal.

Although these components seem appropriate with respect to what constitutes intelligence, there are still major differences in definitions among clinical psychologists. For example, since the first meetings designed to understand the concept of intelligence in 1921 (this conference was aptly named: The 1921 Conference) until today, if you ask 20 different clinical psychologists who studied in the field of intelligence for definitions of intelligence, you would likely receive 20 different definitions! Although this might be viewed as problematic, it actually clearly illustrates and underscores the complexity of the construct of intelligence as well as its slippery nature in terms of trying to define it.

There have been numerous theories and models of intelligence presented and researched over the decades, with debates regarding whether intelligence is composed of one general factor or ability (known as "g"; Spearman, 1927) or whether it is composed of numerous specific factors ("s"; Thurstone, 1938).

Other theorists eventually attempted to reconcile these conceptualizations and present hierarchical models that incorporated both g and multiple specific factors. For example, Vernon (1950) suggested that intelligence had both a common or unitary component as well as major and minor specific factors and abilities. Furthermore, he believed that these common and specific components are arranged hierarchically. It is these kinds of hierarchical models that are reflected currently in many of the instruments used to measure intelligence. For example, one of the current models that has had a major impact on the development of contemporary tests of intelligence is known as the Cattell-Horn-Carrol (CHC) Model, which actually represents a combining of three theorists' hierarchical conceptualizations of intelligence. In its most current form, the model incorporates the concept of g as well as 10 broad cognitive abilities along with over 70 narrow abilities (Alfonso, Flanagan, & Radwan, 2005)!

What Is IQ?

The conceptualization of intelligence, as discussed above, has been controversial, and the concept of intelligence quotient or IQ has also seen its share of controversy, although the definition of it has been relatively straightforward. What is it and where did the idea of IQ come from?

Although it was Terman et al. (1916) who was one of the first to use the term "intelligence quotient," his determination of an estimate of a person's intelligence was based on Binet and Simon's work. Binet and Simon stated that an estimate of an child's intelligence could be determined by comparing the child's chronological age calculated in years (known as CA) and the child's mental age (known as MA) which is indicative of the level of mental abilities within a particular age group. When the MA is calculated and compared to the CA, the psychologist could make a determination as to the relative standing of the person's mental abilities in relation to those of individuals with the same chronological age (Groth-Marnat, 2003). This means that a child of 8 years of age with a mental age of 9 would be considered more intelligent than a child 8 years of age with a mental age of 7. Thus, Binet and Simon used a ratio of MA/CA or what is now referred to as a **Ratio IQ**. Although this has some initial intuitive appeal, the difference between a one-year lag in cognitive abilities for a 3-year-old (which is severe) versus a one-year lag for a 15-year-old (which is less severe) can be problematic. Terman, in addition to revising the Stanford-Binet test, also revised the representation of the relationship between mental and chronological age with the calculation of the IQ. The IQ was calculated using the formula: IQ = MA/CA x 100, which corrected, somewhat, the problem of the difference between lags at different ages. The IQ was calculated in this fashion for many years and even though there were some issues raised with respect to difficulties with such an IQ calculation, especially with its use in adults, it was not until Dr. David Wechsler, with the development of his Wechsler-Bellevue Scale, that the use of a new form of IQ arose. Wechsler suggested using what he termed the **Deviation IQ** which was simply the degree to which a person's score deviated from the mean scores of a large group of similarly aged individuals. In order to do this, Wechsler administered his measure to large groups of individuals, grouped individuals together at different age groups, calculated the mean and standard deviation of the distributions for the different age groups. The mean for each age group was transformed to equal a mean of 100 and the standard deviation equal to 15. The deviation IQ is now recognized as the appropriate way to calculate IQ and most tests utilize this type of IQ score. Even though there is no quotient in the calculation of the Deviation IQ, the term is maintained.

Intelligence Tests

Although there has been a great deal of controversy with respect to intelligence tests and IQ, intelligence testing and intellectual assessment, with its pragmatic goals of attempting to predict success, has developed and evolved over the decades. Test developers revised and altered intelligences tests in accordance with research and theorizing and theoretical models reflected findings based on measures of intelligence. In many respects, this represents science and applied/clinical efforts working in concert with one another, mutually informing one another; both to increase our understanding of the concept of intelligence and to more accurately assess intellectual functioning. In this next section, we will describe two of the major instruments used for the assessment of intelligence. Although there are numerous other intelligence tests and tests that assess various components of intellectual functioning, we will focus on the two that have the longest history and greatest popularity in terms of usage by clinical psychologists. Because Alfred Binet was the one who got the ball rolling with respect to testing intelligence, we will start with the current version of his measure.

Stanford-Binet Scale

The original Binet-Simon measure of intelligence consisted of 30 cognitive tests that tapped into language skills, reasoning, and memory as well as other components. These tests were grouped into age levels such that items on scales that were successfully completed by a particular age group of children were grouped together to form **age tests**. A child would begin testing with items commensurate with his or her age and then complete items from progressively higher (or lower) age groups until the child failed most of the items. The psychologist could then determine at what age group the child completed most items successfully, and thus, determine the child's mental age (Boake, 2002).

This first test has, of course, been revised extensively and many times over the decades (revisions in 1916, 1937, 1960, 1986, and again in 2003). The current version of the Stanford-Binet, the Stanford-Binet 5 (Roid, 2003) is a result of building on the strengths and correcting shortcomings of previous versions and by the massive amount of research information that accumulated over the years.

Stanford-Binet 5 (SB-5)

The SB-5, like all of the measures described in this chapter, is a test that can only be administered by trained and qualified professionals. The measure is appropriate for use in individuals 2–85+ years of age and the normative sample (n = 4,800) is matched to the 2000 US census. It is a 285-item scale that includes 10 subscales comprising verbal and nonverbal subtests. According to the test developer (Roid, 2003), although variable, the measure takes approximately 1 to 1.5 hours to complete. Participants complete, first, a routing procedure whereby verbal and nonverbal tasks are completed in order to direct or route the examination to the functional level of the participant.

The SB-5 is based on a hierarchical model of intelligence that includes global g at the apex and five factors of cognitive ability that are tapped in the measure. The factors include fluid intelligence, knowledge, quantitative processing, visual-spatial processing, and working memory. The SB-5 provides the examiner with verbal and nonverbal subtest scores which are combined to produce Factor Indexes or scores on each of the five factors described above. Moreover, scores can be combined to form Verbal (using the verbal subtests) and Nonverbal (using the nonverbal tests) IQs. Finally, an overall, Full Scale IQ is determined using all 10 subtests and can range between 40 and 160. All IQs and Factor Indexes have means of 100 and standard deviations of 15.

According to the test publishers, the SB-5 demonstrates appropriate levels of reliability and validity. Extensive reliability information is presented on the split-half, test-retest, interscorer agreement, and internal consistency in Roid (2003). For example, internal consistency estimates for the Full Scale, Verbal and Nonverbal IQs range between .95 and .98, whereas reliability estimates for the Factor Indexes range between .90 and .92 and for the subtests the range is between .84 and .89.

With respect to validity, numerous and varied studies have been completed to assess construct, concurrent, and criterion validity using a variety of other measures of intelligence. In general, the SB-5 does show appropriate evidence of validity although the validation of a measure truly takes years to firmly establish. Initial estimates are promising (Roid, 2003); for example, associations with other measures of intelligence, such as the Wechsler Scales

of Intelligence, are in the expected ranges and correlations with measures of other cognitive abilities are also appropriate.

Overall, it would appear that the current version of the Stanford-Binet is seen as a valuable and relevant test of intelligence. According to Strauss, Sherman, and Spreen (2006) the SB-5 is an excellent test with excellent reliability and appropriate levels of validity. It continues to be an important measure of intellectual functioning.

Wechsler Scales of Intelligence

Although the more recent Stanford-Binet test is for ages 2–85 years, another very popular set of measures of intelligence, the Wechsler Scales of Intelligence, uses separate tests depending on the age range. The early intelligence tests focused on children but in 1939 Wechsler published the first specifically designed intelligence test for adults called the **Wechsler-Bellevue Intelligence Scale,** which was innovative in numerous respects. First, as stated, it was designed specifically for adults and used the deviation IQ rather than the then-current mental age calculation for IQ. In addition, he incorporated both verbal and performance (i.e., nonverbal) tasks in the intelligence measure as he believed that both domains contributed to overall intelligence. Prior to this time, there was an emphasis on only verbally related items. After developing the adult measure in 1939 (later versions of the Wechsler-Bellevue were named the Wechsler Adult Intelligence Scale or WAIS), Wechsler developed intelligence tests for children, the Wechsler Intelligence Scale for Children and **Wechsler Preschool and Primary Scale for Intelligence,** following the same model as used for the adult versions and each of these have been revised over the years. These instruments became very popular measures and in the 1960s, popularity of the Stanford-Binet was overtaken by the Wechsler scales. The Wechsler scales have remained the most frequently used measures of intellectual functioning, and they are considered by most to be the "gold standard" of intelligence measurement (Ivnik et al., 1992).

The most current versions of the Wechsler Intelligence Scales all derive from a contemporary theoretical perspective that reflects four major domains of intelligence:

1. *Verbal Comprehension*, which essentially measures verbal concept formation and reflects abilities to draw upon information obtained through formal and information education, reasoning, and expression of thoughts.
2. *Perceptual Reasoning*, which involves nonverbal reasoning, problem solving, and visual-motor and visual-spatial skills in nonverbal tasks.
3. *Working Memory*, which assesses cognitive skills necessary for high order thinking such as ability to memorize, attention and concentration, and manipulation of mental information.
4. *Processing Speed*, which entails assessing attention, scanning, and discrimination as well as planning and persistence.

The most current versions of the scales have focused on IQ scores that reflect the four domains described above as well as a Full Scale IQ, and as a reflection of g, a **Global Ability Index** is also calculated. Let's start with a description of the current version of the WAIS, the WAIS-IV.

Wechsler Adult Intelligence Scale-IV (WAIS-IV)

The newest version of the WAIS, the WAIS-IV, has 10 subtests and 5 supplemental subtests (used to either substitute for another subtest or to supplement information). The subtests include tests of verbal and nonverbal intelligence and assess the four domains described earlier (i.e., verbal, perceptual reasoning, working memory, and processing speed).

Although only recently published, there are indications of the reliability and validity of the measure presented in the technical manual. For example, using both the normative sample and several special samples, internal consistency and test-retest reliabilities range from good to excellent (i.e., .70–.94). Moreover, with respect to validity, the WAIS-IV was compared to a variety of other measures of intelligence and intellectual functioning in both clinical and nonclinical samples. This included comparing the WAIS-IV scores with WAIS-III scores. In all cases, there was evidence of appropriate levels of validity of the overall measure and the subscales. For example, correlations between the composite scores of the WAIS-IV were associated with WAIS-III scores that ranged between .80 and .90.

Overall, although a new measure, initial indications suggest that the WAIS-IV has as good as, if not better, reliability and validity as past versions of the scale and shows a great deal of promise as a well-conceptualized and well-developed measure of adult intelligence. Reliability and validity seem good to excellent with the measure and future research will likely expand on this information over the next few years.

Wechsler Intelligence Scale for Children-V (WISC-V)

The WISC-V was published in 2014 (see Weiss, Saklofske, Holdnack, & Prifitera, 2015) and represents a revision of the WISC-IV which was published in 2003. The instrument is based on the theoretical model as described above for the WAIS-IV, and, thus, provides a Full Scale IQ score (range of 40 to 160) as well as five composite scores or indexes reflecting Verbal Comprehension, Visual Spatial Processing, Working Memory, Fluid Reasoning, and Processing Speed. The test is appropriate for children aged 6 years 0 months–16 years 11 months (there is some overlap with the WAIS-IV) and translations of the instrument have been done in over 15 languages with appropriate norms established for each language.

In terms of reliability, the WISC-V shows significant improvements over earlier versions of the measure and with respect to validity, numerous studies attest to the WISC-V's association with other measures of cognitive abilities (Weiss et al., 2015).

Wechsler Preschool and Primary Scale of Intelligence-IV (WPPSII-IV)

The WPPSII-IV is an intelligence measure for young children (aged 2 years 6 months to 7 years, 7 months) and there are 11 core subtests (see Figure 6 for descriptions) that are used to determine Full Scale IQ as well as a Performance IQ and a Verbal IQ. In addition, there are also composite scores as described above with the other Wechsler scales and supplemental or optional subtests that can be used to determine optional scores. The measure takes approximately 30 minutes to administer for younger children and about 40 to 50 minutes for older children.

Interpreting and Using Intelligence Test Scores

What do results from intelligence tests tell the clinical psychologist? Although the Full Scale IQ from the measures can inform the clinical psychologist about g and the level of overall intellectual functioning, often more fine-grained analyses are conducted. For example, subtest scores can also be examined to evaluate even more specific abilities, strengths, and weaknesses in relation to intellectual functioning. In addition, there has been a long tradition at looking at patterns of subtest scores (known as **intertest scatter**) as potentially indicative of particular learning disabilities or other intellectual problems although this approach has been viewed as likely without validity.

Because the SB-5 and any of the Wechsler scales present items in a highly structured manner, with specific instructions on wording of questions, and so forth, **extra-test behavior** can also be assessed by the clinician. The clinical psychologist can observe problem-solving strategies or behaviors that might interfere or enhance performance on the tasks that can aid in understanding intellectual functioning.

Finally, intelligence test scores and information are usually combined with other information including information gleaned from interviews, history taking, and other tests (e.g., tests of attained achievement in cognitive domains such as reading levels, math skill levels, and so forth) in order to address specific clinical issues.

Clinical Neuropsychology and Neuropsychological Evaluations

Neuropsychology is a specialty area of clinical psychology and has been described as "an applied science concerned with the behavioral expression of brain dysfunction" (Lezak, 1995 p. 7). There are two main branches of neuropsychology, the first, **experimental neuropsychology,** represents the scientific study of brain and behavior relationships and how brain dysfunction affects behavior. The other branch, **clinical neuropsychology,** is the applied aspect of neuropsychology that involves the assessment and treatment of brain-damaged behavior. For our purposes, we will be focusing on clinical neuropsychology and on the major focus of clinical work within clinical neuropsychology, neuropsychological assessments.

Overall, the concern of clinical neuropsychology tends to be the assessment, and, at times, the treatment of deficits arising from damage to the central nervous system. The clinical neuropsychologist uses knowledge from research on brain-behavior relationships to assess mainly cognitive and intellectual deficits, although social, personality, physical, and other forms of behavioral functioning will also be addressed, in individuals who have or are suspected to have some kind of brain damage. The general purpose is to determine the extent of impairment, location or site of lesions (particular area of damaged neural tissue), and behavioral functioning in individuals with some sort of central nervous system damage. Most typically, the damage involves the brain and the damage can be caused by any number of conditions including head injuries, various diseases (e.g., Alzheimer's Disease, Parkinson's Disease) that result in progressive cognitive deterioration known as dementia, vascular diseases (e.g., coronary artery disease) that can produce cerebral vascular accidents (i.e., strokes), infectious disease such as herpes simplex, encephalitis or meningitis, toxic disorders involving, for example, chronic alcohol abuse, or brain tumors, to name a few.

As a specialty area in clinical psychology, the majority of neuropsychologists have been trained as clinical psychologists. Although clinical psychology graduate programs may offer some training in neuropsychological assessment, in order to competently practice neuropsychology, more extensive and specialized training is necessary (Hannay et al., 1998). For example, in addition to training in assessment and treatment, extensive training in neuroanatomy, neuropathology, and normal and abnormal brain functioning as well as training in specific neuropsychological assessment is necessary (Hebben & Milberg, 2002). This is often done at the **post-doctoral level** (i.e., after the PhD), although there are more and more graduate programs dedicated specifically to training in clinical neuropsychology.

Purposes of Neuropsychological Assessment

Historically, neuropsychological assessments were conducted mainly to aid in the localization of brain lesions in order to provide information for the diagnosis of neurological problems. That is, based on performance results from specific psychological tests, the neuropsychological assessment provided information that could be used to determine which particular part or parts of the brain had been affected by the brain damage. By being able to localize the site of brain damage or areas of the brain affected by damage, the neuropsychological assessment provided valuable information for determining the diagnosis and prognosis of the patient. In addition, at times, neuropsychological assessments were conducted to determine whether symptoms of psychiatric disturbance were "functional or organic," meaning were the symptoms due to psychological processes (i.e., **functional** in origin) or to specific structural brain damage (i.e., **organic** in origin). This would aid in determining whether the signs and symptoms exhibited by a patient were due to psychological or neurological processes.

Nowadays, the uses of neuropsychological assessments have expanded and evolved. They are used in a variety of domains to address medical, legal, educational, and rehabilitation questions and issues, and, of course, research. According to Muriel Lezak (1995) there are four general purposes for neuropsychological evaluations:

1. *Diagnosis*: Neuropsychological assessments play an important role in helping to discriminate among neurological, psychiatric, and developmental symptoms and aid in the diagnosis of various neurological and psychiatric disorders. Although with the advent of sophisticated imaging techniques, such as Positron Emission Tomography (PET), Nuclear Magnetic Resonance Imaging (MRI or NMRI), and Computerized Axial Tomography (CT), some of these diagnostic uses, such as localization of lesions, have diminished. On the other hand, in particular types of brain pathology, neuropsychological examinations are crucial in determining specific sites of brain damage. In a related vein, neuropsychological assessments are also used more and more in legal situations to determine the functional impairment resulting from personal injury or in criminal cases where a defendant may have some brain damage or dysfunction that may have contributed to the commission of a crime.
   The diagnostic use of neuropsychological assessment often involves careful descriptions of changes in a patient's functioning (usually cognitive, emotional, and behavioral) that reflect the presence, location, and severity of brain damage.
2. *Patient Care and Planning*: Neuropsychological evaluations are often requested in order to aid in patients' adjustment to disabilities that have arisen due to brain pathology. Although the focus of neuropsychological assessment is often on the deficits that the patient experiences, there is also a concern with the strengths and capabilities as these

may be very useful in determining appropriate levels of care and rehabilitation planning and implementation. Neuropsychological assessments provide valuable information about cognitive, emotional, and personality features that influence a patient's adjustment to brain damage, educational options, as well as treatment and rehabilitation options. This information can be used to develop appropriate supports for patients as well as planning for the future. For example, determining functioning in a patient with a dementing disorder (such as those due to Alzheimer's Disease) can aid in determining how best to provide supports for the patient as well as future needs of the patient as the functioning deteriorates. An additional component of this can involve helping the patient's family understand the nature of the behavioral deficits and to help them cope with the patient's limitations.

3. *Rehabilitation and Treatment Evaluation:* As knowledge of rehabilitation and treatment of brain damage increases, the work of clinical neuropsychology increases as "careful, sensitive, broad-gauged, and accurate neuropsychological assessment is a necessary foundation on which appropriate treatment . . . can be based" (Lezak, 1995, p. 12). Information regarding cognitive strengths and weaknesses can be vital in terms of planning rehabilitation and educational programs. Moreover, neuropsychological data can be used to monitor rate of deterioration of functioning in certain patients and whether medications or other forms of treatment have any positive or negative effect on cognitive symptoms.
4. *Research*: Neuropsychological assessment and testing has been of importance in studying the organization of brain functioning and how brain functioning is related to behavior. Although a major goal of the field of neuropsychology is to increase knowledge regarding how the brain works and how it works in particular kinds of diseases or types of brain pathology, there is also a great deal of clinically related research that is dedicated to increase the quality of assessments and evaluation of particular techniques.

Assumptions Underlying Neuropsychological Assessment

There are several basic assumptions that underlie the process of neuropsychological assessment (Lezak, 1995). These assumptions include:

1. The belief that there is always some sort of behavioral deficit, usually entailing cognitive functioning, that accompanies brain damage or compromised brain functioning. The deficits, depending on location, extent, or severity of damage, may be very subtle and detected only in highly controlled situations or they may be gross and very obvious to anyone interacting with the person. In addition, the deficits may be extremely circumscribed (e.g., inability to recognize people by their face) or can be very broad, and, at times, very vague and difficult to describe.
2. The deficits or patterns of deficits can be very useful in understanding brain pathology and processes and in providing descriptive, diagnostic, and treatment information.
3. The field of psychology, with its emphasis on standardized psychological assessment, and specifically, cognitive/intellectual assessment, is the specialty that can best assess the cognitive and intellectual deficits in brain-damaged individuals. Psychological testing has developed over decades and been specifically designed to assess many of the behavioral and cognitive deficits evident in brain-damaged individuals. Moreover, there is a huge literature dealing with empirical validation of intellectual and cognitive assessment tests and techniques that lends confidence to the use of psychological testing in such circumstances.

Domains Important to Assess

Although there is some debate about particular ways to measure components of brain-behavior relationships there is general agreement that the following areas are important to address in any neuropsychological assessment approach (Zillmer & Spiers, 2001). Some of these domains of functioning are involved in just about every form of brain damage and others are involved more or less in specific forms of brain damage.

1. *Orientation*. This involves the awareness a person has of themselves in their environment or surroundings. Disruptions in orientation are one of the more common symptoms of brain damage. Typically, orientation is thought of and measured in terms of awareness of time ("What day [date, year, time] is it?"), place ("What is the name of the place we are in now?"), and person ("What is your full name?"), although types of orientation problems, such as **orientation of personal space**, the ability to point to particular body parts ("Point to your head"), naming one's own body parts (e.g., examiner points to person's shoulder and asks patient: "What is this?"), **spatial orientation** (ability to relate the position, direction, or movements of objects in space), and **topographical orientation** (problems in memory for familiar routes that the person travels [e.g., mailbox to home]), are also frequently assessed. The student might recognize some of these questions as coming from the Mental Status Exam which is used often in neuropsychological assessments.
2. *Sensation and Perception*. Sensation is the detection of some stimulus in the environment and perception is the process of identifying or "knowing" what the stimulation is. It is these processes that keep us in touch with the external (and internal) world. In neuropsychological assessment, the neuropsychologist is especially interested in evaluating the sensation and perception processes involved in visual, auditory, and tactile levels of functioning. Specifically, problems can involve a variety of deficits, likely the most common involves the inability or compromised ability to recognize familiar objects, people, or other stimuli. This is known as **agnosia** and can have significant effects on a person's functioning. One well-known (at least in neuropsychology circles) example of a patient's visual agnosia was described by Oliver Sacks in his book *The Man Who Mistook His Wife for a Hat* (1987):

   > He (the patient) appeared to have decided the examination was over and started to look around for his hat. He reached out his hand and took hold of wife's head, tried to lift it off, to put it on. He had apparently mistaken his wife for a hat! His wife looked as if she was used to such things.
   >
   > (p.11)

   The assessment of sensory and perceptual processes can involve specific tasks such as, identifying objects by touch only or having the examiner state pairs of words that can be the same or different and having the patient identify whether the same word was repeated or whether the two words were different (Zillmer & Spiers, 2001).
3. *Attention and Concentration*. Because we are bombarded with a plethora of stimuli from the environment, an extremely important function of the brain is to select out and process important or relevant information and ignore irrelevant information. If you take a moment right now and try to become aware of all the stimuli around you, sounds, sights, level of light, temperature of the air, feelings in your back, and so forth, you get an idea of the amount of stimulation that bombards your senses. In order for you to read

this text, your brain needs to ignore the sounds, sights, and sensations and focus your attention on the words on the page. Thus, attention and concentration reflect basic processes in terms of interacting adaptively with the environment. One particularly striking type of attentional problem, known as hemineglect, is described in Box 8.3.

A seemingly ubiquitous symptom of brain damage involves disturbances in focusing or maintenance of attention or increased distractibility, or shifting attention to different tasks. Because the majority of mental tasks we engage in require us to focus, attend, or concentrate, this sort of impairment underlies all manner of compromised cognitive and intellectual functioning, and, of course, underlies many types of brain damage. The neuropsychological evaluation typically includes assessment of various components of attention including the ability to attend to various stimuli, sustain attention on a task, ability to switch attention from one task to another, and paying attention to more than one thing at a time. This can be assessed by tasks such as "Recite the days of week backward starting with Sunday" or "Count by 3s beginning with 1 and adding 3 to each number."

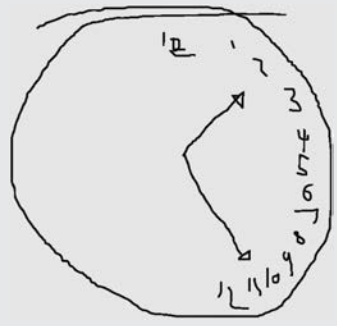
4. *Motor/Psychomotor Functioning*. Control over motor skills is another domain that is important to assess as frequently control over upper and lower extremities can be affected with brain damage. Assessment involves gross movements of extremities (e.g., able to move arms) as well as fine motor skills such as ability to write. Testing can involve asking patients to respond to basic commands such as "Move your left leg," "Raise your right hand," or "Touch your thumb to your forefinger as quickly as you can." It can also involve assessing grip strength or finger-tapping speed.

BOX 8.3 HEMINEGLECT

When patients have damage in a particular part of the right hemisphere, they sometimes experience a striking attention problem known as hemineglect. Patients with hemineglect fail to be aware to one side of space including objects and even their own body. Sacks (1985) described a patient with hemineglect:

> She has totally lost the idea of "left", with regard to both the world and her own body. Sometimes she complains that her portions (of food) are too small, but this is because she only eats from the right half of the plate—it does not occur to her that it has a left half as well. Sometimes, she will put on lipstick, and make up the right half of her face, leaving the left half completely neglected.
>
> (p. 77)

One neuropsychological test that is used to evaluate presence of neglect is known as the Draw A Clock test which involves, not surprisingly, asking the patient to draw the face of a clock. An example of the kind of response from one of Paul Hewitt's patients with this attentional difficulty is produced below.



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5. *Language and Verbal Functions*. Of course, the ability to produce and understand language (verbal and written) is a crucial behavior that allows people to function, and, perhaps most important, allows people to establish and maintain human interactions. If you can imagine being unable to speak, write, or understand spoken or written words, you may get a sense of the devastating isolation and social disconnection a patient can feel.

   Thus, evaluation of intact language skills is an important focus. The assessment of language function is done both in terms of **expressive functions** (i.e., speaking, writing) and **receptive functions** (i.e., understanding spoken and written words, phrases, and sentences). Although there are often signs of language difficulties that become evident in the interview and in interacting with the patient, there are many specific tests to formally assess the functioning (Strauss et al., 2006).
6. *Visual Spatial Organization*. The ability to analyze and integrate visual information is an important function in processing information from the environment. For example, the ability to perceive and recognize visual information, store information related to visual objects, and find one's way geographically are all abilities that involve visual spatial organization. Because these kinds of abilities are frequently compromised in brain damage, the neuropsychologist assesses various aspects of visual information processing such as spatial orientation, route finding, facial recognition, and visual reproduction. An example of a test for visual spatial construction is the Bender Motor Gestalt, which is a projective technique, but in this case, it is used for neuropsychological assessment purposes.
7. *Memory*. The assessment of memory can often be quite complex as not only are there various "kinds" of memory (i.e., episodic, procedural, etc.) there are numerous modalities by which memory can be stored (e.g., verbal memory, motor memory, and so forth). Moreover, memory involves numerous processes in the selection and encoding of information, storage of the information, and retrieval of that information. In the assessment, the psychologist evaluates the ability of the individual to encode or learn new information, the ability to recall new or old information, and the ability to recognize old or new information. This is usually done in verbal (i.e., learning or remembering verbal information) or visual (i.e., learning or remembering shapes, configurations, and so forth) modalities. There are many different tests developed to assess memory that contain subtests assessing various memory processes.
8. *Abstract Reasoning*. Abstract reasoning ability underlies a person's ability to understand concepts and to process complex information, solve problems, and to transfer learned information to other contexts. Abstract reasoning, such as the ability to understand abstract concepts (e.g., the concept of liberty) and abstract rules (e.g., "The apple doesn't fall far from the tree"), is known as a higher cognitive function and is often assessed in assessments.

   Abstract reasoning is often assessed by asking patients to interpret abstract statements such as proverbs. For example, the patient might be asked to explain what the following statement means: "Don't judge a book by its cover." The neuropsychologist codes or rates the response on how concrete or abstract the interpretation was. For example, "You can't tell what the book is about just by looking at the outside" would be a concrete response, whereas, "*You cannot judge* the character of people by appearances" would be a more abstract response.

Although the above eight areas of functioning are assessed to address cognitive and intellectual functioning, often other domains are assessed to provide a comprehensive picture

of the patient's functioning. For example, because of the often devastating impact of having some form of brain damage, there frequently will be evaluations of a patient's emotional and p*s*ychological distress by administering some of the instruments discussed in Chapter 7, such as the MMPI-2.

How Is a Neuropsychological Evaluation Done?

There is some debate regarding specific ways to conduct a neuropsychological assessment. Some workers in the field suggest that a specific and fixed battery of tests that tap specific domains of functioning should be used, essentially, for all types of neuropsychological evaluations. It is thought that the advantage of this approach is that all relevant domains of functioning are assessed, the tests provide measurement of functioning in a standard and consistent manner, many of the tests can be administered by paraprofessionals or nonprofessionals, the use of battery over time can be evaluated for reliability and validity, and can offer reliable methods for gross screening for brain damage (Hebben & Milberg, 2002). On the other hand, others suggest that use of an unchanging battery of tests overtaxes the patient as some tests are not helpful for specific problems the person has and does not allow for additional measures to be used that reflect new knowledge and developments in the field (Lezak, 1995). The detractors of the fixed battery approach suggest that the neuropsychological assessment should instead use a flexible or an hypothesis-testing approach whereby a very basic core battery is administered, and, in conjunction with information about the nature of the injury, behavioral observations of the patient, neurological reports, and so forth, hypotheses about the brain damage or function are formed and specific instruments are chosen to administer to test the hypotheses. The advantages to this approach include the assessment that can be tailored by the individual patient's needs, provide more of a comprehensive assessment of function, and can utilize newly developed methods and tests. On the other hand, engaging in this flexible approach requires extensive knowledge and training regarding neuroanatomy and brain function, involves observation of patients which can be unreliable, and requires extensive knowledge with respect to testing methodologies and instruments (Hebben & Milberg, 2002).

Whether it is a fixed battery or a flexible approach, comprehensive neuropsychological assessments generally involve the following:

1. Careful perusal of information from referral source, medical records, neurological reports, nature of the injury and how it occurred (e.g., head trauma in motor vehicle accident or loss of oxygen during an operation) and other findings relevant to the patient's difficulties (e.g., injury and post-injury records).
2. An in-depth and comprehensive interview is conducted with the patient, and, often, with family members of the patient. The interview is similar in some ways to the clinical interview described earlier with the addition of specific information about the nature of the brain injury or illness. The interview is especially important in order to establish the social, medical, cultural, psychological adjustment, and school and work history as well as history of the problems that led to the assessment. This is done in order to get a detailed picture of the person's functioning prior to and following the development of the brain damage. Commonly, this may involve interviewing family members regarding the patient's behavior and history. Behavioral observations of the patient (e.g.,

appearance, gait, speech, interpersonal skills, motivation, unusual behaviors, and so forth) are a critical part of the interview in order to provide information about signs and symptoms of particular types of brain damage.

3. The neuropsychologist administers neuropsychological tests. This can be a fixed battery approach or a process-oriented approach and this component of the assessment can be lengthy and intensive. For example, it is not unusual for patients to complete neuropsychological tests for 6 or 7 hours. In addition, in some cases due to the nature of the brain damage or to other problems the patients experiences (e.g., blindness, medications, broken bones, and so forth), the neuropsychologist may have to adapt or use variations in testing procedures in order to try to capture qualitative features of the patient's deficits, a process known as **accommodation**.
4. Patients' responses on tests are interpreted and a picture of the deficits and patterns of responses that reflect damage and functioning is determined. In assessing deficits, the neuropsychologist attempts to determine whether the patient's performance on tests is consistent with performance of normative information for brain-damaged individuals. This is done by comparing the patient's specific test performance with normal and brain-damaged groups' performance on that same test. This provides information that can aid in inferring that brain damage is evident in the patient. If the person scores in the range that other brain-damaged individuals do, the patient is assumed to have brain damage. This is known as the **statistical or normative approach** and is used in most assessments but, in particular, by those using the fixed battery approach.

In addition to using the normative approach the psychologist, especially those using a flexible approach, will also use what is termed the **differential score approach**. In this approach, the neuropsychologist needs to determine whether the functioning of a patient after developing the brain damage represents a change from the functioning of that patient prior to the brain damage. The functioning prior to the damage is known as **premorbid functioning**. Determining if the performance represents a change from premorbid functioning and determining the magnitude of the change in functioning following the damage is important to determine for a variety of reasons. First, the information can be instrumental in determining the diagnostic picture as well as treatment, educational, or rehabilitation planning. Secondly, it is the magnitude of cognitive changes within the individual that might be the only information that is suggestive of the presence of brain damage. For example, it may be the case that a very intelligent person with excellent and well above average memory functioning experiences some memory loss but, when tested, still scores in the normal range even though there is significant loss of memory ability. Although in using the normative approach, the person's score would be considered within the normal range and as possibly indicative of no brain damage, there can still be a significant drop in functioning that points to the presence of brain damage.

Determining premorbid functioning is not necessarily a straightforward enterprise. In fact, at times, this can entail significant detective work that can involve estimating levels of functioning. First, often in assessments using the process approach, tests that are not sensitive to brain damage (e.g., tests that measure cognitive functioning that is often not affected in brain-damaged individuals, for example, tests of vocabulary or nonverbal reasoning) can provide information on premorbid functioning. As well, the neuropsychologist can use information such as education record, level and type of employment (e.g., successful

small business person, assume person has above average intelligence), or, in the case of children, the neuropsychologist may assess whether the child met developmental milestones in the past.

Neuropsychological Tests: Fixed Batteries

For those espousing the fixed battery approach, there are two main fixed batteries that exist, each based on a particular conception of brain functioning.

Halstead Reitan

The Halstead-Reitan Neuropsychological Battery (Reitan & Wolfson, 1993) is a fixed set of eight specific tests developed originally by Dr. Ward Halstead and Dr. Ralph Reitan that attempts to assess brain functioning in a comprehensive manner. The tests are invariable and are administered in a highly structured fashion, often by technicians. Based on well-developed sets of norms for test scores, the battery provides an **impairment index** that is used to predict the presence or absence of brain damage and there are several other indexes of brain damage that are relevant for attempts to localize the damage. The tests constituting the battery tap into five general domains that represent an hierarchical arrangement of brain-related activities. These include:

1. Input functions (i.e., attention, concentration, and memory).
2. Verbal abilities.
3. Spatial, sequential, and cognitive manipulatory abilities.
4. Abstraction, reasoning, logical analysis, and concept formation.
5. Output abilities (i.e., motor functions on each side of the body).

Luria Nebraska

Dr. Alexander Luria was a Russian neuropsychologist who developed a comprehensive and innovate model of brain functioning and promoted an approach to neuropsychological assessment based on his conceptualization of brain functioning (e.g., Luria, 1966). Although his model was considered remarkable and esoteric by many, it was not accepted generally until Charles Golden took some components of Luria's process approach and developed a fixed battery (the Luria-Nebraska Neuropsychological Battery) that was brief and could be more easily validated empirically than the original process approach. Although the development and use of the LNNB as a battery was controversial, it did gain some popularity, due mainly to its brief nature. The LNNB contains 269 items that can be completed in about 2–2.5 hours. The items can be grouped into 11 scales that measure some of the domains of brain functioning described by Luria (1966). The domains include:

1. Motor Functions
2. Rhythm
3. Tactile Functions

4. Visual Functions
5. Receptive Speech
6. Expressive Speech
7. Writing
8. Reading
9. Arithmetic
10. Memory
11. Intellectual Processes

Five summary scores are derived that provide information regarding presence, magnitude, and general location of brain damage as well as degree of impairment.

Neuropsychological Testing: Flexible Approach

The process approach to neuropsychological assessment is based on the idea that each patient's functioning and deficits are different and that different cognitive processes can be involved for different people when completing the same task. This leads to the belief that testing, describing, and understanding the functioning needs to be individually tailored to the patient and his or her difficulties.

This approach has the advantages of first, acknowledging and focusing on the unique nature of the patient, and, second, focusing on specific aspects of functioning that are seen as most important for the patient, and, third, it allows for determining how a patient fails or succeeds on a test item. That is, if a person fails an item such as: "What season does it snow?" it is not necessarily clear if the person could not understand the question, cannot express the answer verbally, or if the person does not know the answer. With a flexible approach, the neuropsychologist can determine the potential reason for the inappropriate response which can help in pinpointing the deficit.

Dr. Muriel Lezak (1995) has described the flexible approach she uses and teaches. As she states, the psychologist usually does not know what specific tests will be administered prior to the examination with the exception of a basic battery that evaluates the major dimensions of behavior we discussed previously. Based on responses to items and tests, behavioral observations, and so forth, the neuropsychologist then begins to formulate hypotheses regarding deficits and makes a selection of tests. Based on responses to those tests and observations of behavior the neuropsychologist then accepts or refutes the hypotheses and continues the process until a full picture of functioning emerges. With respect to Lezak's basic battery it includes individually administered tests and self-administered tests that patients can take themselves. For example, the basic battery includes most of one of the Wechsler Intelligence Scales, the subscales of which tap into various important domains of brain-behavior relationships. As well, a variety of other tests that tap into attention, visuospatial abilities, memory and learning, verbal and academic skills, construction skills (i.e., copying, drawing), concept formation, motor ability, and emotional status are administered as the initial battery. The selection of specific tests following the battery is, of course, variable and there is an accumulating number of neuropsychological testing instruments and methods that have been developed (e.g., Strauss et al., 2006).

There are other approaches to neuropsychological evaluation that have been developed, for example, the Boston Process Approach which was developed by Edith Kaplan. Although many neuropsychological examinations use the WAIS or components of the WAIS in order to tap various kinds of brain functioning, Kaplan developed a modification of the WAIS to be more specifically relevant for neuropsychological questions. Based on observations of brain-damaged patients' behavior, she developed the Wechsler Adult Intelligence Scale–Revised Neuropsychological Instrument (Kaplan, Fein, Morris, & Delis, 1991). This scale is again used as a part of an initial battery and subsequent tests are added based on performance, behavior, and the individual needs of the patient.

Conclusion

Overall, the current chapter has attempted to provide the student with an overview and description of intellectual assessment and neuropsychological assessment. From its early beginnings of assessing intellectual abilities of children, this area of clinical psychology has shown tremendous growth and development in terms of the research and the applied application of that research in attempting to aid those with intellectual and cognitive difficulties. A major domain of assessment has been evolving, neuropsychological assessment, that focuses on intellectual and cognitive functioning among those with suspected or confirmed brain damage. Several assessment approaches were described.

Ongoing Considerations

The field of intellectual assessment and intelligence is always evolving. Certainly our understanding of intelligence is increasing. One direction this has taken is whether or not there are multiple intelligences and not just one general kind of intelligence. For example, Dr. Robert Sternberg (1988) suggests that traditional conceptualizations of intelligence are too narrow and has proposed three different "intelligences" that include Analytic Intelligence, which is generally what we think of as intelligence and what is measured by IQ tests. Creative Intelligence involves being adept at managing novel situations and new problems, and, finally, Practical Intelligence which involves abilities to adapt to environmental demands. Howard Gardner (1993) has gone even further specifying no less than seven different kinds of intelligences! These include mathematical, spatial, musical, body-kinesthetic, personal, intrapersonal, and interpersonal intelligences. Whether these different types of intelligence will be accepted in the mainstream of psychology will be determined over the next few years.

Although the focus of much neuropsychological evaluation has been on adults, there have been attempts to develop comprehensive assessments of children. For example, a relatively new neuropsychological battery has been developed for assessing brain damage in children between the ages of 3 and 12, known as the NEPSY-II (Korkman, Kirk, & Kemp, 2007). This battery assesses seven core areas including attention and executive functions, language, sensorimotor functions, visuomotor functions, visuospatial processing, memory and learning, and social perception. In addition, within each of the broad domains, it is possible to assess subcomponents of the domains. Although the battery is relatively new, there is some promise for the utility of the battery in assessing brain damage in children.

Key Terms Learned

Accommodation, 172
Age tests, 162
Agnosia, 168
Clinical neuropsychology, 165
Crystallized intelligence, 158
Deviation IQ, 161
Differential score approach, 172
Experimental neuropsychology, 165
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Spatial orientation, 168
Statistical or normative approach, 172
Topographical orientation, 168
Wechsler Preschool and Primary Scale for Intelligence, 163
Wechsler-Bellevue Intelligence Scale, 163

Thinking Questions

1. In what ways was the early development of the Wechsler Scales innovative in comparison to other views and tests of intelligence?

2. Describe the differences and similarities between the SB-5 and the Wechsler Scales in terms of development, measure and conceptualization of IQ, and the components of intelligence measured.

3. What are the differences and similarities between flexible and fixed battery approaches to neuropsychological assessment?

4. What are the important domains to assess in neuropsychological assessment and what are the relevant domains in an intellectual assessment?

5. How do you think the Wechsler Scales might be used in a neuropsychological assessment?

6. What features of a person's background should be used to estimate premorbid cognitive functioning?

7. How does culture affect the validity of an IQ test?

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9 Behavioral and Biological Assessment

Chapter Objectives

This chapter rounds out the description of the various classes of measurement tools that are available to the clinical psychologist and will introduce:

- Behavioral Assessment
- Biological Assessment
- Discuss strengths and weaknesses of both types of measurement approaches

A particular advantage to the two methods described in this chapter is that they can provide information that is (or can be) free of response biases. Nevertheless, determining when and under which conditions this is true, and for which kinds of question, takes some effort to explain.

Behavioral Assessment

Rationale and Basic Principles

In clinical psychology and psychiatry, the assessment of personality, psychopathology, and poor health relies heavily on self-report, either via diagnostic interview or via standardized questionnaires. As was discussed in Chapter 8, this has many advantages; among them is the opportunity to also create a relationship via interviews. Furthermore, the interviewer can observe the congruence (or lack thereof) of simultaneous behavior with self-report. While the high degree of standardization and simultaneous low cost associated with the use of questionnaires has its advantages, the flexibility of behavioral assessment is unique and represents a great opportunity to round out an assessment package. Unfortunately, clients may not want to reveal problematic behaviors in self-reports and minimize reported severity, especially when the problematic behavior is socially stigmatized. Clients may also not be very accurate in their recall; and this is particularly true in the very young, those with low intelligence and poor verbal skills, or individuals with certain pervasive cognitive dysfunctions like brain damage. The incipient weakness of any assessment that solely relied on self-report requires a degree of perpetual mistrust on the part of clinicians and a constant need to check and understand the context in which these responses are delivered. To some degree, this problem can be remedied via the use of sophisticated tests that have built-in correction scales like the MMPI or the PAI (see Chapter 8). Therefore, the trustworthiness of assessments can be greatly strengthened if an assessment package can be compiled with different approaches

that are complementary to interview and questionnaires, that are difficult or impossible to fake or bias, and that don't require inference for interpretation. Behavioral and biological assessments fit these requirements (under certain circumstances) and are therefore described in this chapter.

Assessing behavior is particularly important in behavior therapy (which will be presented in detail in Chapter 12) because behavioral assessment is an integral part of the whole therapy conceptualization, planning, and documentation of progress. However, this is not a reason to limit behavioral assessments to the context of purely behavioral therapies. The only requirement for behavioral assessment is that an observable behavior is informative and quantifiable.

Typical problems presented to a behavior therapist are anxiety problems and associated avoidance behaviors, substance abuse problems, or compulsive behaviors. If an individual who sought therapy for chronic nail-biting stops biting nails, then therapy was successful (unless the individual substituted the nail-biting with another problem behavior like hair pulling, of course). Or, one can think of an individual who refused to accept a desirable promotion at work because he was afraid of flying on airplanes, and the promotion would have required frequent plane travel. If after therapy he was reasonably comfortable flying and subsequently accepted the promotion, then again the therapy was successful because the target behavior (avoidance of flights) was changed. These examples readily show the great advantage of assessing overt behavior; no further complicated tests, questionnaires, or lengthy interviews are called for. Also, behavioral assessment is very suitable for individuals who cannot easily share their thoughts and feelings with a therapist, like very small children or an adult with low cognitive abilities. In fact, for these individuals behavioral observation is the only usable form of assessment.

That sounds promising, right? Could it really be this simple?

Validity and Ethics in Implementation and Interpretation

It may be particularly informative to show the strengths and potential problems with behavioral assessment using real-life examples that the reader can easily identify with. When an impatient driver runs a red light and two police officers sitting in their cruiser saw him do it, the driver has no leg to stand on in court because the judge will readily accept the validity of the officers' observations. Case closed. Behavioral assessment directly taps into what happened; no inference is required, and that gives it maximal credibility in court (a psychologist would say it has ecological validity). This conclusion is beautifully illustrated in a court case (see Box 9.1).

By creating the hypothetical but by no means unrealistic scenario of a driver slipping through a red light, important features of behavioral assessment were opened up for discovery. First of all, somebody's behavior can be assessed and monitored by (a) the person himself or herself or (b) somebody else. The advantage of monitoring oneself is that the observer can monitor or recall all of his or her behaviors over a long period of time whereas a different observer, in this case the police officers, can record only one very small window of one's behavior, namely, the singular event of running the red light. Whether or not one can trust the self-monitoring depends on the respondent's belief about the desired (or undesired) consequences of being open and honest.

Another disadvantage of a psychologist asking a patient or research participant to record his or her own behavior is the potential difficulty with accurate recall (especially when

BOX 9.1 THE POWER OF DIRECT OBSERVATION OF BEHAVIOR

This is a real-life story (we did not make it up!); it happened in a Vancouver courtroom and was told to us by the presiding judge.

Mr. P. was suing his disability insurance company because he had an injury that allegedly prevented him from returning to work. If the claim was found reasonable, the insurance would have to provide him with a lifelong disability pension. The insurance company had some doubts about the truthfulness of this claim because the medical evidence was not clear. The lawyer for the insurance company was hoping that on cross-examination Mr. P. would reveal something to substantiate the insurance company's suspicion. Here is a rough recap of the dialogue:

Lawyer: "Mr. P., I have here in front of me the medical report regarding your claim, however, even after reading it twice I'm not quite clear what it is that you cannot do any more."

Mr. P.: "Well, I have trouble moving my legs."

Lawyer (visibly more impatient now): "Yes, I can see that from the report but it still does not really tell me exactly what it is that you cannot do."

Mr. P. is now somewhat incensed by the insistence of the lawyer, and in front of the full court, he gets up and pulls his knee up to his chest with a swift and forceful action and says to the lawyer: "This is what I cannot do anymore!"

. . . and that was the end of the court case, wrapped up quickly by the persuasiveness of an observed behavior that just could not be undone or talked away by a clever lawyer.

the events to be recorded are neither rare nor important). First of all, if one seeks to elicit information from a patient about an event that is not particularly salient (like how often did you take your pills last month?) then he may truly not be able to give a correct answer because it is not normal to pay too much attention to such details of the past. On the other hand, if asked how often he has hit his wife in the past week he will likely know the answer but will, predictably, be reluctant to honestly report such socially undesirable behavior. Similarly, there is every reason to believe that a teenager when questioned by her parents will knowingly underestimate the amount of alcohol she drank the previous night. The bottom line is that self-monitoring behavior

- Is inexpensive
- Can cover a long period of time
- Can be very representative of this person's habits
- Can be of high ecological validity, but may not be an honest report if the behavior was undesirable and socially unaccepted.

The context and the habits and values of observers all have an influence on what gets observed and recorded. Minimizing such biases is critical for the appropriate use of observation in clinical psychology, and a number of techniques will be described later in this chapter on how this can be achieved.

The second critical feature that was introduced in the example of the driver running a red light was that of knowing versus not knowing that one is being observed. This feature of observations is referred to as **obtrusive** versus **unobtrusive**. When we know that we are

being watched, the observation is obtrusive, and we may behave in a fashion that protects our self-image or avoids punishment, and therefore this knowledge makes the measurement situation itself **reactive** (given that it may affect our subsequent behavior). For the most part, this is a serious threat to the validity of a behavioral test, but it can also have a desirable side effect. A smoker who for the first time actually records her exact number of cigarettes smoked may end up spontaneously reducing her smoking behavior because this realization becomes a stimulus for change. Interestingly, accurate recording of behavior can be the trigger for positive change, and this point also teaches that assessment can be continuously and constructively woven into the therapy program itself. A therapist can take full advantage of this by encouraging self-monitoring and thereby hoping to achieve behavior change.

The potentially **reactive nature** of obtrusive measurement does not always invalidate the obtained results. For example, if an individual with a phobia of dogs shows the therapist that she will not get any closer than 10 meters to a dog without experiencing a great deal of fear, then the fact that the therapist is present and the patient is aware of her presence is not likely to invalidate the self-reported fear. The patient has already revealed that she is anxious of dogs and therefore does not need to create a different image. Similarly, if at the end of therapy she is capable of patting a dog, then this approach behavior can be seen as a success that does not require interpretation, and the obtrusiveness of the situation is not a validity threat.

Given that obtrusive observation may change the behavior itself, this does create a potential validity problem. It would be ideal if all behavioral observations were made by objective individuals without any knowledge on the part of the observed. Under the law, behavior shown in what is presumed to be a public place can be legally observed by anybody without restrictions. Insurance companies, for example, can legally use private detectives with video cameras to follow individuals around who have made questionable claims for disability benefits. If such a claimant later says in court that he is too weak to lift an office chair but is shown via unobtrusive video-recording to be helping a friend carry a couch up to the third floor, the case will get quickly dismissed. On the other hand, there are ethical guidelines and laws governing unobtrusive observation of people who have reason to believe that they are in a private environment (like their own home). Therefore, a psychologist is typically prevented from making unobtrusive observations about such behaviors as whether parents were abusing their children at home or not. Doing so is unethical and probably illegal. Therefore, an inherent problem with behavioral observation is that the unobtrusive observation, that we consider most valid, is legal and ethical only if it is applied to public behavior. This raises the question whether any kind of obtrusive measurement (i.e., the observed persons knows they are observed) can still be "valid and not reactive." Fortunately, that is sometimes the case. Clinical experience has shown that when couples in marital therapy are asked to discuss an issue of long-standing disagreement, experienced marital therapists know that within mere minutes these couples get angry at each other in such a way that their dispute seems utterly genuine, likely reflecting just what goes on at home. Or, if an individual is extremely anxious of giving a public speech and is asked in a treatment group to give a practice speech (also referred to as **role-play** here), the resulting anxiety is likely very real and reflective of this person's typical response. In sum, whether or not one can trust the observation of behavior depends on the context, the obtrusiveness, and any biases that observers may have, but often times the most valid form of observation (namely, unobtrusive observation) is unethical.

What Can Be Done to Maximize the Usefulness of Observations?: Tips for Strengthening Observational Methods

Key to meaningful observation and recording is a clear definition or description of the behavior to be observed. In the case of observing others, this can be achieved by creating explicit coding systems that use overt behavioral definitions for the behaviors to be recorded, and raters can be trained until they reach satisfactory concordance levels. Table 9.1 offers a lighthearted example of how such a system might be devised.

It is relatively straightforward to devise a behavioral assessment tool for individual clients and for single case use. Particularly suitable scenarios are cases with specific phobias and

TABLE 9.1 A Proposed Behavior Observation Coding System for Evaluating Candidates for Steady Boyfriend or Girlfriend

Variable	*Behavior Description and Code*				
	5	**4**	**3**	**2**	**1**
Generosity	Always buys thoughtful Christmas gifts for you, the mother-in-law, and the family dog	Usually buys thoughtful Christmas gifts for you	Once managed to find a decent gift	Sometimes finds a crummy gift for you at the thrift store	Borrows money from you to buy a gift for you at the thrift store
Listening skills	Guesses your thoughts before you have them	Listens carefully and understands the between-the-lines stuff	Hears half of what you say	Listens temporarily if you turn the TV sound off	Does not even notice whether you are in the room or not
Helpfulness	Gives up his or her beloved career as a brain surgeon so that you can take the hairdressing course in Alaska	Takes the bus to work in the rain and lends you his or her car when yours is in for repairs	Generously allows you to you use his or her tooth paste when yours is finished	Mentions casually that your mother called three days ago, and said it was urgent	Tells you that you have a really big butt in those checkered pants you love so much
Social skills	Can convince the Pope to convert to Judaism	Tells your mother with a sincere smile that the burnt cookies were delicious	Can hold a 5-minute conversation with your deaf grandfather	Pokes his or her nose only twice while your redneck cousin tells hunting stories	Keeps asking your very obese cousin when the baby is due
Sense of societal responsibility	Spends 3 months a year teaching reading to children in Antarctica and reads bedtime stories 3 times a week in a seniors' home	Collects bottle caps, sorts them by size, and returns them to the factory for recycling	Drinks beer out of cans because they are easier to recycle than glass bottles	Bought only the second-largest SUV to help reduce pollution	Teaches hyperactive 10-year-olds how to have fun with firearms

TABLE 9.2 A Fear Hierarchy for a Client With Water Phobia

Subjective Units of Distress	*Situation*
100	Being in deep water, unable to touch the ground or see it
80	Being in water up to one's neck, feet still touching the ground
60	Being in a shallow pool, water waist high
40	Being in a children's pool, water ankle deep
25	Standing beside large swimming pool
20	Thinking about a boat ride
10	Thinking about taking the children to a wading pool

problematic avoidance behaviors like fears of driving over bridges or fears of deep water. The therapist may want to know how anxious the client is in the presence of the feared stimulus. Examples are the client refusing a very desirable promotion because she has a fear of flying or refusing to go with the family for a beach holiday because he has an extensive fear of water. In order to document progress in therapy, one can, together with a client, create a hierarchy of fear-arousing situations on the theme of flying or proximity to water. This can be done by placing water-related thoughts and behaviors on a scale from 0 to 100, where 100 reflects the most anxiety a client has ever experienced. Scores on such a scale are referred to as subjective units of distress (SUDs), and a client may provide a set of hierarchy steps and corresponding rankings such as those in Table 9.2.

If therapy is successful in reducing fear and minimizing avoidance behavior, then the therapy progress can be readily traced and documented by showing the client the reductions in fear ratings or the lessening of avoidance behaviors. When therapists routinely work with such clients, they can maintain a basic model or boilerplate of a **behavioral-approach avoidance test** that can be readily adjusted to the client's feared objects and the subjective anxiety level that accompanies each step in the fear hierarchy. It takes mere minutes to devise and execute such a test.

Self-Monitoring

Earlier in this chapter, it was pointed out that observations of behavior can be made by another party or by the individual himself or herself. The principal advantages and disadvantages of each have already been discussed. In order to minimize the problem with accurate recall and to facilitate quantification of recordings outside the therapist's office, it makes sense to equip patients with recording booklets that serve as diaries. More recently, of course, researchers have moved to handheld minicomputers for diary-keeping or add an application to a client's cell phone (Connelly & Bickel, 2011). An electronic recording can eliminate expensive scoring and permit error-free data entry.

Summary

In this section we described efforts to standardize and structure the assessment of behavior so that change can be easily tracked over time. This facilitates comparisons between different people. Even outside the context of clinical psychology practice, observation of behavior is

a standard feature of all interpersonal interactions (even if this was never planned). If two spouses attend a party, they are likely to talk on their way home about conversations they had with others and may make comments to each other like this: "Did you notice that Suzy Q was very flirtatious with that new neighbor?" or "Like usual, Barry was a real pain in the butt, totally dominated the conversation and got worse and worse as he drank more." All this is to say that informal behavioral assessment is part of everyday life and not at all reserved for clinical psychologists. The difference, of course, between everyday observation and assessment by professionals is the level of training needed for inter-rater reliability and the standardization of the assessment approach.

Biological Assessments

Books on psychological assessment and clinical psychology textbooks usually ignore biological assessment. Why do other clinical psychologists ignore the topic when it is considered important in this book?

Underlying this claimed "neglect" of biological assessments is an odd paradox in the development of diagnostic procedures. Clinical psychologists tend to work with the same kinds of patients as the ones who are seen by psychiatrists. The particular strength of a medical approach to psychiatry is its strong knowledge base in the biological origins of psychiatric disorder, and this knowledge is the foundation upon which psychopharmacological treatment rests, which in turn is the unique forte of psychiatrists as mental health professionals. For example, the treatment of depression with a **selective serotonin reuptake inhibitor** is the logical conclusion of research findings that the production and processing of serotonin is disturbed in depressed patients (Rausch, 1986; see also Chapter 18 in this book). Similarly, the treatment of bipolar disorder with lithium is based on research showing that in these patients the internal production of lithium, a naturally occurring mineral, is insufficient (Geddes, Burgess, Hawton, Jamison, & Goodwin, 2004). Note also that psychiatric disorders that are characterized by emotional distress (see *DSM-5* (American Psychiatric Association, 2013); see also description in Chapter 5) are the ones that most likely bring the patient into therapy. Furthermore, the basic literature on emotion describes it as an experience that has cognitive, affective, and biological components that interact with each other to define what an emotion is (Schachter & Singer, 1962). So, why mention all this? Where does this lengthy introduction lead?

Consideration of these points leads up to the striking observation that in the routine diagnosis of psychiatric disorder there is not a single biological test used to determine a diagnosis nor track change in psychiatric disease. Unchanged for many, many decades is the fact that psychiatric diagnoses are based on the self-report of patients, the observations of (erratic or dysfunctional) behavior by others, and, of course, the observations by mental health professionals who interact with these patients. Given that psychiatrists who are biologically trained and work with the same type of patients that clinical psychologists work with do not use biological measures, it is not surprising that many clinical psychologists don't think of biological measures as being a potential "bread and butter" tool for their practice either. However, in this book, a strong case is made that the omission of biological measures also means ignoring interesting information that could otherwise be used to assist the clinical psychologist's work, both in research and in daily practice.

Coverage of this topic requires a brief review of some basic physiological principles so that it is clear what can be measured and why biological assessment is of interest. It will be

shown which features of particular health problems can be inferred using biological measures. Next, it will be shown how physiological parameters can be measured, and the choice of suitable tools and measurement protocols will be described. This will include detailed descriptions of specific clinical situations where such biological measures may be of use, and demonstrations will be given of the reliability and validity of such tools for various purposes.

Physiological Systems

The purpose of this section is not to repeat what a full-fledged textbook of physiology does. The focus here is on those physiological functions that are related to the *emotions*, *thoughts*, and *behaviors* that clinical psychologists deal with. They include the following *negative emotions*: anger, depression, and anxiety/fear. At the *cognitive level*, prevailing attributes of psychopathology are obsessions/ruminations; poor judgment; and inability to focus, foresee consequences, and make decisions. At a *behavioral level*, degree of activation is critical in that both extreme lethargy and hyperactivity are signs of problems. Hence, clinical psychologists are interested in brain activity, central nervous system activity, endocrine functions, and control of voluntary muscles.

In this chapter we will consider only the measures that can be routinely used in a psychologist's office or research laboratory and that do not require any kind of invasive procedures like urine, saliva, or blood sampling. Measures that require sampling of specimens, transferring of samples to a biomedical laboratory, and a "few-day-wait" for test results are not good candidates for routine use in clinical psychological practice. This limits the measures to be discussed to those that are electrical in nature and those that measure frequencies or changes in physical pressure or body motion. Table 9.3 summarizes measures that fit these classifications. Names and abbreviations (which will be used in the remainder of the chapter) as well as the function that is actually being measured are listed.

When using the information obtained with these measures, one needs to distinguish two classes of use for these measures.

1. The first class or type of use taps into *general levels of activation* and *inhibition* and requires some degree of inference to connect obtained data to specific psychiatric diagnoses. For example, we know that when people are angry, their blood pressure and heart rate rises, their breathing often speeds up, their muscles tense, and the increase in blood pressure is strongly affected by a narrowing of the blood vessels also referred to as vasoconstriction. Anxiety, on the other hand, is also an emotional state associated with physiological activation but is different in that the sympathetic arousal is largely driven by an increase in cardiac activity and less so by concomitant changes in the diameter of blood vessels (Watkins, Grossman, Krishnan, & Sherwood, 1998). Depressed individuals can be differentiated from nondepressed individuals by studying their heart rate patterns over at least 24 hours. A nondepressed person tends to show a prompt drop in heart rate when going to bed; it remains low and stable while sleeping and rises promptly on awakening, whereas a depressed patient shows noticeably greater variability (Gaetz et al., 2004; Iverson et al., 2005). If one were to measure physiological changes during anxiety, a recommended set of measures would be heart rate and electrodermal activity (given that anxiety is characterized by heightened sympathetic arousal which these

TABLE 9.3 Classification of Physiological Measures

Electrical	*Abbreviation*	*Function*
Electroencephalography	EEG	Measures electrical activity in the brain; is an excellent marker of sleep stage, attention, and emotion
Electromyogram	EMG	Measures muscular tension; is responsive to voluntary muscle enervation, anger, and stress
Electrocardiogram	ECG (also EKG)	Measures cyclical activity of the heart; in psychophysiology mostly used to extract heart rate and variability in heart rate
Electrodermal activity (also Galvanic skin response)	EDA (also GSR)	Is an excellent, quick-responding marker of sympathetic nervous system activity
Pressure/volume/ temperature/frequency		
Blood pressure	SBP and DBP	Marks highest (SBP) and lowest (DBP) pressure found in vasculature depending on where the cardiac cycle is at; respond moderate quickly to motor effort (SBP), emotional distress (SBP and DBP), and cognitive effort
Heart rate	HR	Is greatly affected by all motor effort but also by anger and anxiety
Heart rate variability	HRV	Changes with pain and stress
Respiration rate	RR	Increases with greater required motor effort and anxiety
Breathing volume	No particular abbreviation is popular	Reflects oxygen uptake; is reduced during anxiety
Actigraphy	No particular abbreviation is popular	Measures motor efforts and energy expenditure

two measures are reflective of). What the clinical psychologist needs to be aware of is the fact that these physiological functions can have multiple origins such that heart rate can change for many reasons other than anxiety. Primarily, heart rate will respond to changes in motor demand and reflect effort. Heart rate may easily rise from 60 to 100 beats per minute when a person gets anxious, but it can also increase by 40 points because the same individual carries too heavy bags of groceries up four flights of stairs (while happily whistling). This is to demonstrate that when physiological indices are used to tap into activation or inhibition, the psychologist needs to consider alternative explanations and account for them. When the context is known and reasonably well controlled, then the interpretation and inference is easy. The psychologist working with a dog phobic may attach a heart rate monitor to the patient and record a resting heart rate of 70 beats per minute. When a helper soon thereafter brings a (harmless, we hope) dog into the office and the patient's heart rate jumps to 120 beats per minute without the patient actually physically moving about, then it is clear that the introduction of the dog, the feared stimulus, is the reason for the heart rate change.

TABLE 9.4 Clinical Problems and Suitable Measures

Clinical Problem	*Suitable Measures*
Arthritis	Finger temperature, electromyogram
Asthma	Airway resistance, frontal electromyogram
Bruxism	Frontal, masseter, and temporalis electromyogram
Cardiac arrhythmias	Breathing activity, heart rate variability
Hyperactivity	EEG
Hypertension	Blood pressure, heart rate, breathing activity, finger temperature
Migraine	Frontal electromyogram, finger temperature
Raynaud's disease	Finger temperature
Urinary incontinence	Bladder muscle electromyogram

2. The second use of biological measures is particularly easy to interpret. Here, very specific biological functions are measured because they are specific and endemic to the presenting problem, or they are the presenting problem (like high blood pressure). Table 9.4 provides a listing of various clinical problems a psychologist in a health setting may work with, and it suggests types of biological measures that index these dysfunctions.

A particularly good example may be hypertension, or high blood pressure, which is greatly affected by psychological stress (Linden, 2006) and psychologists can be involved in the treatment of individuals with high blood pressure. When a treatment program of biofeedback and relaxation (Yucha et al., 2001) leads to a large decrease in blood pressure levels, no inference is required. With hypertension reduced and remaining low, treatment would be called successful, and the associated risk for cardiovascular disease is correspondingly reduced (Linden, 2006).

Or, to take another example, a patient presents with stress incontinence, which is the result of a dysfunctional interplay of bladder releasing and tensing muscles. This is evident in pelvic floor muscle activity, which can be measured by attaching electrodes in the area of these muscles (Bernstein, Philips, Linden, & Fenster, 1991). The patient can be taught via EMG biofeedback to control these muscles and re-establish a synergistic function (Burgio et al., 1998). When this synergistic function is re-established and apparent on the muscular tension monitors, the therapist knows that the stress incontinence has been resolved. No further measures and no inferences are needed.

Measurement of Physiological Activity

When psychologists and other researchers began monitoring physiological functions, this was a laborious undertaking involving fairly expensive equipment, a lot of training, and time. The standard tool for data acquisition in the past was a polygraph that was rather cumbersome because it required lots of maintenance, keeping ink-fed pens going and feeding reams of chart paper into the machine. Then came the tedious extraction of data by hand, translating squiggly lines into meaningful numbers.

There is little doubt that the complexity of polygraph use has in the past prevented many psychologists from considering biological measures. However, since the 1980s, the advances in signal acquisition and processing hardware and software have been dramatic, and the result is equipment that is much easier to handle. Data can now be automatically translated into digital information that can be displayed on a computer screen and stored on desktop or laptop computers. The information that required a $20,000 to $30,000 machine for assessment in 1980 can be obtained today with equipment costing only a fraction of these amounts, and it is dramatically more user-friendly. Proper usage of a digital heart rate or automatic blood pressure monitor, for example, can be explained to a research assistant or graduate student in less than half an hour. Nevertheless, use of biological measures does require knowledge of the underlying physiology just as the use of multifactorial personality inventories with correction scales (see Chapter 8) requires diligent background training.

When purchasing equipment, experience has taught that it is good to have the following characteristics in the equipment one uses:

1. The device should have the capability to display analog signal forms (like different pitches of sound, light bars that rise and go down, or waveforms) because these are often easiest to work with for clients. In addition, of course, the device should have the capability of translating the information into digital signals because these signals are easily stored for later analysis or entered into a patient's chart. Furthermore, many physiological functions are easily understood in digital form even by laypeople. Good examples are heart rate (described as beats per minute) and breathing rate (defined as breaths per minute). These functions need little explanation. Changes in muscle tension, on the other hand, are better displayed as changes in the height of light bars, which change as tension increases or decreases. The key here is flexibility in the display modes because different clients may have different favorite display modes.
2. It is a good idea to purchase equipment that allows for multichannel recording even if the typical user will need only one or two channels at a time. The reason for this is cost savings. The basic data acquisition processing hardware is the same for a lot of different functions, and having a device that can process six or eight of these functions is hardly more expensive than one that can process only one channel. There will be additional cost, of course, in the different transducers required for each function. The clinician who works with a number of different psychophysiological disorders like pain, muscle injury, cardiovascular problems, or general stress issues might want to buy a system that can measure (a) muscle tension, (b) electrodermal activity, (c) blood pressure, (d) heart rate, (e) breathing rate, and (f) breathing depth. Any device that measures heart rate also has the basic potential to compute heart rate variability, which has become the recent focus of attention and excitement for cardiac, hypertension, asthma, and pain applications (Berntson et al., 1997, Draghici & Taylor, 2016).
3. Another feature to consider is the need for signal averaging that can be adjusted by the user. If, for example, the clinician wants to use a heart rate monitor to assist in the treatment of phobic patients, the device should show heart rate changes maybe every 10 or 20 seconds, but not much more often or less often. If the signals change too frequently, the user becomes confused and preoccupied and tries to desperately interpret each change as meaningful when it was just random variation. If changes in the signal, in this case heart rate, are shown only every 2 minutes or even less often, then an interesting psychological process that produced a quick heart rate change would get missed. In order to make smart choices for picking the right signal averaging length, the user

needs to be aware how quickly the physiological functions they are monitoring respond to differences in environmental stimuli. Electrodermal activity, for example, can change in seconds, whereas diastolic blood pressure (the second number of the two blood pressure values that are usually given) takes considerably longer to respond and may take a minute or two before it noticeably rises or drops.

Reliability and Validity

Many issues around reliability of measurement are resolved due to the fact that biological assessment tools are carefully developed by manufacturers, tested, and then approved by the Federal Drug Administration in the United States or similar government agencies in other countries. If these tools are found unreliable, they are not approved for the market or will quickly lose out against the competition that builds better equipment. In addition, reliability during the actual assessment process is improved by taking multiple measures and then averaging them, just as a personality test is more likely reliable if it measures a construct with a number of inter-related items. **Test-retest stability** for many physiological functions is very high and frequently exceeds $r = .8$. In terms of validity, the same approval process described for tool reliability also serves to establish that the tool measures what it is supposed to measure. When it comes to measuring things like muscular tension or heart rate, there is no question about interpretation because all approved instruments measure what they are supposed to measure. Of course, there is always the risk of measurement error arising from improper application of a sensor, poor preparation of skin, or inadequate training of the individual conducting the assessment.

Some inference is required when estimating the validity of a physiological function like electrodermal activity that is being used as an index of sympathetic arousal, and the sympathetic arousal is measured because it is indicative of heightened anxiety. Can one reasonably claim that every change in electrodermal activity is indicative of a change in anxiety? No, we cannot, because there can be confounding effects like differences in room temperature, humidity levels, or preoccupations of the patient that a therapist does not know about. On the other hand, there is strong evidence of criterion validity in that changes in anxiety in a controlled setting reliably translate into changes in electrodermal activity or heart rate (Keller, Hicks, & Miller, 2005).

Applications

The listing of potential measurement and therapy applications in Table 9.4 includes a wide range of presenting problems that clinical psychologists may work with. Many of these applications are not directly reflective of psychopathology as defined in a categorization system like the old *DSM-IV*, but they are often symptomatic of definable psychiatric disorders. Labeling may be an issue because distressing affect is not always precisely described as anxiety or depression by patients, but some describe this problem as "stress." The body's response to stress activates the autonomic system, and endocrine functions can be measured to index stress (although many of these are invasive and more suited for research investigations than for clinical assessments). There is a massive literature within the domain of health psychology and psychosomatic medicine showing the consistency with which stress is measurable via biological indices (Morris, Compas, & Garber, 2012, Wardenaar et al., 2011).

A large subsample of patients in general hospitals and outpatient clinics present with chronic pain problems, and they also frequently report sleep problems that can be tested via actigraphs (Wilson, Watson, & Currie, 1998, Cappuccio, Cooper, D'Elia, Strazzullo, & Miller, 2011). Muscular pain is reliably indexed by increased EMG activity. Individuals with post-traumatic stress disorder frequently report sleep disturbances and heightened arousal levels, which can also be documented biologically. Phobias have concomitant sympathetic activation that can be measured. And, attention deficit and hyperactivity disorder (ADHD) in children and adults is often linked to differential brainwave activity, which has actually led to the development of EEG biofeedback protocols for the treatment of ADHD (Thompson & Thompson, 2005). In sum, there are many areas of practice for clinical psychologists where biological assessments function as complementary assessment tools, and it is a bit puzzling that these methods are not receiving more attention in other books dealing with assessment.

One particular advantage of physiological assessment is that it is minimally reactive, and it is fairly difficult for patients to fake a particular physiological response. Here is an interesting clinical case example to support this point.

> A 40-year-old woman, Ms Susan Y, with a chronic pain condition in one lower arm, was trying to settle a disability claim with the local Workers Compensation Board. When we saw her in our teaching clinic, she was angry and bitter that after two years there was no settlement yet. Her rather thick medical chart revealed no X-ray or other hard medical evidence that suggested a cause for the pain but her pain report was so consistent and coherent that we did not doubt her. We decided to devise a quick test to seek, if possible, an incontrovertible biological demonstration for the pain and its associated dysfunction. Ms Y could not know in advance what we were about to do because it had not been done before. We attached electrodes to both arms and assessed resting muscle tension via EMG using a structured protocol; essentially there was no difference between the two arms even when the channels on the recorder were switched. Next, we devised a quick test of actual muscle use by asking her to pick up a can of peas, grip the can firmly, hold it for 10 seconds, and put it back down on the table. During this activation test the healthy arm showed exactly the response we expected, namely, a prompt increase in EMG which was stable as long as she gripped the can of peas, and then relaxed when she put the can down again. In contrast, the arm in which chronic pain and weakness was reported showed no such muscular response doing the exact same activity. Although we never learned how the case was settled, it was still gratifying to see that Ms Y had finally seen some evidence that there was a factual difference between the two arms, and that she was not faking it as she had been given to believe [between the lines, of course, because nobody would say so directly].

This little bit of detective work was very enjoyable.

Another innovative and informative way of using physiological assessment has been applied to the identification of individually relevant stressors in a stress management approach to the treatment of high blood pressure. This methodology, referred to as hypertension individualized treatment (HIT; Linden, 2006), involves patients being continuously monitored during the assessment interview. Given that the assessor now has parallel access to very different sources of information, namely, verbal self-report and biological activity, it allows a structured, yet patient-centered approach to identifying the most promising targets for therapy and an opportunity for client and therapist to develop a strong alliance.

Conclusion

Both behavioral and biological assessments are very distinct from interviewing methods and questionnaires discussed in Chapter 8. They don't readily fit into the stereotypes that outsiders have of psychological testing procedures like the Rorschach Inkblot Test (which of course may well qualify as the most intriguing and prototypical of all psychological tests). Behavioral and biological assessments are less often used than interviews and questionnaires, may be more expensive, and require additional training or efforts to tailor the observation of behavior and biology to case- and situation-specific methodologies and rating systems. These insights may seem to argue against frequent use of either behavioral or biological assessment. On the other hand, both approaches give a free hand to clinicians and researchers to create tools on short notice and maybe even be suitable for a singular use. Both methods allow (under certain circumstances that we discussed earlier) to collect unbiased data, which are then easy to trust. Therefore, both of these methods are very complementary with the assessment methods described in Chapter 8, and they can be valuable additions to the clinical psychologist's toolbox.

Ongoing Considerations

The use of assessment instruments is greatly driven by cost and convenience factors. As such, clinical interviews and self-report questionnaires are widely popular and are not under threat of getting replaced. Nevertheless, we urge clinical psychology students and practitioners to learn more about, and use, both behavioral and physiological assessment more often. Technological advances are steadily increasing the user-friendliness of biological measures, and especially when it comes to assessments involving the courts, objective assessments are urgently called for.

Key Terms Learned

Arthritis, 188
Asthma, 188
Behavioral-approach avoidance test, 184
Bruxism, 188
Cardiac arrhythmias, 188
Hyperactivity, 188
Hypertension, 188
Migraine, 188
Obtrusive, 181
Raynaud's disease, 188
Reactive nature, 182
Role-play, 182
Selective serotonin reuptake inhibitor, 185
Test-retest stability, 190
Unobtrusive, 181
Urinary incontinence, 188

Thinking Questions

1. Why is there a likely conflict between ethics and unbiased observation when it comes to behavioral assessment?

2. What types of validity apply to a behavioral-approach avoidance test?

3. What are the weaknesses of role-play tests?

4. Given that psychiatry's strength is its training in the biological basis of psychopathology, which biological assessments are routinely used to make psychiatric diagnoses?

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10 The Process of Psychotherapy

Chapter Objectives

There is something profoundly mysterious about psychotherapy. What happens in therapy sessions is not open for public inspection because clients want and deserve privacy. This is further complicated by the difficulty in describing the process of a therapy session—its accomplishments, failures, and idiosyncrasies—once it is over. It is tempting to want to learn about psychotherapies by quickly jumping into elaborate descriptions of therapy techniques and methods employed by practitioners. This attempt, however, may not allow the introductory student-therapist the ability to truly understand the complexity of the therapeutic process and the emotionally intimate relationship between practitioner and client. A more comprehensive approach to learning is required. Take for instance the process of making furniture: You need to learn about the uses and handling of various wood-working tools, acquire an understanding of how different types of wood need to be handled, learn about glue, and so on. Applying this line of thinking to clinical psychology, the following questions and objectives are therefore tackled here. The learning objectives for this chapter are:

- What is psychotherapy and what is the necessary delivery format?
- What therapist qualities are important?
- Do some clients respond better than others?
- How much and what kind of training makes the "best" therapists?
- How long does it take before one can expect results in therapy?
- Is psychotherapy an art or just good training and experience?
- What are typical presenting problems and themes that cut across almost all forms of therapy?
- In what ways are different-sounding therapies alike?

Defining Psychotherapy

Therapy is much more than the application of a technique. Rather, it is a process involving the creation of an intimate relationship between two people, consisting of a sequence of interpersonal events and concurrent attempts at trying new behaviors and (it is hoped) learning from

these adaptations. A quick search of the web and psychology textbooks identifies an array of existing definitions. Here are a few.

Psychotherapy is . . .

1. *[T]he art and science of treating psychological, behavioral, and emotional problems by a trained and objective professional.*

(Cullari, 1998)

2. *[T]he treatment of mental and emotional disorders through the use of psychological techniques designed to encourage communication of conflicts and insight into problems, with the goal being relief of symptoms, changes in behavior leading to improved social and vocational functioning, and personality growth.*

(from Answers.com, Health, 2007)

3. *Psychotherapy is an undefined technique applied to unspecified problems with unpredictable outcome. For this technique we recommend rigorous training.*

(Raimy, 1950)

4. *[It']s not the real world. It is intimacy without friendship. Its goal is to provide you with the tools to succeed on the outside, and the caring, reassurance, and support to fail on the inside. You rehearse your life in therapy, but you live it in the world.*

(Jack Muskat, Psychologist, *The Globe and Mail*, November 28, 1994)

Who is right? *All of them? None of them?* These four definitions range from curt, technical, and dry to poetic and engaging, and from optimistic to cynical. The one that is the longest (Number 2) is likely going to appeal the most because it is very comprehensive and embraces and describes in some detail the content and process of psychotherapy. Muskat's definition paints a rich, appealing picture of the inner qualities of therapy and touches on the dynamics of therapy. And, as the reader continues in this book, many topics will be touched on that can help understand why the cynically sounding definition (Number 4) has to be taken seriously and challenges us to be able to define ourselves and defend against such cynical stances.

The Therapy Environment

Aside from content, psychotherapy, at least in its stereotypical depiction, has a distinct format that places patient and therapist together in a professional office, with comfortable chairs or a couch, with instructions to the outside world not to disrupt, and cell phones and pagers turned off. There are many diplomas on the wall, and client and therapist see each other for one session per week, usually between 8 a.m. and 6 p.m., with the session lasting between 50 and 60 minutes.

Is that really what the visible part of psychological therapy looks like? For the most part, it is! However, there are a few needed modifications to this stereotypical portrayal. Some therapists, for example, accommodate their patients' schedules by having evening sessions or they open their offices to clients on Saturdays. And, of course, many psychologists work in clinics and hospitals that have their own schedules and institutional rules of practice. Nevertheless, despite the fact that most acute care hospitals provide emergency psychiatric services 24 hours a day, psychologists are not usually involved in delivering services at "off" hours.

PHOTO 10.1 Psychological Support Offered in a Refugee Camp in Africa Does Not Quite Fit the Standard Description of the Therapy Environment.
Permission to reprint granted by Dr. Nicole Aubé, 2010.

What is the reason for "one session per week," at 50 to 60 minutes a session? While this is a long-standing tradition in the field, there is terribly little evidence that any of these structured regulations are required. True, psychotherapists will argue that one needs a reasonable amount of time to put the patient at ease and make progress on some important issues. They will also posit that it is beneficial to have time intervals between sessions so that patients can try out new behaviors or process what they have learned in the last session. On the other hand, any therapist who has worked with an angry, sullen, resistant teenager knows that even a 30-minute session may be insufferably long (for both the young client and the psychologist!), and that a crisis situation with a new patient who may be traumatized or suicidal cannot easily be brought to a satisfactory end within 50 minutes. It is not unusual that a first session with such an individual may last 2 hours; the therapist may also feel compelled to book the next appointment within the next 2 days rather than a week later because a whole week without support and care is simply too long for a patient in profound despair.

What about the decorum in therapy? Does it have to happen in an office with artfully framed diplomas on the wall? Given that clinical psychology is under continuing ongoing pressure to define its position in a very competitive marketplace, we also need to be able to understand critiques that do not necessarily understand why we have much more to offer

than lay-helpers who took a few weekend courses. Nevertheless, to clarify this critical difference, we need to understand where the criticisms come from. A number of years ago, Wiesenfeld and Weis (1979) raised the intriguing question whether or not bartenders, taxi drivers, and hairdressers provide psychotherapy even though they:

- Do not claim to do so,
- Have no credentials on the wall, and
- Don't bill for anything but the drinks consumed, the hair curled, or the kilometers driven.

One can readily see that in all three professions, these practitioners spend lengthy periods of time with individuals in a relatively private interaction. The clients may be somewhat vulnerable, have a loosened tongue brought on by boredom or alcohol, and are seated in a comfortable resting position. Both are captive to one another, at least for a while. If the definition of psychotherapy pivots around reduction of distress achieved by talking about one's feelings in a somewhat private environment, surely all three of these professions may indeed qualify as psychotherapists even without diplomas hanging off the visor of the taxi or the back wall of the bar. While this proposition may sound a little frivolous and superficial, it nevertheless stresses that psychotherapy is difficult to define. When it comes to legislative attempts to differentiate formal psychotherapy from a pleasant and beneficial generic human interaction, the primary differences are (a) the degree of formal education and credentialing the professional has obtained, (b) the fact that the clinical psychologist has been trained to diagnose and formulate psychological problems and build a treatment program that maps onto the diagnosis and a thorough understanding of the client's life circumstances, and (c) the jointly agreed-upon role definitions and structure between therapist and client.

Homework Assignments

For most therapies, therapists think of the time between two therapy sessions as a great opportunity to reflect on insights gained, or practice skills learned in the therapist's office and to acquire new experiences. Even some short-term psychodynamic treatments may also involve homework. These experiences can be brought back to the next session to determine what topics are worked on next. Note, however, that although technically correct, the term "homework" has connotations of the client being a child and it may be better to use the term "opportunity to practice new skills" or "time to reflect." Consistent with the learning theories that define behavioral treatments, practicing new skills is not a stigmatized activity and behavioral therapists give home assignments just like school teachers give home assignments, or piano teachers ask their students to practice between lessons. The therapist may ask a very shy client to initiate a few very simple, nonthreatening conversations with strangers, or a student scared to speak out in class may be asked to explicitly try out a half-dozen simple questions in class to expose himself to a feared speaking situation. The benefit of homework assignments is that it can accelerate the learning that can happen in therapy, and a number of studies have explicitly evaluated the effectiveness of homework assignments over and above the benefit derived from treatment itself. In a meta-analysis of available trials evaluating the benefit of homework assignments, Kazantzis, Deane, and Roman (2000) found that the additional homework was associated with significant additional improvements and that the degree of compliance with the assigned

homework also positively affected the therapy outcome. Given that homework assignment does not increase the cost of therapy itself but appears to speed up progress, there is nothing speaking against its routine use.

Therapy Length

An experienced car mechanic can tell you with a fair bit of accuracy that replacing a muffler requires one hour of labor, and a major transmission repair two days, but no clinical psychologist can give you an early and yet accurate estimate of how many therapy sessions are needed before a problem is "fixed." For starters, it is quite subjective what "fixed" means, and most clients will have more than one presenting problem; sometimes not all of these problems are even identified in the first session. Also, clients vary in their readiness for change and it is extremely difficult to define what a natural end of therapy is, although it may be very informative and useful to ask a client in the intake interview about her expectations (i.e., "How will we know when you have reached your goals in therapy?"). Some suggest recording this answer and documenting the advancement toward this goal as the sessions move forward. Also, a review of progress at a perceived midpoint of therapy is recommended.

Anecdotal evidence suggests that many psychotherapies do not end with both parties agreeing at the same time that the goal has been reached, where the client says "Thank you, I feel much better now and can go at it alone" (occasionally such moments of "victory" are accompanied by a box of chocolates handed over to the therapist). Much more typical is that a client advances reasonably well, and at some point the therapist receives a phone call a few days prior to the scheduled session where the client says: "I'm sorry but I will not be able to keep our Tuesday session because I am under a lot of pressure at work. Can I call you next week when things are lightening up a little bit to set up another session?" This promised phone call may never come or the client will also cancel the next scheduled session. In order for the therapist herself to receive some closure, she may be proactive and call the client and directly ask this question: "Do you really think that we should schedule another session or do you think that this is a good point to terminate?" There is an excellent chance that the answer to this question is: "I think you're right, we don't need to meet again. Thank you for what you've done for me." Rather than having a stereotypical, "textbook" termination meeting, many (actually successful) therapies peter out in this rather inelegant way. It requires a confident therapist with a strong ego to interpret this scenario as a sign of success. On the other hand, psychodynamically oriented psychotherapies place great importance on the termination process itself and see it as pivotal to treatment success.

Given his inexperience, our graduate student Vincent might find this diffuse ending rather frustrating and interpret it as a sign of failure. It takes an experienced supervisor to point out that this is a fairly typical end to a therapeutic relationship and should actually be interpreted as a good sign. Also, one should keep in mind that the purpose of therapy is not to make the therapist feel better but to help the client.

We still have not answered the question regarding how much therapy is needed. In clinical practice (as opposed to within clinical research trials), treatment lengths vary greatly but the most studied type of therapy outcomes is for clinicians working under the umbrella of third-party payers, such as insurance companies. Here the average number of sessions is around 5, and only about 20% of studied patients show notable improvement within these

5 sessions (Hansen, Lambert, & Forman, 2002). It is equally tempting for clients who pay out-of-pocket to keep the number of therapy sessions to a minimum due to the expenses incurred. In the controlled research environment, one large-scale review indicated that a mean observed length of 12.7 sessions equated to clinically meaningful improvements in 58–67% of patients (Hansen et al., 2002). This strongly suggests that 5 sessions are rarely enough, but it also tells us that there is often no need to spend years in therapy either. Therefore, it is suggested to avoid overly short exposure to treatment as is typical in third-party payer environments, and instead target intervention lengths to provide about 10–20 hours of therapy with more time being devoted to clients who bring complex, long-standing problems to the psychologist's office.

Multiclient Therapy

So far, therapy has been described as an interaction between two people and that is the most likely scenario. However, sometimes therapy consists of families or couples who come together to the therapy sessions; this applies especially for the case of marital therapy. Also, a multiclient approach is most likely when the therapist has a systems orientation (discussed in much more detail in the next chapter). There are other instances when a good

PHOTO 10.2 Group Therapy Session at Hospice Michel Sarrazin, Quebec, Canada.
Photographer: Henri Dupond.

therapist will ask, at least occasionally, that a family member join the session. This may be needed, for example, when a caregiver who is close to burning out supports a client with long-standing troubles; in this case the therapist may want to support the caregiver as well. Or, as has been shown for behavioral weight-loss programs, the intervention is much more effective when family members are brought into the intervention and are taught similar skills and are "sworn in" to work collaboratively toward healthier eating for the whole family (Pearce, LeBow, & Orchard, 1981). Sometimes the therapist simply wants to get a different perspective on the problem to better understand how a client functions in his natural environment.

At this point in the book it may also be worth stressing that a psychotherapist can use a wide variety of theoretical orientations to conceptualize a given case even if the techniques ultimately chosen are derived from a more narrowly focused orientation like cognitive-behavioral or interpersonal therapy. It may be very helpful to meet for a while with the whole family to help a client with anorexia even if part of the therapy consists of working with the client alone. Occasionally, the therapist may sense that a family member subtly or openly sabotages the attempt of clients to change. This is particularly likely to happen if, for example, a client wants to quit smoking but her spouse continues to smoke, or a client wants to improve his dietary habits but other family members do not want to face the fact that they are also overweight and also have very unhealthy eating habits. Ultimately, it is a combination of the therapist's choice of theoretical orientation and good training and intuition that will inform when it is best to see a client together with a spouse and/or other family members. We teach our students that every therapist needs at least some skills to work in multiclient treatment because that is often the best way to deal with relationship issues that may arise during the course of therapy, even if the initial presenting problem did not directly suggest that the involvement of a partner might be necessary somewhere down the road.

Also, there are both theoretical and economic reasons for wanting to conduct psychotherapy in groups. There have been various formats of group psychotherapy developed from psychodynamic, humanistic, and cognitive-behavioral perspectives. The focus of these groups differs quite significantly and the emphasis is on the group providing context and mechanisms of change for participants. Independent of economical factors, therapy groups have the advantage of patients learning from one another. Both critical and flattering feedback when coming from a group member may carry more weight than the same feedback coming from the therapist.

Elements in the Process of Therapy

Psychotherapy cannot be reduced to "a technique." The ultimate therapy outcome is presumed to result from a constructive process whereby an attempt is made to maximize:

- Client variables (socioeconomic status, culture, gender, personality, readiness for change),
- Qualities of the therapist (level of education, orientation, experience), and
- The most suitable choice of treatment technique or theoretical orientation.

The choice of technique, coupled with the interaction of therapist and patient and the type of relationship they develop, shapes the therapy process. Therefore, it makes sense to first

look at patient and client characteristics separately, and then try to describe how they can be joined to maximize therapy effectiveness. First, we will discuss what the client himself brings to the first therapy session.

The Client

Who Goes Into Therapy?

The modal client in psychotherapy is female, in her 20s or 30s, and fairly well educated**.** On the whole, these client characteristics are associated with good outcomes because these clients tend to have objectively good potential for improvement, and they have been labeled **YAVIS clients** (*Y*oung, *A*ttractive, *V*erbal, *I*ntelligent, and *S*uccessful) (Brown, 1970; Schofield, 1964). Having said that, however, the literature on client characteristics and therapy outcomes suggests that stable individual differences like SES or gender are not particularly important for predicting treatment success or failure (Garfield, 1978; Clarkin & Levy, 2004). Psychotherapists have successfully worked with clients in their 60s who have finally decided that the price they have paid for a rotten childhood, in terms of emotional and psychological impact, is too high, and they wish to enjoy their remaining years without an emotional albatross hanging around their neck. There are no known differences in therapy success for men versus women, and although ethnic minorities are less likely to go into therapy, the evidence suggests that they benefit from therapy just as much as do nonminority clients (Miranda et al., 2005).

Client Readiness

More critical to the success of therapy, however, is a client's ability to understand and verbalize their own inner experience and to work successfully with the fact that psychotherapy is a verbal exchange of information. Although verbal skills are considered important in the definition of intelligence, there are many intelligent people who are not necessarily well prepared for psychotherapy. Pivotal to the differentiation between people who benefit from traditional psychotherapy versus those that do not is the client's ability to access, understand, and verbalize their own emotional experience. Lane and Schwartz (1987) extensively studied this ability and proposed the construct of **Levels of Emotional Awareness** (EA), from which they developed an interview-based assessment for individual differences in EA. They have purported that the growth in ability to be aware and manage emotions is similar to the developmental stage model proposed by Jean Piaget (see Huitt & Hummel, 2003). Becoming more sophisticated in emotional processing is to a large degree age-related, in that very young children, especially those who are not yet verbal, have only the most primitive tools to express affect, namely, by either crying or smiling. Emotional expression becomes more sophisticated as people age and this development tends to run parallel (but not always!) with the growth in their language skills. Nevertheless, depending on the social environment, available role models, potentially innate differences in verbal giftedness, and the presence or absence of trauma, people develop differential abilities to process and verbalize emotion. Lane and Schwartz (1987) have summarized their model in tabular format, describing five different levels of emotional experience (Table 10.1) and providing commentary for each level of experience with respect to implications for psychotherapy (Table 10.2).

TABLE 10.1 Lane and Schwartz (1987) Level of Emotional Awareness: Level Description

Level	*Principal Representation Mode*	*Nature of Psychopathology*	*Patient's Goal*	*Therapist's Goal*	*Type of Intervention*
5	Blends of blends	Existential crisis	Resolve major life decision	Promote comparative quantitative discrimination between patterns of emotions across context	Existential; insight oriented
4	Blends of experience	Emotional conflict (e.g., depression)	Help with work and relationship difficulties	Resolve intrapsychic conflicts	Insight oriented
3	Unidimensional experience	Persistent conscious distress (e.g., depression)	Relief of distress	Diminish intensity of distress; expand range of experience	Cognitive therapy; supportive psychotherapy
2	Actions or action tendencies	Impulsive or competitive (e.g., substances abuse)	Stop problematic behavior and overcome inhibitions	Render actions more adaptive, less self-destructive, expand behavioral repertoire	Behavior modification; movement therapy; physicist restraint
1	Bodily sensations	Somatic distress (e.g., sanitization disorder)	Relief of physical distress	Alter physiological underpinning of emotional state	Pharmacological; biofeedback; relaxation

TABLE 10.2 Lane and Schwartz's (1987) Level of Emotional Awareness: Implications for Therapy: Sample Responses From Each Level of the LEAS

You and your best friend are in the same line of work. There is a prize given annually to the best performance of the year. The two of you work hard to win the prize. One night your friend is announced the winner. How would you feel? How would your friend feel?

5. I'd feel disappointed (3) that I didn't win but glad (3) that if someone else did, that person was my friend. My friend probably deserved it! My friend would feel *happy* (3) and *proud* (3) but slightly *worried* (3) that my feelings might be hurt (3).

4. 1 would feel depressed (3)—the friend in this light is just like any other competitor. I would also begrudgingly (2) feel *happy* (3) for my friend and rationalize that the judges had erred. My friend would feel very *gratified* (3), but would take the prize in stride to save the friendship.

3. We would both feel *happy* (3). Hey, you can't win 'em all!

2. I'd probably feel bad (2) about it for a few days, and try and figure out what went wrong. I'm sure my friend would be feeling really good (2).

1. I'd feel sick (1) about it. It's hard for me to say what my friend would feel—it would all depend on what our relationship was like and what the prize meant to her.

0. I don't work hard to win "prizes." My friend would probably feel that the judges knew what they were doing.

In this model, clients with differential levels of emotional sophistication are predicted to present with different types of psychopathology and may also have different treatment goals. Therapists need to adjust their interactions to suit the client's presenting mode, and use appropriately matched interventions. We urge the reader to spend some time with the information contained in Table 10.2, because we find that systematic integration of this knowledge greatly facilitates the selection of assessment tools and successful case conceptualization. Indeed, we posit that the therapist who pays careful attention to this individual difference and designs therapy correspondingly is more likely to be successful even though we cannot yet quote empirical research studies to support this point.

Another feature in which clients clearly differ when they enter therapy is related to the degree of distress that they experience. Generally, more distressed individuals are more motivated to seek help but that is true only up to a point (Garfield, 1978). Patients with complex comorbid problems and long-standing personality disorder may not respond well despite high initial distress (Mohr, 1995). Also, patients with severe depression may be so dulled and hopeless that motivation needs to be constantly challenged. An additional reason for why level of distress is a strong predictor for therapy success is that even at a statistical level, an individual scoring high on a measure of distress has a much greater potential to show improvement on this dimension (Linden & Satin, 2007).

Characteristics of the Therapist and Outcome

In Chapter 1 we already discussed the question of the degree to which clinical psychologists' professional activities overlap with those of other professions. There is considerable variation in the degree of training among practicing psychotherapists and counselors. Psychiatrists with their full medical training and subsequent psychiatric residency, as well as doctoral level trained psychologists, have spent the most time preparing for the practice of psychological therapy. A counterpoint to this claim is the fact that psychiatrists, having first completed full medical training, have spent less than half of their total professional training time in psychiatry itself. Many clinical psychologists with a PhD will have graduated from a training program that is designated a scientist-practitioner program, which means that up to half of 6–7 years of graduate work was devoted to research training rather than purely practitioner training (see also Chapter 1). This observation has been a cornerstone in the rationales for, and development of, professional psychology programs that focus more on clinical practice and less on research and typically award their graduates a PsyD degree. If length of training and purity of focus on clinical practice was indeed a perfect predictor for therapist ability, then graduates from PsyD programs should be superior in their clinical skills to those with PhDs from scientist-practitioner programs. If this was true it would strengthen the argument that people who want to become primarily clinicians should only complete a professional degree program. Numerous studies (Peterson, 1982, 2003) have been conducted in clinical settings comparing the skills of the PhD and the PsyD practitioner, and have routinely failed to find a difference in skill level. One exception is that PhD level clinical psychologists were found to have stronger research skills, which is not surprising considering the academic rigor of their training programs; the research-trained clinical psychologists also perform better on national licensing examinations (Kupfersmid & Fiola, 1991; McGaha & Minder, 1993; Yu et al., 1997).

Expanding the question of necessary training in the other direction means testing how much (or how little) clinical training is necessary for therapists to be effective (Wampold &

Brown, 2005). Given the relatively high cost of highly trained professional therapists, many institutions have attempted to save money by employing individuals with minimal training or even those who are essentially "laypeople." While it is easy to demonstrate the associated immediate cost savings, it is considerably more difficult to evaluate the presumed loss of quality and therapeutic effectiveness that goes with minimal training. In 1979, Durlak published a very influential review paper on the effectiveness of professional and paraprofessional therapists that drew on 42 studies (Durlak, 1979). The core conclusions of his review paper were:

1. Paraprofessionals achieve clinical outcomes equal to or sometimes even better than those obtained by professionals.
2. Professionals may not possess superior clinical skills relative to paraprofessionals.
3. Lengthy professional training and experience may not be necessary prerequisites for an effective therapist.

Not surprisingly, the impact of this review paper was akin to a little boy stirring a hornet's nest with a big stick because it jeopardized the raison d'être for thousands of psychotherapy training programs worldwide. The critics were quick to pounce on these challenging conclusions. There are many reasons for why results from clinical trials of paraprofessionals pitted against professionals cannot be interpreted as applying to all forms of clients in all forms of therapy (Nietzel & Fisher, 1981). Among the reasons are the following:

1. The typical protocol for a trial comparing professional therapists with paraprofessionals involves first a careful screening of individuals that may be suitable for such a trial; this process tends to exclude patients with comorbid problems and high-risk patients.
2. Frequently, the target groups for such comparisons involve well-defined singular problems that include eating disorders, sleep problems, relationship issues, and college students' relationship problems. Some of these are transient and may resolve on their own even if left untreated.
3. The paraprofessionals studied in these contexts are not random individuals picked off the street, but have typically been individuals previously involved in university life and who were considered by students to be wise, kind, and caring adults.
4. The design quality for comparisons described in the Durlak paper was judged to be poor and true random assignment methodologies were the exception rather than the rule.
5. Behind Durlak's overall conclusion was the habit of drawing a "no difference" conclusion even though the studies may have lacked statistical power to permit the acceptance of the null hypothesis.
6. There were many inconsistencies in the definition of professional versus paraprofessional such that graduate student therapists were often called professional although they were clearly in the training stages with very limited experience.

Arguably, it may not be possible to ever fully settle the question of how much training is needed. The preponderance of current evidence suggests that training and experience do contribute to better outcomes although the evidence is not particularly strong (Alberts & Edelstein, 1990; Mohr, 1995). In a hypothetical world, one could settle the question by recruiting a very large number of individuals off the street, randomize them into five years

of psychotherapy training versus no training, and make sure that those in the "no training" condition truly do not acquire any kind of clinical skills for many years to come. Finally, with five years of training completed, one could then randomly assign clients to the trained versus untrained individuals. The clients themselves should present with highly varying problems that are truly representative of clinical settings.

If the above-described perfect study cannot be done, what do we know about the question of whether or not extensively trained therapists produce better outcomes than those with minimal training? An interesting experiment in this respect was the study of treatment effectiveness of family physicians who had been offered a 3-month "crash course" in cognitive-behavioral therapy. Most patients with mental disorders first present to primary care physicians (PCPs), but formal counseling techniques rarely are used. When general practitioners did receive systematic (while brief) training in cognitive-behavioral therapy, unfortunately this did not translate into gains for patients (Marton, 2002).

We don't think that a conclusive study with true random assignment of potential therapists into 5-year study protocols will ever be done because it is highly doubtful that an ethics committee would approve it or that any agency would be willing to fund such a study. However, supporting data for differential outcomes as a function of provider are available (described in Chapter 13 on the outcome) from thousands of people who have undergone therapy and who provided subjective post-therapy ratings of the quality of therapy they had received from differently trained professionals (Seligman, 1995).

The discussion of how much training is needed inevitably leads to the question of how therapists should be trained. It is posited that training psychotherapists should involve careful selection of suitable individuals, training in microskills that facilitate creation of a therapeutic alliance, and lastly, training in specific techniques (like exposure treatments or Adlerian psychotherapy). Teaching future clinicians needs to be guided by the knowledge of which treatments are most promising for what problems, and should involve skillful diagnostics and case conceptualization. Detailed information on observed outcomes for all psychotherapies is presented in Chapter 13 because they are easiest to compare when presented side-by-side.

People who apply for clinical psychology programs are a self-selected group and this raises the question of who becomes a psychotherapist. The answer to this question is important for the design of training programs because one wants to (a) recruit the most promising individuals (and screen out potential problem candidates), (b) determine what they already know (i.e., prior level of knowledge), and (c) add formal, complementary training to their pre-existing level of knowledge and skill. The goal is to turn out a cohort of roughly equally competent psychotherapists. Should budding therapists be barred from training if they have ever suffered themselves? We argue against such expectations of "perfection" because we believe that having experienced some personal distress makes these therapists more empathic and able to understand their patients. These considerations have fueled the suggestion that all therapists should first go through psychotherapy themselves as part of their training. This would indeed sensitize them to the experience of their own clients, provide opportunities to grow both as a person and as a clinician, and, it is hoped, minimize the influence of their personal problems on an effective therapy process. As will be shown in the next chapter, for psychoanalytically oriented therapists such self-therapy is an essential training ingredient. Ultimately, of course, the question of whether or not personal therapy for psychotherapists should be required ought to be driven by evidence and here it appears that, to this date, there is no empirical evidence that undergoing personal therapy will improve the effectiveness of therapists working

with others (Binder, 1993). Therefore, it is difficult to argue for training programs to expect that all potential therapists go through personal therapy. Notwithstanding this observation, clinical supervisors are working closely with trainees and in this intimate teaching and learning process they get to know their trainees quite well. This can lead to the recognition that a trainee may occasionally have personal problems or personality features that do interfere with successfully becoming a psychotherapist. Professors who have taught in clinical training programs will have encountered a number of students who have benefited from personal therapy even though they may have been initially reluctant to receive help. Most likely this reluctance arises from a perception that the student who agrees that he can benefit from therapy himself would be seen as "tarnished." It is to be hoped that those training programs that suggest personal therapy for particular students that come to their attention also make sure that personal therapy is a positive learning and growth process to which the student willingly commits without fear of repercussions. Occasionally, clinical faculty involved in therapist training do encounter students who are intellectually gifted but not particularly suitable for clinical work; here the question is whether a program of remedy should be put into place or whether the student should be discouraged from a career of clinician altogether. There is anecdotal evidence that reference letter writers have occasionally failed to mention critical information that speaks against the suitability of the student for the role of clinician and left the training faculty hanging with the nasty job of telling a student that she is indeed unsuitable for the clinical career path. This is a very unfortunate situation, because at this time both the student and the University have made major commitments to each other. Nevertheless, it is generally considered wise and fair to not drag an unsuitable student through a lengthy graduate program only to later see them fail during an internship, at the point of licensure application, or unable to earn a living because of their lack of suitability for clinical work, not to mention possible harm to clients.

What do we know about the skills needed for successful therapists? Outcome research, documented via meta-analyses, suggests that roughly half of the explainable variance in patient improvement is due to the aggregation of nonspecific factors, also referred to as "common" factors that cut across different theoretical approaches (Lipsey & Wilson, 1993; Mohr, 1995). This raises the question of how therapists can acquire such skills. Nonspecific skills are those that all therapists should possess and that are not tied to one narrow theoretical orientation. Teachable nonspecific skills are typically subdivided into *microskills* and *macroskills* (details are found on the next page). Microskills received their name because they refer to moment-to-moment behaviors in therapy and are considered critical for the creation of a good client-therapist relationship. Macroskills, on the other hand, are also summarized below and circumscribe more complex technical and conceptual skills such as developing a therapy plan and tracking behavioral progress.

The microskills can be readily taught although this is a time-consuming endeavor. There is a good-sized body of research on the effectiveness of skill training programs for therapists (Alberts & Edelstein, 1990; Kendjelic & Eells, 2007) which suggests that:

1. Students learn most—and particularly enjoy training—that integrates observation of experienced therapists and modeling; didactic learning of theories, skills, and techniques; as well as actual practice and corrective feedback.
2. The newly acquired skills tend to last and are generally transferable from safe training environments like classrooms to clinical practice.

3. There is insufficient knowledge whether one type of skill is more important than another for producing superior outcomes, because the training usually comprises many components whose effects cannot be evaluated individually.
4. This type of research is generally handicapped by the fact the training is more often based on the theoretical orientation of the researchers than on actual empirical evidence that ascertains that specific skills actually have differential impacts on outcome.

Teaching future clinicians should also be guided by knowledge of which treatments are most promising for what problems (see Chapter 13 for comparisons).

Techniques

One critical element in the proposed therapy process model is that of technique choice. As we have mentioned previously, the rationales and description of therapy techniques are what usually assumes most of the space in psychotherapy textbooks. Correspondingly, we have also included two lengthy chapters that deal with various popular theoretical orientations and their associated techniques. We are not short-changing the reader with minimal coverage of therapy techniques, yet have explicitly chosen to discuss the commonalities of therapies and the importance of the client-therapist relationship first prior to discussing specific techniques. We believe that the student is not well served with an overemphasis on mere techniques at the expense of an appreciation for the intricacies of the dynamic process of change.

Typical Presenting Problems

Psychologists are extensively trained to understand and appreciate individual differences. Why else would we develop personality and aptitude tests to evaluate the suitability of different individuals for many existing careers or to predict which offender may relapse? Yet, when it comes to psychological therapy there is a great deal of similarity in the nature of presenting problems. A large, nationwide survey (Gurin, Veroff, & Feld, 1960) established that the single most pervasive issue brought to the psychologist's office is relationship problems; more recent research has confirmed this to be still true 40 years later; relationship problems were front and center in psychotherapy and typically focus upon the ability to create and enjoy intimacy, and the management of control in relationships (Johnson, Hunsley, Greenberg, & Schindler, 1999).

These two features account for most relationship problems including disagreements about child-rearing, how to get along with other family members, jealousy, infidelity, and financial concerns, and these factors ultimately account for marital success or failure. Another pervasive theme is low self-esteem which is integral to understanding anxiety and depression. In consequence, all practicing clinical psychologists irrespective of their favorite theoretical orientation need training and skills to tackle these common issues in therapy:

1. Release of emotions
2. Understanding how childhood and other earlier experiences affect daily living
3. Issues of control and emotional closeness in intimate relationships
4. Reduction of subjective distress
5. Raising self-esteem and perceived competence.

Although the presenting problems of individual clients and especially the social, cultural, and economic context of the presenting problems are ultimately unique, there nevertheless exist enough commonalities that therapists can indeed acquire the skills to deal with most of these problems. As much as the range of overall problems brought into the therapist's office is fairly finite and predictable, some psychotherapy researchers similarly argue that much of what psychotherapists offer is also very similar, irrespective of the label given to the therapy approach or the theoretical orientation with which the therapist aligns. Particularly persuasive has been the work of Jerome D. Frank (1973) who has argued that there may be more similarities than differences between therapy approaches, and he has posited that all therapies have at least these four common elements that the patient can benefit from:

1. **Emotional support**
2. **Provision of hope**
3. **Offering of a rationale** for how the problem came about
4. Placement of the problem within a wider context, and comparison with other people; also referred to as **normalization**.

Together, these four elements can be considered the **nonspecific benefits** that essentially all therapies offer. This important point will receive more attention later in the section on psychotherapy effects (Chapter 13); it will help understand better the many questionable claims for superior outcomes that some therapy proponents put forth. When and where therapies do differ (see elaboration of this point throughout Chapters 11–14) is often related to whether or not they mostly target problematic behavior, emotion, or thinking, and the degree of directness used by the therapist.

The skills needed to skillfully navigate through a therapy session and appropriately respond to clients on a moment-to-moment basis are referred to as **microskills** and include:

1. Showing **empathy**
2. Offering **encouragement**
3. Asking precise, well-timed, nonthreatening questions
4. Using **self-disclosure** appropriately
5. Providing clients with needed factual information.

These skills have always been considered important in Carl Rogers's ***Client-Centered Therapy*** (Rogers, 1951); details of which are provided in the next chapter), and the *Rogerian Movement* deserves special credit for offering elaborate training in these microskills.

A higher level of, and more time-consuming training, is needed to teach integrative skills and the accurate execution of theory-specific therapy; these skills are referred to as **macroskills**. Macroskills are a blend of generic skills and theory-specific skills and include the following:

1. **Case conceptualization**
2. Theory-specific technique knowledge and skill in execution of these techniques
3. **Pattern recognition** with respect to resistance and control attempts on the part of patients
4. Knowing "when to push" versus "holding back" with respect to client behavior change
5. Recognition of shifts within clients (toward improvement or worsening)
6. Recognition by the therapist of his own (inappropriate) reaction to the particular client

Acquisition of a sufficient level of sophistication in these macroskills is commonly considered to take many years of formal training—including didactic teaching, modeling, and supervision—and is by no means considered complete, even after graduate school requirements have been met and a therapist has received a license to practice. Even therapists with two or three decades of experience will habitually report new insights and a growing awareness of change in their own macroskills.

The Therapeutic Relationship

Earlier on, we referred to psychotherapy as being a mysterious process. This is in good part due to the fact that clients are hoping to be able to express their innermost thoughts and feelings in a safe, confidential atmosphere, a process with which they usually have no experience, and certainly not with a stranger! Therefore, it is utterly understandable that clients are apprehensive about opening up, and trust in the therapist cannot be taken for granted. Clients need to be assured that there is confidentiality, and the therapist needs to accept responsibility for sending out clear signs that she can be trusted and that the therapy is safe. Consistent use of the microskills described above is considered integral to this process (Norcross, 2002). If therapy is to be successful, therapists need to assure clients that they will be taken care of, that the therapist is caring and competent, understands and empathizes with the client's feelings, and that some acceptance of the natural fear around opening up is necessary and ultimately beneficial. Creating this type of constructive atmosphere is also referred to as the building of a **therapeutic alliance** which is characterized by three interlocking components (Bordin, 1979):

1. **Bonds,** referring to interpersonal attachment, trusting, and liking;
2. **Tasks**, meaning that therapist and client share a consensus on what needs to be done in therapy; and,
3. **Goals,** referring to a shared expectation of client and therapist about what the treatment outcome should be.

A variety of questionnaires have been developed to assess the quality of therapeutic alliance both from the therapists' as well as the client's perspective, although evidence has shown that it is the client's perspective that is most important here (Horvath, 2000). Sample items from the questionnaire are offered in Box 10.1 for illustration.

BOX 10.1 SAMPLE ITEMS FROM A QUESTIONNAIRE ABOUT PERCEIVED QUALITY OF THE HELPING ALLIANCE

A number of items from the Helping Alliance Questionnaire (Luborsky et al., 1996) are paraphrased here to give a clearer sense of how this type of assessment is conducted and which types of statements are to be endorsed:

1. My therapist understood and accepted me.
2. My therapist understood my goals and helped me achieve them.
3. I was given appropriate feedback when I made progress.
4. The therapist encouraged me to express myself.
5. I felt that my therapist liked me.

Research has consistently indicated that the quality of the therapeutic alliance is strongly predictive of a good pace of progression in therapy and a positive outcome (see Horvath & Symonds, 1991, Johnson & Ketring, 2006), but it is the client's perception and subjective evaluation of this relationship that predicts good outcome, rather than objectively measurable therapist behaviors (Horvath & Symonds, 1991; Horvath & Bedi, 2002).

As therapy progresses, there are bound to be moments where an important, "loaded" topic becomes identified for discussion or a new behavior needs to be tried out, but the client is reluctant to engage in dealing with this topic which may be quite fear-arousing. Or, stopping a compulsive or addictive behavior like chain-smoking has already been tried and failed by this client and he may be reluctant to go again through the suffering associated with withdrawal. If the material that clients deal with in therapy were easy to handle, then the client would have fixed it already and wouldn't need to go and see a professional therapist. It is for these reasons that clients will often have one or more "roadblocks" in therapy and need to be guided, coached, or persuaded into tackling a topic or into trying something new. Exactly how this is done is one of the major discriminating factors between different types of therapy. Some therapies are a little pushy, try to directly confront and reason through; others subtly guide the process of self-discovery. These differences in the various therapies' approaches to handling roadblock and **resistance** largely define why some therapies take longer than others. Without giving away the details of this fascinating process right here, we will discuss only how roadblock handling must be tied in with the creation of a strong therapy alliance. In extensive studies, researchers have fully recorded therapy sessions that have later been transcribed for detailed analyses of actual therapist-patient interaction (Bedics, Henry, & Adkins, 2005; Strupp, 1993, 1996). From Hans Strupp's work we have learned that challenging the client can only be effective if the questions of timing and the strength of the alliance are carefully considered. The research by Strupp has shown that the most successful therapies did have a phase of resistance, and a challenge to the resistance, somewhere around the middle part of the therapy. Challenging clients too early, when a solid therapeutic alliance is not yet established, likely leads to failure in therapy (Mohr, 1995). The reader will not be surprised to hear this is because even in our private, nontherapy lives we are certainly not likely to listen to strangers whom we don't trust; even when we are challenged by people who love us and care for us (like spouses or parents), such challenge is not always welcome either and may require persistent nudging.

Another way of looking at the process of therapy is to see it as a set of stages to go through. Egan (1986, 1998) has done this for us and has created an easy-to-follow flow-chart format proposing three stages, namely (1) dealing with the current situation, (2) a preferred or desired outcome, and (3) the actions needed to get there. During the first stage, clients need to be able to describe their current reality. Then they need to learn about the blind spots that have previously led to an overly narrow view and therefore possibly preventing solutions; finally they need to be gently coaxed into focusing on setting priorities. In the second stage, the client will discuss various possibilities for change, without yet deciding which ones are worth going after. Next the client needs to create an agenda for change and commit to it. The third stage then involves honing down on a number of concrete action plans, selecting the one that likely works best for this individual and this situation, and then of course moving forward with this plan of action.

It may be tempting to think that making progress in therapy is linear and akin to watching somebody build a house; and there are good reasons for using such an analogy. First there

needs to be some degree of demolition (identifying and challenging maladaptive defenses and thought patterns), and the following building steps are foundation pouring, framing, building walls, and finally a roof. Psychotherapy does have similar steps but growth and change is not always obvious and certainly does not come in even incremental steps (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007; Schiepek et al., 2017). Many therapists will report that their clients may seem to stagnate or even show little regressions for many sessions but then make seemingly sudden and pivotal insights or make exciting new experiences; this comes across as "having turned a corner." The study of such nonlinear change provides a window into the organization of complex processes that account for change (Hayes et al., 2007).

This model describes typical therapy steps without aligning itself to one narrow theoretical approach. We posit that this view is quite descriptive of at least the great majority of therapy processes.

Cultural Competence in Clinical Psychology

Earlier on in this chapter, we discussed how different characteristics of clients themselves might affect clinical psychology practice, and we touched on cultural differences but we did not provide much detail. Given that people are more and more mobile, there have been many changes in the cultural composition of Western countries. Much cultural diversity has resulted from the opening of borders for international trade, from normal immigration, and from an increasing number of refugees fleeing war-torn countries. In a cosmopolitan and multicultural city like Toronto, Canada, for example, with about 5 million inhabitants, the city itself offers telephone assistance in 148 languages! Some Vancouver, Canada, suburbs have more than half of the population not speaking English at home (Bowman, 2000). Therefore, psychologists working in urban centers in the United States of America, Australia, the UK, or Canada typically deal with highly diverse client populations. Some of these are characterized by visible minority status, others by relative recency of immigration, and many stand out because they continue to adhere to their native cultures and values. Clinical psychologists tend to be white and of European cultural origin, and the primary approaches to understanding abnormal behavior and treating psychological problems can be traced back to Judeo-Christian traditions and philosophies. The mix of the North American population, in contrast, shows a disproportionate growth in subgroups that have come from Asia, Africa, and Latin America, and this raises the question whether the typical, European-rooted way of defining clinical psychology practice is ideally suited to their needs (Teramoto Pedrotti, Edwards, & Lopez, 2008).

The issue of cultural uniqueness is further complicated by the fact that some cultural subgroups are visible minorities in their country, although their families have lived in this very country for many decades (this applies, for example, to African Americans in the US). For others, visible minority status is coupled with recent immigrant status, with English as a second language, and sometimes economic disadvantages due to language difficulties. Ethnic group membership is often associated with substantive differences in socioeconomic status but this pattern is not universal. In the US, Hispanic and African American subgroups have substantially lower incomes than Whites, whereas that does not apply on the other side of the border, in Canada, where earnings differentials between the majority and the largest ethnic

subgroups are minimal (Bowman, 2000). Apparently, the status of visible minority does not, in and of itself, tell us whether somebody may be economically disadvantaged nor does it tell what the mother tongue is.

Elsewhere in this chapter and in the earlier one on Ethics (Chapter 4), we have presented a number of policies and rules that are supposed to be guiding our professional behaviors that are, however, culture-bound and not necessarily shared by all cultures (Sue, 1999). Among these are the following:

1. The reluctance of therapists to give outright advice,
2. The degree to which self-disclosure of the therapists' thoughts and feelings are considered acceptable to clients,
3. The therapists' negotiation of financial arrangements with patients given that we are discouraged from bartering,
4. The expectation that psychotherapists resist dual-role relationships to avoid loss of objectivity, and
5. the acceptance of gift-giving traditions.

Strict avoidance of dual relationships can be considered stand-offish in some cultures, and refusal of gifts in Asian cultures, for example, is often seen as a personal offense. Also, it may be seemingly small details of human interactions that get misinterpreted as a function of culture. For example, many aboriginal cultures avoid direct eye contact which they perceive as aggressive, whereas European- or North American–raised individuals may simply interpret limited eye contact as shyness or low self-esteem.

A desire for therapist directness is one cultural feature shared by many immigrant cultures to North America. Europeans and North Americans, on the other hand, tend to emphasize independent decision making and client self-exploration, but individuals of Asian descent and African Americans tend to favor directive, active, and structured therapies (Paniagua, 1998).

Sometimes cultural values and habits clash. A difficult-to-resolve situation centers around different habits around timeliness. In some cultures, people are frequently late and this does not trigger ire in other members of the same cultural group. However, this tolerance is difficult to make work in a clinic operation where patients are scheduled in 1-hour time slots, and where a client arriving at 3:40 p.m. for a 3:00 p.m. appointment cannot really be offered a full hour any more without taking away time from the individual arriving on time for her 4 p.m. appointment.

Above, we provided some examples of known cultural differences but recognize that being overly prescriptive on how to handle a situation is not necessarily a solution either and may even be counterproductive. Exposure to various cultural subgroups is uneven depending on where a therapist may work. Therefore, it is key that individuals learn to understand the cultures of the particular environment in which they work. The term **cultural competence** is applied to therapists who have made this step.

In order to assist with a definition of cultural competence, Sue, Arredondo, and McDavis (1992) have compiled a detailed list of sensible components for such a definition (see Table 10.3). They posit that cultural competence can be broken down into belief/attitude, knowledge, and skill.

This list of suggested components for cultural competence is a lengthy one and might make us wonder whether we can ever be truly competent in this respect. It is probably best to

TABLE 10.3 Components of Cultural Competence

Belief or Attitude	*Knowledge*	*Skill*
1. Aware and sensitive to own heritage and valuing or respecting differences.	1. Knows about own racial or cultural heritage and how it affects perceptions.	1. Seeks out educational, consultative, and multicultural training experiences.
2. Aware of own background or experiences and biases and how they influence psychological processes.	2. Possesses knowledge about racial identity development. Can acknowledge own racist attitudes, beliefs, and feelings.	2. Seeks to understand self as being.
3. Recognizes limits of competencies and expertise.	3. Knows about own social impact and communication styles.	3. Familiarizes self with relevant research on racial or ethnic groups.
4. Comfortable with differences that exist between themselves and others.	4. Knows about the groups one works or interacts with.	4. Involved with minority groups work role: community events, celebrations, neighbors, and so forth.
5. In touch with negative emotional reactions toward racial or ethnic groups and can be nonjudgmental.	5. Understands how race or ethnicity affects personality formation, vocational choices, psychological disorders, and so forth.	5. Can engage in a variety of verbal or nonverbal helping styles.
6. Aware of stereotypes and preconceived notions.	6. Knows about sociopolitical influences, immigration, poverty, powerlessness, and so forth.	6. Can exercise institutional intervention skills on behalf of clients.
7. Respects religious and/or spiritual beliefs of others.	7. Understands culture-bound, class-bound, and linguistic features of psychological help.	7. Can seek consultation with traditional healers.
8. Respects indigenous helping practices and community networks.	8. Knows the effects of institutional barriers.	8. Can take responsibility to provide linguistic competence for clients.
9. Values bilingualism.	9. Knows bias of assessment.	9. Has expertise in cultural aspects of assessment.
	10. Knows about minority family structures, community, and so forth.	10. Works to eliminate bias, prejudice, and discrimination.
	11. Knows how discriminatory practices operate at a community level.	11. Educates clients in the nature of one's practice.

Source: Adapted from D. W. Sue et al. (1992).

think of this long list as aspirational. Nevertheless, in order to facilitate cultural learning Sue (1999) suggests four overarching learning strategies:

1. Individuals should experience and learn from as many sources as possible to check the validity of their assumptions and beliefs about another culture. It is not sufficient to rely on the media but needs to be at least complemented with personal contacts.
2. Given that there are occasional beliefs about superiority of one culture over another, it is also critical that in order to obtain a balanced picture of any one cultural group, did we meet and spend time with healthy and strong people of that culture?

3. Knowledge of facts about the culture is best anchored in the experiential reality of that group.
4. Even after cultural knowledge and competence has been acquired, we need to remain constantly vigilant.

On a very pragmatic level, we suggest to begin cross-cultural learning as a leisure time activity by occasional watching of television in a language other than English, or shopping and dining in ethnic neighborhoods. In a more formal fashion, students can make a systematic choice of practicum or internship experience that exposes them to particular types of cultures.

Conclusion

The purpose of this chapter was to prepare the reader for the presentation and discussion of many different theoretical approaches and techniques that follow in the next two chapters. We also wanted to raise awareness about the difficulty in defining what psychotherapy is and that, despite this difficulty, we need to be prepared to define our work and our profession. We explicitly chose to present this material first because we believe it prepares the therapist in training for the discussion of specific therapies and lays a foundation for understanding why and how therapy approaches are different from one another. Furthermore, it begins to build understanding why many therapists do not want to see themselves exclusively married to one theoretical approach but rather choose different interventions for different targets, depending on how they conceptualize the case in front of them and what the evidence supports. As clinicians we need more than one tool at hand to solve our clients' multilayered, complex problems. Research on the degree of importance of each element of the therapy process has been quite revealing and strongly supports the value of generic therapy skills. Luborsky and his collaborators (1985) have carefully studied the contribution of each process element to the therapy success and found that therapist technical skills modestly correlated with therapy success ($r = .32$) but the quality of the alliance as judged by the patient was a much stronger predictor of the outcome ($r = .65$). In contrast, whether or not the therapist precisely executed the therapy she claimed to practice (based on treatment manuals and/or judgments of "technique purity") was less important ($r = .44$) than a strong alliance. The bottom line is that building the therapeutic alliance is key to ultimate therapy success.

Ongoing Considerations

Over the last two decades, leading thinkers in psychotherapy research have started to look for commonalities in treatment approaches (e.g., Prochaska & Norcross, 2002; Ehrenreich, Fairholme, Buzzella, Ellard, & Barlow, 2007), whereas the first 50 or so years of development of therapies had gone in the opposite direction, creating new approaches (or at least approaches that were supposed to look new and different!). We welcome the trend toward integration because it will likely strengthen treatment effectiveness, benefit patients, and reduce dogmatism and in-fighting among therapy researchers. The current student in clinical psychology is bound to hear much more of integrative approaches and will likely enjoy this trend toward synergy and coherence.

Key Terms Learned

Bonds, 210
Case conceptualization, 209
Client-centered therapy, 209
Cultural competence, 213
Emotional support, 209
Empathy, 209
Encouragement, 209
Goals, 210
Levels of emotional awareness (EA), 202
Macroskills, 209
Microskills, 209
Nonspecific benefits, 209
Normalization, 209
Offering of a rationale, 209
Pattern recognition, 209
Provision of hope, 209
Resistance, 211
Self-disclosure, 209
Tasks, 210
Therapeutic alliance, 210
YAVIS client, 202

Thinking Questions

1. Which therapist qualities are required for therapy to be effective?

2. Are different therapies really that different ?

3. How much training is required for treatment to be effective?

4. How much treatment is needed for lasting behavior change?

5. What is psychotherapy?

6. Which topics are most likely to come up in psychotherapy?

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11 Psychotherapies I

Chapter Objectives

This chapter covers three broad approaches to psychotherapy that are related to one another in some ways and quite divergent in others. These approaches or domains have a historical appeal and have critically shaped the development of psychological therapies. A great deal of theorizing and research has been conducted on these approaches and each has been acknowledged as significant and original orientations for clinical psychologists. Their importance has resisted attempts to see them as a time-limited fashion therapy, and they continue to be central foci for psychological treatment. These three areas are psychoanalysis and psychoanalytic psychotherapies, client-centered psychotherapy, and systems therapies. The learning objectives for this chapter are:

- Develop an understanding of the workings of psychoanalysis and psychodynamic psychotherapies.
- Have an appreciation of the commonality of psychodynamic therapies and the research evidence for their effectiveness.
- Understand what person-centered psychotherapy is and how therapists conduct such therapy.
- Develop an understanding of the nature of family systems and how treatments have developed from this perspective.

Psychoanalysis

This section will describe a domain of psychological treatment that encompasses some of the earliest forms of "talking therapy" and the subsequent development and evolution of this broad domain of psychological theory and psychotherapy. This domain is known as psychoanalysis and involves **classical psychoanalysis**, as developed early in the last century by Sigmund Freud, as well as numerous **psychoanalytic psychotherapies** that have been developed over the past decades. Although we will, at times, describe components of psychoanalytic theory, mainly to orient the student and clarify some often-taught incorrect assumptions, it is assumed that students will have had some coverage of psychoanalytic theories and thought in other psychology courses like personality psychology or motivation.

Terminology

There can often be some confusion about terminology in the broad domain of psychoanalytic theory and treatment. For example, the terms *psychodynamic* and *psychoanalytic* have come to be used almost interchangeably and this can create some misunderstanding among those first trying to learn and understand about this broad domain of theory and treatment.

The term **psychodynamic** is an intentionally broad term that refers to models of normal and maladaptive human behavior as well as models of treatment. In psychodynamic models, the determinants of behavior are thought to be primarily unconscious motives, emotions, or drives that form the main characteristics of personality. These characteristics interact, and, at times, conflict or are at odds with one another. That is, there is a *dynamic* interplay among the components of personality, and, in order to understand the person and his or her difficulties, the clinical psychologist needs to understand that dynamic interplay. More generally, psychodynamic models and/or therapies focus on the inner motives or drivers of behavior, that are usually thought to be outside of the person's awareness, and result in overt and covert behavior, or in the case of psychopathology, signs and symptoms of maladjustment. **Psychoanalysis** refers to one specific yet comprehensive psychodynamic theoretical perspective developed initially by Sigmund Freud that has been revised, often extensively, by many other psychoanalytic theorists. To make matters more complicated, the main treatment approach that Freud developed (and, again, that others revised), is also called psychoanalysis. We will use the term "classical psychoanalysis" in this chapter to refer to traditional psychoanalytic treatment that was developed by Freud. Below you will find a brief overview of treatments that derive from psychoanalytic thought. These types of treatments will be discussed in more detail later on in the chapter.

Classical psychoanalysis is a psychodynamic treatment focused on inborn, internal, and biological drives that are unconscious and primarily sexual in nature. Later in his career, Freud suggested that unconscious aggressive drives can also be important in influencing behavior (Sharf, 2000). It is thought that these drives influence personality development, both normal and pathological. The treatment derived from this perspective is typically a long-term (i.e., often several years) and intensive (i.e., several times weekly) treatment.

Psychoanalytic psychotherapies (also known as psychodynamic psychotherapies or dynamic psychotherapies, although we will use the term "psychoanalytic psychotherapies") were developed by psychoanalytic theorists who revised or refined (often extensively) many of Freud's and his followers' ideas. For example, although biological impulses characterized early models of psychoanalysis, students of Freud fairly quickly emphasized interpersonal needs and motives (e.g, Harry Stack Sullivan, John Bowlby) rather than the biological drives of sexuality or aggression (Corsini & Wedding, 2005). These interpersonal styles are thought to arise from early childhood relationships with parent(s), family, or peers, from processes involved in the development of the self and identity, or from adaptation to the environment as the driving forces for behavior. In addition to focusing on different unconscious drives, the psychoanalytic psychotherapies that arose from these models tend to be shorter in duration than psychoanalysis (i.e., perhaps a year or less) and the therapists tend to be more active and directive. Some psychoanalytic psychotherapies are time-limited, brief (e.g., 12 sessions), and very focused on a particular component of behavior. These are generally referred to as **Short-Term Dynamic Psychotherapies**.

All psychoanalytic treatments emphasize the unconscious nature of drives and generally focus on the drives as determining or influencing normal and abnormal personality development and psychopathology. Psychoanalytic treatment, whether it is classical psychoanalysis

or psychoanalytic psychotherapy, involves accessing unconscious processes or information. By doing so, it allows the person to be become aware of influences on his or her behavior and make adjustments and changes. Throughout the chapter we will use the term "psychoanalytic treatment" to refer to any treatment, classical psychoanalysis, or psychoanalytic psychotherapy that uses psychodynamic principles.

How Common Is Psychoanalysis or Psychodynamic Treatment?

It has been one of the author's experiences (PLH) that in numerous academic psychology and other departments, students are taught that the psychoanalytic thought, clinical work, and research have gone the way of the dinosaur. Psychoanalytic thinking, if taught, is often taught only from a historical perspective (i.e., learn only about Freud) with many students assuming that these modes of treatment are antiquated, stagnant, and not currently utilized (see Bornstein, 1988, 2005; Hogan, 1994). In fact, one of the author's clinical psychology graduate students stated: "I was also taught in my undergraduate years that there was no empirical validation for psychoanalytic treatments, that they were basically no longer used and not appropriate choices for treatment because they were not effective or validated by research" (H. Roxborough, 2008 personal communication).

Characterizing psychoanalytic theory and treatment as antiquated and stagnant is simply not an accurate depiction of the field. In fact, Gabbard (2005) has indicated that psychoanalytic psychotherapy approaches are one of the most commonly practiced forms of psychotherapy (see also Sharf, 2000). For example, Jensen, Bergin, and Greaves (1990) found in a study of 423 clinical psychologists whose clinical orientation was endorsed as "eclectic" (now the term used is "integrative") most commonly endorsed the psychodynamic perspective as making up their "eclectic" approach, and Norcross, Hedges, and Castle (2002) also present data suggesting that the psychodynamic perspective is the second most commonly endorsed (eclecticism is first) theoretical perspective used by clinical psychologists.

In terms of professional organizations endorsing psychoanalytic treatments, the International Psychoanalytic Association (IPA) is the world's main accrediting and regulatory body for psychoanalysis and focuses on the continued development of psychoanalysis in order to help patients. The IPA works in concert with over 70 related organizations in 33 countries (see www.ipa.org.uk). Moreover, the European Psychoanalytic Federation has over 4,600 individual members from 22 countries, the American Psychoanalytic Association comprises 38 affiliated societies, and the national psychological associations from the United States, Canada, Australia, Britain, and numerous other countries throughout the United Kingdom and Europe have divisions dedicated to research and treatment issues in psychoanalysis and psychoanalytic therapy. Numerous of these divisions publish journals dedicated specifically to research and treatment from psychodynamic perspectives. In fact, searches of journal databases reveal that there are, currently, over 60 refereed journals dedicated to research from psychoanalytic and psychodynamic perspectives. Lastly, in terms of training facilities, there are hundreds of programs that train clinical psychologists and other mental health professionals in psychoanalytic and psychodynamic models in North America, United Kingdom, and Europe. For example, in the United States there are over 90 accredited training facilities for psychoanalytic

training (see www.Div39Outreach.org) and a large number of internship sites provide rotations in psychoanalytic treatment.

It should be clear to the reader that, far from being antiquated and stagnant, psychoanalysis and psychoanalytic psychotherapy is an active domain of research inquiry, theory development, and treatments that has been evolving over the years (see Box 11.1). There is a great deal of research providing evidence for many propositions from psychodynamic theories (Cortina, 2010; Westen, 1998), and there are more and more treatment efficacy studies, reviews of psychoanalytic treatment efficacy, and meta-analyses of psychoanalytic psychotherapy appearing in the literature (Gibbons, Crits-Christoph, & Hearon, 2009; Leichsenring & Rabung, 2008; Levy & Ablon, 2009; Shedler, 2010) that meet the criteria of the designation "empirically supported treatment" (APA Task Force on Evidence-Based Practice, 2006; Chambless & Hollon, 1998). Moreover, although psychoanalytic theory has often been presented as lacking empirical evidence or interest in demonstrating empirical evidence of core concepts, there actually has been a great deal of research that has been directed toward psychoanalytic concepts (e.g., Bornstein & Masling, 1998; Masling, 1986, 1990). Dr. Joseph Masling, in fact, over the years, has edited at least eight volumes reviewing the research addressing the empirical status of psychoanalytic theory. As one well-known and much-debated example, consider the research of Silverman (1976) that assesses subliminal stimulation (i.e., information presented below the threshold of awareness) of unconscious wishes in participants. In this work:

> The experimental stimuli consist of verbal messages and/or pictures containing content related to the kinds of unconscious wishes, anxieties, and fantasies, which according to psychoanalytic theory, play a key role in motivating behavior; the control stimuli consist of relatively neutral verbal and pictorial content. In more than 60 studies . . . carried out in various laboratories, experimenters have reported that the subliminal exposure of the psychodynamic experimental stimuli has affected behavior in a way that the neutral control stimuli have not.
>
> (Silverman, 1985, p. 640)

The affected behavior is in line with what would be predicted based on psychoanalytic theory.

BOX 11.1 RENAMING AND REINVENTION

There are likely several reasons that psychoanalysis has been seen by some as inactive and defunct when it has actually been very active and alive (Shedler, 2006). In a paper by Bornstein (2005) there is a description of how the status of psychoanalysis and psychoanalytic treatment has been diminished in academic psychology on the one hand but how ideas, hypotheses, and models that derive specifically from psychoanalytic theorizing have been researched, supported, and infused into contemporary psychology (Silverman, 1976, 1985), often with little acknowledgment or referencing of the original ideas for the work. For example, he states that numerous psychoanalytic concepts have been renamed, and, with the new name, are viewed as new concepts with no or little acknowledgment of where the original ideas came from. A list that he provides is reproduced here (Bornstein, 2005, p. 327).

Psychoanalytic concept[a]	*Revision or Reinvention*
Unconscious memory (1900/1953a)	Implicit memory (Schacter, 1987)
Primary process thought (1900/1953a)	Spreading activation (Collins & Loftus, 1975)
Object representation (1905/1953b)	Person schema (Neisser, 1976)
Repression (1910/1957a)	Cognitive avoidance (Beck, 1976)
Preconscious processing (1915/1957b)	Preattentive processing (Treisman, 1969)
Parapraxis (1916/1963)	Retrieval error (Tulving, 1983)
Abreaction (1916/1963)	Reintegration (Bower & Glass, 1976)
Repetition compulsion (1920/1955)	Nuclear script (Tomkins, 1979)
Ego (1923/1961)	Central executive (Baddeley, 1992)
Ego defense (1926/1959)	Defensive attribution (Lerner & Miller, 1978)

[a] Original Freudian sources are identified by year of original publication and then date of corresponding Hogarth Press *Standard Edition* volume.

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Primary Assumptions and Principles of Psychoanalytic Treatment

Although there are some differences among the psychoanalytic perspectives and treatments, there are several basic tenets that the majority rest upon. These assumptions really form the basis of psychoanalytic thought. The assumptions include the following:

1. Psychoanalytic thought views psychopathology and symptoms of psychopathology as emanating from and a part of the person's personality and character. An important concept in the behaviors that arise from the person's personality and character is the concept of **psychic determinism** whereby psychological events (e.g., symptoms, defenses, and so forth) are causally related to one another and to the individual's past, and those psychological events are goal-directed and serve some purpose for the person. Thus, in order to understand and treat the psychological difficulties that a person experiences, there is a rather more holistic approach taken to understand the person and his or her unique personality and character makeup and the influences on the development of the personality and character. There is an emphasis on trying to understand the whole patient and the patient's problems as part of an idiosyncratic and dynamic system (Magnavita, 2008). As discussed in the psychopathology chapter, there is a focus on changing the underlying issues that produce symptoms rather than focusing specifically on the symptoms themselves. Moreover, the concept of **symptom substitution** reflects the idea that underlying impulses or conflicts that are not conscious are manifested as symptoms. Thus, symptoms are viewed as representations of underlying impulses.
2. There is an importance placed on childhood and the development of early childhood relationships including the relationship with the primary caregiver but also other family members, peers, and others in the development of normal and pathological personality. It is important to understand that parents are not to blame for psychological difficulties

that a person experiences. It is thought that the interplay or interaction of the child's temperament and personality, parents' personalities, and environmental forces all interact or play a role in the development of adaptive and maladaptive aspects of personality and psychological difficulties. Related to this assumption is, what is termed, th**e Genetic Principle** (see Corsini & Wedding, 2005). This principle suggests the prevailing and enduring influence of the past on current mental activity. The past is represented in the present and influences current thoughts, behaviors, and emotions. The patterns can be seen in current relationships whereby patterns of problematic interactions are repeated with others.

As an illustration, people often can identify a person that they know who has series of intimate partners, all of whom are very similar. The person gets involved with one person, ends the relationship because it is not satisfactory, and begins a new relationship with another person who is almost a carbon copy of the last person. This, generally, is the idea regarding repetition of interpersonal scenarios that is important in psychoanalytic thought, although the patterns are often more subtle than the example given.

3. It is thought that much of our behavior and the forces that direct our behavior is not readily available to our awareness. These forces, conflicts, patterns, and drives compel us to behave in certain characteristic and repetitive ways that we are not automatically aware of. The theoretical component, known as the **Theory of Topography**, refers to the notion that there is a layering of levels of consciousness from **unconscious** (i.e., information we are not aware of), **preconscious** (i.e., information currently not aware but can easily be made aware of) to **conscious** (i.e., what we are currently aware of). A person has varying accessibility to information contained at the various levels. A goal of treatment is to make the person more aware of unconscious influences on his or her behavior patterns. Making people aware of unconscious influences is not necessarily easily done, as the patient will often evidence **resistance** because the unconscious material is threatening or anxiety-provoking.

   For example, you may have had the experience of walking away from some interaction or situation, asking yourself "Why on earth did I just say (or do) that? That is not like me to say something like that." In that kind of situation, it is assumed from a psychoanalytic perspective that there was a reason that you said or did something that is currently incomprehensible to you. It is not readily apparent, and, potentially, with some reflection, you may be able to understand the statement or action somewhat.

4. Emotion or affect plays a major role in psychoanalytic theories and treatments. For example, early psychoanalytic writing placed great importance on different kinds of anxiety as reflecting, essentially, internal and unconscious conflict among components of the personality. Although anxiety is still seen as a very important affect, other emotions such as shame, anger, depression, despair, guilt, and emotional numbing have also been seen to be highly relevant (Tasca, Mikail, & Hewitt, 2005). An important characteristic of emotion is that it provides a link with cognitive elements of the person's functioning including memory, forgetting, and attention/concentration (Bower, 1981). The use of affect provides a way to get access to some of the unconscious material that can be relevant for understanding and treating a person's psychological difficulties. This gives an example of the dynamics of the personality or the interplay of the components and forces within the psyche or mind. Moreover, the dynamics of personality are thought

also to reflect psychic determinism, the idea that all behavior has meaning, a goal, and a purpose and is frequently driven by unconscious forces. For example, a person's symptoms, choice of a spouse or life partner, career, or interests are all determined and fit with the characteristics and dynamics of personality.

5. The development of patterns or styles of relating to others and to the self is an integral part of psychoanalytic treatment. This has been especially emphasized in more recent psychoanalytic thought and reflects the idea that individuals develop relationship styles early in life, often with the very strong influence of the relationship with the primary caregiver. These relationship styles can be adaptive or can produce difficulties for the individual. These relationship styles are believed to be evident in current relationships that the individual has. Furthermore, individuals will respond to others they are currently interacting with in a similar manner or as if they are interacting with someone from their past. This is the concept of **transference** whereby patients will begin to interact with the therapist in a manner that is consistent with some person or persons from the patient's past. Although students may typically hear about transference and transference reactions in psychotherapy, these sorts of responses may also occur outside of therapy, in other interpersonal situations. In fact, the therapist himself or herself can react to patients with transference reactions (i.e., respond to the patient as if he or she is someone from the therapist's past) and this is one type of what is termed **countertransference**.

Evolution of Psychoanalytic Theory

Psychoanalytic theories have evolved tremendously over the past century. As a quote from Arlow (2000) attests:

> It is almost impossible to grasp the extent to which psychoanalysis has changed since the death of Freud in 1939 . . . there are so many differing, competing theories concerning the causes and treatment of mental illness that Wallerstein (1988) spoke of a need to recognize many psychoanalyses instead of just one.
>
> (p. 25)

As psychoanalytic theories evolved and branched out over the decades (see Box 11.2), different psychoanalytic treatments developed and sprang up as subsequent psychoanalytic theorists expanded, revised, or revamped many components of Freud's theories. Although there were many directions that psychoanalytic theory took, depending on the theoreticians involved, we will describe some theoretical components that are representative of the major contemporary schools of treatment within psychoanalysis. These different approaches to psychoanalytic thought provide a model and rationale for the focus chosen in treatment. That is, each of these domains view maladaptive behavior as the product of different forces or processes and each of them focuses on these processes in treatment. We will start with classical psychoanalysis.

Classical psychoanalysis was one of the first psychodynamic treatments and was developed by Sigmund Freud, a Viennese neurologist, in the late 1800s and early1900s, based on his psychoanalytic theory. The focus of the work was based on his treatment of hysterical neuroses (also termed *conversion disorders* and represented disorders that involve symptoms that appear to be neurological problems but there are no physiological

bases to explain the symptoms). Classical psychoanalysis derives specifically from Freud's theoretical perspective that places heavy emphasis on basic biological drives, mainly sexual and aggressive drives, as the unconscious motivators of behavior, and, potentially, the cause of symptoms and personality difficulties. In order to understand the processes involved, Freud proposed a model of personality that involved personality structures. Essentially, the biological drives or impulses derive from the **id**, a component of personality that is entirely unconscious and houses the source and energy for the instinctual impulses. These drives or impulses seek expression and can, if expression of the impulses is inappropriate, produce an aversive state of anxiety. Both the **ego** (the functions of personality that guide the individual in the real world with emphasis on safety and survival) and **superego** (the part of personality concerned with lawful, moral, and ideal aspirations) subdue or control both the impulses and the anxiety. This produces a state of conflict and the impulses and attendant conflict are often channeled into neurotic symptoms or personality problems. Moreover, it was also believed that the unconscious part of the mind harbored past traumas, either actual traumas or symbolic traumas that, because of their aversive and overwhelming nature, are banished to the unconscious.

Treatment involves attempting to make the unconscious drives or traumas conscious and through the emotional reactions accompanying the uncovering, there is a releasing of the symptoms or personality disturbances. This is done through several techniques used in classical psychoanalysis, all of which have the goal of uncovering unconscious material. These techniques include free association whereby the patient is encouraged to talk aloud about anything that comes to mind either at any point in the therapy or in specific response to cue words, dream interpretation whereby the symbolic nature of features of the dream reveal unconscious material, as well as transference responses of the patient whereby the patient comes to interact with the therapist in the same manner as some individual from the patient's past. An important element of the actual treatment process involves the therapist not influencing the flow of unconscious material in any way, thus, the analyst typically sits out of view of the patient, speaks little, and attempts not to direct the patient in any way.

As a simple illustration of using dreams in psychoanalytic treatment, the following description of using dream material in psychoanalytic treatment is quoted from Gabbard (2004, pp. 121–122):

> Ms. N was a 42-year-old woman who came to psychotherapy after the death of her son from muscular dystrophy. She was a stoic woman who had defended against her grief by becoming active in the local muscular dystrophy organization and by insisting that helping others kept her from feeling sad about her son. Nevertheless, she would occasionally tear up as she talked about him, only to flee her feelings when they became uncomfortable.
>
> One day Ms. N came to therapy and said "I had a dream last night. I don't know what to make of it. It was a very short dream. I looked at my fingernails, and they were all broken." The therapist asked her what came into her mind as the thought about that image of broken fingernails. She hesitated a moment and then said that when she was changing her son's bed sheets, which was a frequent necessity during his last days alive, she would often break her fingernails. She reflected on how completely ridiculous it was to worry about such minor trivia as a broken fingernail when her son was dying. Her therapist tuned into the meaning of the dream and said: "In some ways it would be nice to have broken fingernails again, because it would mean your son was alive." The patient cried quietly.

BOX 11.2 INVENTION OF PSYCHOTHERAPY

It is often thought that Sigmund Freud "invented" psychotherapy. In reality this is not true as there were numerous clinicians who were engaging in treatment of psychological problems that involved talking with the patient. For example, according to Corsini and Wedding (2005) Paul Dubois (1848–1914) treated psychotic individuals by talking with them, and Pierre Janet (1859–1947) was a very well-known and respected psychotherapist before Freud began his work. Furthermore, Ellenberger (1970) lists four of the foremost psychotherapists who practiced prior to Freud between 1880 and 1910: Ambroise Liebeault (1823–1904), Hippolyte Bernheim (1840–1919), Auguste Forel (1848–1931), and, as mentioned above, Paul Dubois.

Phases of Classical Psychoanalysis

Usually classical psychoanalysis (and psychoanalytic psychotherapy) is thought to consist, generally, of four phases, although they do not necessarily occur chronologically and often phases will overlap. Moreover, classical psychoanalysis is usually seen as long term, thus phases, especially the middle two phases, can be quite lengthy. The phases as outlined by Arlow (2000) follow.

1. The **Opening Phase** is characterized by determining the nature of the person's difficulties, to learn as much as possible about the person and his or her current and past life situation, history and development as well as behaviors related to how the person relates his or her information to the therapist. The therapist attempts to detect themes that are relevant for the development of the difficulties, conflicts, or issues the person wishes to understand and change.
2. The **Development of Transference Phase** is characterized by the patient beginning to relate current behavior to unconscious material from the past, particularly childhood, and to wishes regarding past relationships. The therapist comes to be an important component of the patient's life and the patient begins to respond to the therapist in a distorted fashion as if he or she was the same as some person from the patient's past. It is important to note that the patient does not believe the therapist is the same person from the past, but rather, the patient responds in a pattern of behavior that is similar to the behavior engaged in by the patient with that person from the past. The work of this phase involves the interpretation of the transference. The idea is to help the patient distinguish reality and fantasy, understand the unconscious influences of early experiences, and gain more control over automatic behaviors that cause or perpetuate problems.
3. The **Working Through Phase** coincides with the second phase and involves consistent interpretations of transference responses, recall of early material that relates to early relationships and development, and to deepen insight into unconscious influences.
4. The final phase is known as the **Resolution of Transference Phase** and this represents the termination phase of treatment. Typically, a mutually agreed-upon date of termination is set by the therapist and patient and issues pertaining to loss, dependency, and abandonment often arise. These issues are dealt with in the same manner (i.e., interpretation, insight, and so forth) and are understood in the context of the ending of an important relationship. Whereas many treatment orientations do not place great impor-

tance on termination of the therapeutic experience, psychoanalytic treatments view termination as a highly significant element in appropriate treatment.

Although some of the underpinnings of classical psychoanalysis have not received good support (e.g., importance of sexual and aggressive impulses in producing symptoms) and many of the concepts are difficult to operationalize, many of the ideas, techniques, and understanding of the therapeutic process remain in mainstream psychotherapy and have received empirical attention. Moreover, attempts to adequately operationalize concepts have been undertaken (see Bornstein, 2005). Millon (2004) has suggested that four major contributions that Freud's classical psychoanalysis provided involved:

1. The importance of the structure and processes of the unconscious
2. The role of early childhood experiences in shaping personality development
3. The methodology for psychological treatment of mental disorders
4. The recognition that understanding the person's personality is central to understanding the person's problems.

Although, as stated by Magnavita (2008), classical psychoanalysis has had its heyday as the dominant form of treatment for a variety of psychological problems, this type of treatment and training in classical psychoanalysis is still readily available, sought out, and practiced (Sharf, 2000).

Ego Psychology

Although classical psychoanalysis was revised and refined by Freud and others, one major modality that differed substantially from the early model was known as ego psychology. We will describe this as an example of one of the earlier major revisions of psychoanalytic thought and treatment with a focus on working directly with children. Theorists such as Anna Freud (Sigmund Freud's daughter) and Erik Erikson (you will likely have heard of Erikson as the person who developed the concept of psychosocial stages of development) extended and revised some of the original tenets of psychoanalysis. Rather than focusing on biological drives as the primary source of psychological difficulties and the focus of treatment, ego psychology emphasized how the ego functions in the present in both adaptive and maladaptive ways. There is an emphasis on the importance of current interactions and interaction patterns with others, developmental stages of the person in childhood and adulthood, as well as on both conscious and unconscious processes that influence behavior. Consistent with the model, rather than focusing on past relationships, treatment tends to focus on both current relationships and the therapy itself to observe and attempt to understand psychological defenses and the anxiety underlying the defenses.

The basis of ego psychology is on the structural model of id, ego, superego, and the conflicts that the three components exhibit. Consistent with Freud, it was believed that the three components are in constant conflict and this conflict creates anxiety in the individual. Because the individual or the ego needs to deal with the anxiety, specific coping strategies or defense mechanisms are activated and symptoms arise when the anxiety is not dealt with in an adaptive manner. Essentially, the anxiety and defense result in what is termed a **compromise formation**, which results in either neurotic symptoms or personality characteristics and disturbances.

Treatment focuses on the compromise formations and conflicts that make up one's character as well as developmental issues. This is done through analysis of defenses that become evident in the therapy interactions which provide information regarding conflicts. It is the delineation of ego defenses that represents one of the major contributions that ego psychology theorists made. Although initially there were nine major defenses outlined by Anna Freud, these have been added to over the years and can be divided into three groups ranging from the most pathological (called **Primitive Defenses**), somewhat less pathological (called Higher Level or **Neurotic Defenses**) to the most healthy or mature (called **Mature Defenses**). A hierarchy of defenses as outlined by Gabbard (2005, p. 5) is reproduced in Table 11.1. For the interested reader, video depictions of various defense mechanisms can be viewed at www.hsc.wvu.edu/aap/Video/SymptomMedia/SymMediaClips1.html

TABLE 11.1 A Hierarchy of Defense Mechanisms

Defense Mechanism	*Description*
Primitive defenses	
Splitting	Compartmentalizing experiments of self and other such that integration is not possible. When the individual is confronted with the contradictions in behavior, thoughts, or affect he/she regards the differences with bland denial or indifference.
Projective Identification	Both an intrapsychic defense mechanism and in interpersonal communication. This phenomenon involves behaving in such a way that subtle interpersonal pressure is placed on another person to take on characteristics of an aspect of the self or an internal object that is projected into that person. The person who is the target of the projection then begins to behave, think, and feel in keeping with what has been projected.
Projection	Perceiving and reacting to unacceptable inner impulses and their derivatives as thought they were outside the self. Differs from projective identification in that the target of the projection is not changed.
Denial	Avoiding awareness of aspects of external reality that are difficult to face by disregarding sensory data.
Dissociation	Disrupting one's sense of continuity in the areas of identity, memory, consciousness, or perception as a way of retaining an illusion of psychological control in the face of helplessness and loss of control. Although similar to splitting, dissociation may in extensive cases involve alteration of memory of events of the disconnection because of the disconnection of the self from the event.
Idealization	Attributing perfect or near-perfect qualities to others as a way of avoiding anxiety or negative feelings, such as contempt, envy, or anger.
Acting out	Enacting an unconscious wish or fantasy impulsively as a way of avoiding painful affect.
Somatization	Converting emotional pain or other affect states into physical symptoms and focusing one's attention on somatic (rather than intrapsychic) concerns.
Regression	Returning to an earlier phase of development or functioning to avoid the conflicts and tensions associated with one's present level of development.
Schizoid fantasy	Retreating into one's private internal world to avoid anxiety about interpersonal situations.

Defense Mechanism	*Description*
Higher-level (neurotic defenses)	
Introjection	Internalizing aspects of a significant person as a way of dealing with the loss of that person. One may also introject a hostile or bad object as a way of giving one an illusion of control over the object. Introjection occurs in non-defensive forms as a normal part of development.
Identification	Internalizing the qualities of another person by becoming like the person. Whereas introjector leads to an internalized representation experienced as an "other", identification is experienced as part of the self. This, too, can serve non-defensive function in normal development.
Displacement	Shifting feelings associated with one idea or object to another that resembles the original in some way.
Intellectualization	Using excessive and abstract ideation to void difficult feelings.
Isolation of affect	Separating an idea from its associated affect state to avoid emotional turmoil.
Rationalization	Justification of unacceptable attitudes, beliefs, or behavior to make them tolerable to oneself.
Sexualization	Endowing an object or behavior with sexual significance to turn a negative experience into an exciting and stimulating one or to ward off anxieties associated with the object.
Reaction formation	Transforming an unacceptable wish or impulse into its opposite.
Repression	Expelling unacceptable ideas or impulses or blocking them from entering consciousness. This defense differs from denial in that the latter is associated with external sensory data whereas repression is associated with inner states.
Undoing	Attempting to negate sexual, aggressive, or shameful implications from a previous comment or behavior by elaborating, clarifying, or doing the opposite.
Mature defenses	
Humor	Finding comic and/or ironic elements in difficult situations to reduce unpleasant affect and personal discomfort. This mechanism also allows some distance and objectivity from events so that an individual can reflect on what is happening.
Suppression	Consciously deciding not to attend to a particular feeling, state, or impulse. This defense differs from repression and denial in that it is conscious rather than unconscious.
Asceticism	Attempting to eliminate pleasurable aspects of experience because of internal conflicts produced by that pleasure. This mechanism can be in the service of transcendent or spiritual goals, as in celibacy.
Altruism	Committing oneself to the needs of others over and above one's own needs. Altruistic behavior can be used in the service of narcissistic problems but can also be the source of great achievements and constructive contributions to society.
Anticipation	Delaying of immediate gratification by planning and thinking about future achievements and accomplishments.
Sublimation	Transforming socially objectionable or internally unacceptable aims into socially acceptable ones.

Source: Reprinted from Gabbard (2004) with permission.

Ego psychology has had a significant impact on contemporary psychoanalytic treatment. For example, it has drawn attention to the importance placed on current functioning of the ego and the defenses that an individual uses to cope that often form the focus of treatment. Two more recent psychoanalytic models that are representative of contemporary psychoanalysis are presented below (see Box 11.3). The models share certain features, such as the importance of the development of the self, self-concept, and interpersonal relationships, and, like all psychoanalytic theories, are concerned with how the past influences the present and how the inner world of the person distorts, colors, and influences the behavior and experience the person has (St. Clair, 2004). The two models are object relations theory and self psychology.

BOX 11.3 SULLIVAN AND ADLER

Several students of Freud broke away from some fundamental aspects of psychoanalysis and focused on interpersonal aspects of people's functioning. Two of these individuals, in particular, have had a significant impact on the field of clinical psychology and both have empahasized the importance of the interpersonal domain on shaping personality and as focuses for treatment.

Harry Stack Sullivan was an American psychoanalyst who developed a theory of personality and psychoanalytic treatment that was based entirely on interpersonal relatedness and the critical roles that various relationships, including communal social experiences, play in an individual's life. His book, entitled *The Interpersonal Theory of Psychiatry* (Sullivan, 1953), outlines the basic premises of this theory, and he is considered the founder of interpersonal theory and therapy. Sullivan believed that personality evolved from interpersonal relationships rather than from biological or instinctual drives. He developed the concept of **self-system** whereby individuals develop a system of traits, based on interactions with others, that constitute the self. Moreover, he described concepts related to the development of the self-system in childhood, such as the "**Good Me**," "**Bad Me**," and "**Not Me**" based on interactions, especially with parents. He also was one of the first theorists to describe the concept of **personifications**, or the mental representations of relationships, a concept that has become pivotal in numerous personality theories. Finally, the treatment that he proposed involves the detailed explorations of the interpersonal interactions the patient has, particularly the interpersonal behaviors that become evident during psychotherapy. He described **parataxic distortions** whereby patients respond to therapists based on previous relationships they have had. This, of course, is very similar to Freud's notion of transference.

Sullivan's work has had a major impact on not only the development of interpersonal psychotherapy but also on theorizing and research on interpersonal behavior. His work has not only influenced other psychoanalytic theorists but also models of personality and treatment from other perspectives as well.

Similarly, Alfred Adler, an Austrian psychoanalyst heavily influenced by Freud and his teachings, also broke away from Freud due, mainly, to his beliefs that psychoanalysis was devoid of understanding and integration of the social influences on the self that he considered critical (Adler, 1956). He is considered the founder of the **Individual Psychology** school (Ellenberger, 1970), and his thinking greatly overlapped with that of other analysts of the post-Freud generation, namely, Karen Horney and Harry Stack Sullivan, both of whom also emphasized the interpersonal domain. Adler believed that early family influences, including sibling constellation and parental education style, would lead to an individual developing a **life plan** that guides behavior without much conscious awareness of this life plan's details. The early family and larger social influence through school and community may create maladaptive patterns of behavior. For example,

when a child does not feel equal and is either overprotected or neglected, he likely develops **inferiority** or **superiority complexes** and various accompanying compensation strategies which lead to long-term maladjustment. Adler also argued for equality of the sexes and a generally democratic approach to family dynamics.

His therapy approach is more directive than classical psychoanalysis and is geared toward understanding one's personality in light of these early life influences. An Adlerian therapist will use Socratic questioning but also works with dreams, transference phenomena, and interpretation.

An important aspect of Adlerian thinking was to use his theory and general developmental psychology knowledge not only to define his approach to treatment, but he emphasized **prevention** as well. He has been pivotal in instituting the first parent training courses in order to ensure that parents have the skills and understanding needed to raise healthy children. His approach to **parent training** is still apparent in many such courses taught today.

Object Relations Theory

According to Gabbard, Beck, and Holmes (2005), **object relations theory** is likely the predominant perspective in contemporary psychoanalytic theory and treatment. There are many psychoanalytic theorists associated with the development and evolution of object relations theory including Melanie Klein, D. W. Winnicott, and Otto Kernberg, although there are many others who have contributed to this psychoanalytic theory including Harry Stack Sullivan and John Bowlby.

The term "object relations" refers to the internal and external world of interpersonal relationships and the term "object" refers to the person to whom the individual is relating (St. Clair, 2004). This model is based, generally, on the premise that the self and the development of the self is primarily interpersonal in nature. That is, the development of the self or self-concept arises from early interactions with others (what some have termed "reflected appraisals"), and, of course, the primary and predominant interactions occur with the primary caregivers. In order to understand the individual (and the difficulties that he or she is struggling with), one needs to understand the nature of relationships that have influenced the development of the self, the personality make up, the problems the person experiences, and how these relationship patterns are currently manifested and influence the patient's behavior (Anderson, Reznik, & Glassman, 2005).

At its core, object relations theory emphasizes the development and "stamping in" of conceptions of the self and objects, and, especially, the relationship between the self and objects. That is, the nature of significant relationships (and conceptions of the self) are internalized in childhood. They then color and influence personality development, past and present relationships, and psychopathology. One of the main focuses of object relations theory is on how the person, himself or herself, views significant relationships, either consciously or unconsciously (Sharf, 2000), and how these internalized relationship patterns from the past influence the development of personality.

Some of the more important concepts involve the following:

1. There is great importance placed on the first and predominant relationship of the infant with the infant's main caregiver (usually the mother). The nature of the unfolding of this relationship, especially as it relates to the child developing separateness and autonomy (known as **separation and individuation**), is thought to be of great importance in

developing and establishing patterns of self-acceptance, autonomy and independence, interpersonal warmth, and other personality factors (Sharf, 2000).

2. The nature of this early relationship is internalized as a relational schema (i.e., a script, formula, or framework for the relationship pattern) and influences the development of the self, the personality, and related psychological difficulties. The relational internalization is not necessarily a totally accurate depiction of the relationship as there may be elements that are distorted or exaggerated.
3. The relational schema is activated in current relationships (including the therapeutic relationship) and colors and influences these relationships. It is further believed that components of the internalization can thwart development and interfere with mature relationships.

Overall, object relations theory reflects one of the major revisions to traditional psychoanalytic thinking that is currently evident, that being the focus on interpersonal aspects of adaptive and maladaptive functioning and personality development. There is less or no emphasis on biological drives and the ideas deriving from this approach have spurred significant research with psychoanalytic researchers but also within social, clinical, and personality psychology (e.g., Flett, 2007).

In terms of treatment, the emphasis tends to be on demonstrating and making the patient aware of how his or her characteristic relationship styles or relational schemas are problematic. It is assumed that these schemas will arise in the therapeutic relationship (i.e., transference) and the therapist helps the patient understand the nature of these schemas. In understanding the nature and purpose of the schemas, the patient can begin to alter, shift, or change the relationship styles.

Self Psychology Theory

Developed by Heinz Kohut (e.g.,Kohut, 1984) who focused on the development of the self and how self caring, self-esteem, and narcissism (in this case, not only the pathological level of narcissism but the development of self-regard) precedes caring for others and how development of narcissism reflects normal development. Although much of his theorizing has focused on particular types of severe personality disorders, the focus of the treatment tends to be on the development and maintenance of self-esteem and self-regard as the most important elements. It is thought, from this perspective that psychopathology is related to deficits in the development of a coherent sense of self and that individuals will develop highly vulnerable self-esteem and what are termed **self-object functions** or interpersonal strategies to elicit responses from others to correct deficits in self-esteem.

Specifically, this approach emphasizes developmental deficits rather than conflict as important in developing psychological difficulties. Due to lack of empathy and being taught that he or she is valued and cherished, the child goes through life with a deficit in their sense of self. That is, the person comes to understand himself or herself as someone who is not a valued, cherished, or lovable person and develops what are termed **self disorders**. These self disorders or traumas derive from the child not being "seen" or affirmed or as being regarded as an object for gratification by the caregiver, or from abuse. The child (and eventually the adult) goes through life not sure if he or she actually exists and experiences little or no self-worth. The person will attempt to correct these self-related deficits, at an unconscious level, by trying to get others to respond to them in a way that makes up for the deficit. For example,

the person can look to others for affirming behavior or look for others to be "proud" of the person's accomplishments (called mirroring or the **mirror transference**). Also, the person can maintain his or her self-esteem by attempting to interact with or "bask in the glow" of someone else's ideal or powerful position (called the **idealizing transference**), and, third, the person imitates an idealized other as a way of being like or merging with the idealized other (called **alter-ego transference**). Kohut and followers believed that these types of transferences were responsible for significant psychological difficulties known as self disorders.

The psychoanalytic treatment from this approach involves identifying the deficits in self-esteem or self-concept and attempting to create a therapeutic situation that allows for strong empathic responses by the therapist, mirroring of behavior (i.e., showing the patient what he or she is attempting to accomplish in their self-object function) and to help develop and foster a cohesive sense of self in the patient.

Attachment Theory

One domain of psychodynamic theory that has had a huge impact on psychology more generally is attachment theory. Originally posited by John Bowlby in the 1950s and developed further by Mary Ainsworth, the basic tenets involve the nature and quality of the early caregiver/infant relationship (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1970) as providing functional and adaptive behaviors. If the caregiver is attuned to the infant's needs (and if this attunement continues over the course of childhood), the child develops a secure attachment style that involves not only a sense of trusting in others and self but also establishes a style of expecting and interaction with others that is adaptive. If the caregiving/infant attunement is not evident that child can develop insecure attachment styles that can predispose the child to many forms of distress and dysfunction. Since the theory was developed and with the development of sophisticated measures of attachment and attachment styles, research on attachment theory has burgeoned with literally thousands of empirical articles in the literature (Cassidy & Shaver, 2016).

Short-Term Dynamic Psychotherapies

There have been numerous psychoanalytic writers who have suggested that many of the goals of psychoanalytic treatment can be accomplished in short-term psychoanalytic psychotherapy (e.g., Alexander & French, 1946) rather than the years suggested by classical psychoanalysis. Over the past two decades there has been significant development in psychoanalytically oriented treatments that are very focused, intensive, and time-limited whereby treatment is expected to be of a brief duration. Due to the intensive nature of these treatments, they often use highly selected patient groups with the understanding that several of the short-term treatments are appropriate for particular types of patients and not necessarily others (Davanloo, 2000).

The theoretical tenets of these treatments are mostly the same as other forms of psychoanalytic treatment, essentially the ideas dealing with the unconscious, the importance of interpersonal relationships and transference responses, affect, and conflict. Also, the overarching goals of treatment are similar to long-term treatment as are many of the techniques and strategies used in the treatment itself, although often the timing of interventions is different. For example, the psychotherapist attempts to help the patient uncover unconscious material

IMAGE 11.1 Attachment
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and attempts to help the patient make substantial changes in their personality makeup and relationships. The main difference between these psychoanalytically oriented treatments and longer-term psychoanalytic psychotherapy involves the time limit of the treatment and the degree to which the therapist is directive and active.

Although there have been many types of Short-Term Dynamic Psychotherapies (STDPs) developed, they share a fairly common goal and approach whereby a focal issue (e.g., central conflicts, core conflictual relationship, or central focus) is quickly determined, focused upon, and emphasized in the treatment. Depending on the particular STDP, the focus of treatment uses the therapeutic relationship and transference responses, directly confronting conflicts or issues by challenging and provoking the anxiety from the conflicts in order to restructure defenses, or using a supportive and encouraging therapeutic stance in the treatment.

Goals of Psychoanalysis and Psychoanalytic Psychotherapy

Each orientation of psychoanalytic psychotherapy emphasizes different aspects of the development of personality and psychopathology and some of the orientations focus on different types of patients. Contemporary psychoanalytic therapists are often very eclectic in the sense that they use elements of the different modalities in the conceptualization of problems and treatment (Arlow, 2000). Having said this, there are numerous consistent goals or aims that cut across most if not all psychoanalytic treatments. The overall goal of psychoanalytic treatment, according to Magnavita (2008), is to "overcome developmental obstacles and personality patterns that interfere with the person's ability to function at the person's highest possible capacity" (p. 67). Thus, there is an attempt to view the whole person and emphasize not just the amelioration of symptoms, but to increase the quality of the person's life. Moreover, Strupp, Sandell, Waterhouse, O'Malley, and Anderson (1982) state that the essence of psychoanalytic treatment involves "the utilization of an interpersonal relationship in the present to correct persistent difficulties created by an interpersonal relationship in the past" (p. 223). Specific goals include the following:

1. Establish strong therapeutic relationship that will provide the basis for therapeutic interventions. A component of this is to establish a collaborative relationship whereby the patient himself or herself expresses the goals of treatment and where the patient feels safe, not judged, and accepted by the therapist.
2. Bring change to overall personality and character structure. Normal behaviors and symptoms, signs, and behaviors reflective of maladjustment result from and are caused by underlying personality structures and processes. Making changes to the underlying structures is thought not only to eliminate symptoms and troublesome behaviors, but also to prevent the re-appearance of these troublesome behaviors and problems.
3. Aid in bringing unconscious conflicts, patterns, defenses, and emotions to conscious awareness. Being aware of influences on one's behavior allows one some potential degree of control and can give the person a focus on what to alter or change. As an example, no one is likely truly aware of what they look or sound like when eating soup. Because we focus on the soup, and, perhaps the company we are keeping while eating the soup, we are not really aware of our "soup-eating behavior," and, because of this, it does not dawn on us to alter or change that behavior. If someone, perhaps a loved one, points out that our soup-eating behavior is quite repulsive and disgusting, we will become aware of our soup-eating behavior, and by doing so, it allows us to make alterations, either by trying to eat in a less repulsive manner or by exaggerating the disgusting nature of the behavior. In either case, by becoming aware of the behavior, it makes alterations of the behavior possible.

   What do the different types of psychoanalytic therapy focus upon to make conscious? In classic psychoanalysis, the focus is on attempting to make sexual and aggressive impulses more conscious. This has taken the form of what are termed "oedipal impulses" that involve sexual attraction to the other-sex parent and aggressive impulses directed toward same-sex parent. In ego psychology, the focus is mainly on the ego and making ego defenses and the attendant anxiety more conscious. With object relations theory, what is made more conscious are the issues and concerns with separation and individuation that derive from the early relationship with the prime caregiver. Finally, in self psychology, the focus is on having the patient understand the presence and purpose of self-object functions.

As an illustration of attempts to make the unconscious conscious through interpretations, here is an excerpt from Gabbard (2004, pp. 62–64):

> A 22-year-old man who is having difficulty establishing himself in the world tells his female therapist that his mother is upset with him because he is still living at home and can't find any productive work that he enjoys. He complains to his therapist:
>
> *P:* (patient)*:* My mother is always nagging me. I hate living under thumb. I wish she would just leave me alone.
> *T:* (therapist)*:* Yet you don't apply for jobs so that you could establish yourself independently.
> *P:* That's because I can't find anything interesting in the classified ads.
> *T:* Sometimes you may have to work at a job that you don't really like just so you can be on your own and not be pressured by your parents.
> *P:* Believe me, I've looked through the classifieds and there's nothing available in the current situation of high unemployment. We're in an economic crisis.
> *T:* You, I have the impression that you actually create a nagging situation with both your mom and me by taking an oppositional stance regarding trying a new job. I wonder if being nagged makes you feel like someone cares about you.

4. Although it is often assumed that psychoanalytic treatments are used only for in-depth exploration of and making changes in the personality, and the unconscious defenses, conflicts, and interpersonal patterns of a patient (known as exploratory or expressive psychotherapy), this is not always the case. For example, psychoanalytic treatments are sometimes used not to effect changes in personality structure but to bolster or strengthen supports, shore up defenses and coping styles, and to reduce current distress and conflict (known as supportive psychotherapy). Use of exploratory versus supportive approaches depends on the patient's needs or abilities. For example, in some cases, it is not necessary to make significant changes to a person's personality, but, instead, to aid the person in dealing with distress caused by some environmental trauma.

Psychoanalytic Treatment

Commensurate with changes in theory, there are also significant and sometimes marked changes in the psychoanalytic treatment that has developed over time. For example, the very strong emphasis on interpersonal aspects of functioning is evident in contemporary psychoanalytic psychotherapies. Furthermore, although it was thought that in classical psychoanalysis that treatment had to be frequent (3–5 sessions per week) and long term (i.e., measured in years) due to the nondirective nature of uncovering unconscious material, in the 1940s there was a movement toward making psychodynamic treatments shorter in duration by encouraging the therapist to become more active and directive in nature (e.g., Alexander and French, 1946). Nowadays, it is certainly possible to be trained and practice in classical psychoanalysis; however, most of the psychoanalytic psychotherapies (of which there are many) are quite directive, shorter in duration (e.g., measured in months, although there are still situations where long-term treatment is warranted), and, in some cases, very brief. In fact, in some forms of Short-Term Dynamic Psychotherapy, there is a specification of a finite

number of sessions (e.g., 12 sessions in Sifneos's Short-Term Anxiety-Provoking Therapy; Sifneos, 1992).

Finally, although in the past there may have been a strict adherence to one modality, currently there is a significant integration that is reflected with psychoanalytic psychotherapy. For example, according to Magnavita (2008) typically the psychoanalytic psychotherapist chooses the psychoanalytic perspective that fits with the patient's personality, problem, and context and does not force the patient and his or her difficulty into one particular framework. Moreover, there are numerous techniques that are utilized in these orientations that are often thought only to exist in behavioral approaches. For example, most of the psychoanalytic psychotherapies utilize directive and active stances of the therapist and in some, homework assignments are utilized, (e.g., Osimo, 2003). As well, there is an emphasis on the patient determining the goals of treatment (actually this has been done for decades in psychoanalytically oriented psychotherapy) and there are numerous manuals for conducting psychoanalytic treatments that have been developed (e.g., Luborsky, 1984; Osimo, 2003). Moreover, there have been major attempts to demonstrate the effectiveness of psychoanalytic treatments. Although there are several large-scale studies that have been done (e.g., the Menninger Psychotherapy Research Project; see Blatt, 1992), more recently, and in line with concerns about empirically validated treatments, there has been good evidence of the effectiveness of several short dynamic psychotherapies (e.g., Anderson & Lambert, 1995; Leichsenring, Rabung, & Leibing, 2004) and long-term psychotherapies (Shedler, 2010).

Vehicles for Behavior Change in Psychoanalytic Treatment

Gabbard (2005) has suggested that there are several core focuses in psychoanalytic therapy. These include the following:

1. Observation, Interpretation, and Confrontation: These techniques or strategies involve the actual work in psychoanalytic psychotherapy. **Observation** involves calling attention to behavioral displays in the therapy situation that the person may not be aware of. For example, the therapist may focus on nonverbal behavior, vocal intonations, or defenses that are evident to the therapist. **Interpretation** involves linking behavior to unconscious material, childhood experiences, or relationship patterns, and **confrontation** involves helping the patient face some issue or concern that is being defended against or avoided. Confrontation is not an aggressive intervention, but normally a gentle "pointing out" about avoidance or difficulties in expressing ideas or emotions.

   As an illustration of some of these concepts (observation, attempt at clarification, confrontation, as well as the beginning of an example of a transference response—see if you can spot the latter which is a bit subtle), here is an excerpt from one of the authors' (PLH) treatment of a patient with issues relating to marked distress and depression in relation to being harassed and bullied at work. The therapist and patient had discussed episodes of harassment and been discussing some of the actual incidents of being harassed:

   P: So my boss would sneer at me . . . and . . . and make these subtle faces like . . . like . . . you know, slightly rolling his eyes back . . . tilting his head . . . so I would know that he hated me . . . thought I was stupid, worthless . . . less than a worm to him . . .
   T: Can you tell me what you felt like when he did that?

P: I would just see him look around . . . I guess to see if others were watching . . . so he could share his evaluation of how stupid I was . . . share it with others who would think the same way

T: What did you experience inside when he would do that? Let me ask . . . in a different way . . . what are you feeling now, right this moment, as you recall the looks he would give you?

P: I can see his face and how he thought I was just the most useless piece of garbage. There was another time when on the floor when I was working on the floor . . . when the same things happened . . . There were too many times . . . anyway when I was working on the floor . . .

T: I have noticed that we have spoken fairly often about some of the specific . . . accounts . . . instances of being subtly and not so subtly, ridiculed, humiliated by your boss . . . I know that these incidents were very painful for you . . . but each time I ask about you . . . your own feelings in response to the incidents, like I did a couple of minutes ago, . . . you seem to provide me with more elaborate descriptions or other examples. I am wondering if you find it difficult to think about or talk about the feelings . . . what you experienced inside . . . when your boss did this to you . . .

P: [Long pause] it is just difficult

T: Difficult in what way?

P: [Pause and becomes tearful and moves around in chair] It is just difficult . . . to . . . tell you . . . to just say the words out loud . . . [Pause]

T: I wonder if it is difficult to tell me . . . to let me know . . . that a part of you . . . felt almost like you agreed with your boss . . . you felt worthless . . . like a piece of garbage . . . helpless . . . that you were not strong enough to deflect his criticism, his ridicule

P: [Long pause] I don't . . . I never wanted anyone to know that . . . I don't like to even think about it . . . that I have felt that way . . . that I feel that way.

T: What is it like to feel that way . . . useless . . . like a piece of garbage

2. Transference: Relating to the therapist as though the therapist was someone from the patient's past or replaying an interaction pattern from some important relationship in the past. Cognitive representations or schemas of past relationships are evident in the therapeutic relationship and there may be a desire for a corrective experience in that relationship. Another way of thinking about transference is that interpersonal styles, that are usually based on early relationship experiences, that may be used excessively and inappropriately and cause difficulty for the person, may come to the fore in the therapeutic relationship. Being able to communicate about the interpersonal style, in the here and now, can provide an important vehicle for insight and therapeutic change.
3. Resistance: Difficulty expressing emotions, issues, or symptoms due to shame, lack of awareness, or fear of being overwhelmed. Often there is ambivalence regarding getting better and sometimes patients will subtly interfere with the changes. One way to think about this is that patients are dissatisfied with their current behavior and want to behave differently. A major component of their dissatisfaction with their own behavior lies in the patient's inability to behave in a manner that is adaptive, meets goals, and so forth, due to anxiety. By the patient changing, the therapist is helping the person to step into unknown territory, which is, behaving differently with no familiarity to the conse-

quences, other than a belief and trust that things will be better. The person can resist due to the sense of security with old familiar patterns of behavior that may not be adaptive or produce happiness, but produce a sense of security.

Sometimes the concept of resistance in psychoanalytic psychotherapy is characterized by others as a blaming of the patient for not participating in treatment or the resistance is characterized as the patient being obstinate and the therapist is attempting to manipulate the person into talking. Resistance is actually viewed as the result of an unconscious defensive process that protects the patient from anxiety. The psychoanalytic therapist views the patient, not as obstinate, but as experiencing anxiety related to dealing with or discussing certain content. The therapist attempts to help the patient get past the resistance usually by attempting to create a safe and secure environment so the anxiety-producing material can be brought out.

4. Countertransference: This is seen as an enormously important aspect of treatment. The therapist essentially pays attention to his or her own emotional reactions to a patient, and, uses his or her reactions as information about the inner world of the patient. Sullivan (1953) has described how by monitoring the self, the therapist can have an understanding of how others might respond to the patient, but also see how the patient may unconsciously produce the feelings in others. For example, making others angry so as to keep them at a distance.

New Issues in the Field

As we stated at several points in this chapter, psychoanalytic thought and therapies have developed over time and it is still the case that psychoanalytic treatment is evolving. For example, there has been an increasing focus on what is termed the **two-person psychology** of psychoanalytic treatment (Gabbard, 2005). That is, according to Sharf (2000): "The two-person psychology focuses on how the patient and therapist influence each other. In contrast, the one-person psychology emphasizes the psychology of the patient" (p. 67).

Within the two-person psychology perspective, there is an importance given to the idea that in attempting to understand a patient and his or her experiences and difficulties, the most appropriate stance is to acknowledge that there is not necessarily an objective reality that exists in the patient or in the therapist. Rather, the best way to understand the patient is to take a stance that both the patient and therapist have their own conceptions of reality and these influence one another's behavior in the therapy. This means that the therapist must pay attention not only to the patient's psychological makeup and behavior but also to his or her own behaviors, thoughts, and feelings and how these might influence the patient and the understanding of the patient's difficulties. This conceptualization of psychotherapy arises from a broader philosophical perspective known as **Post-modernism** and reflects the dynamic and evolving nature of psychoanalytic thought and treatment.

Overall, it is hoped that the student has acquired an appreciation for the important ideas that psychoanalytic theory and treatments have offered; they are the foundation and became the yardstick against which newer treatments were measured. Psychodynamic approaches have a life of their own; increasingly, they are being shown to be efficacious and effective treatments and continue to be in much demand.

Person-Centered Therapy

Like the other forms of therapy described in this chapter, person-centered therapy (PCT; also known as client-centered therapy or nondirective counseling) is based on a theoretical model of human functioning; however, the theoretical model differs quite substantially from many of the other models discussed. Moreover, often the emphasis of the theory has been on therapy rather than a model of how and why people behave as they do. With the person-centered approach, the theory is based upon a phenomenological view of people, and the person known best for the development of the perspective is Carl Rogers, an American clinical psychologist who was influenced strongly by other phenomonologists such as Abraham Maslow (1968), Otto Rank (1945), and Kurt Goldstein (1959).

According to Kirschenbaum and Jourdan (2005) the impact of PCT has been huge both in terms of the approach providing a mainstay of psychotherapist's behaviors (i.e., therapist behaviors such as empathy, warmth, unconditional positive regard, and genuineness) that cut across psychotherapy orientations and in the number of fields that have been influenced, including clinical psychology, personality psychology, education, counseling, and many other helping professions. In fact, Rogers developed a fundamentally different approach to treatment of psychological difficulties, with underpinnings that differed sharply from the then-current thought. For example, he viewed people as blocked rather than flawed and able to use their own resources to help themselves. He was one of the first theorists and therapists to conduct detailed research on the psychotherapy process and therapist skills and attempted empirically to determine whether and how psychotherapy worked.

There continues to be active research (even more active than when Rogers was alive) that focuses on the person-centered approach and research articles appear in a wide number and variety of journals. Furthermore, there are many local and international professional organizations, training facilities, and journals specifically dedicated to the person-centered approach. Even though Rogers himself discouraged person-centered organizations that used his name (he was worried about fostering rigid orthodoxy), following his death in 1987 there has been an increase in the activity of person-centered theorists, researchers, and practitioners internationally.

Theory

The theory underlying the person-centered approach suggests that the focus or essence of understanding people is to acknowledge the individual experience of each human as unique and legitimate. Each person has an innate goodness and a continuous and unrelenting drive for self-improvement (Flett, 2007). The fundamental notion in the person-centered approach involves the idea that people themselves have the means and potential for growth and development and that the difficulties individuals experience are a result of blocked potential. Essentially, Rogers (1951) suggests that people have an innate tendency toward growth and self-actualization, and, left to their own devices, will grow, and, possibly, realize their potential.

Several important concepts form the crux of the theory underlying the person-centered approach. First, Rogers (1951, 1961) promoted two fundamental needs that people have that drive and guide their behavior. The first, the *need for self-regard*, or more explicitly, the need for unconditional positive regard, involves a positive orientation and judgment of worthiness directed toward the self that is based on learned experiences throughout a person's life. When individuals experience, through interactions with others, that they are valued

or seen as worthy only when certain contingencies are met or only under certain conditions (called conditions of worth), the self-regard of the individual is compromised leading to an incongruence between the person's behavior and his or her true nature or true self. This creates levels of dysfunction in the individual. The way to correct is to provide the person with consistent unconditional positive regard.

The other need that Rogers focused upon was the need for self-actualization or the need to become one's best possible self. An important component of this is what is known as the *actualizing tendency*, an innate drive that moves people toward the realization of their full potential and knowledge that people carry within themselves regarding knowing what is good for them and what is bad for them. That is, people have not only an inborn drive to develop and grow, but people have an innate understanding of what is helpful to them in the pursuit of attaining one's best possible self. When the need is frustrated or thwarted, there is again incongruence.

In outlining his theoretical position, Raskin and Rogers (2004, pp. 139–140) developed a series of 19 basic propositions of the person-centered approach to help in understanding both the way people function and change as well as the role of the therapist in therapy. Some of the most central of these include the following:

1. Every person exists in a continually changing world of experience and he or she is the center of that experience.
2. The person reacts to the field (i.e., his or her perception of the world) as it is experienced; that is, it is the person's unique reality.
3. The person is an organized whole.
4. There is one basic tendency—to actualize, enhance, and grow.
5. Behaviors are the goal-directed attempts to satisfy needs as perceived in the field.
6. In order to understand behavior the therapist has to understand the internal frame of reference of the individual.
7. A portion of the total perceptual field becomes differentiated and develops into the self from interactions with others and the environment.
8. Behaviors are consistent with the concept of the self. That is, experiences are incorporated if they are consistent with the self and rejected if not consistent with the self. These latter experiences are viewed as threatening to the self.
9. Maladjustment occurs when significant, positive, or adaptive experiences are not assimilated into the self and are experienced as threatening.
10. Positive adjustment occurs or exists when experiences are commensurate with the self and are, or may be, assimilated into the self-concept. That is, the person is open to experiences in the here and now, strives to live life to the fullest, and trusts their own feelings, perceptions, and intuitions.

Although not all of the propositions are listed, these represent some of the core issues and are thought to provide the distinctive concepts relevant to the person-centered approach in comparison to other major therapeutic approaches.

Person-Centered Psychotherapy

Although some characteristics of the therapy itself have been described previously, the therapist's major role, in this type of therapy, is not to direct, advise, or change the person's

behavior or personality, but to provide a setting and context that allows the blockage of growth and potential to dissipate, and, ultimately, to be removed so as to allow the actualizing tendency to flourish. According to the proponents of PCT, the therapist does not engage in any techniques per se (i.e., interpretation, environmental manipulation, analysis of reinforcers, and so forth), but, in a nondirective (i.e., does not direct behavior, discussions, or experiences) fashion, allows the person to express their experiences in a nonjudgmental, warm, caring, and supportive environment. It is believed that if the psychotherapist can interact and communicate with the patient in a manner that includes three essential components, then the patient will exhibit significant change. In fact, Rogers (1961) suggested that these three components are sufficient in and of themselves to produce significant change. The three essential components are empathy, unconditional positive regard, and genuineness.

Empathy

Empathy involves the attempt to understand the patient's experiences, feelings, or thoughts by attempting

> to get under the skin of the person with whom he is communicating, he tries to get with and to live the attitudes expressed instead of observing them, to catch every nuance of their changing nature; in a word, to absorb himself completely in the attitudes of the other.
>
> (Rogers, 1951, p. 29)

The therapist thus, attempts to understand the patient by attempting to view the patient's world "as if" it was the therapist's world. The therapist attempts not to be influenced by any of his or her own views, values, or standards. Moreover, the therapist not only attempts to understand the patient's experience but also communicate this understanding back to the patient. As Rogers (1975) states:

> It (empathy) involves being sensitive, moment to moment, to the changing felt meanings which flow in this other person, to the fear or rage or tenderness or confusion or whatever, that he/she is experiencing. It means temporarily living in his/her life, moving about it delicately, without making judgments, sensing meanings of which he/she is scarcely aware, but not trying to uncover feelings of which the person is totally unaware, since this would be too threatening. It includes communicating your sensings of his/her world as you look with fresh and unfrightened eyes at elements of which the individual is fearful.
>
> (p. 4)

It is important to understand that empathic responding is not simply the repetition of the patient's utterances regarding feelings, ideas, or experiences. In fact, empathic responding often involves going beyond what the person is communicating and reflecting the intended message. This has been termed *evocative empathy* and it communicates not only that the therapist is closely listening and following the patient, but that the therapist truly "understands" the patient's experience and message. The important point here is that the patient perceives the therapist's understanding and empathy.

Unconditional Positive Regard

Unconditional positive regard reflects the idea that the therapist should accept the patient as he or she is, without judgment and with no conditions of acceptance or approval. The patient is viewed as a worthwhile person no matter what and the patient's worthiness is expressed and communicated to the patient by the therapist's behavior. The therapist needs not only to experience the patient with a positive, nonjudgmental, accepting attitude, but also express this acceptance to the patient. This does not mean that the therapist necessarily agrees with the patient and his or her utterances or ideas, but rather indicates a caring for and acceptance of the patient as a person. Below is an example of unconditional positive regard by Rogers et al. (1967, p. 409) working with a patient named Jim who has schizophrenia:

T: I'm going to give you an appointment at that time because I'd sure like to see you then. [Pauses while writes out appointment slip]. And another thing I would say is that—if things continue to stay so rough for you, don't hesitate to have them call me. And if you should decide to take off, I would very much appreciate it if you would have them call me and—so I could see you first. I wouldn't try to dissuade you. I'd just want to see you.
P: I might go today. Where, I don't know, but I don't care.
T: Just feel that your mind is made up and that you're going to leave. You're not going to anywhere. You're just—just going to leave, hm?
P: [muttering in discouraged tone] That's why I want to go, 'cause I don't care what happens.
T: Huh?
P: That's why I want to go, cause I don't care what happens.
T: M-hm, M-hm. That's why you want to go, because you really don't care about yourself. You just don't care what happens. And I guess I'd just like to say—I care about you. And I care what happens.
[Silence of 30 seconds]
[Patient bursts into tears and unintelligible sobs]
T: Somehow that just—makes all the feelings pour out . . . and you just weep and weep and weep. And feel so badly . . . I do get a sense of how awful you feel inside. You just sob and sob . . . I guess all the pent-up feelings you've been feeling the last few days just—just come rolling out.

Genuineness

Genuineness or congruence is, according to Rogers and Sanford (1985), "the most basic of the attitudinal conditions that foster therapeutic growth" (p. 1379). This involves not hiding behind a mask or façade of professionalism but to respond to the patient with veridical feelings and concerns and openness in communication. It is important to understand that the therapist does not burst out with any and all thoughts that enter his or her head but to be open to experiencing any expressions of persistent feelings that are evident in the relationship. It is thought that by being open and honest in this fashion, the therapeutic relationship is strengthened and the possibility of change in the patient is enhanced.

The emphasis on the relationship and the interpersonal behavior of the therapist and the exclusion of techniques contrasts with other forms of treatment that tend to place great importance on specific tasks or techniques that the therapist uses. Raskin and Rogers (2004)

have detailed some of the main distinguishing characteristics of person-centered therapy including these characteristics:

1. First is the notion that certain therapist abilities (i.e., empathy, unconditional positive regard, genuineness) are necessary and sufficient conditions for therapeutic effectiveness.
2. Therapists need to be present and accessible and focus on the "here and now" rather than the past or future.
3. There has to be a focus on the phenomenological world of the patient as he or she experiences it.
4. There is a focus on the process of change; this change is reflected in the patient's ability to live more fully in the here and now.
5. There has to be an emphasis on research on psychotherapy.
6. The same principles of psychotherapeutic change apply to all humans irrespective of the psychological problems.
7. Psychotherapy is seen as an example of a special and positive relationship that facilitates growth.
8. Formulations derive from the particular person's experiences.

Person-centered therapy was not developed for any particular group or type of problem; hence, the term "person-centered" rather than "problem-centered." In fact, the same approach to therapy is utilized irrespective of the person or his or her difficulty. Thus, there is no emphasis at all on diagnosis, categorization, psychological testing, history, or development of an individualized treatment plan. Each person is thought to be equal, worthy, and capable of engaging in and benefiting from the psychotherapy process.

An example of the person-centered approach is detailed below. What better therapist to present than some excerpts from Carl Rogers himself and a patient named Jill? As detailed in Raskin and Rogers (2004, p. 233), a selection of the session is presented in order to illustrate principles from the person-centered approach.

T: OK, I think I'm ready. And you . . . ready?
P: Yes.
T: I don't know what you might want to talk about, but I'm very ready to hear. We have half an hour, and I hope that in that half an hour we can get to know each other as deeply as possible, but we don't need to strive for anything. I guess that's my feeling. Do you want to tell me something that is on your mind?
P: I'm having a lot of problems dealing with my daughter. She's 20 years old; she's in college; I'm having a lot of trouble letting her go . . . And I have a lot of guilt feelings about her; I have a real need to hang on to her.
T: A need to hang on so you can kind of make up for the things you feel guilty about—is that part of it?
P: There's a lot of that . . . Also, she's been a real friend to me, and filled my life . . . And it's very hard (missing part) a lot of empty places now that she's not with me.
T: The old vacuum, sort of, when she's not there.
P: Yes, yes. I also would like to be the kind of mother could be strong and say, you, "Go and have a good life," and this is really hard for me to do that.
T: It's very hard to give up something that's been so precious in your life, but also something I guess has caused you pain when you mentioned guilt.

P: Yeah, and I'm aware that I have some anger toward her that I don't always get what I want. I have needs that are not met. And, uh, I don't feel I have a right to those needs. You know . . . She's a daughter; she's not my mother—though sometimes I feel as if I'd like her to mother me . . . It's very difficult for me to ask for that and have a right to it.
T: So it may be unreasonable, but still, when she doesn't meet your needs, it makes you mad.
P: Yeah, I get very angry, very angry with her.

At this point in the treatment, it can be seen that Rogers is allowing the person to determine what is spoken about and to lead. At the same time, it can be seen that there are numerous empathic responses that communicate an understanding of what is being said, but also goes somewhat beyond what is being said and instead expresses the message that is being communicated. This idea is illustrated in the following exchange following a pause in the interaction:

T: You're also feeling a little tension at this point, I guess.
P: Yeah. Yeah. A lot of conflict . . .
T: Umm-hmmm
P: A lot of pain
T: A lot of pain. Can you say anything more what that's about?
P: [Sigh]. I reach out for her and she moves away from me. And she steps back and pulls back . . . and then I feel like a really bad person. Like some kind of monster, that she doesn't want me to touch her and hold her like I did when she was a little girl . . .
T: It sounds like a double feeling there. Part of it is "Damn it, I want you close." The other part of it is "Oh my God, what a monster I am to not let you go."
An illustration of the focus on the here and now follows:
T: Pulling away from you
P: Yeah . . . Going away
T: . . . You feel her slipping away and you . . . it hurts . . and.
P: Yeah. I'm just sort of sitting here alone. I guess like, you know, I can feel her gone and I'm just left here.
T: Umm-hmmm. You're experiencing it right now: that she's leaving and here you are all alone
P: Yeah . . . yeah . . . Yeah . . . I feel really lonely [Cries]

In closing this section, it is also worth noting that Rogers and the Person-Centered Therapy movement deserve much credit for having initiated and sustained research efforts on therapist skills. The topic of teachable microskills has already been covered in Chapter 10 on the therapy process, but it is only fair to highlight the origins of this important approach to therapist training.

Systems Therapies

Introducing Systems Therapy is quite different than the presentation of any of the other psychological therapy approaches above. There is no single name associated with the creation of systems therapy. Let us begin with clarification of terminology. At times,

the terms **family therapy**, **couples therapy**, and **systems therapy** appear to be used as interchangeable. We argue that they are not interchangeable. What gets often confused is that therapists may see both members of a couple or a whole family at the same time but that does not have to mean that they are adopting a systems approach. For example, there is a distinct *behavioral* treatment approach to a couple's problems (Jacobson, Christensen, Prince, Cordova, & Elridge, 2000; Jacobson et al., 1996) as much as there is an *emotion-focused* approach to marital problems (Johnson, Hunsley, Greenberg, & Schindler, 1999).

Theory

The systems view is based on several fundamental ideas that neither began in psychology nor are they limited to psychology. Our surrounding biological and physical world is viewed as a web or a network of relationships, or a "system." All systems, whether physical, biological, or social, have common patterns, behaviors, and properties that can be studied and need to be understood to develop greater insight into the behavior of complex phenomena and to move closer toward a unity of science. Many critical concepts are derived from Ludwig von Bartalanffy's **cybernetics** approach and the generation of a General Systems Model. Key in this model is the concept of **feedback loops** such that change in a system is recorded and may lead to resetting of certain system parameters just like the function of the thermostat in our homes. The thermostat is an everyday translation of cybernetics thinking into a technology that can improve our quality of life. If the thermostat is activated to reach a room temperature of 21°C, but senses that the actual room temperature is sitting at 15°C, then it turns on the heating system which will increase the air temperature until the thermostat senses 21°C, as predetermined, and then turns off the heating. This is a feedback loop. Systems concepts as they relate to the **Systems Therapies** were brought into the social sciences by a group of scientists at Stanford University, most notably Gregory Bateson (Bateson, Jackson, Haley, & Weakland, 1956) and Watzlawick, Beavin, and Jackson (1967). The work of these thinkers has also been dubbed "the **Stanford Communication Theory**" because Stanford University is where most of the work had been done. Possibly the best-known concept emerging from these thinkers was the concept of the **double-bind** that will be described in more detail below.

Although we want to share our enthusiasm for systems therapy, it is not possible in the limited space available to provide more than an introduction. In order to prepare the reader for learning about the actual work of systems therapists, it is useful to know about some of the principal elements of the Stanford Communications Theory and its major propositions. Key to the link between the communications theory that is embedded in systems thinking is that Watzlawick and his collaborators see any communications structure as also reflecting the power similarity or the corresponding power differential between the individuals who communicate. In order to provide learners with tools for better understanding communication principles, Watzlawick and his collaborators have organized this knowledge around major principles or rules, which they refer to as "Axioms of Communication" (see Box 11.4). Some of the most important principles or axioms in their work are described later; in each case, the introduction of an axiom is initiated by providing a real-life vignette of people interacting with each other before a name is given to the underlying axiom.

BOX 11.4 AXIOMS OF COMMUNICATION

Axiom 1

Vignette

A long time married couple is at home after dinner, and given that this is a rather traditional couple, the husband is in the living room reading the newspaper with his feet up, while his wife is in the kitchen doing the dishes. At the same time, she listens to the radio where a reporter talks about relationship research showing how important it is for couples to regularly express their love to each other. She is convinced that action is needed and approaches her husband: "Do you love me?". The husband responds in a grumbling, unenthusiastic voice: "Sure, I do" while continuing to read the newspaper. The wife leaves quite unhappy with his response. What this vignette describes is Axiom 1 which can be summed up with the catch-phrase*:* ***You cannot not communicate****.*

Explanation

On the surface, the wife obtained the answer she had hoped for "yes I love you", but she doesn't accept this answer as meaningful because in communication there are two critical elements, namely the verbal aspects (which in this case were clearly affirmatory) but it also contains nonverbal features, which in this case were clearly a mismatch to the content of the verbal declaration. In normal human communication, we think of an exchange as credible and unambiguous when the verbal and nonverbal elements match, which in this case would have required that the husband drops the newspaper, looks at her with loving eyes and declares with enthusiasm that he loves her. This did not happen. A second question arises, namely what the overall impression of a human interaction is when the verbal and nonverbal components are mismatched. We know from extensive research in social psychology that people tend to believe the nonverbal communication aspects more than the verbal one. In this case, it makes good sense that the wife is unhappy because the husband's lukewarm delivery of the love statement totally undermined its verbal meaning.

Even if somebody tries not to provide a verbal answer, or ignores an e-mail, or changes the topic, he is still communicating something, namely that he is disinterested.

Axiom 2

Vignette

Suzanne M comes home from a long day at work and finds that her husband Peter has already prepared a nice dinner. Over dinner, Peter tells her that he has just finished a phone conversation with their friends, Maria and Luis, and that he has invited them for dinner and cards on Saturday. When Suzanne starts raising a variety of objections, Peter points out that only two days before Suzanne herself had suggested that they were overdue with an invitation to Maria and Luis and that they usually enjoy dinner and an evening playing cards with this couple. Nevertheless, she continues to be unhappy about this decision and Peter cannot understand why.

This vignette depicts Axiom 2 which states that: ***Each communication tends to have a content and a relationship message****.*

Explanation

When this vignette is taken apart into the content and relationship aspect, then there appears to be no problem at the content level, which consists of the overdue invitation that Peter had extended to Maria and Luis, but at the level of the relationship communication, it is likely that Suzanne reacts to the fact that Peter did not consult with her about the timing of the invitation; to her it reflects an unacceptable level of control on the part of Peter and a lack of respect for her role as a decision maker in the process. Some experienced couples with good communication skills have learned how to recognize and separate these

two components and are thereby able to avoid unnecessary fights.

Another vignette may help to further explicate this axiom. Let us imagine two men who often meet at the local pub to drink quite a bit a beer and animatedly discuss politics. They disagree on almost every political stance but continue to argue until closing hour and then repeat it a few days later. Why would two people who don't agree on anything spend so much time with each other? The answer is that their communication and the underlying relationship is not about agreement on political issues but it is about the joy of debate with another person whom they respect as a debating partner. Even while disagreeing on content, they repeatedly validate the other by engaging him in the debate. If asked, they would likely refer to each other as the best of friends! On the other hand, a disagreement about political points might translate into a truly rejecting relationship, when very early in the discussion one of the men gets up and says to the other, "You are a stupid, uninformed jerk with whom I will not waste my time," and then leaves the pub. In this case, there is clear consistency between the content (disagreement on politics) and the relationship in which one of the two men rejects the other in his entirety (i.e., the message is: "we don't have a relationship"). The man left behind is understandably going to feel hurt because he was shut out at every level.

Axiom 3

Vignette

Barney B is a hard worker who puts in a full day on his demanding job in a factory but spends most evenings drinking and comes home late, being pretty tanked. His wife Martha gives him a hard time about his drinking and at some point threatens to leave the marriage unless they get marital counseling. During the therapy sessions, she complains about his drinking and doesn't understand why that's necessary. Barney describes the situation as his wife being so miserable and constantly complaining that he prefers to be away from home drinking so that he does not have to put up with her miserable nature. For an outsider, the unhappiness of both partners and their explanation for why they're unhappy makes some sense. If the atmosphere at home is as cantankerous as Barney describes it then it is understandable that he wants to avoid it, and his wife, of course, has cause to complain because she's constantly left alone and Barney's drinking leaves a pretty big hole in the family's modest budget. Each accuses the other of having started or being the cause of this problem. The trouble here is that both accusations make some sense and the vignette describes the following axiom: ***Many relationship issues have no beginning or end***.

Explanation

In marital therapy couples frequently approach the therapist with a desire to have the therapist confirm that the other spouse is the source of the problem. If only this other spouse can be "fixed," the problem will go away (so they portend). The paralysis resulting from this attitude perpetuates the marital problems. Systems therapists refer to this as an **interpunction** problem because nobody can objectively determine what the beginning or the end of this problem is nor can anybody successfully claim that they are completely innocent and that the other side should carry all the blame.

This axiom can be applied to the history of ongoing wars and can help us understand why after 2,000 years there is still no peace in the Middle East. If a Palestinian suicide bombing kills Israelis, then the Palestinians claim that this is revenge for the violence committed against them, and the Israelis are likely to use this attack as motivation for a counterstrike. Both sides in this dispute use historical events, which did objectively happen, as a motive for their behavior and called their behavior a response, not an attack; the intent is to position oneself in a higher moral position if one is reacting rather than attacking. Of course, depending where one stands, both are right and thus nothing gets solved. We posit that the axiom of the interpunction problem of communications is a potent explanatory approach to understanding the history of such never-ending wars and violence. In marital therapy, this gets interpreted as a historical lack of trust in the other (often based on fact!), and the therapist's task is to swear both partners into an agreement to

start with first resolutely abandoning the idea that there is one guilty party (i.e., namely, the other one) and then accept to invest in transparent little steps to rebuild this trust.

Axiom 4

Vignette

Julianne and Felix have been together for 12 years and have two small children. For the most part, they seemed to get along well although Julianne after the arrival of the first child began complaining about the fact that Peter could not read and write well and was therefore stuck in a menial job with limited pay and no opportunity for promotion. Although they had not ever directly discussed this, Julianne had found Felix quite attractive when they first met and she was willing not to see his low literacy as a big problem, whereas Felix thought that she was not quite as pretty as some other girls he would have liked to go out with but she was kind and accepted him the way he was. For a long time, the relationship appeared stable. In response to Julianne's insistence to improve his literacy, he finally caved in and began to take night classes with the goal of finally obtaining a high school graduation diploma and open up doors for promotion and better pay at work. As it turned out, Felix was much smarter than he had thought, and he obtained his high school graduation in no time at all. He was so enthusiastic about the process of learning that he continued to take more night courses in management and within a few years he had become a mid-level manager at his company with triple the pay that he used to make. Julianne had of course noticed all these changes and was pleased with Felix's advancement at work but was totally stunned and unprepared when Felix fell in love with his very attractive, and much younger, secretary and told Julianne that he wanted a divorce. This vignette describes the fourth axiom: ***Every action triggers a reaction***.

Explanation

Systems theory sees two people in a lasting relationship as an interdependent couple that is so closely linked that any change in one of the two must have an impact on the other who needs to make adjustments that maintain the balance between these two individuals. An analogy for the situation is that of two sailors in a small sailboat; when both sit on the opposing sides of the boat and are of equal weight, then the boat is in a straight-up, balanced position. If one was to move to the center or even farther over to the other side, the boat must tilt and may even capsize unless the other sailor also moves to the center of the boat and counteracts this change. Along these lines, Felix's return to school and subsequent string of promotions at work has greatly changed his position in the marital relationship and his confidence has grown. On the other hand, Julianne has not made changes that would somehow balance out Felix's gain in confidence. Even if the reader finds it difficult to accept Felix's abandonment of the marital relationship on moral grounds, systems theory would have predicted that there would be major consequences for the relationship if one partner underwent such drastic changes. Outside of the world of psychotherapy, there are endless further examples for such phenomena. Let's take telephone companies as an example. For many years customers had no choice in which telephone provider was available and they were charged hefty fees for long-distance calls. Following government deregulation laws, other businesses discovered the potential for major profit and offered competitive long-distance calling systems at lower rates; many customers jumped ship to take advantage of these low rates and a spiraling down of long-distance telephone costs ensued, to the great delight of consumers. Here, there also was initial stability in the system of provider and consumer which lasted until deregulation kicked in; now the same provider who was used to a monopoly and high rates had no choice but to lower the rates and become competitive again.

Axiom 5

Vignette

Sofia and David are two 15-year-olds with no previous dating experience; both are shy but have overcome their initial shyness and agreed to go out on a first date. Uncertain what to do on a first date, David suggests to Sofia that

they go to the local museum that is currently featuring a traveling display of Van Gogh paintings. Sofia, happy to accommodate him, agrees and the date goes sufficiently well that they arrange for another date. Not wanting to appear overly timid, Sofia figures that David had suggested the museum visit because he likes museums and suggests to visit the local history museum on their next date. The date goes well and David takes Sofia's suggestion for the museum to mean that she really likes museums because she agreed to go with him in the first place and then suggested to do it again. While their relationship continues to grow more close, and they visit many more museums, one day, Sofia blurts out: "David, I like being with you but I hate museums; can't we go somewhere else?" David is floored by the sudden outburst because he has become convinced that he was making Sofia happy with the museum visits. This vignette describes another axiom, namely:

It is not good to act on untested assumptions.

Explanation

Due to their shyness surrounding the awkwardness of a first date, neither of the two adolescents felt comfortable to directly express personal preferences and learning from the other one what she or he most likes to do. Apparently, Sofia overinterpreted the fact that David's first suggestion to visit a museum was simply based on his not knowing what else to do on a first date; and this scenario was made worse by David's particular interpretation of Sofia's counter-invitation to visit another museum. Also, this type of acting on assumptions can lead to very embarrassing social situations such that somebody may ask a woman with a rather round belly when she is due to deliver the baby, whereupon she, quite embarrassed, responds with "I am not pregnant, I'm just fat." Acting on assumptions is a classic entry for "foot in the mouth disease"! In terms of systems therapy, understanding of this axiom strongly encourages the acquisition in practice of clear, direct, verbal communication.

In addition to capturing communication patterns in terms of axioms or rules as described in Box 11.4, there are other descriptions of how communication problems can arise. The most important concepts to be covered in this section deal with **paradoxes**. A paradox by definition is an impossible situation; however, in systems theory, humans are quite able to create such situations even though it is very confusing to others and may be difficult to resolve. Take for example the following phrase: "I am a liar." Technically, this is correct English and a complete sentence and appears at first glance to be meaningful. On close inspection, however, we are told two messages that cannot both be true. To be a habitual liar means that you do not tell the truth, therefore you would never utter such a sentence, and anybody admitting to be a liar, therefore by definition, is telling the truth. The major point to be made here is that people are able to use language to send out confusing messages that can be called **verbal paradoxes**; the listener will not know what this person is trying to say and really only has one way to resolve the situation, namely, by stating that this is confusing and contradictory, asking for clarification. Somebody who recognizes the paradox and attempts clarification uses what is called **meta-communication (i.e., communicating about a communication)**. Meta-communication in systems theory is the equivalent to stepping back from the situation and reflecting on the situation without directly responding to the statement offered. Another interpersonal vignette can be used to describe another type of paradox. In marital therapy, the wife asks her husband to be more spontaneous. Again, it is possible to make such a request but it is impossible to respond because spontaneity by definition is what one does without being asked. The moment we are trying to be spontaneous because we were told to so, we are following an instruction rather than being truly

spontaneous. These types of twisted and confusing communications can wreak havoc in a relationship, and this is cleverly articulated in the well-known book and subsequent film production of *Who Is Afraid of Virginia Wolf?* The resolution to such an impossible request as: "I want you to be more spontaneous" is to use meta-communication, where the recipient of this message says that this is impossible to do. The ultimate, most difficult scenario in the world of paradox behavior is the kind of situation where a paradox is posed but in such a context as to discourage any form of a meta-communication. This scenario is what Watzlawick and his co-authors have referred to as a double-bind. A memorable display of such a scenario was actually experienced by one of the authors (WL) who worked as an orderly in a psychiatric hospital. Here is what happened:

> *On a Sunday afternoon, it was visiting hours for patients on the locked ward. I had formed a good bond with a 16-year-old patient diagnosed with schizophrenia who was now moderately stable but still very emotionally fragile. He had been informed that his biological mother, little sister, and the boy's stepfather were coming to visit and he had looked forward to this visit. When the doorbell rang at 2 p.m., the beginning of visiting hours, I witnessed this interaction. The three visitors had arrived as promised and the 16-year-old almost ran up to his mother, his face happy, and his arms extended for a hug. The mother accurately perceived what her son was about to do but clearly did not want him to hug her and provided very obvious nonverbal signs that she was not approving of this enthusiastic display of positive emotion. Her son accurately perceived these signs of rejection, backed off and waited for his mother to give him a sign of what she wanted him to do instead. His mother also realized that her son had backed off and said to him: "It is quite okay for a son to want to hug his mother." The effect on the 16-year-old was striking as he was utterly confused and pretty much retreated into himself, obviously feeling very hurt because nothing he did or could do was going to resolve this paradoxical approach-rejection situation. The interaction, while relatively subtle, was so devastating at an emotional level that I had to spend quite a bit of time after the family visit to calm down the 16-year-old patient, and we spent a lot of time discussing his complicated family dynamics.*

Specific Systems Therapy Approaches

How does one move from a set of rather theoretical axioms of communication and explanatory vignettes to an actual therapy practice? The best-known therapists in the systems therapy domain have based their work on these communication principles but have done so by effectively introducing their own subtheories and concepts. Specifically, we are introducing the work of two systems therapists, namely, Dr. Virginia Satir (1964) and Dr. Salvador Minuchin (1974). Both Satir and Minuchin have made a name not only for their theorizing but also for their charismatic translation into clinical work that makes these theories come alive. To correctly execute a systematic desensitization protocol within a behavior therapy framework is quickly learned even by a novice therapist, but the development of a comfort zone for therapists in systems approaches will likely take much longer.

Satir (1964) proposes that the social systems in which we are members (especially couples and families) naturally have habits and traditions that are interconnected and interdependent but these systems need to be open to adjust to inevitable changes, like the arrival

of a new family member, children growing up and needing more space to make their own decisions, or coping with outside influences like a parent losing a job. Social systems are dysfunctional when they are rigid even if that type of stability may offer benefits in the short run. Therapists working with immigrant families who come from very traditional backgrounds frequently encounter such a clash of rigidly held traditional values with the more liberal ones of the surrounding new culture. Especially the immigrant parents often feel that their traditional culture is an anchor, providing a feeling of safety. The more their children interact with their new surrounding culture, the more stress is placed on these traditional values.

As a therapist, Satir focuses on how family members communicate with each other, on the distribution of power, and on the styles that people use to relate to each other. She proposed the existence of five frequent interactional styles:

1. **Placating**; this describes an individual who superficially agrees with the others but may actually be ignoring or sabotaging them in the long run.
2. **Blaming**; an individual who blames seeks to defuse responsibility away from himself and is not a constructively participating member of the system; he is not able to be self-critical.
3. Being **Super-Reasonable**; the super-reasonable individual places so much emphasis on rationality and agreeableness that there's little room for others to have idiosyncratic emotions; also, the super-reasonable may have difficulty to figure out what her own needs are and how they can be satisfied.
4. **Irrelevant**; the person who favors this style will not take difficult situations seriously, makes jokes where they are not called for, and does not actively participate in resolving critical issues.
5. **Congruent**; this is proposed to be the most functional style, the style that therapists aspire to nurture or create in every member of the system. The congruent individual is able to understand his own emotions as well as understands and allows those of others, will strive to allow everybody's opinions to be heard, and will do his utmost to arrive at solutions that provide the best balance of every individual's and the situation's needs.

Individuals who favor any one of the first four styles can at times be identified by the fact that their verbal and nonverbal communications do not jive with each other and they tend to make few, if any, constructive contributions to problem solving. In terms of actual therapy techniques, a systems therapist in the Satir mode can use a wide variety of techniques that can be quite directive. A therapist may be teaching good communication and negotiation skills, provide reinforcement for constructive behaviors, encourage individuals to express their emotions, and support the uniqueness of individuals. This very directive and almost prescriptive style requires a very confident, mature therapist who has developed a strong alliance with all family members, or else people will not participate.

Minuchin calls his approach Structural Family Therapy**;** it addresses problems within a family by charting the relationships between family members, or between **subsets** of family members. These charts represent communication habits and their implicit power dynamics as well as the **boundaries** between different **subsystems**. Pathology within a family is not attributed to individuals but is considered to arise when subsystems fail to do what they should. For example, parents are a subsystem which is expected to provide authority and structure when teenagers are trying to reject all authority. Teenage rebellion in and of itself is not considered pathological but the inability to respond with flexibility to this normal developmental pattern is considered problematic. Structural Family Therapy is characterized

by rather normative ideas about which roles a family member should play, and these are expected to be consistent with their typical developmental stage. Functional social systems rest upon clarity and appropriateness of their **subsystem boundaries**. It is normal that family subsystems are characterized by a hierarchy of power, typically with the parental subsystem "on top," executing authority over the offspring subsystem. In healthy families, parent-children boundaries are both clear and semi-diffuse, allowing the parents to interact together and to negotiate between themselves the methods and goals of parenting. In a healthy family the children have autonomous sibling socialization, yet the parents are not so rigid or aloof as to ignore childhood needs for support, nurturance, and guidance. Also, there may be a subsystem of males, characterized, for example, by a father and son choosing to attend a car show in town in which the family's females showed no interest. On the other hand, there should also be opportunities for a father to have occasional unique interactions with a daughter such that he might teach her how to drive a car when she gets old enough. These scenarios described clear yet permeable, and therefore appropriate, boundaries. On the other hand, parents who believe that they need to control who the 22-year-old daughter can date and try to enforce a 10 p.m. curfew on her would be considered to have rigid boundaries. Note that these definitions are influenced by culture and that a Minuchin-type therapist in such a case acts on her knowledge of developmental stages and age-typical behavior of 22-year-olds but is also imposing her values on a family.

When these parent-child boundaries are not clear and a parent expects a child to play an adult role or is incapable of playing the role of adult herself, then such a boundary is referred to as **enmeshed.** Such scenarios are unfortunately not that infrequent as psychologists can tell who work with divorced families, where a mother might expect her 14-year-old son to move into the role of the adult male in the house. Of course, the ultimate extreme example of enmeshment and violation of parent-child boundaries would be the case of parent-child incest.

At the other end of the boundaries spectrum may be a family member who is emotionally aloof (not unusual for teenagers) or physically absent (like a parent who for financial reasons works in another city) on an ongoing basis; this is referred to as a **detached** family member**.**

In therapy, the therapist actually enters, or **joins**, with the family system as a catalyst for positive change. Joining with a family is a goal of the structural family therapist early on in their therapeutic relationship with the family. To accelerate change, Minuchin manipulates the format of the therapy sessions, structuring desired subsystems by isolating them from the remainder of the family, either by the use of space and positioning (seating) within the room, or by having nonmembers of the desired substructure leave the room (but stay involved by viewing from behind a one-way mirror). The aim of such interventions is often to cause the **unbalancing** of the family system, in order to help them to see the dysfunctional patterns and be open to **restructuring**. He believes that change must be gradual and proceed in digestible steps for it to be useful and lasting. Because structures tend to self-perpetuate, especially when there is positive feedback, Minuchin asserts that therapeutic change is therefore likely to be maintained.

Evaluating the effectiveness of systems therapies is quite difficult because by definition there is not a single symptom or a single patient. One possibility would be to evaluate marital satisfaction in both partners and then study this feature over time. Nevertheless, this does not preclude research on systems therapy outcomes as Russell, Szmukler, Dare, and Eisler (1987) have successfully shown in a comparison of family systems therapy with individual therapy for anorexia patients.

Conclusion

In this chapter we have outlined the theoretical rationales and the therapeutic approaches for three major psychotherapeutic orientations used in clinical psychology: psychoanalytic psychotherapies, person-centered therapy, and systems therapy. Psychoanalytic treatments represent pioneering approaches to psychological therapies and have been around for close to 100 years; they are still alive and well and evolving. Client-centered treatment was also described, and it has been praised for its emphasis on therapist training and the building of therapy microskills. Lastly, systems therapies were described with the various theoretical positions and therapy approaches described by notable therapists working in this vein.

Ongoing Controversies

As stated near the beginning of the chapter, many students have been taught that psychoanalysis and psychoanalytic psychotherapies are no longer utilized in the field of clinical psychology. Jonathan Shedler (2006) has written an intriguing article, entitled "That Was Then, This Is Now: Psychoanalytic Psychotherapy for the Rest of Us," that not only documents this phenomenon but also points out how this phenomenon is in error. For example, one criticism that has been promoted is that psychoanalytic treatments have been shown to be inferior to other treatments. In a recently published article which appeared in the flagship journal of the American Psychological Association, *The American Psychologist*, the same Shedler (2010) presents compelling arguments and data supporting the efficacy and effectiveness of psychoanalytic treatments (see also Chapter 13 and more data on this topic). A fair criticism of classical psychoanalysis has been its length and associated cost but that criticism has been overcome with the development of much shorter-term analytical and interpersonal therapies.

Client-centered treatment is now, as a singular treatment (i.e., not "packaged with other approaches"), mainly used in school and counseling environments where the clients usually do not need meet the criteria for a diagnosable mental illness. Although Carl Rogers was a strong proponent of research on the utility of the client-centered approach, there has been relatively little recent research suggesting its efficacy or effectiveness as a stand-alone treatment. System therapies are particularly dominant in the world of marital and family therapists, many of whom are not clinical psychologists by training. Nevertheless, we urge all clinical psychologists to obtain at least some basic training in systemic approaches and the client-centered approach given how much explanatory power they have for patterns of human interaction.

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Thinking Questions

1. What are the main goals of psychoanalytic treatments and how are they similar to or different from the goals of other treatments?

2. What are the three main components or techniques of client-centered therapy? Do you believe these are relevant only for client-centered therapy or are useful in other forms of treatment? Why?

3. Systems treatments focus less on the individual and more on the system(s) that individuals exist in. Please explain this focus on systems as opposed to the individual.

4. Describe the axioms of communication as depicted in the chapter. Do you think these are useful in other forms of treatment? Why?

5. What are the basic components in the process of a psychoanlytic psychotherapy?

6. What are the major philosophical underpinnings of each of the three treatment modalities described in the chapter?

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12 Psychotherapies II

Chapter Objectives

Chapters 11 and 12 have the same principal objectives, namely, to introduce mainstream therapies, their history, underlying theory, and the treatment process and technique. To some degree they are presented as two separate but neighboring chapters simply to avoid an overly long single chapter. Aside from this minor, organizational reason, a second and more substantive reason for the breakdown is to cluster together those therapies that one can crudely subordinate under the broad title of "cognitive-behavioral therapies" where the intention is to change behavior using learning and cognitive theories of behavior control. Another key feature shared by the treatment approaches described here is that they are particularly suitable for empirical testing regarding their effectiveness.

The objective of this chapter therefore is to introduce the following treatments:

- Behavior Therapy
- Cognitive Therapy
- Cognitive-Behavioral Therapy
- Biofeedback
- Relaxation
- Stress Management
- Emotion-Focused Therapy
- Motivational Interviewing
- Dialectical Behavior Therapy
- Acceptance and Commitment Therapy
- Mindfulness Meditation

Behavior Therapy

Roots and Underlying Theory

As the name suggests, in behavior therapy the focus is on changing observable behavior, and this is achieved by systematic applications of learning theory–based principles. In order to understand why and how behavior therapy became so rapidly popular, its rise and development needs to be placed in a historical context. Learning theories have been gradually refined ever since the concept of classical conditioning was first described and experimentally shown by Ivan Pavlov in the early 20th century. Later, when clinical researchers like Joseph Wolpe and Andrew Salter described the learning principles behind anxiety conditioning (Wolpe, 1958), they provided the groundwork for behavioral therapies to control anxiety. Given that learning theories are eminently testable and have been subjected to thousands of animal studies, this also opened the door to other forms of learning-based psychotherapies that were objectively testable and hence laid the groundwork for evidence-based approaches to mental health. This was in stark contrast to the psychoanalytic tradition where key terms like "psychological defenses," "the unconscious," "ego strength," and "projection" were pivotal to the psychodynamic view of psychopathology, yet defied easy quantification and testability. The only other form of intervention available at the time of behavioral therapy's rise was client-centered therapy, which, given its roots in humanistic existential theory and the belief in human growth, was imbued with a positivistic attitude that de-emphasized psychopathology and any quantification of disturbance.

The limited amount of empirical testing done by the early psychoanalysts and the followers of Carl Rogers (for a detailed discussion, see Chapter 11) had often created major chasms in psychology departments where academics of various theoretical camps at times didn't even talk to each other, or if they did, it was hostile and divisive. This division made it especially difficult for Rogerians and Freudians to thrive, or even survive, in a university department of psychology that had strong empirical traditions, namely, the exploration of psychology via animal models. We posit here that the success of behavior therapy was largely due to the fact that clinical psychologists now had tools at their disposal that were based on theories and that used a language that many experimentally working, academic psychologists were familiar with—these were approaches that could be subjected to objective evaluations. It was dramatically easier for a behavior therapist to find acceptance among peers who conducted experimental research than it was for a psychoanalyst. To fully appreciate the progress of science, one needs to remember that such progress is inextricably linked to the career advancement and inherent opportunities of the scientist herself. Research and teaching that is not understood or appreciated by academic colleagues cannot facilitate the scientist in his aspirations of career advancement. Thus, without momentum and growth in one's academic and professional abilities, it is impossible to move forward, resulting in the possible displacement of an entire track of work in psychology.

Another very important feature of behavior therapy that further strengthened its popularity is the fact that the underlying models of pathological behaviors emphasize learning, rather than internal, cognitive, or motivational models. As such, people are less likely to feel stigmatized or reproached by society if a problem stems from not having learned something (yet). A client who believes that he learned something the wrong way is much more likely to accept that change is possible. It is much easier to commit to therapy defined

as learning rather than having to undo long-established patterns of behavior. Experienced clinicians have seen much relief in their clients when they were able to provide a learning theory explanation for why the clients had acquired, for example, a dog phobia or unusual shyness.

The basic terminology of learning theories was certainly taught in introduction to psychology courses that clinical psychology students will have taken a few years prior. Nevertheless, the concepts may have become a little rusty, and given their importance for this section, a summary of terms and their definitions is provided in Box 12.1.

BOX 12.1 A REFRESHER OF LEARNING THEORY TERMS AND DEFINITIONS

Term	Definition
Classical conditioning	Classical conditioning is a powerful form of learning and can prepare us to respond rapidly to future situations. It associates a neutral stimulus (being awoken by a violent thunderstorm) with an **unconditioned stimulus** (a sudden rise in heart rate). Through repeated pairing, the neutral stimulus becomes a conditioned stimulus that elicits a **conditioned response** (fear).
Extinction	Failure of an unconditioned stimulus to follow the neutral stimulus extinguishes (weakens) a conditioned response. Due to extinction, the frequency of behavior (a fear response) declines in a situation where the anticipated response (rapid and shallow breathing) does not follow.
Operant conditioning	Operant conditioning leads to change in future behavior as a function of its previously experienced consequences. Behavior may increase or decrease in frequency depending on whether it was previously reinforced or punished.
Positive reinforcement	In positive reinforcement, behavior (preparing extensively for an exam) is followed by a positive consequence (good grade) that increases its future likelihood in situations with similar **discriminative stimuli** (the next upcoming exam).
Negative reinforcement	In negative reinforcement, a particular behavior (practicing breathing exercises) allows the person to escape from or avoid an aversive state (anxiety induced by a dental procedure), thereby increasing its future likelihood in situations with similar discriminative stimuli (the dentist's office). It is easy to get thrown off by the term "negative" and to think of this term as being a form of punishment; it is not! Negative reinforcement is reinforcement and increases the probability of behavior.
Relational or associative learning	Relational or associative learning is conscious and allows us to connect stimuli and behavior that occur at the same time. This learning process provides us with **autobiographical knowledge** (information about our experiences). In a clinical context, it provides conscious memories a patient can retrieve and use to guide behavior.
Punishment	A situation where an undesirable behavior followed by an aversive consequence (like an expensive traffic ticket for tailgating) reduces its probability of reoccurring in the future.

Behavior therapists have developed quite a catalog of interventions and techniques, and the corresponding terminology can look a little overwhelming at first. These methods of intervention can be organized in a number of ways. First of all, they can be clustered into two large groups depending on whether or not their target is to:

- *Increase the number of desirable behaviors* (i.e., compliments made by spouses to one another), or
- *Decrease the number of undesirable behaviors* (i.e., chronic nail-biting).

A second major organizing principle is to link the treatment method to the presumed type of learning that may underlie the etiology of the presenting problem. Many anxiety-reducing treatments are based on a model that describes the beginning of the problem as having been induced by **classical conditioning**. A good example would be a dog-phobic client who was subject to a surprise attack by a ferocious dog who bit him in the leg, causing pain and distress. Alternatively, a lack of social skills may be interpreted as due to **poor modeling** (i.e., observing and learning from parents who are very shy or possibly very aggressive), and **social avoidance** may result from subsequent failure to obtain positive reinforcement from others with whom the person regularly interacts, such as teachers, friends, and/or parents.

In consequence, **modeling** and positive reinforcement strategies are considered ideal tools with which to teach new behaviors like public speaking or building friendship skills in preschool children. On the other hand, the need to reduce undesirable behaviors is more challenging. In an individual with severe developmental and intellectual disability who engages in repetitive, self-injurious head banging, for example, some form of punishment would seem to be most appropriate, as punishment has been shown to reduce undesirable behaviors. In applying any of these methods, the therapist needs to consider two core features:

- The ethical acceptability of the treatment approach
- The availability of effective punishing methods and/or reinforcers.

Ethical Considerations

Our ethical codes as clinicians and researchers make it abundantly clear that we are not allowed to harm our patients—nor would we wish to do so. For punishment to work, it must be aversive; yet doing something aversive to another person means possibly evoking harm, even if it is mild in effect. Does that mean that a clinician can never use a form of punishment to reduce undesirable behaviors? No, it does not, but it *does* imply that a lot of thinking and planning needs to go into a therapy plan in order to assure that the most effective and least harmful means of changing behavior are attempted first. Aside from the question of ethics, there are other important considerations for using punishment, namely:

1. Even at best, punishment teaches a person only what not to do. In the real world, it is important to teach somebody the right thing to do, so as to improve his or her quality of life and evoke approval by others. A parent who attempts to teach a hyperactive child to stop wiggling his chair during dinner through punishment techniques alone (i.e., persistent scolding) has not solved the problem at all. The same boy will find another way to act out his need for impulsive behavior. Instead, he may repetitively bang his fork

against the plate; once that is punished and eliminated, he is likely to move on to relentlessly teasing his sister, and so forth. In such a scenario, there are a number of possible strategies. The parents could reduce the expected quiet time at the dinner table to no more than 10 minutes instead of 30, or, alternatively they might try to keep this hyperactive child occupied by a lively conversation or a little question-and-answer game.

2. Any individual who attempts to control others by reinforcement or punishment affects not only the specific behavior but also the pre-existing relationship with this individual. This relationship aspect is critical because the person whose behavior is supposed to change will (a) increase his or her liking of the individual who provides reinforcements and also respond favorably to the individual's future interactions, or (b) learn to dislike or even despise the person who readily dishes out punishment.

Punishment

The existing ethical limitations for constructive use of punishment leave relatively few opportunities for the appropriate use of punishment in psychotherapy. In fact, when psychotherapy is provided one-on-one in the clinician's office, the concept of punishment imparted by the therapist is essentially unheard of. However, punishment may be suitable when the patient in question is not able to comprehend, consent, or participate in choosing a therapy, has failed to respond to reinforcement procedures, and shows problematic behaviors that are dangerous and self-injurious in nature. A striking example of such a scenario has been reported by Lang and Melamed (1969). The patient in question was a 3-month-old baby who had developed a vomiting reflex that prevented food from being forwarded from the mouth to the stomach. No positive reinforcement approach had produced beneficial results, and the child was emaciated and had to be fed via intravenous tubes. Both the parents and the child's physician believed that the situation was untenable and was putting the child at risk for serious health consequences; thus, they agreed that something potentially aversive, while not harmful, ought to be tried. The ultimately chosen method was to give mild electroshocks to the baby the very instant that she was about to clamp down her throat musculature. It was considered well established that a mild shock was unpleasant but could not produce any harm. The child's reaction clearly demonstrated that she found it aversive, and repeated use of this method let to a gradual decline in the child's reflex cramping of throat muscles, ultimately allowing for normal eating and swallowing habits to develop.

A second opportunity for using punishment procedures that are ethical and useful lies in the fact that clients can apply punishment to themselves. Two examples demonstrate this methodology. One such method is using an aversive drug (i.e., disulfiram, typically called Antabuse) in the treatment of alcohol dependency. When this drug is taken, it produces no adverse consequences whatsoever, as long as the user does not drink alcohol. If alcohol is ingested, however, the alcohol interacts with the Antabuse such that the patient will feel an urge to vomit. This urge is (not surprisingly) perceived as highly unpleasant and has been found to be somewhat effective in the treatment of alcoholism (for review see, Hughes & Cook, 1997). The key to making this procedure ethical and acceptable is that the patient fully agrees to undergo this treatment and has the consequences explained to him or her. Only when he or she judges that the risk of continuing drinking is greater than the unpleasantness of the Antabuse–alcohol interaction is it considered acceptable to use this method.

A second, much less drastic, scenario implies the use of a little rubber band placed around the wrist of an individual with compulsive tendencies, like hair pulling (trichotillomania), skin picking, or nail chewing. The client is taught that every time the client realizes that she is about to perform the compulsive behavior of choice, she is to flip the rubber band and inflict a minute, harmless pain to her wrist (Mavissakalian, Turner, & Michelson, 1985).

In sum, punishment as a therapy method:

1. Is usually not a first-choice treatment
2. Must avoid risk for long-term harm
3. Is preferably conducted with the permission of the client, or even better, is executed by the client himself or herself.

Reinforcement

Working with reinforcement to change behavior is a much more pleasant process for all parties involved. Extensive animal research has shown that very effective reinforcers are food, drink, sex, and chemically induced pleasure (like that produced by illicit substances such as cocaine); they are also categorized as **primary reinforcers**. For routine use in therapy all primary reinforcers have tremendous limitations. The therapist cannot offer any form of sexual pleasure to clients in exchange for desired behaviors; this is harmful to the client, undermines a privileged relationship, and is plain unethical. It also is almost guaranteed to be a violation of law. Food and drink are essential for survival and cannot be ethically withheld. An exception might be to offer dessert or other treats as reinforcers after basic survival needs have been met. Even then, this cannot be repeated very often. Although one or two portions of dessert may be very desirable, consuming an excessive number may become aversive and would probably not be recommended to achieve long-term treatment goals.

The limitations associated with the use of primary reinforcers have generated an elaborate array of choices for **secondary reinforcers**, which are not confined to the limits of psychotherapy; rather, they govern much of our daily lives. Employees receive paychecks as a "thank you" for their work, and this money can be traded in for a variety of necessities and pleasures. Parents may use allowances to reinforce children's participation in household chores, with the intention of teaching them responsibility at the same time. In a psychiatric hospital, where patients may not be free to leave, and cash is of limited value, the concept of a **token economy** has been used to facilitate the learning of desirable behaviors in exchange for tokens that in turn can be traded again for other reinforcers like a chocolate bar at the canteen or a weekend pass to go visit family. Another readily available reinforcer is verbal praise, which can principally be used without limitations and has the added benefit of strengthening positive interpersonal relationships. If, however, many desirable behaviors need to be reinforced in short order, as is the case trying to teach an autistic child, the therapist either will run out of verbal reinforcers in a relatively short time or will have to accept much repetition. In such a case, it is a good idea to create a list of possible words of praise, which can help the therapist remember the possible variety. Also, the therapist can give out symbols of good performance (tokens) that serve as reinforcers, like gold stars. Using the example of a weight loss program, when a planned weight loss of 5 kg has been attained, clients can reinforce themselves via the purchase of a new pair of pants, one size smaller than the previous one.

Lastly, people who want to change their behavior can engage in contracts with others, such as therapists or friends. Two friends might agree that both will stop smoking beginning January 1st of a new year and offer each other a fishing trip to the lake 6 months later as reinforcement for successfully quitting.

So far, rationales and techniques have been described for many methods that the behavior therapist has in his or her arsenal. A summary of the many techniques is laid out in Box 12.2.

BOX 12.2 BEHAVIOR THERAPY TECHNIQUES

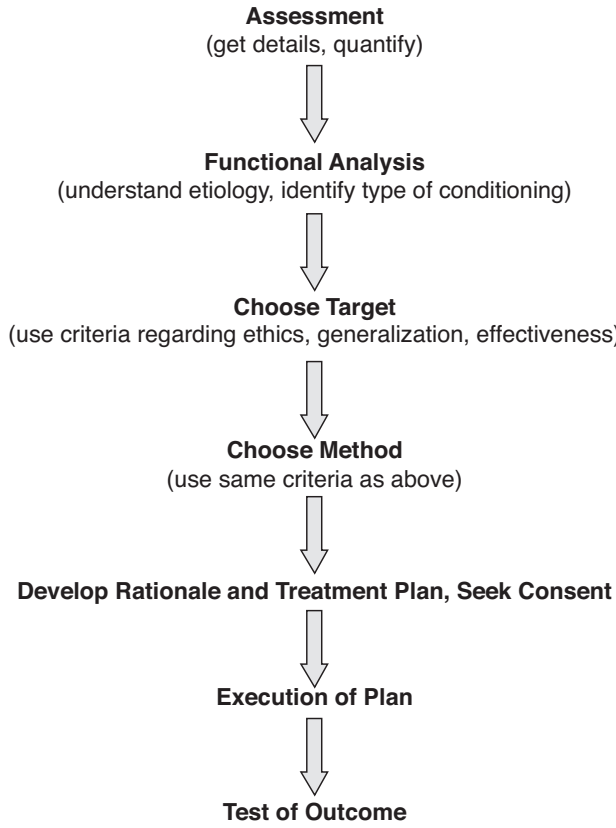
Term	Goal	Definition or Description
Flooding	Provoke extinction and encourage approach behavior	A method used for anxiety reduction where a phobic client is exposed to a highly fear-arousing situation and where the therapist provides ongoing encouragement to assure that the client remains in the situation until noticeable anxiety habituation has set in.
Systematic desensitization	Provoke extinction and encourage approach behavior	A method used to treat phobias. Step one is to learn relaxation and uses a hierarchy of fear-producing situations. An exposure procedure is used, either in imagination or in the real world, to the feared stimuli. Begins with the least fear-producing situation and gradually works up to the more fear-producing situation.
Graduated exposure	Provoke extinction and encourage approach behavior	A method based on the rationale that the avoidance of the feared stimulus needs to be stopped; very much like systematic desensitization, it exposes the client to more and more fear-arousing stimuli in a previously established hierarchy.
Contingency contracting	Help eliminate an undesirable behavior	An agreement, preferably a written one, between client and patient or possibly two parties outside the therapy context that spells out what the consequence is for not completing a contract.
Token economy	Provide a systematic reinforcement for desirable behaviors	A reinforcement system that has explicitly developed tokens to be present for certain types of reinforcers, like an extra dessert or a weekend pass.
Satiation or overcorrection	Help eliminate an undesirable behavior	A relatively mild aversive punishment procedure in which somebody is required to engage in an activity that may be initially pleasant (like smoking a cigar) but that needs to continue until the subjective quality becomes unpleasant.
Response cost	Reduce undesirable behaviors	A punishment procedure where, contingent on the production of an undesirable behavior, a corresponding specified amount of reinforcement is removed (a good example is a $200 fine for speeding).

Term	Goal	Definition or Description
Time-out	Stop an undesirable behavior	A method where an individual is removed from the environment after he or she shows an undesirable behavior and is asked to spend time in a less pleasant environment (e.g., a child who disturbed the learning in class is sent out into the hallway for 5 minutes).
Shaping	Learn a complex behavior	A sequential learning process where individuals learn through reinforcement procedures to acquire all the skills needed for a relatively complex behavior (like giving a public speech).
Chaining	Learn a complex behavior	Also a sequential learning process where, however, the ultimate target behavior can be broken down into steps that one can learn with reinforcement, one after the other (like beginning how to drive a car with automatic transmission in a safe school yard, then move to a regular street, and later learn how to do the same thing with manual transmission).
Rehearsal	Practice a new behavior	The practice of a new behavior in an initially safe environment like a role-play in order to prepare for later performance.
Modeling—mastery model	Provide a sample for a desirable behavior	A method of helping an individual acquire a new behavior by showing how it is done very well.
Modeling—coping model	Provide a sample for a desirable behavior	A method of helping an individual acquire a new behavior by showing him or her how it can be done by most people.
Aversion therapy	Help eliminate an undesired behavior	A method that provides an unpleasant consequence after an undesirable behavior was shown (e.g., a self-applied flip of a rubber band attached to the wrist after a client noticed that he or she was starting to compulsively ruminate).

However, well-executed behavioral therapy is a process with a number of systematic steps involved (see Figure 12.1).

As is apparent from this figure, the behavioral therapist strives to quantify the problem behavior and collect sufficient information so that he can build an etiological model that can then form the foundation for developing a therapy program (referred to as a **functional analysis**). Provided that the client is reasonably intelligent, the entire reasoning of the program can and should be explained to the client, and prior to initiating treatment the client should understand and consent to the treatment program (i.e., provide informed consent). Given that the target for change is usually overt behavior, it is relatively easy to monitor ongoing changes; the use of diagrams to mark improvements can, in and of themselves, be used not only to document positive change but to serve as reinforcement. How such functional

FIGURE 12.1 Steps in Behavior Therapy.



analyses are conducted goes beyond detailed description in an undergraduate textbook and becomes the content of a graduate course in behavior therapy. Nevertheless, the interested reader can read up on this way of conceptualizing a behavior therapy case (Woody, Detweiler, Teachman, & O'Hearn, 2003).

Given that the description of the many techniques in behavior therapy can be dry, two case scenarios are offered in Boxes 12.3 and 12.4 that show how these techniques can actually be applied to clinical problems. One is a brief description of a case where flooding was used, while the second is a multicomponent case scenario, reprinted from the *Journal of Behavior Therapy and Experimental Psychiatry* (1980). This paper was written by the first author of this textbook when he was still a graduate student. In the mid-1970s he saw his first young patient presenting with bulimia before the term "bulimia" had even entered the clinical psychology nomenclature. This case report is considered informative because at the time there was no established treatment for this newly coined behavioral problem, and the author had no choice but to construct, from the ground up, an etiological model for this presenting problem, devise a treatment program consistent with this conceptualization, and then apply it while carefully tracking progress. Without knowing it at the time, this paper turned out to be the first published behavioral therapy case study of bulimia.

BOX 12.3 CASE REPORT OF A FLOODING TREATMENT (SIMPLIFIED DESCRIPTION)

Carl P, a 34-year-old, midlevel executive presented to the clinic with a phobia of public washrooms. He was in a good, supportive long-term relationship and had a promising career ahead of him; the only presenting problem was his phobia. His avoidance of public washrooms had become so pervasive that any work-related travel had become impossible, and he even started skipping work to avoid having to use the bathroom in the office. He knew that his avoidance was a problem that had to be stopped but remembered a critical incident (permitting interpretation as being a classically conditioned fear) and understood very well the reinforcing properties of his subsequent avoidance behavior. What was this event, you ask?

Approximately 1 year before coming to our clinic, he had used the bathroom in a restaurant, felt generally rushed to get back to work but found that he could not open the door from the inside. As it turned out later, there was a broken piece in the lock itself that made it indeed impossible to unlock the door from the inside. After numerous frustrating and futile attempts to open the door from the inside, he became understandably and increasingly anxious and began calling for help. Unfortunately, it took many calls to be heard through the thick door; his anxiety mounted before he was noticed and restaurant staff started responding to the problem. It took a professional locksmith and another hour to free him of his involuntary prison. For a brief while after this event he continued using public washrooms but did not dare lock the door from the inside to avoid a recurrence of the critical incident, but found that this led to embarrassing situations and was not an acceptable alternative either.

Given the absence of comorbid problems, the exceptionally clear causal explanation, and his willingness to tolerate some anxiety, a flooding protocol was executed. After having the full details of the therapy plan explained to him, being assured that the therapist would be on the other side of the door, and after a demonstration that the door could be opened from outside if Carl needed to call for help, he agreed to the exposure protocol. He was taught breathing techniques and was given an explanation that his anxiety would initially increase but then decrease. An absolute assurance was given that this was exactly what was going to happen. Further, he was taught how to provide anxiety ratings on a 0 to 100 scale, and it was tested that the therapist asking for anxiety ratings could actually hear him through the closed door. In addition, he was given a digital heart rate monitor to serve as a second and objective source of information about anxiety levels. A bathroom in the psychology building was chosen that was in a remote corner without much traffic to minimize possible embarrassment.

Once Carl had entered the bathroom and closed the door, there was continuous verbal interaction through the closed door, with the therapist repeatedly reinforcing him for his courage and intermittently asking for subjective ratings of anxiety and readouts from the heart rate monitor. Even more quickly than predicted, namely, within 5 minutes, his anxiety peaked and began decreasing to the point where he was clearly able to recognize that the therapist's prediction of an increase and decrease had materialized and that he was able to tolerate the situation. After 15 minutes of this exposure and a clear demonstration of decreasing anxiety levels, this flooding session was terminated, and the success and the reasons for the success were further discussed in the therapy office. During the next therapy session, flooding was repeated in the same manner and declined not only to lower anxiety levels at the beginning but also to a more gradual and less dramatic rise in fear and an even quicker habituation. After only two such sessions he was able to tolerate public washrooms with a reasonable level of comfort, and this rapid success was a pleasant surprise to the client.

BOX 12.4 BULIMIA TREATMENT

Multi-Component Behavior Therapy in a Case of Compulsive Binge-Eating Followed by Vomiting

WOLFGANG LINDEN McGill University

Summary—A 20-yr old female university student was treated for compulsive binge-eating with subsequent vomiting that occurred nearly every day. A variety of behavioral procedures including construction of alternative response, stimulus control, response delay and individualized assertiveness training resulted in a rapid decrease of compulsive behaviors. Recovery was nearly complete over a 6-month follow-up.

Several behavioral techniques are available for the treatment of overeating in obese persons (Stuart, 1967; Stuart and Davis, 1972; Leon, 1976). Similarly, with compulsive disorders behavioral strategies have been favored (Marks, 1978). It appears however, that the treatment of compulsive binge-eating followed regularly by vomiting in patients of normal weight is presently not covered in the literature. Hence a treatment package for this behavior problem had to be specifically designed for this case. Some components of behavioral procedures used to institute self-control in obesity and compulsion disorders seem to be applicable.

The assessment of a single case, the subsequent development of a treatment plan, and the course of therapy are presented in this article.

Background and Problem

A 20-yr old female university student sought therapy at a university counseling service for her frequent compulsive binge-eating followed regularly by severe vomiting. During the day she followed a strict dietary regimen limiting the calorie intake to what she thought would correspond to her actual energy expenditure. Subsequent to her third dietary controlled meal around 5 or 6 p.m. she felt a compulsive urge to eat between 7 and 11 p.m. On these occasions, she would eat excessively large amounts of "forbidden" high-calorie food. These could be, for example, 6–8, 3 oz bars of chocolate, or up to 20 slices of peanut-butter and jelly toasts. During this process of excessive eating the compulsive feeling used to decrease quickly to a point where she stopped eating, went to the bathroom and vomited. These episodes had occurred nearly every day for the last 4 yrs.

The patient had sought therapy because she feared a break-up with her boyfriend. He was previously unaware of her problem. Her parents, with whom she lived, knew of the problematic behaviors, but underestimated their frequency.

At the age of 14 the patient had felt that she was too obese to be attractive to boys. Although, according to her own report, she was only about 10–15% overweight, she was the "fattest" girl in her class, a fact that had made her extremely preoccupied with her eating behavior. She had started strict dieting and lost so much weight that she was only "skin and bones", became extremely weak and experienced frequent fainting spells. According to her self-report all main criteria for a diagnosis of anorexia nervosa (Feighner et al., 1972) were present at that time. She then became frightened and allowed herself to eat more, but limited the nutrition to low-caloric and low-carbohydrate foods. The client regained a weight of about 115 lb which can be considered normal according to her height of 5 ft 5 in. This weight was maintained until the present day. Shortly after reaching normal weight she began the compulsive episodes which had increased in frequency to six times per week at the time she sought therapy.

The client had a good relationship with her parents and no essential problems at school. With her boyfriend there were, however, two problem areas. She found sex pleasurable but was not able to reach orgasm and felt unable to communicate openly about this. A second problem was her boyfriend's rigid habit of spending the whole weekend with his family.

The client was extremely annoyed about being left alone for the weekends and about her failure to change her boyfriend's attitude toward this issue.

Before deciding on specific treatment objectives it was further necessary to eliminate the possibility of an organic and/or an affective disorder. A recent physical check-up suggested excellent physical health and no somatic involvement in the compulsive behaviors. There was no evidence of severe emotional pathology as no unusual mood swings, recent weight loss, suicidal thinking or hallucinations were reported.

Treatment

The client did not want her parents or her boyfriend to be involved in the treatment. This prevented a potential conjoint assessment and necessitated individual consultations. Two major objectives were defined for therapy: decrease in the frequency or, possibly, total elimination of the binge-eating/vomiting episodes while maintaining her present weight; strengthening of assertive behaviors with her boyfriend and widening the range of her social activities. Between the first and the second assessment session client was asked to self-monitor her thoughts in the binge-eating situations, to record in detail her food intake, physical exercise, and count the compulsive episodes over a period of 1 week.

The self-monitoring revealed the following baseline data:

- a daily calorie intake of dietary food of about 800–1200 calories;
- a total differentiation between the food for regular eating vs the food for overeating (i.e. whole grain bread, crackers, cottage cheese, lean meat, salads, vs greasy food, chocolate, toast, cakes, sausages, pizza);
- overeating meant a calculated intake of 3000–5000 calories daily (though a high proportion was lost by vomiting);
- a frequency of six "binging" episodes per week;
- intensive physical activity during daily commuting to university and sporting exercises;
- a feeling of loneliness and total inability to resist when the compulsion to eat would arise;
- a feeling of strong relief after vomiting.

Therapeutic Plan and Procedures

As a first step in intervention the therapist provided a description of the operant mechanisms that contribute to the maintenance of the problematic eating behavior. It appeared that the overeating and subsequent vomiting—although in itself problematic—had in the past led permanently to an important benefit: the maintenance of her ideal weight. The self-reinforcing properties of the behavior pattern were explained; this behavior cycle permitted the client to "sin" (eat forbidden food), and to do "penance" (vomit) without the negative consequences of weight gain. Therefore, the therapeutic goal had to modify the problem behavior without losing the objective of weight maintenance.

Further important information regarding therapeutic planning was derived from the relationship between food intake and actual energy expenditure. The fact that, although clearly under-nourished by the dietary meals, the client had maintained a constant weight over a 4-yr period could only be explained by the supposition that despite the severe vomiting the body retained some of the "forbidden" food to meet its actual energy need.

On the basis of this rationale, behavior change of the binge-eating/vomiting was to be instituted via three main strategies (cf. Bandura, 1969; Kanfer and Philips, 1970):

(a) construction of an alternative response;
(b) stimulus control;
(c) response delay.

These strategies were put into effect in the following ways:

(a) Construction of an alternative response

1. Food choice was changed while maintaining the total amount of intake by: continuing her three diet meals a day, adding a late evening snack exactly planned with 600–800 calories

chosen from the "forbidden" item list of high-caloric food. Ten different 800-caloric snacks were to be written on index cards to make her aware of the choices available. Rationale: according to her body weight and activity level it was calculated that she had an energy expenditure of about 2000 calories daily (cf. Stuart and Davis, 1972). The extra planned snacks would permit formerly forbidden food to fill the gap in her insufficient diet, and probably allow her to maintain the present "ideal" weight.

2. Food intake was self-monitored and constantly recorded.

Daily weight was controlled and diagrammed. A reinforcing effect was expected by her realizing that with the new regimen she would be able to maintain her present weight.

(b) Stimulus control

1. Her parents were informed about the problem and her mother asked to buy less high caloried food.
2. One section of the refrigerator was reserved for the client's planned meals.
3. Somebody was asked to bring the extra snacks to her room instead of her going to the kitchen.

Rationale for 1, 2 and 3: structuring of stimulus situation, removal of unnecessary cues to inappropriate eating.

(c) Response delays

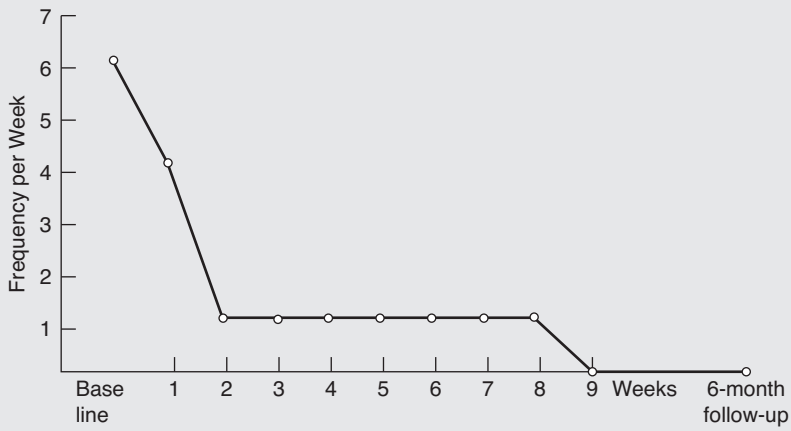
Her interest and joy in yoga was used by making her do an exercise when she felt the urge to eat.

The second objective for treatment was the improvement of assertiveness. The client described being lonely before the compulsive episodes. In order to prevent these experiences of loneliness it was planned to support and strengthen more assertive behaviors in her relationship with the boyfriend and other peers. Behavioral analysis, instruction and some role-playing were to be used for assertion training.

Outcome and Follow-Up

During the baseline period binge-eating/vomiting behaviors occurred 6 times within 1 week. After the first week of treatment the frequency dropped to four per week; from the second to the fourth week of treatment the rate remained stable at one episode per week. The decrease of overeating/vomiting behaviors over the total observation period is illustrated in Figure 1 below.

FIGURE 1 Frequency Change in Compulsive Episodes.



After 4 weeks of treatment the client reported that she had given up counting calories because she knew by that time how much she could eat without gaining weight.

During sessions 3–6 problems with the boyfriend were focused upon and the client showed improvement in her assertiveness. After session 6 the client left for a 4-week vacation. Upon her return she reported that the frequency of compulsive episodes had been constant at about once per week. She was communicating better about sex and enjoying it more.

In the 7th therapy session the client stated happily that the overeating/vomiting behavior had not recurred and insisted on terminating therapy. She expected the relationship with her boyfriend to improve further as the start had already been promising.

A follow-up session 3 months later revealed that during this period the compulsive episode had recurred twice. The client felt able to control this on her own. Her boyfriend had changed his mind about spending weekends with his family only, and she was able to reach an orgasm in their sexual relations. Besides this, she had made some new friends at the university with whom she socialized, alone or with her boyfriend. A 6-month follow-up by telephone indicated maintenance of these improvements.

Discussion

The rapidity of decrease in the frequency of the problematic eating behaviors, and the strengthening of assertion in social situations were most gratifying. Although the effective therapeutic ingredients must remain hypothetical in the absence of an experimental design, the therapeutic approach described allowed the patient to modify the problem behavior without losing the benefit of weight maintenance—a major reinforcing consequence of her maladaptive behavior. Her increased assertiveness with her boyfriend and others effectively eliminated her feelings of loneliness and thus removed an important emotional antecedent to the same maladaptive behavior.

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Concluding Observations

Behavior therapy stands out among psychological treatment approaches because it shows exceptionally clear links with experimentally derived principles and translation of these principles into treatment methods. Given that behavior therapy is eminently testable, researchers have, from its inception, provided quantitative case studies and group comparisons to document the effectiveness of behavioral methods (Smith & Glass, 1977; Linden, 1981; and see Chapter 13). Furthermore the techniques used in behavior therapy are particularly easy to standardize and write up in manual format and are therefore good tools with which to teach

relatively junior therapists. Given that reinforcement and punishment can be used with individuals who have limited verbal skills, such as young children or the intellectually challenged, it offers a uniquely broad range of applications and is suitable to more populations than any other type of psychological intervention.

Behavioral or learning theory principles are not limited to applications in psychotherapy, but can govern many of our overt behaviors, for example, as drivers on the road, as students who seek feedback on their performance, or citizens at large who are expected to be respectful and caring in their behavior and be protective of their environment. Students are given grades to encourage learning (or punish poor effort); Nobel prizes are awarded for a lifetime worth of important research contributions; tailgating drivers are given tickets to discourage this behavior; and the use of individual water meters is meant to be a direct response cost that can minimize the waste of drinking water, a scarce resource. None of these activities can be construed as psychotherapy, but all are examples of effective behavior control based on learning and conditioning methods.

The ability of a behavior therapist to manipulate an individual's behaviors, without his or her consent or understanding of what is being done, is also referred to as a **black box principle**. The "black box" notion of behavior therapy has, not surprisingly, earned it an image of being mechanistic and inhumane. The use of punishment strategies can be seen as a good example where irresponsible use of punishment (e.g., a parent physically beating a child for not finishing her dinner) would indeed be inhumane. Judicious use of mild punishment (like self-punishment for nail-biting via snapping of a rubber band on the wrist) can be simultaneously effective and humane. The differences between these scenarios are the intensity and potential harmfulness of the punishment, the spirit behind the act, and the degree of consent by the receiving individual.

Cognitive Therapy

Theory and Rationale

In the previous section, we stressed that the critics of behavior therapy considered it a symptom cure with an inhuman flavor that treats people like black boxes. In part, cognitive therapy was developed to counter this criticism. Cognitive therapy is a natural outgrowth of extensive experimental research on the regulation of mood and emotions that is associated with healthy adjustment and various types of psychopathology (Zaretsky, Segal, & Fefergrad, 2007).

Before going into details about the theoretical underpinnings and the major thinkers in this area, it may be worthwhile to portray some typical thought patterns that might be presented to a cognitive therapist by patients with depression or anxiety disorder.

> Everybody wants me to go for job interviews because I complain all the time about being broke, living on welfare. But I have no experience, I don't know how to write a resume, and nobody will ever give me a job.
>
> My boss always picks on me, I'm certainly not getting a promotion, and I might even get fired if I cannot get my sales record up. All the other guys in sales are doing much better, and I can see that the boss likes them more.

Giving close attention to each of these statements demonstrates what cognitive therapists want to focus on. Both individuals express pessimism and low self-esteem. They are

speculating about a fixed outcome without factual evidence, or they take a single situation that can be interpreted in many different ways and draw one very narrow conclusion. In both cases, the way they think about the situation ends up discouraging them from trying to break out of their misery, making it difficult to consider alternative explanations that would be less upsetting. Based on having listened to many depressed and distressed patients over the years, cognitive therapists have tried to identify the nature of the presumably underlining types of thinking errors and have classified them in order to aid identification. A list of the corresponding terms is found in Box 12.5.

BOX 12.5 LIST OF DYSFUNCTIONAL THINKING PATTERNS

1. *Labeling*: using a negatively toned word or label that you reflexively attach to certain problematic behaviors ("I am such an idiot because I forgot to update my virus software").
2. *Discounting or disqualifying positive features*: refers to selective attention such that you attend only to the problematic parts of a situation ("How horrible that my girlfriend broke up with me" when you had actually planned a break-up yourself).
3. *Catastrophizing*: anticipating the worst outcome despite lack of evidence to support it ("If one jet on my airplane fails, it will crash").
4. *Black-and-white thinking*: being overly categorical in one's thinking ("If I don't get a test score over 90% on this test, I will never be admitted to any law school," or "As long as I get 90% or more I'm guaranteed to get into any law school I want").
5. *Fortune-telling*: making unjustified and untested forecasts ("Given that my last boyfriend dumped me, I will never be able to attract a boyfriend again").
6. *"Must" or "should" statements*: these reflect very rigid rules about how other people are expected to behave and how terrible it is if these expectations are not met ("We must arrive at the party on time, or the host will never forgive us").
7. *Emotional reasoning*: convincing yourself that just because you feel or believe something, it is a fact.
8. *Mind reading*: you firmly believe that you know what others are thinking although this person has not actually said anything. This in turn leads to nonconsideration of other possibilities and can paralyze people.

The concept of errors in thinking is a unique feature of cognitive therapy and may be interpreted by some individuals as patronizing, because it carries the strong connotation of right and wrong while appearing at once both categorical and dogmatic. The intention, of course, is not to distress the client but to direct the client to think in more functional terms and to teach him to create thought patterns that are empowering and that open up new opportunities. The application of cognitive therapy to treating depression is a good example of this kind of discourse about the notion of right and wrong in cognitive therapy.

There is intense discussion in the field of abnormal psychology about whether or not the depressed person is more realistic than a nondepressed person or whether the nondepressed individual has a more accurate view of the world (for review see, Dobson & Franche, 1989), although there is no dispute that depressed individuals see the world in relatively more negative terms (Beck, 1987). Raising the topic of "whose view is more accurate" is not trivial

to the cognitive therapist; the accuracy or truthfulness of the patient's thought pattern has great impact on what a therapist can and needs to do for treatment efficacy. Let us imagine two types of depressed individuals. One is an attractive 21-year-old college student, who is performing reasonably well academically and is physically healthy, but who is also depressed and socially isolated. It would make sense to contrast this person's self-perception with how others see the same individual. Most people would think of this 21-year-old as somebody with a potentially great life ahead of her and see little objective reason for being depressed. We have already described such clients as YAVIS (*Y*oung, *A*ttractive, *V*erbal, *I*ntelligent, *S*tudent or *S*uccessful; see Chapter 10). The expectation for therapy is that this type of patient can relatively quickly improve because her negative self-view can be tested against the many positive characteristics that she possesses, and it is likely that an overgeneralizing and irrational thought pattern may lie underneath this depression. One can see that a therapist may be able to rather quickly point out to her the many untested opportunities ahead of her; there is reason for optimism.

Now let us compare that scenario with that of an 82-year-old woman who is in hospital after quadruple coronary bypass surgery. She is a widow, lives on a limited pension, and has two children who live far away and who are not close to her. In addition, most of her friends have died, she is diabetic, she has frequent painful arthritis episodes, and her eyesight is failing her. She's also very depressed. How would a cognitive therapist approach this individual? Would Dr. Melissa A, our hospital-based psychologist, try to point out to the 82-year-old that depressive thoughts are unreasonable and irrational and that she should ignore these thoughts? Of course, not. Clearly, this scenario is a very different type of challenge for a therapist although both clients presented with depression. The point of comparing these two types of clients with each other is to stress that the cognitive therapist should not approach each patient with the same simplistic attitude about rationality or irrationality of having depressed or anxious thought patterns and feelings. In each instance, the therapist needs to make an effort to learn about the patient's habitual thinking patterns, to look for recurring themes that may be dysfunctional or that are open to change, and to try to look for alternatives.

Two Major Proponents: Ellis and Beck

Having had a chance to discuss cognitive therapy in general terms, the reader is now prepared to take a look at the more historical origins of cognitive therapy and to learn about the work of its two major proponents, namely, Albert Ellis and Aaron Beck.

Ellis can be credited with having created rational-emotive therapy (RET; Ellis, 1962, 1977), which is really the first form of cognitive therapy. While originally trained in psychoanalytic therapy, Ellis experienced a great deal of frustration with its slow and passive process and therefore sought a more direct and aggressive approach. Much of the underpinnings of cognitive therapy in general, and especially RET, date back to Greek philosophers (quoted in Ellis, 1962): Epictetus can be quoted as having said that "man are disturbed not by things, but by the views which they take of them." Ellis was a charismatic therapist, and, in an attempt to make his approach easily understood, he simplified this thinking by describing an "ABC" concept where:

- A stands for Antecedent
- B stands for Belief
- C stands for Consequence

PHOTO 12.1 Albert Ellis
Photo courtesy of the Albert Ellis Institute.

He argues that it is not the fact that a man's girlfriend left him that makes him miserable, but rather the man's belief that he cannot find another suitable girlfriend actually accounts for his misery. Also built into this line of thinking is that the beginning of this course of action, namely, the antecedent (that his girlfriend left him) cannot be changed, whereas the belief about his inability to find another girlfriend can be modified, and will then change corresponding feelings. In order to drive home his point about irrational thinking, Albert Ellis has created a list of colorfully worded principles (Table 12.1) that he considers to be the typical ways in which people set their own mental traps.

TABLE 12.1 Irrational Ideas Typical for the Albert Ellis Approach

1.	It is necessary that everybody loves me and approves of me.
2.	I am a worthwhile human being only if I'm highly competent and consistently achieving in everything I try.
3.	I need to be preoccupied with other people's wrongdoing and find ways to judge and punish them.
4.	It is horrible when the world does not turn out to be as nice as I would like it to be.
5.	Unhappiness comes from the outside, and I cannot control it.
6.	When something scares me, I need to really preoccupy myself with it and constantly scan the environment for signs that it will happen.
7.	It is easier to avoid difficult decisions and responsibilities than to face and live up to them.
8.	It is necessary that I can always lean on somebody else because I myself am weak.
9.	My personal history powerfully determines my current life, and because of this I'm not really free to make needed changes.
10.	I should be greatly preoccupied with other people's problems.
11.	Life's problems always have a perfect solution, and it is horrible if I cannot find that perfect solution.

Source: Adapted from Ellis (1962).

In addition to his groundbreaking book *Reason and Emotion in Psychotherapy*, published in 1962, Ellis built a freestanding training institute in New York that is active to this date. He has also written a string of popular psychology books, which all advance the cause for RET, using tongue-in-cheek titles such as *Sex Without Guilt: The Intelligent Woman's Guide to Dating and Mating*; *Sex and the Liberated Man; or How to Keep People from Pushing Your Buttons*. RET itself largely progresses by the therapist engaging in a Socratic dialogue with the client where the therapist (a) identifies the types of thinking errors the client engages in, (b) points out the irrationality and dysfunction of such thoughts, and (c) assists the client in rewriting his or her inner dialogue or script.

Interestingly, Aaron Beck, while being a psychiatrist by profession, was also initially trained in psychoanalytic approaches. His development of a cognitive treatment approach for depression was similarly fueled by his dissatisfaction with his view that psychoanalytic therapy had limited effectiveness for depression. Beck's work is strongly anchored in extensive research on the nature of depression and the typical thought patterns observed in depressed patients. A cornerstone to Beck's work is the formulation of typical, biased thought patterns of depressed patients that fit into a **cognitive triad**, which describes the patient's overly pessimistic view of the self, her environment, and the future (see Figure 12.2).

In terms of the therapeutic approach designed to change these pessimistic thought patterns, Beck developed a layer model depicting the varying degrees of awareness about one's own thinking. Closest to the surface are the thoughts that accompany everyday activity, and this layer is often described as the *inner script* that accompanies what individuals see, what they're planning to do, how they feel, or why they may want to engage in a particular behavior. If all such thoughts were written out in full, each of us could fill a book a day—a fact which precludes us from keeping systematic records of all our thoughts. This layer is described as **automatic thoughts**. The next layer, according to Beck, connects these seemingly accidental patterns in our own thinking, referred to as **underlying assumptions**. It is at this level where a cognitive therapist starts to recognize the idiosyncratic, rule-driven, and often dysfunctional thought patterns of depressed patients. Lastly, the deepest and most long-standing level of influence is likely to have been created during childhood years and is

FIGURE 12.2 Cognitive Triad.

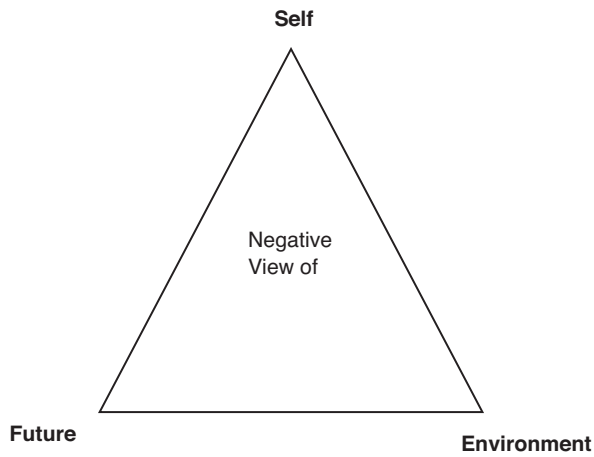
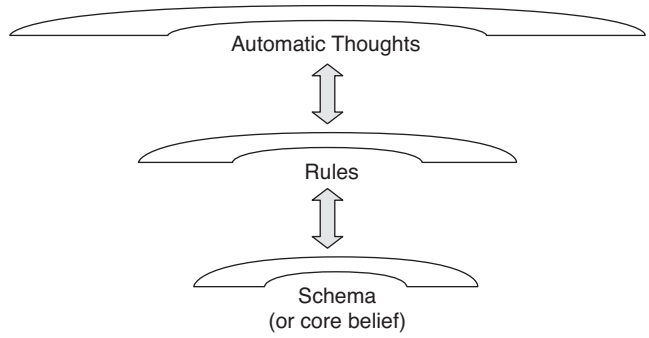


FIGURE 12.3 Beck's Cognitive Schema Model.



referred to as **schemas** or **core beliefs** (see Figure 12.3). (The reader may also find the term **schemata** in the literature, which is the technically correct way of forming a plural for this word of Greek origin.)

A classic core belief found among depressed patients is a profound experience of the world as one in which people feel easily rejected, unsafe, and/or incompetent. In terms of therapy process, it is pivotal that patients first learn how to become aware of their own thought habits. Therapists are likely to use diaries or thought records in order to raise awareness of people's thoughts and feelings and then begin looking for systematic patterns in these inner scripts. At the beginning of therapy, the thought record tends to use a simple three-column method, where the first column describes salient events occurring during a given day that may have a bearing on the client's presenting problem. For example, a client may report with poor anger control that is most pronounced while driving his sports car. In this case, an anger-arousing driving scenario would be the stimulus to report in the left column. In the middle column, clients are asked to record what they were feeling at the time and how strong these feelings were. Notably, cognitive therapists recognize that clients rarely feel only one emotion at a time, but rather they may experience a bit of sadness at the same time that they are quite angry. The cognitive therapist seeks to encourage the client to write down what he was thinking at the time when he was really angry at the other driver and when he was honking and yelling. By having a chance to read over many thoughts thus recorded, the therapist hopes to recognize particularly frequent, recurring thought patterns. When that happens, the theme is referred to as a "hot thought," which means that they are the ones receiving the most attention. The very fact that Beck describes core beliefs as being deep-seated and long-standing reveals his original training in psychoanalytic therapy and shows the evolution of analytical, interpretive psychotherapy into a more cognitive therapy (Table 12.2).

The use of thought records as an attempt to uncover dysfunctional thinking habits is an excellent first step in cognitive therapy. Nevertheless, just recognizing that a particular thought pattern exists is not very helpful and is not likely sufficient to produce rapid therapeutic change. The negative anticipations that are typical of depressed (and also anxious or angry) clients often serve as a major handicap in attempting change. It does not make sense to initiate a behavior if one expects the outcome to be unpleasant or ineffective. A highly

TABLE 12.2 Sample of Thought Record. The client is a very anxious breast cancer patient who has been told that her first chemotherapy was successful but that the chance of malignant tumor recurrence is very high.

Event	*Mood*	*Thought*
Daughter sends first-birthday photos of my granddaughter	Happy 70%	This is so exciting. She looks a bit like me.
	Anxious 30%	Next month I will visit them and look forward to holding my granddaughter.
		I hope to live long enough to see her complete school and get married.
Noticed an odd tingling feeling in my breasts	Anxious 60%	What if this means a recurrence?
	Angry 30%	This cannot happen to me; I did everything my oncologist told me to.
		Will I ever be able to stop worrying?

socially anxious individual is not likely to start casual conversations with a stranger because he or she anticipates that the person will not want to talk to him or her, or even worse, will say something dismissive and hurtful. However, when such generalized negative expectations are predominant, the client also cannot find out that she may be wrong. Hence, a critical part of cognitive therapy is to test the truthfulness of such negative expectations by conducting *behavioral experiments*. First, one formulates the expectation in the form of a hypothesis and then tests it through actual behavior and observation. An example of behavioral experiment is described in Box 12.6.

BOX 12.6 EXPERIMENTS IN COGNITIVE-BEHAVIORAL THERAPY; AN EXAMPLE FOR JOE'S BELIEF THAT HE WAS NOT LIKABLE

Experiment	*Prediction Arising From Core Belief*	*Actual Consequence*
Tell 10 cashiers in a store, "Must be hard to stand on your feet all day."	All of them ignore me or give a flippant return comment.	Two said nothing in return.
		Four started a little conversation.
		Four said, "You got that right" and smiled.
Approach up to six classmates to try to get a study group of you and three others together	All of them turn me down.	Two said, "Thanks for asking but I already have a group."
		Two just said, "No, not interested" or "I live too far away."
		Two agreed, and they formed a study group of three.

Through a progression of challenges to irrational thought patterns and behavioral experiments, a client learns how to create his or her own successful experiences and how to gradually shape them into more adaptive thought patterns.

Cognitive-Behavioral Therapy

So far, we have presented **behavior therapy** and **cognitive therapy** as distinct therapies, and given their unique origins, this is appropriate and informative. However, throughout much of the literature in clinical psychology, one finds the use of the term **cognitive-behavioral therapy (CBT)** as if the cognitive and behavioral therapies were so overlapping that they always needed to be mentioned in the same breath.

The position taken here is that pure cognitive therapy is not actually practiced. As much as cognitive therapy focuses on cognition, it does not deal with cognitions in isolation, but rather ties them to mood and behavior. What makes certain cognitions dysfunctional and problematic is that they create or maintain avoidance behaviors and prevent people from doing things that are enjoyable, could widen their range of function, and may potentially reduce disability. If a young man believes that no female will ever be interested in him, he may never approach any prospective partners. As such, he may also never find out that he is indeed well liked by some young women and that simply changing cognitions is not enough for success. As was mentioned in Chapter 11, an essential ingredient of cognitive therapy is to get clients to test some of their cognitive sets or expectations by actually trying out new behaviors and checking the accuracy of their assumptions. This is considered pivotal to the success of cognitive therapy. If it turns out that these new behaviors become reinforced (e.g., a depressed and lonely person finding out that joining a club was very pleasant and led to the development of new friendships), then a behavior therapy principle has become integrated into cognitive therapy and has complemented the tool kit of the cognitive therapist. What was initially intended to be just cognitive therapy really is CBT; it integrates attempts at changing thought patterns *and* corresponding behaviors through experiments. Although these two therapeutic modalities are derived from two different bodies of theory defined by distinct terminology and techniques, ultimately it is a combination of these techniques that makes the best use of cognitive therapy principles. Therefore, it makes sense to package these two descriptors together into the term "CBT."

While cognitive therapy usually ends up packaged together with behavioral techniques, the reverse does not need to be true. Behavior therapy can actually stick to its black box principle and achieve positive outcomes without directly targeting patient cognitions. This is apparent when, for example, reinforcement and punishment principles are used to help a self-mutilating individual with severe intellectual disabilities or an autistic child with whom one cannot reason. In everyday clinical practice, behavior therapy can be, and is often, applied in a relatively pure fashion, without direct focus on cognitions.

Given its popularity—based to a large degree on its overall positive effects (see Chapter 13)—it may be worthwhile to stress what makes CBT unique and effective:

1. Use of homework and out-of-session activities
2. A high level of direction of session activity by the therapist
3. Teaching of skills used by patients to cope with symptoms
4. Emphasis on patients' future experiences
5. Providing patients with information about their treatment, disorder, or symptoms
6. An intrapersonal or cognitive focus.

Biofeedback, Relaxation, and Stress Management

Theory and Rationale

Throughout this book we have shown how the work of clinical psychologists applies to mental and physical health problems and is executed in both inpatient and outpatient settings. In a larger sense, interventions described in this forthcoming section are also behavior therapy (or cognitive-behavioral therapy) techniques because they are largely based on learning principles.

Some clinical psychologists work primarily in organizational settings and attempt to increase the efficiency of such environments, by improving the quality of life for employees, and/or providing primary prevention services. In all these nonclinical environments, clinical psychologists may deal with people who see themselves as stressed, burned-out, or having **trouble adjusting**. It can be difficult to draw the line between an anxiety disorder that meets the criteria listed in the *DSM-IV*, the feeling of exhaustion that goes with clinical depression, and the terribly generic term **stress**. Obviously, tools are needed to deal with all these problems, or, even better, to prevent them from becoming problems.

Furthermore, as we have shown, clinical psychologists are frequently involved in caring for individuals who present with medical disorders that have strong psychological components. Broadly, these disorders include chronic pain conditions, sleep problems, high blood pressure, chronic fatigue, autoimmune diseases, or irritable bowel syndrome, and this list is by no means complete. For these clinical applications there is the possibility (a) that psychopathology and poor emotional adjustment can play contributing, causal roles (Kop, 1999), or (b) that low or worried mood states are a frequent (and understandable) consequence of certain medical conditions. The latter has certainly been true in the case of cancer, cardiac conditions, or HIV-AIDS diagnoses (Poole, Hunt Matheson, & Cox, 2008; see also Chapter 17).

There is a widespread consensus that the majority of conditions presented in family physicians' offices are primarily psychological in nature (Rosen & Wiens, 1980). When patients who presented themselves with psychosomatic complaints to a family physician were randomized into receiving as little as 2 hours of psychologically supportive therapy versus no psychological treatment, the subsequent number of physician visits and overall health care costs went down considerably (Rosen & Wiens, 1980), saving valuable health care dollars. Clearly, there is a place for clinical psychologists in general health care settings.

The connection between emotion, cognition, behavior, and physical health is explicitly captured by the fields of psychosomatic medicine and health psychology, each of which has huge bodies of (largely overlapping) literature associated with it (see also Chapter 17). Also, there are fraternal associations for these types of psychology providers (i.e., American Psychosomatic Association, Society of Behavioral Medicine, etc.) that organize annual meetings and publish specialty journals and position papers; the resulting publications are readily accessible on numerous websites. One pathway between emotion and physical disease is of particular interest to clinical psychologists, namely, the path that connects emotion to changes in the nervous system. There is ample evidence that:

- Pain is a complex psychosomatic process with intertwined emotional and sensory processes (Melzack & Wall, 1989).
- Depression has cognitive, biological, and behavioral components (Craig & Dobson, 1995).
- Anxiety is often tied to excessive sympathetic nervous system arousal (Hoehn-Saric, & McLeod, 2000).
- High blood pressure is characterized by an imbalance of the sympathetic and parasympathetic components of the central nervous systems (Linden, 1988).

PHOTO 12.2
Photographer: Henri Dupond.

Another pathway for linking behavior, emotion, and cognition to health is more indirect via health behaviors like smoking cessation, exercise patterns, maintaining good nutrition, and adhering to medical prescriptions. These health behaviors, and attempts to modify them, are described in Chapter 17; however, methods used for arousal reduction and the establishment of good autonomic self-regulation are described here because they are bread-and-butter methods for clinical psychologists who work in physical health care environments.

These methods will be described in three sections:

1. First, methods for **biofeedback** will be elucidated, because this is a unique area of practice given the involvement of specific equipment.
2. Next, descriptions are provided for a variety of **autonomic self-regulation** tools that clinical psychologists can offer to a wide range of patients.
3. Lastly, how all these methods fit together into the world of **stress management** will be discussed more broadly.

Biofeedback

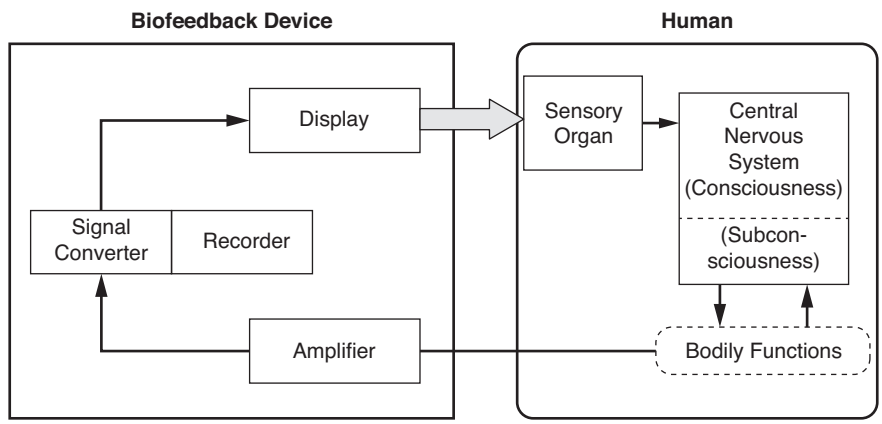
Biofeedback is a form of CBT because it involves learning principles, tying sensory perception processes to feedback, and reinforcement techniques. It also involves models of skill development. In Chapter 9, where the assessment of physiological functions had been described, the

reader already became familiar with the process of acquisition and the measurement and display of human physiological functions of interest to clinical psychologists, in particular those reflecting arousal, blood flow, as well as a variety of muscular activity indices. A therapist can share with his or her client what particular physiological signals mean and encourage him or her to use this information to change the signal itself; this process would be described as **biofeedback therapy**. In the sections on assessment, the concept of reactivity of measurement was discussed; our position, as presented throughout this book, is that reactivity of measurement is generally undesirable because it changes the information one wants to objectively measure, and as such it is a major threat to validity. Nevertheless, we have pointed out that reactivity can be used constructively in that a man using a diary to record the frequency of smoking behavior is likely going to decrease the amount of cigarettes smoked simply because now, after record-keeping, he realizes exactly how much he smokes. The same applies to biofeedback where clients can be made acutely aware of physiological functions that they may otherwise have difficulty sensing. There are a number of physiological functions that humans are typically aware of, especially when they change measurably and rapidly; this is particularly true for respiration rate and depth, heart rate, and to a lesser degree muscular tension or blood sugar levels. Despite frequent claims to the contrary, clients are actually not very good at sensing change in their blood pressure, and humans are essentially unable to sense changes in body functions like blood lipids or increased output of stress hormones. Therefore, the basic principle of biofeedback is to encourage learning by showing clients acute changes in biological functions especially when they are not usually open to awareness; this process is referred to as **proprioception**. A schematic display (see Figure 12.4) may help to understand the sequence of steps involved in biofeedback.

In terms of applications, biofeedback is frequently used for one of these two very different functions:

1. To help individuals achieve a generalized **relaxation response**, for example, reduce heightened arousal in a patient with an anxiety disorder.
2. To help a client improve control or relearn biological functions that are site-specific autonomic self-regulatory processes. This applies to the teaching of pelvic muscular floor muscle control in a case of stress enuresis (problems with urinary flow control) or chronically cold hand and feet due to inadequate blood circulation (Raynaud's disease).

FIGURE 12.4 Biofeedback Schematic Display.



The Training Process

The effect of biofeedback information depends on how it is used. When biofeedback is combined with physical therapy, it becomes biofeedback-assisted rehabilitation. When combined with relaxation training, it becomes biofeedback-assisted relaxation. In its most elementary form, biofeedback does not have to require expensive equipment. The beginning runner can learn about peak heart rates and heart rate recovery by using pulse sensing and counting on his wrist together with the use of a watch to determine acute heart rate and heart rate changes. Also, part of biofeedback training is to strengthen an individual's ability to become more aware of his or her own body changes, referred to as natural proprioception. This principle has been used very effectively to teach patients with frequent epilepsy attacks to sense changes in their electrical brain activity and then use this information to adopt relaxation or other compensatory strategies to prevent a pending seizure (Lubar & Bahler, 1976).

Relaxation or Self-Regulation Methods

Describing the rationales and benefits of different arousal reduction strategies at great length may not be needed here because differences and similarities between various methods have been extensively discussed elsewhere (Lehrer, Woolfolk, & Sime, 2007; Linden, 1990; Vaitl & Petermann, 2000). Furthermore, as the reader will see later in this chapter, the outcomes are much more similar than they are different (Benson, 1975), although proponents of specific techniques predictably stress the uniqueness and differences of their favored methods. The primary purpose of arousal reduction methods is to help people recognize sympathetic hyperarousal and provide them with techniques to reduce such arousal and achieve balance between sympathetic and parasympathetic activation (Linden, 2005; Lehrer, Woolfolk, & Sime, 2007). In addition to teaching a technique, most proponents of relaxation methods (in particular those of meditation and autogenic training, a form of self-hypnosis [see Box 12.7]) stress that experienced relaxation practitioners adopt a more distanced, reflective view of potentially stressful situations in their natural environment (Linden, 1990).

BOX 12.7 AUTOGENIC TRAINING EFFECTS

A number of years ago, I (WL) needed some very minor surgery that required only a local anesthetic. After the surgeon had administered this anesthetic, he said to WL: "I need to look after another patient and will be back in 10 minutes to do the procedure. It takes a bit of time for the anesthetic to be effective anyway, so just relax." Given that WL was alone in the room, not supposed to get up, and with nothing else to do, he decided to go through a well-practiced autogenic training routine. Fortunately, he was not too apprehensive about the procedure itself and was able to focus on the training formulas fairly quickly. He vaguely recalled that the surgeon returned and completed the procedure (which took at most 5 minutes). When he was all done, he gently touched WL and told him it was over. WL gradually got up and when he seemed reasonably alert, the surgeon looked at him curiously and said: "Where were you? You seemed far away and did not respond the way patients usually do; you were very passive, kind of detached." WL told him what he had done, and the surgeon listened with interest. WL was quite surprised that his autogenic exercises had been distinctly perceivable by another person who had no idea what he had been doing. To him, this was a subtle yet powerful demonstration of the effect of self-hypnosis.

When studying multiple self-regulation strategies, the reader quickly learns that aside from differences in rationales and techniques, there are many similarities (Benson, 1975) (see Table 10.3). Benson (1975) argues that the shared features of arousal-reduction strategies (i.e., a vehicle for focus, removal of external stimuli, a comfortable body position, perceived permission to focus on oneself) may be accounting for most of the benefit.

Even though arousal-reduction strategies achieve more than mere physical inactivity does, it is considerably more challenging to show differential benefits and/or ideal matches of particular strategies to specific applications. Benson's (1975) position is that all arousal-reduction interventions share critical features that account for a significant proportion of the benefits. These features include provision of a rationale, permission to focus on oneself, spending time in a stimulus-reduced environment, and the use of a vehicle to facilitate focus of one's attention. Where methods differ most is in the type of vehicle used for attention focusing; in meditation it is the mantra, in progressive muscular relaxation it is the clearly structured and sequenced following of tensing-relaxing steps for various muscle groups, in biofeedback it is the availability of a physiological monitor and displays of one's functions, and in autogenic training it is the structured sequence of attending to formulas that suggest particular physiological changes. The shared target of these relaxation techniques is the production of a relaxation response that includes shifts in the pattern of the electroencephalogram (i.e., increase dominance of alpha activity); reduced muscle tone and blood pressure; and reduced breathing rate with simultaneously greater inspiration and expiration depths. Aside from physiological arousal reduction, these techniques are likely to lead to accompanying changes in subjective arousal, and it is worthwhile for researchers to measure and report biological and psychological changes separately, given that they may not always occur in synchrony. One arousal reduction technique that is somewhat distinct and rapidly growing in popularity is that of mindfulness-based stress reduction (Kabat-Zinn, 2003; Grossman, Niemann, Schmidt, & Walach, 2004). Although mindfulness stress reduction has some of its origins in meditation as practiced on the South Asian subcontinent, it is not to be confused with traditional meditation. As opposed to the passive acceptance that defines transcendental meditation, mindfulness meditation focuses on achieving an astute awareness and the ability to see and accept without judgment one's own behavior and interactions with the environment (Kabat-Zinn, 2003). A potential problem with discussing mindfulness meditation in a comparative sense with other arousal-reduction methods is that mindfulness meditation

TABLE 12.3 Comparison of Relaxation Methods

Techniques	*Role of Therapist*	*Vehicle of Change*
Autogenic training	Therapist instructs and guides, and encourages self-control.	Imagery of organ-specific changes
Biofeedback	Therapist provides instrumentation, instruction, and guidance. Client partially controls the process.	Biological feedback and systematic behavioral or cognitive activity to acquire control
Meditation	Therapist instructs and guides. Client controls the process.	Repetition of meaningless syllable in imagery
Progressive muscular	Therapist instructs and guides. Client follows the instructions.	Systematic tensing and relaxing of specific muscle groups

is considered more of a multicomponent approach. It is more of an intervention *program* rather than just a unitary, single-technique intervention. More details about mindfulness meditation are provided in Chapter 14.

Summary

Biofeedback and other forms of self-regulation training have many advantages. They can be easily standardized and are therefore particularly accessible to therapy outcome research. The self-regulation methods that do not require equipment can also be taught very economically in groups. The range of applications as described earlier is quite wide because arousal reduction is the goal of many different psychological therapies. Self-regulation techniques are also excellent adjuncts or components of the multidisciplinary or multicomponent treatment packages that are typically used in anxiety clinics, in pain clinics, with cancer populations, in sleep clinics, and in cardiac rehabilitation (Lehrer et al., 2007; van Dixhoorn & White, 2005). A potential drawback, especially for self-regulation interventions that require equipment, is that patients can learn quite well how to use the equipment and improve functions in the therapist's office, but then have difficulties in transferring the learning to their everyday lives.

Stress Management

The term "stress management" is so frequently used that everybody seems to intuitively know what it is. Unfortunately, different researchers have assigned highly variable meanings, thus opening the door for much confusion (Ong, Linden, & Young, 2004; Linden, 2005). Stress management as typically practiced is a mélange of techniques, most of which are taught in a superficial manner. Researchers often disagree on operational definitions of what stress management is, thus making it very difficult to compare efficacy studies with each other (Ong et al., 2004). Ong and her collaborators conducted a review of stress management and reported that stress management applications were most often studied for health problems (40% of the sample of studies), workplace interventions (22%), studies with students (16%), sports applications (3%), psychiatric problems (3%), and other (16%). The "other" category included studies of spouses of older people, patients undergoing acute medical procedures, and individuals with low social support and/or poor problem-solving skills. Despite much variation in treatment protocols, the authors noted that a modal type of stress management program existed, characterized by:

1. A preferred group treatment format (59% of studies were group only; 18% paired group and individual sessions)
2. The teaching of a modal number of different techniques (between six and eight)
3. A typical treatment length of six sessions, with a mean session duration of 1.5 hours.

Attempts to classify stress management studies by their theoretical orientation indicated that 77% used an approach that broadly qualifies as a "cognitive-behavioral approach," 85% taught some form of relaxation, 15% used at least one form of biofeedback, 10% were classified as being based on a systems model, and 6% could not be readily classified. Similarities notwithstanding, Ong and colleagues (2004) reported that intervention descriptions were frequently

cryptic and would be difficult to replicate by another researcher. Especially confusing was the use of certain technique descriptions and labels such that (a) techniques may appear to vary across studies although they were actually comparable upon close inspection, (b) some technique descriptors were so vague as to be meaningless, and (c) levels of categorization were often confusing. These observations are further elaborated below.

A Model of the Stress Process: Major Components and Moderating Variables

Aggregation of knowledge from the basic research on the physiology and psychology of stress and coping leads to a model that describes a multistep, sequenced approach with three basic components: (a) stressor, (b) initial response (or coping) and failing successful initial coping, and (c) a lasting physiological stress response (see Figure 12.5). All steps in the process are influenced by known predispositions and coexisting buffers. The term **buffer** is used to describe environmental or personal characteristics that, when present, have been shown to protect an individual against exaggerated acute arousal and to facilitate recovery. While some of these features (e.g., physical fitness) may serve as mediators in a stress-disease pathway, the term "buffer" is used and preferred here because its use does not require the more stringent proof needed for claims of true mediation; on the other hand, calling a characteristic a buffer does not prevent it from serving a mediational function.

The model tries to clarify the sequential process of stress, differentiating stressors from initial responses (coping efforts) and from a (possibly, but not necessarily) ensuing stress response. Individual predispositions are seen as correlated with, contributing to, and/or even shaping stressors themselves. For example, people with high incomes have more control over stressors, possess a wider range of coping options, and potentially have a lower risk of developing stress responses (Gallo & Matthews, 2003). The negative effect of limited resources that accompanies low socioeconomic status is worsened with a pattern of psychological adversity that is characterized by high job strain and low support (Steptoe & Marmot, 2003).

FIGURE 12.5 A Stress Process Model.

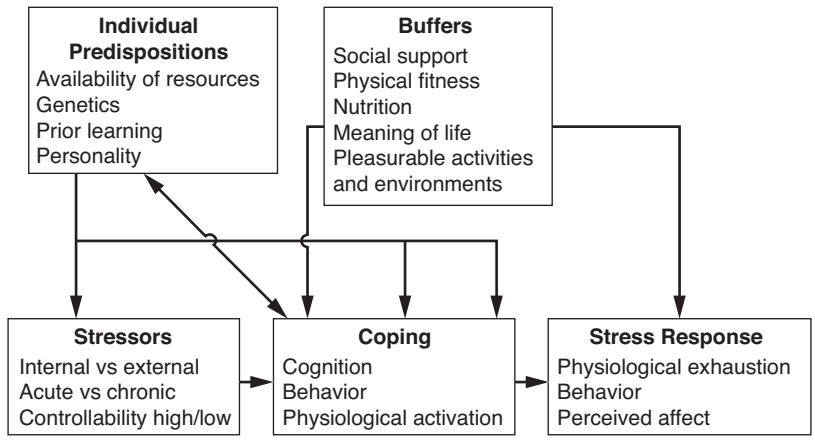


TABLE 12.4 Natural Sequence of Steps in Stress Management

1.	Identification of relevant idiosyncratic stressors in a given person's life, with emphasis on the identification of chronic and social stressors
2.	Examination of the changeability of this stressful environment and development of knowledge about the needed skills for stressor manipulation
3.	Teaching of the cognitive and behavioral skills needed to manipulate stressors and maximize coping (both at an intrapersonal and at a social-interactive level)
4.	Acquiring knowledge, skills, and habits regarding effective creation and use of stress buffers (social support and exercise)
5.	Teaching acute physiological arousal reduction skills
6.	Development of structures, habits, and supportive beliefs that build "scheduled recovery" into people's daily lives

This model of the stress process then lends itself to a logical sequence of steps in building a multicomponent intervention program (see Table 12.4).

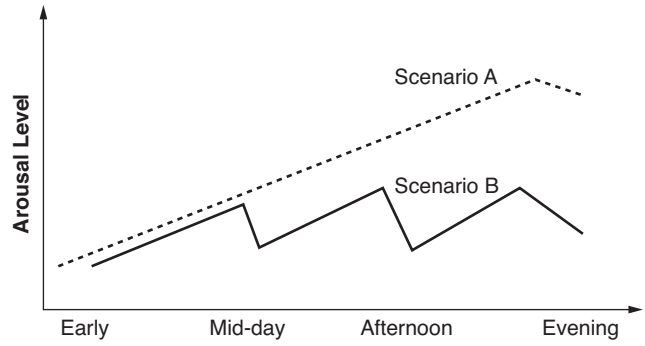
The techniques themselves can be meaningfully organized into four categories: (a) systems or environment interventions (i.e., stressor manipulations), (b) coping skills training, (c) creation of stress buffers (like social support), and (d) arousal-reduction techniques. Most of the typically used techniques have a sound rationale and are grounded in basic research; there is generally supportive evidence for clinical utility from numerous controlled, clinical trials. Stimulus recognition and manipulation are logical first activities in a stress management program, and they represent a primary prevention objective that is germane to stress management. To facilitate communication, researchers and practitioners should distinguish these four classes of stress management techniques and clearly describe which ones are built into an intervention protocol.

On the whole, controlled stressor manipulations and systemic change research have been the "orphans" of this literature—the neglected children, who have received minimal and not well-structured attention. It is noteworthy that European stress researchers see the topic as a societal issue much more than North Americans who tend to see the need to manage stress as an individual responsibility. Best developed is the area of workplace stress that is more likely to deal with organizational issues (i.e., the stressor environment) than are other applications; yet, even here, systemic changes are often asked for and rarely researched and practiced. Also underdeveloped is the area of social skill building that is meant to understand and minimize interpersonal strain, and this vacuum is particularly noteworthy because research described by Linden (2005) has identified interpersonal stress as particularly insidious, persistent, and difficult to recover from.

As a result of this discourse on stress management and its theoretical and practical roots, Linden (2005, p.142) has offered the following definition:

> Stress management is both a set of relatively concrete techniques for distress reduction and skill building, as well as an attempt to view, organize, and shape our world to maximize quality of life even at times of adversity. These two core features do not readily form a coherent, simple definition of stress management; instead, to be meaningful, the definition embraces a broad view of stress that reflects how people interact with each other and how they construct their environment, and that accepts that stress management is both preventive and reactive in nature.

FIGURE 12.6 Schema of 2 Days: One with Nonstop Stress and One with the Effect of Recovery Breaks.



Lifestyles with built-in recovery phases (like evenings off and weekends) are disturbed for the case of shift workers, and many self-employed people take few holidays, if any. During such recovery phases, people may seek out restorative environments like a weekend cabin or a comfortable living room or may read, listen to music, spend time with friends, or walk their dog. A schematic display of how recovery strategies can be systematically used in planning a day is shown in Figure 12.6, where a typical day with continuously rising stress and arousal is displayed as one line and a better-planned day (the goal of good stress management and time planning) is represented in the zigzag pattern of the second line.

The dotted line represents a day with steady demands, no recovery breaks, and correspondingly rising stress or arousal (scenario A); the solid line represents the same amount of demand (i.e., total additive incline in arousal). However, because of recovery breaks the arousal level at the end of the day is much lower (scenario B). This figure is clearly a simplistic way of making a point for the importance of recovery, but showing it to participants in stress management programs can help convince them of the benefits of recovery breaks (Linden, 2005).

Summary

On the whole, the rationales for various stress management techniques map well onto models of how stress can lead to disease. The simplest designs and most closely matched rationales of technique to known pathophysiology are found in the category of arousal-reduction strategies. The area of coping, although recognized as very important for stress management, is vast and yet inconclusive, due at least in good part to ill-defined terminology (Skinner, Edge, Altman, & Sherwood, 2003). Adaptive coping is recognized as requiring a "behavior by situation" match that requires individually tailored strategies and thus does not readily lend itself to group formats and standardized stress management approaches. Although rationales for systemic interventions are sometimes well developed, especially in the organizational behavior literature, the intended systemic interventions still tend to place too much emphasis on individual responsibility rather than needed social policy or system change (Newton, 1995).

In order to increase the comparability of different approaches to stress management, Linden (2005) has proposed a new taxonomy of stress management approaches. The resulting categories and their inherent qualities (and flaws) are given here.

1. Primary Systemic Stress Prevention

This label is applied to a truly primary prevention type of stress management that achieves its goals via system and policy changes. These changes are possibly triggered by empowered individuals but are generally implemented by politicians, administrators, or managers, and they affect workplaces and society at large. Examples would be government programs or policies to reduce poverty; to increase public safety; to minimize harassment due to gender, race, religion, or sexual preference; or to support job stability. While this approach is not the type of work that clinical psychologists typically undertake on a daily basis, the aspirational aspect of such systemic preventive activities is actually mandated in the Ethics Code of Psychologists in many jurisdictions, with the intent of raising the social conscience and the level of emancipation of health professionals.

2. Preventive, Skill-Learning Stress Management

This term refers to a preventive, skill-learning-based approach that is not necessarily reactive to a preceding diagnosis of acute distress; it can be offered as a manual-driven, standardized program because it needs to prepare individuals for a variety of future demands with stress potential that are only partly predictable. It provides individuals with a flexible tool kit and is meant to be the psychological analogy to a "beginner's home repair tool kit" that one can buy in a hardware store. Some narrowing of objectives can be achieved by recruiting intervention participants that share a similar environment; examples would be all employees of a company or all first-year students attending a particular university. On the other hand, if participants come from all walks of life and represent varying age groups, then a broad, multitechnique approach may be best.

Intervention protocols that embrace multiple techniques have earned such loaded and pejorative descriptors as "shotgun" or "gardenhose" approaches; however, the intended use for a preventive purpose justifies the teaching of multiple techniques. If learners do not present with a specific problem to solve (i.e., a trigger to react to), then the acquisition of a wide arsenal of tools for undetermined future use is highly desirable. An analogy to this approach is the vaccination against multiple strains of flu when public health experts cannot foretell which of six possible strains may become the most dominant one in an upcoming flu season. Similarly, not all future psychological or emotional challenges can be forecast, and we can benefit from possessing many different tools in order to be ready for such pending challenges.

3. Reactive, Problem-Solving Stress Management

The third type of approach is reactive to a known, existing problem; it is applied to situations that are predictably and commonly stressful like massive layoffs in a company, dealing with a positive diagnosis of breast cancer and its pending lengthy and frightening treatment protocol, survival in a hostile workplace, or handling the challenges faced by the caregivers of Alzheimer's patients. This approach requires tailoring of interventions to the situational triggers that brought the need for coping to light, and it is probably most efficacious when matched to participant preferences and individual context. A heart disease or cancer patient with a supportive spouse may not need or even benefit from additional support, but may seek to quell her disease-specific fears with accurate information about symptoms and warning signals as well as tips for risk reduction. Nevertheless, the combination of clinical experience and both qualitative and quantitative research can be drawn on to identify frequent and typical stressors and stressor qualities, and this knowledge can be built into treatment rationales and technique selections (Linden, 2005).

Emotion-Focused Therapy

Rationale and Process

As has often been the case in the development of new forms of psychotherapy, a perceived need for a new form of treatment is driven by dissatisfaction with existing therapies. Greenberg's (2002) decision to focus on emotions in therapy can be considered a reaction to the observation that other popular therapies like behavioral or analytical approaches pay relatively little attention to emotions, although emotions are critical for defining our well-being and are very instrumental in defining daily decisions (Greenberg & Johnson, 1988). Emotion-focused therapy has its roots in research in attachment theories, basic research on emotion processing, and the study of interactional patterns in distressed relationships. It should therefore not come as a surprise that the focus and primary application of emotion-focused therapy has been for the resolution of marital problems using a conjoint couples therapy format. By helping couples understand how emotions develop and follow each other, and how the two partners in a relationship mutually influence one another, it is presumed that distress can be reduced or prevented. In order to achieve this end, emotionally focused couples therapy follows a sequence of nine steps, which comprise three phases (Johnson, Hunsley, Greenberg, & Schindler, 1999):

1. Cycle de-escalation
2. Changing interactional positions
3. Consolidation or integration

A more detailed description of the model including all nine steps is presented in Box 12.8.

BOX 12.8 STEPS IN EMOTIONALLY FOCUSED COUPLES THERAPY

Phase A: Cycle De-Escalation

Step 1. Assessment; creating an alliance and explicating the core issues in the couple's conflict using an attachment perspective.
Step 2. Identifying the problem interactional cycle that maintains attachment insecurity and relationship to stress.
Step 3. Accessing the unacknowledged emotions underlying interactional positions.
Step 4. Reframing the problem in terms of the cycle, the underlying emotions, and attachment needs.

Phase B: Changing Interactional Positions

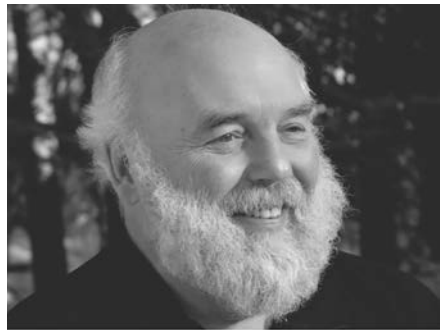
Step 5. Promoting identification with disowned needs and aspects of self, and integrating these into relationship interactions.
Step 6. Promoting acceptance of the partner's new construction of experience in the relationship of new responses.
Step 7. Facilitating the expression of specific needs and wants and creating emotional engagement.

Phase C: Consolidation/Integration

Step 8. Facilitating the emergence of new solutions to old problematic relationship issues.
Step 9. Consolidating new positions and new cycles of attachment behavior.

Reprinted from Johnson et al. (1999) with permission.

PHOTO 12.3 Leslie Greenberg.
Photographer: Priyanthi Weerasekera.



A fairly typical scenario in emotionally focused couples therapy is that one partner is withdrawn and guarded, which is often interpreted by the other partner as a personal rejection. The more one partner rejects, the more the other one calls for more openness and intimacy, and the more threatened the first one feels, causing further withdrawal (Gottman & Notarius, 2000). The therapist will therefore attempt to uncover the reasons for one partner's sense of threat and tries to gradually get him or her to express his or her feelings and contribute to a more active emotional engagement. At the same time, it is necessary that the therapist also develops a deeper understanding of the attachment needs of the other spouse to make it easier for both partners to meet each other's emotional needs. The first step in the change process is to raise the client's awareness and get the client to accept his or her feelings. In the regulation stage, the client must learn to tolerate these emotions and control any self-destructive behaviors that seriously interfere with his or her daily life. The point is not to let emotions spin out of control, but rather to learn healthy methods of coping with one's feelings before the final processes—**transformation** and **reflection**—can occur.

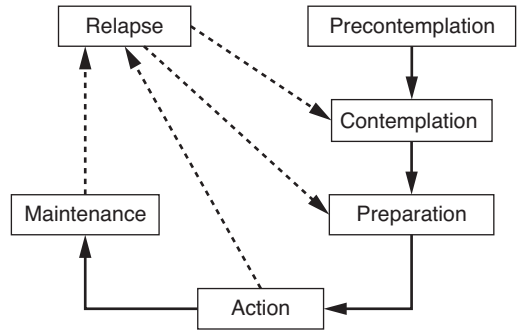
Motivational Interviewing

Origins and Process

Motivational interviewing (MI) was born out of therapists' frustrations associated with the very frequent relapses that occur in the treatment of substance abuse disorders. It is a relatively new mode of client-centered therapy, with a moderately directive therapeutic style. Furthermore, MI is designed to enhance readiness for behavior change as well as support change once the motivation is strong enough. Developed initially for work with alcoholics, it was first described by Miller (1983). Given that it leaves responsibility in the hands of the client, many see it as an evolution of Rogers's person-centered counseling approach, although it can also be blended with cognitive-behavioral methods. MI is theoretically compatible and comfortable with both of these related theoretical approaches; its uniqueness lies mostly in the explicit identification of how ready a client is for change and the matching of interventions to the degree of readiness (Quilan & McCaul, 2000).

The underlying **stages of change model** has been proposed by Prochaska, DiClemente, and Norcross (1992) and are displayed in Figure 12.7.

FIGURE 12.7 Stages of Change.



In a number of ways, the stages of change model and its embedding into the MI approach are similar to mainstream CBT. However, the largest difference between the two treatment methods is that there is an implicit belief in CBT that clients are ready to change when they walk through the therapist's door. Recall that MI has largely been developed for substance abuse disorders, which have previously been treated with some success with CBT. CBT, on the other hand, is seen as a method that presumes that the client is ready for change and is no longer hesitant to change his or her maladaptive behaviors. The MI therapist is explicit in his willingness and patience to ride it out with a client, who may be flip-flopping in his willingness to abstain from smoking or alcohol.

The focus in MI tends to be around a client's ambivalence of quitting and the dynamic nature of resistance. The therapist expects a cycle of attempt and failure and makes no fuss when it happens. In fact, clients are told ahead of time that relapse can happen and that the patient will not be labeled a failure when relapse happens. The therapeutic relationship more resembles a friendly partnership rather than an expert-client interaction. The therapist respects the client's autonomy and freedom of choice (and consequences) regarding his or her own behavior. The therapist, using MI techniques, carefully assesses the prevailing stage of change and then uses this knowledge to implement a matching technique. For instance, a client who is not at all motivated to quit smoking (i.e., precontemplation stage) is at best responsive to receiving health information rather than concrete suggestions for how to quit (see Table 12.5). Much of the process focuses on strengthening the patient's motive for change and on weakening the arguments for maintenance of the problem behavior. Only when a strong motivation for change has been achieved will there be any suggestion of specific behavioral strategies. There are crucial and trainable therapist skills that characterize an MI style. Most important among these are listed here:

- The ability to understand the person's frame of reference, particularly via reflective listening
- Expressing acceptance and affirmation
- Eliciting and selectively reinforcing the client's own self-motivational statements, expressions of problem recognition, concern, desire and intention to change, and ability to change
- Monitoring the client's degree of readiness to change and ensuring that resistance is not generated by jumping ahead of the client
- Affirming the client's freedom of choice and self-direction
- Accurate knowledge about the prevalence, pathophysiology, and cost of the problematic behavior under scrutiny

TABLE 12.5 Motivational Interviewing: Technique Stage Match: Stages of Change and Therapist Tasks

Client Stage	*Therapist's Motivational Tasks*
Precontemplation	Raise doubt and increase the client's perception of the risks and problems with current behavior
Contemplation	Tip the balance and evoke the reasons to change; risks of not changing strengthen the client's self-efficacy for the change of current behavior
Determination	Help the client determine the best course of action to take in seeking change
Action	Help the client take steps toward change
Maintenance	Help the client identify and use strategies to prevent relapse
Relapse	Help the client renew the processes of contemplation, determination, and action, without becoming stuck or demoralized because of relapse

Dialectical Behavior Therapy

Rationale

This chapter so far introduced therapy methods that could be applied to many target problems. However, we think it can also be very informative to show how a therapy approach based in good part on existing methods gets specifically modified and expanded for one particular population of patients. In this case we are talking about **dialectical behavior therapy** (DBT) developed for notoriously difficult-to-treat patients with **borderline personality disorder** (Linehan, 1993a). These patients generally don't think they have problems and tend not to seek therapy on their own. However, when they do, they make huge demands on therapists because they are volatile, histrionic, hypersensitive, seen as manipulative, and at times suicidal. These qualities also imply that they frequently challenge authority (including their therapist), and they are the type of client who is most likely to complain about professionals to their licensing bodies. Marsha Linehan at the University of Washington devised DBT and initiated clinical trials of this distinct approach that has become the gold standard for the treatment of this clinical problem. DBT is based on the premise that the disorder is a consequence of growing up within an environment where children are frequently invalidated, meaning they have been frequently rejected or outright abused, and parental responses to the child's behavior are inconsistent, making it difficult for the child to know how to secure love. The child becomes hypersensitive to stressors especially those involving social acceptance and inclusion and develops chronic problems with emotion control. A pattern of self-mutilation often develops as a means of coping with the intense and painful feelings experienced by these patients; suicide attempts may be seen as an expression of the fact that life is simply not seen as worth living. Patients with profound borderline features reveal histories of frequent episodes of admission to psychiatric hospitals.

Method

DBT is nondogmatic and open, placing much emphasis on the interaction with the therapist. What makes the treatment dialectical is the alternating focus on acceptance on the one hand and change on the other. Thus DBT includes specific techniques of acceptance and validation designed to counter the **self-invalidation** of the patient. Further added is problem solving

and emotion-regulation skill training to help the client acquire more adaptive ways of dealing with difficulties. Dialectical strategies underlie all aspects of treatment to counter the extreme and rigid thinking encountered in these patients, but the treatment is also behavioral in that, without ignoring the past, it focuses on present behavior and the current factors that are controlling that behavior. The therapist is encouraged to be:

1. Accepting of the patient as he or she is, which encourages change
2. Centered and firm, yet flexible when the circumstances require it
3. Nurturing, but benevolently demanding.

Effective therapy requires clear and consistent contingencies, and clients need to learn the limits of behavior acceptable to the therapist; an unconditional relationship between therapist and patient is not seen as possible, and it is possible for the patient to cause the therapist to reject him or her if the patient only tries hard enough. It is in the patient's interests to learn to treat his or her therapist in a way that encourages the therapist to want to continue helping him or her. Unlike most forms of therapy, DBT routinely uses

1. Individual therapy
2. Group skills training
3. Telephone contact
4. Therapist consultation.

This multimodal approach reflects the patient's neediness and is very demanding on the therapist but is seen as necessary to offer the patient a sense of safety. The training aspect itself can be broken down into four modules of skills training that are described in more detail in the therapist training manual (Linehan, 1993b):

1. Core mindfulness skills
2. Interpersonal effectiveness skills
3. Emotion modulation skills
4. Distress tolerance skills.

Borderline personality disordered patients tend to present with a string of problem behaviors that need to be targeted in a structured format to avoid flip-flopping among different therapy focuses. The course of therapy is organized into stages and structured in terms of hierarchies of targets at each stage.

The **pretreatment stage** focuses on assessment, commitment, and orientation to therapy.

Stage 1 focuses on suicidal behaviors, therapy-interfering behaviors, and behaviors that interfere with the quality of life, together with developing the necessary skills to resolve these problems.

Stage 2 deals with post-traumatic stress-related problems (PTSD).

Stage 3 focuses on self-esteem and individual treatment goals.

The targeted behaviors are each brought under control before moving on to the next. In particular post-traumatic stress-related problems like childhood sexual abuse are not dealt

with directly until stage 1 has been successfully completed. How well psychotherapy works is presented in Chapter 13, and special reference is made to the outcome of dialectical behavior therapy.

Acceptance and Commitment Therapy

Acceptance and commitment therapy (ACT) is considered to have its roots in cognitive and behavioral therapies (Hayes & Smith, 2005). What makes it different is the very specific cognition theory that the method's creator, Steven Hayes, has developed and tested over two decades. Hayes argues that many individuals use language and associated learning to maintain their own suffering by repeating behaviors that are not productive. This raises the question why someone would repeat attempting a solution that in reality had never worked? According to Hayes there are a number of reasons for doing this: for one, there is something familiar about the old attempt which makes it easy to slip into and secondly, the individual may not know of a new and better solution, and starting something new that has never been tested is plainly scary. Hayes posits that if old solutions no longer (or never did) work, the only thing left is to make new experiences; and this in turn is the most promising avenue for improving quality of life and reduction of suffering. People are trapped in repetitive thoughts and belief systems. This therapy centers on challenging the belief that human suffering can be avoided or removed. In ACT, there is an initial treatment phase that can be very frustrating for patients because the therapist attempts to convince the patient to accept the fact that to some degree human suffering is normal and inevitable and that desperate attempts to avoid painful experiences actually create suffering or make it worse; this is the **acceptance** component. Another critical component in the rationale is that individuals avoid making new experiences that would help them move forward because they are afraid to try new solutions with unknown outcomes. However, if old attempts at solution routinely fail, then the only avenue of promise is to risk trying new ones even if positive outcome cannot be guaranteed. The latter phase consists of a **commitment** to try risky new behaviors even though the outcome is not yet known and may also fail to solve a problem at first try. Understanding and accepting how one can create one's own problems, and using this insight to build a motivation to try something new, is well captured in a quote from Albert Einstein: *"Insanity: doing the same thing over and over again and expecting different results."*

Mindfulness Meditation

Roots and Rationale

Mindfulness meditation (MM) has its roots in ancient Buddhist practices and beliefs. A number of forms of MM are used today (Linden, 1993). The most common MM approach used in health care settings is based on the Westernized mindfulness-based stress reduction (MBSR) approach developed and evaluated by Kabat-Zinn (1990) at the University of Massachusetts in the late 1970s. He was the first to apply MM in a behavioral medicine setting for populations with a wide range of chronic pain and stress-related disorders.

MM is based on the premise that many people go through life on "auto-pilot," without paying attention to what is going on in and around them. MM training enables individuals to attend to the moment and to explore the full range of physical experiences inherent in posture;

bodily sensations; and pleasant, neutral, and unpleasant feelings and thoughts. This dispassionate state of self-observation is thought to introduce a space between one's perception and the subsequent response such that reactions to life stressors will become reflective rather than merely reflex-like (Bishop et al., 2004; Kabat-Zinn, 1990). MM and other self-regulation techniques already presented in this chapter are not only treatments for diagnosable disorders but are conceived to be useful skills for healthy individuals as well and are considered tools for disease prevention. MM has been taught in medical schools, law schools, and prisons.

Recent research by Davidson (with support from the Dalai Lama) using brain scanning technology that was applied to experienced meditators (Tibetan monks with over 20 years of daily practice) provided evidence that meditation changes blood-flow patterns in the brain (Davidson et al., 2003). These meditation patterns resemble and intensify the left brain blood-flow patterns found in people who are experiencing joy and happiness. This suggests that happiness might be a skill rather than a trait—something that can be practiced and even trained for (Smith, 2004).

The Method

MM teaches its students to allow full awareness (mindfulness) of their thoughts, feelings, and sensations. They are not to be pushed away but to be accepted. One of the most attractive aspects of MM is that once the skills are learned, individuals can regulate their attention to evoke mindfulness in many situations, for example, while stuck in waiting situations like red traffic lights. The same feature, of course, applies to other self-regulation methods like autogenic training (Linden, 1990). A typical 4- to 10-week course in mindfulness training includes instruction in sitting and walking meditation (20 to 60 minutes a day) as well as how to be mindful during all daily life activities to the extent possible. The most frequently cited method of mindfulness training in clinical populations is the structured MBSR program developed by Kabat-Zinn and colleagues. See Box 12.9 for a prototypical description of MM training.

BOX 12.9 TYPICAL MINDFULNESS SITTING INSTRUCTION

As you begin your meditation, simply let go of your thoughts about the past and future, pay attention to the present, and focus on your body's posture and silently note "sitting." Feel the uprightness of the body and try to maintain a balance between letting go and still keeping a somewhat upright posture. Keep it this way from here on without paying too much attention to it. Note the vibration, pressure, firmness or softness, or temperature where the body touches the chair. Breathe normally without trying to actively control your breath. Follow the changing sensations as you breathe in and out. Feel the air flow, the change in air temperature, and lightness. Imagine the notion of rising during the in-breath and falling during the out-breath. You can also use sounds as a vehicle of meditation. Allow awareness and seek and embrace sounds and silent intervals. Feel the vibration at the entrance of your ears without seeking to figure out what sounds they are (not thinking about them). If you find yourself lost in thoughts, rather than judging yourself (e.g., "I should not be thinking about that"), simply acknowledge those thoughts as "thinking" or "wandering," allow them to happen, and don't push them away. Gently bring your attention back to your breath. Patiently begin again and again in the present moment by returning to the primary object regardless how many times the mind wanders. Try to stay with

the primary object until you become concentrated rather than keep changing objects. When your mind becomes more and more quiet, you are able to pay attention to the object that is most predominant, or obvious, at each moment. The object that you are attending to at this point does not reflect the result of an effort. Instead, it comes from a mindset that is choiceless (without preferences and preconceptions) and nonjudgmental and open to all physical and mental objects that are happening at that particular moment in time. It is often described as "bare attention."

You can apply mindfulness during daily activities. Try to be aware of one of the following activities, and add one more each week: feel the sensations that accompany change in posture; feel what steps while walking are like; and be mindful of the arm or hand bending, stretching, or reaching for an object or the pressure or temperature while holding it. An experienced practitioner will also notice mental impulses before such movements. Extend this mindful attitude to all routine activities such as putting on clothes, driving, working in the garden, and so on. A traffic light, a chirping bird, or a computer's preprogrammed sounds can become reminders of mindfulness. Pause and relax for a few seconds, and/or take a couple of mindful breaths, or simply (come back to the present moment and) be mindful of what you are doing at each reminder. Remind yourself periodically to be mindful by asking if you are present (aware) or lost. Check your attitude to see if you are relaxed, having no expectation. It is also helpful to be aware of likes and dislikes in the mind while interacting with people or doing chores. With time, the mindfulness will include thoughts (such as judging) and emotions and their corresponding physical sensations within the body.

Conclusion

In this chapter, and of course also in Chapter 11, we described what are probably the most often used forms of treatment employed by clinical psychologists today. As it apparent by the long list of techniques and approaches, the clinical psychologist has available a very large arsenal of techniques which inevitably also means that intensive training is needed for maximal use. We made an effort to include here approaches that are backed by strong evidence for their effectiveness (detailed in Chapter 13), and they tend to be short term and thus also cost-efficient. A particular strength of the many approaches described in this chapter is that their underlying theories are not in conflict with each other, and a single therapist may be using a blend or sequence of many of these techniques in a carefully tailored treatment program for a single patient.

Ongoing Considerations

Every time a textbook like this is written, the authors make decisions about which therapies should be discussed. To some degree therapies are fads like fashion, although, predictably, we encourage decisions about which therapies to include to be based on strong rationales and demonstrated positive outcomes. All the therapies in Chapters 11 and 12 have long histories, high visibility, good rationales, and generally strong backing by data. Having said that, we also want to entice the reader to go through Chapter 14 where we introduce therapies that are a little more mysterious, more recent, less well researched, and more likely trigger doubts in the soundness of underlying rationales. Equipped with these decision-making tools, you are ready to decide how much evidence is enough before you get interested in a particular approach.

Key Terms Learned

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Thinking Questions

1. Can one conduct cognitive therapy without introducing behavioral elements?

2. How many different self-regulation treatments do we need? Are they not all very similar?

3. What clients are likely going to benefit most from which type of treatment?

4. Can I mix different types of therapy when working with one client who has multiple presenting problems?

5. Does behavior therapy have to be mechanical? How important is the therapist in behavior therapy?

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13 Psychotherapy Outcome

Chapter Objectives

This chapter will:

- Expand on the descriptions provided in Chapter 3 about how to design clinical trials and describe the types of review articles that are used to compare and evaluate outcomes.
- Consider the types of questions being asked when it comes to evaluating outcomes given that different audiences ask different questions.
- Provide summaries and examples about what has been learned about psychotherapy effectiveness as it relates to different approaches to psychotherapy but also to the different disorders that may benefit from psychotherapy.

At first glance, the question of whether or not psychotherapy works does not seem overly difficult. Yet, considering that psychotherapy, as described in Chapter 10, is a dynamic, multicomponent process in which client and therapist influence one another in order to achieve a lasting therapy benefit, one can see that this global question harbors a potential myriad of subquestions. In order to do this complexity justice, this chapter will begin with a brief rereview of the methods that are available for answering questions about therapy effects. Once equipped with tools to understand the pertinent research literature, this chapter begins with a historical review of major developments in psychotherapy outcome research. We will show how outcome research has become much more sophisticated in terms of the questions it asks and also the techniques it uses to obtain responses. Next, actual research findings will be summarized while highlighting the remaining gaps in our knowledge.

Methods

Chapter 3 had offered initial discussion of the research methods that can help determine how well psychotherapy works. Methods range from single case observations to randomized clinical trials with multiple control groups and large samples. There is a logical progression in moving from observations of **single cases** to large **clinical trials**. In terms of observed outcomes, this is reflected in the degree of trust readers can place in the results. As research evidence accumulates, it can become rapidly overwhelming in volume and potentially confusing

because sometimes contradictory findings emerge. It is therefore necessary to regularly take stock, summarize the available evidence, and make practice recommendations.

Even within the options available for conducting reviews, there is a natural progression from qualitative to quantitative methods, from sharing case observations to measuring many process and outcome variables in multiple treatment groups that had been carefully screened for a clinical trial.

Historically, the first type of review used detailed narrative descriptions of the existing studies and summed up the results in a way that reflected the author's judgment of that literature. This type of review is referred to as a **narrative review** because the reader is following the writer as a story is being told. Here is what a paragraph in such a review might look like:

> in the Miller and Jones study (2006, *fictitious reference*) 42 first-year college students were treated with psychoanalysis for their separation anxiety and received an average treatment of 40 sessions; the treatment was considered a success because the great majority reported subjective improvement. In a similar study, also using psychoanalysis to treat separation anxiety, Horvath, Schmidt, and Lee (2005, *also fictitious reference*) treated 25 young patients with documented personality disorder, for a typical treatment length of 24 sessions, and failed to notice substantial improvement in their sample. Given the differential findings of the two studies, differences between the protocols need to be considered in order to understand the seemingly contradictory outcomes. It is possible that in the Miller and Jones study a significant effect was observed because the sample was larger, or because the treatment was longer, or because the patients were reasonably well-adjusted college students relative to the sample of Horvath et al. (2005) whose patients presented with a higher level of pathology. It is also possible that a combination, or interaction, of these three study differences between the studies accounted for the different outcomes. To clarify this issue we recommend that in future studies the researchers keep treatment length and sample size similar in order to facilitate comparison across studies.

The narrative review methodology is particularly suitable to accommodate the many differences that exist between therapy outcome studies, in that studies vary in terms of the presenting problems; their severity; the types and experience of therapists; the differences in clients themselves, including considerations of age or gender or socioeconomic status, and how (and how much) therapy was delivered, and so on. While flexible, this type of review has been considered potentially biased because it is not always transparent how a reviewer arrived at a particular conclusion and there is anecdotal evidence that different reviewers evaluating essentially the same topic still end up drawing different conclusions (mind you, in the previous example the reviewer played it pretty safe and did not finish off with a provocative conclusion). Of course, the public is not very impressed with contradictory findings and is likely to dismiss all research where the outcome does not lead to consensual and useful practice recommendations.

In an attempt to make reviews more objective and easier to replicate, a second generation of reviews used quantitative methods to make decisions about what works and what does not. Consistent with widespread habits in psychological research, therapy outcome researchers have used inferential tests to determine whether a given null hypothesis, namely, that a given therapy "XX" is not useful, can be safely rejected. A decision to reject this null hypothesis is typically based on the determination of a statistical significance value that reveals a probability value of less than .05; if the result $p = .05$ is found, the treatment is called successful. The

practical meaning of this cutoff value of $p = .05$ is that if the study was repeated over and over again, 95 times out of 100 the same results would be obtained. The use of this statistical decision-making method categorizes studies as either success or failure; it dichotomizes outcomes. The resulting information can then be entered into a simple table with **box scores** (Table 13.1).

As Table 13.1 reveals, two questions of interest were addressed, namely (a) whether or not the treatment called bye-bye-depression (BBD) is better than no treatment, and (b) whether or not it is more effective than a pre-existing active treatment. Twenty-four clinical trials were available that met the stated inclusion criteria and that tested whether the hypothetical treatment BBD was superior to a wait-list control group; 15 clinical trials were available to compare this same new treatment with client-centered therapy. As the box scores show, BBD was statistically superior to no treatment in 22 out of 24 tests, and was superior to client-centered therapy in 3 out of 15 clinical trials. Organizing outcome data into a table with multiple cells or boxes is what has led to the name **box score reviews**. If one accepts the usefulness of categorical success or failure decisions, then the conclusion is that BBD is overwhelmingly superior to no treatment but essentially similar in impact to another active treatment, namely, client-centered therapy.

Box score reviews were considered major advances relative to narrative reviews given their objectivity, transparency, and replicability, but they were also soon criticized for their inherent logical and statistical weaknesses and were replaced by a more sophisticated approach. As much of the entire field of psychology gradually became critical of a dichotomous approach, which considers all research findings with statistical probabilities greater than $p = .05$ as null results, so has psychotherapy outcome research (Rosenthal, 1983; Rosenthal & DiMatteo, 2001).

There are valid arguments for why the dichotomy of a less than or greater than $p = .05$ approach is a weak method:

1. *The meaning of cutoffs*: Consider this example: A student who achieved a course performance of 81% is given a letter grade of "A," whereas her friend who achieved a percent performance of 79% received a letter grade of "B." Nobody is seriously going to argue that student A is a much better student than student B just because one is on the other side of the threshold of the A/B distinction; the 2% spread on a scale from 0 to 100 is considered trivial. The same argument can be made for psychotherapy outcome. If 20 clinical trials had been conducted in different cities and varying samples, and every single one of them showed a pre-post treatment effect that was accompanied by a statistical probability of $p < .06$ or $p < .08$ (but failed to reach the typical significance cutoffs of $p = .05$), then a rigid application of the logic of a box score method would lead to the conclusion that

TABLE 13.1 Hypothetical Results From a Box-Score Review on Bye-Bye-Depression (BBD) Treatment

Number of Studies (k) Available	*Number of Studies Suggesting Superior Outcome*	*Number of Studies Suggesting Equivalent Outcome*	*Number of Studies Suggesting Inferior Outcome*
BBD is better than no treatment $k = 24$	22	2	0
BBD is better than client-centered therapy $k = 15$	3	11	1

this treatment is not effective at all—all 20 were "failures." True, it would have been more impressive if at least the majority of the trials had reached the magical $p = .05$ cutoff, but it is still meaningful that all 20 trials replicated this small treatment effect.

2. *Variation in sample size*: A second, inter-related criticism of box score approaches is that they tend to ignore differences in the sample size, such that a study involving 400 patients would make the same contribution to a final judgment as a study that had involved only 15 patients. Even unsophisticated readers will argue that a study that showed important results in 400 patients must be more meaningful than one that showed the same results in 15 patients.
3. *Consideration of statistical power*: Especially in the last few decades, psychology students have learned about the importance of **statistical power** when they are taught how to conduct experiments. They are taught that an underpowered study does not allow the researcher to either accept or reject the null hypothesis. In this context, it is rather striking that some psychology researchers have shown that the typical effect sizes observed in psychology experiments (published in peer-reviewed journals) are remarkably small (typically around $d = 0.3$; Sedlmeier & Gigerenzer, 1989). Therefore, there is good reason to believe that many clinical trials of psychotherapy that failed to show significant treatment effects were underpowered to begin with; they never allowed for meaningful conclusions in the first place (Linden & Satin, 2007). This lack of power translates into overly negative conclusions, suggesting that psychotherapy does not work. While grant review panels for clinical trials routinely refuse funding for underpowered trials, providing a well-justified estimate of the needed sample size is not necessarily sufficient to eliminate the problem because (a) researchers may estimate quite correctly how many participants are needed for a properly powered trial but then fail to obtain the needed numbers because they run out of time or money, or both; or (b) researchers make a solid educated guess of the anticipated effect size but may still overestimate the attainable effect at the time of trial planning, or, conversely, may underestimate how much better the untreated control group patients would get on their own.

The solution to the weaknesses of box score analysis has been (a) to obtain a single statistic for each available and comparable clinical trial that captures group mean scores and their variability, and (b) to assure that the contribution of this statistic to the final conclusion is weighed by the differences in sample size for each study. Studies with large samples should have a greater impact than those with small samples. This method has become known as **meta-analysis** and is now a very frequently used tool not only in psychotherapy research but also in other areas of research. The full statistical intricacies of meta-analysis have become a booming area of theory and research, and we will not attempt here to delve deeply into these aspects (Rosnow & Rosenthal, 1996). Nevertheless, the basic logic and method of meta-analysis is not complicated, and the reader who understands it can easily draw his or her own conclusions from the many published meta-analyses that are summarized later in this chapter. In fact, we consider basic knowledge of how meta-analysis works and what **effect sizes** mean crucial information for any budding clinical psychologist. It is pivotal that readers not proceed to the results tables shown later in this chapter if they do not understand the meaning of an effect size.

Depending on the nature of the data set and the scaling levels of the tools used for data acquisition, there are many different types of effect sizes that can be used in meta-analysis. The most frequently reported effect statistics are the correlation coefficient r and the so-called Cohen's d effect, where a $d = 1.0$ for psychotherapy means that the average patient after treatment is one standard deviation better off than he or she was prior to treatment. How to calculate an effect size is best demonstrated with a concrete example (see Box 13.1).

BOX 13.1 HOW TO COMPUTE EFFECT SIZE D

Example:

A new treatment, bye-bye-depression (BBD), is tested, and the scores on a self-report questionnaire (high score = high depression) taken before and after therapy look like this:

Pretreatment mean score (M1) = 24 (SD = 12)
Post-treatment mean score (M2) = 16 (SD = 8)

Computation of effect size *d* is based on this simple formula:

$$\frac{\text{Mean at post-treatment (M2)} - \text{mean at pretreatment (M1)}}{(\text{SD1} + \text{SD2})/2} = d$$

It is considered best to average the standard deviations accompanying these two means.

In our case: Step 1 (nominator) M2 – M1 = 24 – 16 = 8
Step 2 (denominator) (12 + 8) / 2 = 10
Step 3 (solution) 8 / 10 = .8

Effect size (*d*) = 0.8

There is no need to be scared away from meta-analysis because the basic underlying arithmetic requires no more than grade 8 math skills and can even be done with the help of a $3 pocket calculator.

For the remainder of this chapter, we are reporting tables and outcomes reflecting only effect size *d* to avoid any confusion. Psychologists tend to favor Cohen's *d*, whereas in medical journals the preferred effect size is *r*. Unless it is made obvious by authors, the astute reader of meta-analyses should seek clarification each time which effect-size statistic was used. This is important because the resulting numbers have very different meanings. On the other hand, one type of effect size can readily be converted into another using tables or formulas (Rosnow & Rosenthal, 1996). We also explain whether reported effect sizes describe change within a sample (pre-post treatment effect) or are based on comparisons across treatments. It is common practice to call an effect of approximately $d = .2$ a small effect, $d = .5$ a moderate size effect, and $d = .8$ a large effect.

A Brief History of the Key Findings From Therapy Outcome Research

Researchers and clinicians have asked for a long time how effective psychotherapy is; however, the British psychologist Hans Eysenck (1952) is considered the author of the first major review paper on psychotherapy effects. Review of existing medical charts of 7,000 patients led to the conclusion that the rate of "improved" patients who received psychotherapy was no better than those who didn't receive therapy; more specifically, those who received no particular treatment showed 72% remission of their problems after 2 years, whereas those who

had received psychoanalysis showed improvement in only 44% of the cases, and others who received (ill-defined) eclectic therapy reported improvement rates of 64%. This was definitely not what anybody considered to be a promising beginning.

Critics quickly came alive, criticized the methods, and challenged the conclusions of the review. First and foremost, Eysenck's data were not derived from controlled trials, and the groups were unlikely to be actually comparable at the point of hospitalization, in terms of social class, illness severity, or illness type. Also, this conclusion required that the reader would trust that all hospitals and health care providers kept records the same way and made their clinical decisions in a fully standardized way. Eysenck's very pessimistic conclusion was soon undone with more and better reviews (Luborsky, Singer, & Luborsky, 1975; Smith & Glass, 1977; Shapiro & Shapiro, 1982), but Eysenck nevertheless deserves credit for having challenged people into critically thinking about these questions and to come up with better methods leading to results that consumers can actually trust.

The methods described in Chapter 3 and earlier in this chapter for evaluating and describing the effects of psychotherapy are the standard tools of researchers trained in psychology; however, the potential value of psychotherapy can also be assessed using surveys of the type that commercial polling companies use to evaluate voter preferences in election campaigns or to assess whether consumers prefer bacon *A*, *B*, or *C*, or soft drink *P* versus *C*. A particularly influential survey of this nature was published in *Consumer Reports* (1995), a magazine that routinely describes comparisons of a variety of consumer goods but also occasionally compares services like cell-phone providers or insurance companies. In this survey, 4,100 respondents who had seen a mental health professional during the past three years were asked to describe their experiences (Seligman, 1995). A potential criticism of this survey is that the respondents tended to be more educated than is true for the general US population. Respondents were to provide commentary on these aspects:

- The degree to which professional treatment had helped alleviate the presenting problem;
- How satisfied they were with the treatment they had received;
- How they judged their overall emotional state as a result of the professional intervention.

Of these 4,100 responses, about 90% reported that they felt better after having received professional treatment; there was no reported difference in the effect of psychotherapy alone versus psychotherapy plus medication, and these consumers did not indicate any particular preference for one approach over another. Across the different professional groups who had provided such treatment, essentially all were perceived as helpful, and psychologists, psychiatrists, and social workers were described as having been more effective than family physicians or marriage counselors. There is little debate that such surveys suffer from the usual weaknesses of self-report; however, it is these very subjective experiences that determine whether these respondents would return for psychotherapy if needed and also whether or not they provide word-of-mouth advertising for psychotherapy. Positive word-of-mouth advertising, in turn, is the best marketing psychologists can obtain and cannot be bought even with lots of money. Therefore, it makes sense to add the information that can be obtained from such consumer satisfaction surveys to the conclusions that are available from controlled research.

As described earlier, quantitative reviews can be clustered into two groups, namely, box score reviews and meta-analyses. The results from a series of box score reviews have quite consistently indicated that active psychotherapies are largely similar in their effect and

that the majority of treated patients do get better. What does stand out as more effective than other active treatments is the use of behavioral exposure techniques for phobias (Feske & Chambless, 1995; Linden, 1981). The truly remarkable similarity of magnitudes of change across treatments has received the commentary that "everybody has won and everybody should win a prize" (Luborsky et al., 1975). This expression stems from the book *Alice in Wonderland*, where a number of animals engaged in a race but took off in different directions such that the speed of their running couldn't be directly compared with each other; there actually was no race. This "everybody-has-won" conclusion had been drawn by the dodo bird in the novel, and Luborsky's comment has subsequently been called the "**dodo bird verdict**."

Why Do We Do Meta-Analytic Reviews and What Questions Are They Trying to Answer?

Given the dissatisfaction with box score reviews (Table 13.1 was a hypothetical demonstration of a results table), the addition of meta-analyses has dramatically changed the world of psychotherapy outcome research because much more sophisticated questions could be asked and more differentiated conclusions were possible. The obvious overall questions asked in meta-analyses are whether a given treatment XX alleviates a particular disorder and whether (or not) treatment XX is superior to other available treatments. The first question can be answered by computing effect sizes for within-person changes following therapy (pre-post or within effect sizes), and the second question is answered by showing that treatment XX is associated with a statistically significantly greater effect size than a comparison treatment (between-group comparison). This type of comparison requires controlled clinical trials with built-in comparison groups. All comparisons of this nature are commonly referred to as "horserace comparisons," where each therapy of interest is directly pitched against one another, just like horses at a race starting simultaneously at the same starter line to determine who the fastest racer is.

Before dousing the reader with actual outcome data (of which there are plenty), a little injection of critical thinking, providing a set of reading glasses, may be beneficial. Many critics of meta-analysis have justifiably argued that the results, however clear they may look, are worth nothing if the study selection process was disorganized or illogical and if the data extraction process was faulty. This type of criticism has been given the catchy descriptor of "garbage in = garbage out." It is therefore necessary to show that truly comparable methods have been pitched against one another (like "all psychological treatments for major depression"); that the literature was sampled in a comprehensive, transparent, and replicable fashion; and that the data extraction process was also transparent, well-explained, and meeting the basic statistical principles (Rosenthal & DiMatteo, 2001).

As was described in considerable detail in Chapter 10, the outcome of psychological therapy is affected by many demographic and process features that can and should be considered in meta-analysis. Therapy outcome may be affected by:

- Experience and training of the therapist
- Ethnicity
- Gender of the client
- Gender of the therapist

- Age of the patient
- Level of distress prior to treatment
- Quality of the alliance between therapist and patient
- Adherence by the therapist to the required treatment protocol
- Length of therapy
- Delivery form (single client or multiclient)

These types of factors are considered moderator or mediating factors depending on the role they play (Baron & Kenny, 1986). Meta-analysis not only provides an overall effect size for a given treatment but also permits further exploration of mediating factors that explain how the good outcome came about. Study of these moderators may be particularly useful for clinical practice because the moderators not only help decide which treatment technique is suitable but also reveal how this treatment should be delivered, who should offer it and for how long, and which type of client is most likely to benefit from it. Linden, Phillips, and Leclerc (2007), for example, observed the surprising finding that psychological cardiac rehabilitation was effective for men but not for women, and that distressed patients treated early after a heart attack did not benefit from this treatment whereas those who were recruited many months later benefited greatly. The explanation given was that many patients have good natural supports and personal resilience and may rebound quickly even without professional help; on the other hand, those who are coping poorly even 4–6 months after the event may be the ones most in need of help.

Another important consideration is what type of outcome the effect size refers to. The underlying question here is whether the result is statistically significant or clinically meaningful or both. Aside from mere statistics, what needs to be considered is the **value of particular outcomes**. A good example is that of the well-known Aspirin trial, where it had been shown that the active treatment group taking Aspirin rather than placebo had a roughly 50% reduction in mortality, which was reflected in a very small effect size of a measly $r = .034$ (roughly $d = .10$; The Steering Committee, 1989). The higher mortality rate in the control group, however, was considered so problematic that the trial was stopped at this point, and the conclusion was that Aspirin should be routinely given in clinical practice to minimize the risk of developing cardiovascular disease.

The Golden Fleece of the applications of psychological interventions for health problems has been the attempt to extend life with psychological treatment. However, even this seemingly worthy goal has been subjected to much discussion (Coyne, Stefanek, & Palmer, 2007) because overemphasis on extending life may push aside treatments that alleviate distress and improve quality of life as being trite, although patients themselves may consider these changes extremely meaningful. Also, as is discussed in Chapter 19, patients themselves, especially when they are older and already have many health problems, do not necessarily think of a longer life as a highly desirable outcome if it simply means more suffering.

With respect to the marketability of psychological services, outcomes are particularly important when they affect costs and benefits. Later in this chapter, one section is devoted to show whether or not the implementation of psychological therapy can be offset by financial gains, like reduced medication costs. Third parties, like employers and insurance companies, are particularly excited by psychological therapy outcomes that get their patients back to work more quickly, or reduce the duration of disability pensions; or reduce the number of times that patients come to the emergency room, visit their family physician, or require hospitalization or repeated surgeries. A quick example can powerfully back this point. Let us

consider an individual who earns $80,000 a year, and including benefits, costs the employer $100,000 per year. This individual might receive a disability pension of $60,000 a year if he is unable to work due to injury, provided, of course, he had a good insurance plan. If such an individual returns to work within 6 months after having received excellent psychological rehabilitation, instead of 2 years without such help, $90,000 would be saved. Even if the therapy consisted of 20 sessions that had cost $200 each, the total therapy cost of $4,000 would still leave an absolute saving of $86,000. No wonder disability insurance companies are interested in psychological therapies!

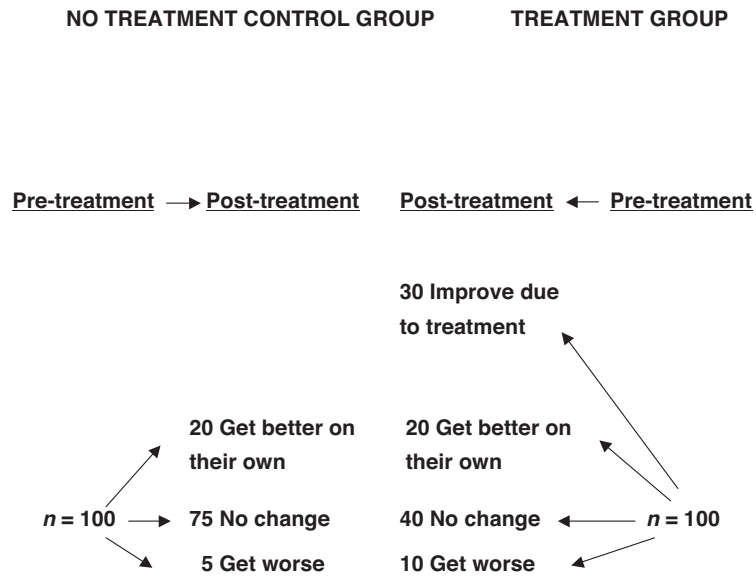
Also of interest is the question which type of measured outcome is important for whom. If somebody is particularly interested in a psychodynamic therapy approach where the desired result is a gain in ego strength, this can be assessed via self-report or therapist rating. The self-report measure of gain in ego strength might reflect an effect size of d = 1.2, which is an impressively large effect that compares favorably with other outcomes of psychotherapy. However, it would be pretty difficult to convince an insurance company that it should spend thousands of dollars for an outcome that reflects a psychological concept without also knowing what such change means in terms objective markers like, for example, quicker return to work or better performance in university. This type of reasoning has led many researchers who have published meta-analyses to cluster the outcomes they are studying into variables like:

- Mortality rates
- Reoccurrence of a critical event (like another heart attack)
- Reduced use of medications or fewer physician visits
- Biological markers of a disease (like reduced cholesterol levels)
- Important behavioral outcomes (like reduced recidivism in a violent offender)
- Self-report measures of distress

Each of these outcomes may be associated with the same statistical effect size, but the implication for real-life applications (also referred to as **ecological validity**) depends on who is involved and what the objective of the treatment was. If the benefits of psychotherapy can be shown to be similarly true for a variety of different classes of outcomes, then it is much easier to sell this form of therapy to nonpsychologists and to convince hospital administrators of the need for psychologists on staff and insurance companies of the need to pay for psychological services.

The primary focus in publications of treatment outcome studies is on **group means** and on the variability of change within the group; this approach makes the study very suitable for statistical analysis. What this type of data reporting does not tell us is what happened to **individual patients**, although the answer to this question is pivotal for clinical practice. If you were a patient with an anxiety disorder approaching a psychologist, you will want to know what the probability is that you will get better and how many sessions are needed to achieve this. You're not likely to care very much about what happened to a group of people receiving similar treatment elsewhere (although that may be all the psychologist can tell you). Therefore, in order to fully understand what happens to people in treatment groups and in control groups, researchers need to pay attention to the numbers of patients who actually improved, to determine how many did not change, and consider the possibility that somebody might actually get worse. How the reported mean changes in a therapy study may have come about is elegantly described in Figure 13.1.

FIGURE 13.1 Butterfly Diagram of Treatment Effects, in Subgroups.



The layout of this display looks like a butterfly (with slightly different-sized wings, though) such that the two columns on the far outsides are comparable to each of the columns on the inside; each butterfly wing represents the process of change in one group. This graph illustrates how a psychotherapy where the group means of the treatment group were significantly superior to the group means of a control group but this difference harbors considerable variability in outcomes. Oftentimes, significant improvement occurred in only a small group of patients, but that may suffice to produce statistically significant differences between the group means. This is then called a successful therapy, but anybody trying to sell this new therapy to the real world is not going to be very convincing if the reported superior outcome was derived from only 30% of the patients in the trial. The feature that is often forgotten is that patients can also get worse, and treatment should not be automatically considered to be benign for everybody. For obvious ethical reasons it is important to look at all individual outcomes and determine whether there is a subgroup of patients for whom treatment led to deterioration. If such a group exists, it is then mandatory to investigate whether this poor outcome can be predicted and prevented in future trials.

Similarly relevant is the question of duration of treatment effects. Ideally, of course, we seek a cure for the presenting problem, meaning that the benefits observed at the end of treatment last a lifetime. This assumption about psychotherapy effects requires testing via extended follow-ups, which reveal the degree to which treatment benefits are maintained. Conducting follow-up investigations can be a costly and frustrating experience because patients themselves, even if they had benefited greatly from therapy, may not want to return for follow-up tests because in their heads the study has been completed. As a consequence, many published clinical trials report no follow-up data, and even when follow-up data are collected, the follow-up lengths rarely exceed 6 months beyond the end of treatment.

An additional potential frustration is that the kinds of processes that make psychotherapy work may also exist outside of the therapy environment, and patients may coincidentally

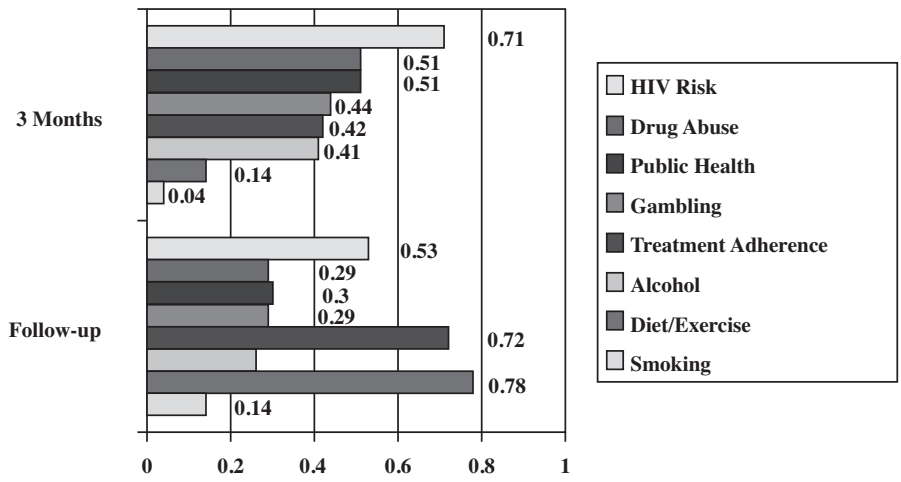
learn new things that either account for relapse or facilitate maintenance of gains. This may occur via:

- Media reports about the outcome of other trials
- Information or advice received from a family physician or family members or friends
- Information that patients read about on the web

One good example for demonstration purposes may be that of a weight-loss program. Once an individual has completed a weight-loss program (a successful one, it is hoped), he will be continuously hammered with new information in the media about new trends in weight-loss programs. It is likely that this type of information has a **confounding effect**, and that weight maintenance at 1 year is not necessarily attributable to the structured weight-loss program that the patient had participated in earlier on. Another twist in the study of maintenance of treatment gains is that some patients may not improve from pre- to post-test but then show significant improvement during the follow-up period; these people are sometimes described as **sleepers**, and the phenomenon is probably best explained with psychotherapy being the equivalent of a planted seed that did not begin to grow until therapy itself was over. Linden, Lenz, and Con (2001) have observed such a phenomenon in the treatment of high blood pressure with a stress management approach. A researcher not conducting extended follow-up will miss this interesting phenomenon and may underestimate the potential of his treatment approach.

The same logic can also be applied to test the question of whether a treatment that is suitable for multiple applications will be equally good in affecting all outcomes; it is possible that the same treatment may produce good short-term benefits that don't last for one application, but may trigger the opposite pattern of responses for other targets. Such effects have been carefully evaluated and elegantly displayed in a meta-analysis of the effects of motivational interviewing (Hettema, Steele, & Miller, 2005; Figure 13.2).

FIGURE 13.2 Mean Combined Effect Size by Problem Area ($N = 72$ Clinical Trials).



Source: Hettema et al. (2005).

What Has Been Learned From Existing Meta-Analyses?

Meta-analysis quickly became popular, and its application spread like a wildfire. In the first era, there were two major meta-analyses that have arguably set the tone and were very influential (Smith & Glass, 1977; Shapiro and Shapiro, 1982). A number of tables from these analyses are reprinted here, and we have extracted data and recreated tables that:

- Describe outcomes as a function of technique (reflecting what we have previously called a "horserace comparison"; Table 13.2).
- Show the effectiveness of psychotherapy in general (clustered together across different types of therapy) for a large number of different applications (Table 13.3).

In this second edition of the textbook we have a newly created Table 13.4 that lists effect sizes for well-established and also newer psychotherapies that were not covered in early meta-analyses.

Table 13.2 is taken from the meta-analysis of Smith and Glass (1977) and provides two statistics for each type of therapy mentioned, namely, the effect size *d* as well as a percent equivalent, which refers to the number of treated patients who are better off after therapy than those who did not receive the treatment in question. The overall effect size for active treatment (comparing pre- with post-tests) is $d = 0.85$ and is therefore classified (using the standard language) as a **large effect**. However, there is a lot of variation in the effects, and these require some thought and discussion. Most therapies fall in the range of 0.60 to 1.1, but there are two notable exceptions. One is the relatively small effect for undifferentiated counseling. The other is the reported effect of 2.38 for cognitive therapies, which looks rather stunning. It should be noted, however, that this number is based on a relatively small number of clinical trials that were indeed very successful, whereas the addition of further clinical

TABLE 13.2 Average Effect Size (ES) and Percentile Equivalent for Select Forms of Psychological Intervention

Type of Therapy	*ES*	*Percentile Equivalent (%)*
Psychodynamic therapy	0.69	75
Client-centered therapy	0.62	73
Gestalt therapy	0.64	74
Rational-emotive therapy (RET)	0.68	75
Non-RET cognitive therapies	2.38	99
Systematic desensitization therapy	1.05	85
Behavior modification therapy	0.73	77
Cognitive-behavioral therapy	1.13	87
Undifferentiated counseling	0.28	61
All forms of psychological intervention	0.85	80

Note: Percentile equivalent indicates the percentage of those not receiving treatment whose outcome is exceeded by those receiving the treatment in question.

Source: Adapted from Smith and Glass (1977).

TABLE 13.3 Effect Sizes (ES) for Different Treatment Targets

Breakdown of ES by Treatment Type and Target Class					
Target Class	*Treatment Type*				
	Behavioral	*Cognitive*	*Dynamic/Humanistic*	*Minimal*	*Total*
Anxiety and depression					
ES	.74	1.34	.40	.38	.67
x	21	1	5	3	30
Phobia					
ES	1.46	.92		.66	1.28
x	56	9		11	76
Physical/habit problems					
ES	1.19	.37	.37	1.07	1.10
x	80	5	5	14	104
Social or sexual problems					
ES	1.08	1.19	.36	.55	.97
x	51	9	8	6	74
Performance anxieties					
ES	.81	.97	.65	.36	.80
x	102	15	2	7	126
Total					
ES	1.06	.94	40	.71	.98
x	310	39	20	41	410

Note: ES = effect size; *x* = number of groups.

TABLE 13.4 A Selection of Reported Psychological Effects for Various Types of Interventions

Treatment (Author/s)	*Number of Studies From Which Effect Size Was Calculated*	*Effect Size for Pre-Post Comparison*	*Effect Size (d) for Treatment Effect Relative to No Treatment Control*
Motivational Interviewing (Hettema et al., 2005)	72	.77 Shrinking to .30 at follow-up	
Cognitive-behavioral therapy for eating disorders (Lewandoswski, Gebing, Anthony, & O'Brien, 1997)	26	Behavioral measures 2.2 Cognitive-attitudinal 1.9 measures	Behavioral measures 1.7 Cognitive-attitudinal 1.7 measures

(*Continued*)

TABLE 13.4 (Continued)

Treatment (Author/s)	*Number of Studies From Which Effect Size Was Calculated*	*Effect Size for Pre-Post Comparison*	*Effect Size (d) for Treatment Effect Relative to No Treatment Control*
Short-term psychodynamic treatment (Abbass, Town, & Driessen, 2012)	21	Interpersonal problems 0.84 Depression 1.51	n/a
Acceptance & Commitment Therapy for chronic pain (Veehof, Oskam, Schreurs, & Bohlmeijer, 2011)	22	Pain reduction 0.37 Depression 0.32	
Mindfulness meditation for binge eating (Godfrey, Gallo, & Afari, 2015)	19	Reduced binging 1.12	Reduced binging 0.70
Autogenic training (Stetter & Kupper, 2002)	60	Biological measures .68 Subjective measures .75	n/a
Long-term psychodynamic (Leichsenring, 2008)	23	Complex disorders 1.8	n/a

trials has led to a **regression to the mean** effect. Together, these data also demonstrate what Luborsky et al. (1975) meant when he said "everybody has won and all deserve prizes" in that most active treatment appears to produce very similar effect sizes.

The data shown in Table 13.3 reflect a more sophisticated approach to assessing therapy outcome because it integrates the two dimensions of different treatment types and different target problems to which treatment is applied. This table was reprinted with permission from the meta-analysis by Shapiro and Shapiro (1982), and we begin the discussion by citing typically observed effect sizes. The average effect size for active treatments (pre-post test) ranges from $d = 0.93$ to 0.85 (these aggregated figures do not show in Table 13.4), and indicate that even different review strategies and different reviewers end up with largely comparable conclusions, namely, that psychological therapy typically produces a large pre-post effect. Shapiro and Shapiro (1982) clustered different treatments into fewer categories (reflecting more studies in each) and found a very similar overall effect but also a narrower range of effect size. Cognitive-behavioral approaches revealed notably larger effects than dynamic and humanistic approaches and minimal treatment. Although the relatively strongest treatment effect is seen for behavioral treatments, it is noteworthy that in the area of achievement motivation and personality change both are substantially weaker than is observed for other treatment orientations, such that dynamic and humanistic therapies led to stronger outcomes for these applications.

In Table 13.3, the objective was to show the differential effects that psychotherapy can bring about for a wide variety of treatment targets without considering differential effects for different techniques. There we see major categories of treatment targets like "anxiety and depression" or "performance anxieties," and each of these categories is further broken down into more narrowly defined targets within this category. While not wanting to comment on every number in this fairly comprehensive table, it may be worthwhile to pay attention

to outliers, namely, the very large effects ($d > 2.0$) for the treatment of fear of flying and rat phobia as well the lack of effects for generalized anxiety disorders and public speaking anxiety and stuttering. Together, the information provided in various meta-analyses clearly indicates that the clinical psychologist has access to an impressively large repertory of effective treatment approaches. The typical effect size observed for psychological therapy for pre-post changes is roughly in the neighborhood of $d = .08$ to 1.0.

The amount of information given earlier about the effect of psychotherapy outcome was fairly detailed (we hope not overkill!), and still it is only an overview of the vibrant literature on psychotherapy outcome research. Given that such an explosive growth of information can easily lead to confusion, two researchers have conducted what is best called a meta-analysis of meta-analyses, in which they culled the results from hundreds of meta-analyses that had measured change within psychological interventions (Lipsey & Wilson, 1993). A number of intriguing observations from this review will be summarized here. The more "traditional" therapies listed earlier typically have large effects with averaged *d* scores for within patient change: pre-post effects ranging usually around .8 to 1.0 (Lipsey & Wilson, 1993). Minimal treatments (which tap the nonspecific effects) usually have a pre-post effect ranging from $d = .3$ to .5, thus backing the earlier statement (see Chapter 10) that about half of all treatment outcomes is accounted for by nonspecific factors like quality of the therapeutic alliance, support, and normalization.

Methodology leaders in psychotherapy research have urged researchers to adhere to quality standards so that the findings can be trusted. The prediction was that poor quality studies will produce highly varying and nontrustworthy results. The Lipsey and Wilson (1993) review has explicitly addressed many of these questions and has provided us with some surprising answers, namely, that methodology variation had less impact than was anticipated. Here are the conclusions that, at least in some instances, came as a surprise:

- Published studies overestimate the effects of treatment relative to unpublished studies by about 20%, suggesting that it may be harder to publish papers with weak results.
- Studies with high methodology quality ratings led to neither stronger nor weaker outcomes ($d = .40$ versus $d = .37$).
- Studies with very large samples ($n > 100$) produced weaker effects than those with small samples ($n < 50$; $d = 0.35$ versus $d = 0.58$).
- Studies with randomized assignments to treatment conditions lead to effects of similar magnitude than did studies without random assignment ($d = 0.46$ versus $d = 0.41$).

The Lipsey and Wilson review (1993) is exceedingly comprehensive and solidified earlier observations. Since this massive and comforting review, researchers now ask more fine-grained questions about things like: Is treatment of depression more potent with or without parallel drug therapy? Or can we determine how many sessions of therapy are needed for the most cost-efficient benefit, that is, is there a point where more treatment no longer provides additional gains in distress reduction? Should we schedule treatment sessions once a week or more often? This textbook can only scratch the surface of all the questions one can ask about moderators of outcome; nevertheless, for demonstration purposes we offer some thought-provoking observations to the questions asked above. The outcomes described here stem primarily from a stream of reviews about treatment of depression that were authored by Pim Cuijpers and his colleagues from the Netherlands (Cuijpers, 2017). Three examples of many available and clinically relevant findings are offered: namely, number of sessions, spacing of sessions, and questions about pairing psychological treatment with drug treatment.

First of all, Cuijpers (2017) confirmed reports made elsewhere that many patients don't receive enough sessions of therapy for maximum benefit and that typically the best balance of cost-effectiveness is achieved for treatments that last between 10 and 20 sessions. Also, it turned out that spacing of sessions critically affects outcomes in that more than one session per week is ~ 20% more effective than one session per week, which in turn is superior to sessions being spaced out over longer time periods. Given that both drug treatment and psychotherapy for depression are effective on their own, one can also ask the question whether packaging them together can be even more effective. In the short as well as in the long run, adding psychotherapy almost tripled the effect of drug treatment alone and adding drug treatment to psychotherapy appears to enhance the benefits by about 30–40%.

Cost-Effectiveness of Psychological Therapies

When one considers the fact that medicine has been around for thousands of years whereas psychotherapy has existed for only about 100 years, and that real variety in psychological treatment approaches has existed only for the last 50 or so years, it is no wonder that clinical psychology is still a "newbie" in health care. This "newbie" needs to raise its visibility and market itself. Although 10 sessions of psychotherapy cost only a fraction of what surgery or a lengthy hospital stay cost, there is no debate about the need for certain surgeries and hospitalizations. On the other hand, patients themselves as well as insurance companies want to know how effective and cost-effective psychological services are if they are to pay for them. Given the cost explosions in health care worldwide, clinical psychology has no choice but to both document how effective services are and show what the cost implications are. The strongest possible case is, of course, that the systematic use of psychological therapies will reduce the cost of health care overall and ideally also have an impact on other costs; for example, those related to workplace accidents, absenteeism, or low productivity that all may have been the result of poor mental health. What do the data tell us? Can we actually show how psychotherapy costs are offset with savings in other areas of our economy?

Fortunately, there has been a great deal of interesting and useful research on the topic, and clinical psychology is an excellent position to market itself. Hunsley (2003) provided a thorough review of existing literature on the cost offset of psychotherapy services. He reported that 90% of all studies on cost offset have shown that the gains in terms of reduced overall health care costs are greater than the cost of psychotherapy itself, typically leading to cost offsets of 20% to 30%. Note that these analyses have looked only at how much is saved in terms of direct health care costs rather than the economy as a whole.

Cost benefit or cost offset analyses can be done in the various levels of depth and detail. To be truly comprehensive, such an analysis should not only describe how much money treatment has cost relative to other health care expenses but also include an evaluation of the benefits to the economy (e.g., by calculating the economic gain of an earlier return to work, reduced absenteeism, or higher work productivity; Zhang, Rost, & Fortney, 1999). This would be a truly comprehensive evaluation; however, an analysis of such depth is extremely difficult to execute and likely beyond the means of the typical clinical trial researcher.

A good compromise, demonstrating Hunsley's (2003) conclusion, would be an evaluation that tracks in reasonable detail changes and other health-related behaviors to which a dollar amount can be attached. In some medical systems it is possible to extract information on the average cost of a physician visit or a day spent in an acute care hospital bed. A good example of such an evaluation has been provided by Linehan and Heard (1999) in a relatively

TABLE 13.5 Example of Cost-Effectiveness Demonstration

Health Care Cost Variable	*Dialectical-Behavioral Therapy (n = 22) in dollars*	*Control Group (n = 22) in dollars*
Outpatient treatment cost (including individual and group treatment)	5,410	3,938
Psychiatric in-patient treatment cost	1,366	9,821
Emergency room visits	216	543
Medical hospital days	342	1,094
Physician days	712	621
Total medical cost	1,270	2,258
Grand total cost	**9,291**	**18,275**

Source: Extracted from Linehan and Heard (1999).

small-scale study of dialectical behavior therapy (DBT; a type of integrative therapy well suited for the treatment of personality disorders and described in Chapter 12), which not only computed the effectiveness of the treatment but provided a nicely laid-out and informative comparison of costs for the active treatment and the control group. These data are provided in Table 13.5.

The group treated with DBT required a greater initial cost for the active treatment than the control group, but when the subsequent costs, related to additionally needed health care for both groups, were computed in detail, the DBT group had cost only half as much to the health care system as the control group and thus came out a clear winner in terms of cost benefits.

Controversies Around Knowledge Translation From Therapy Outcome Research

Showing that psychotherapy is effective and marketing this knowledge is broadly supported by the clinical psychology community; however, how this information is used to determine which types of treatment will be paid for by insurance companies, which ones are taught to students, and recommending specific choices to individual practitioners are enormously controversial topics (Herbert, 2003). Let us begin with the evidence itself before we discuss thorny issues around the appropriate use of this information.

A constructive tradition of the field is that psychotherapy outcome researchers routinely write review papers of both qualitative and quantitative nature to document the effectiveness of therapy. There is widespread agreement that taking stock is useful for the advancement of the profession and can serve as a roadmap for future research activities on the topic (DeLeon, VandenBos, & Cummings, 1983). Also, it can inform health care administrators and insurance companies on where to best invest their money. Given that reviews by individual researchers are occasionally tainted with the brush of suspicion of bias, larger professional organizations or foundations interested in best patient care also call together on a regular basis groups of researchers to form consensus committees who will publish their findings to serve as guides for decision making. The rationale for forming such consensus committees is that a group of maybe

10 experts working together will even out the biases an individual researcher may hold and will better represent the full spectrum of available knowledge. Wherever possible, individual reviewers and consensus committees use meta-analyses to assist their conclusions or alternatively use the best other available evidence (see also Chapter 3 for research methods and quality ratings of therapy outcome designs). They fill gaps in knowledge and create agendas for future research.

Earlier in this chapter we provided evidence from the therapy outcome research literature about what works and what does not work and pointed out that the so-called horserace comparisons, where one technique is pitched against another, do not provide very interesting conclusions, because other important therapy features like patient or therapist qualities and therapy process variables are ignored. The good news is that the literature is remarkably consistent (Lipsey & Wilson, 1993); the great majority of meta-analyses confirmed over and over again that the typical effect size for psychological therapies for pre-post change is in the range of $d = 0.8$ to 1.0. Individual studies occasionally show noticeably larger effects than what is seen when multiple studies get bundled together into meta-analyses because exceptionally strong effects in one study are unlikely to get replicated. There are a few, and we argue rare, incidents where specific therapy techniques are particularly good matches for particular clinical problems and effect sizes may exceed $d = 1.0$. Primary examples of such incidents are exposure-based, cognitive-behavioral therapies for phobias and PTSD (Smith & Glass, 1977; Van Etten & Taylor, 1998). Also, there is a tendency that client-centered therapies produce weaker overall effects than cognitive-behavioral or interpersonal therapies (Robinson, Berman, & Neimeyer, 1990). Certain therapy approaches have very little, if any, outcome literature attached to them because their creators and propagators saw them more as methods of growth and empowerment than as treatments suitable for a medical model, and they discouraged therapy outcome research altogether. This was particularly true for Gestalt therapy (Perls, Hefferline, & Goodman, 1951). There also is very little empirical evidence available (as can be derived from randomized clinical trials) for systemic approaches. In this case, sparseness of evidence is, however, most likely due to the fact that systemic therapy is more of an outlook on life and social interactions (or a philosophy) than a coherent package of manual-driven treatments with typical techniques. In fact, there is no published how-to manual for systemic therapy that lends itself to standardized therapy.

Given that psychoanalytic treatments have been criticized as not very effective, there is now a solid body of literature supporting the clinical benefit of psychodynamically oriented treatments (Abbass et al., 2012; Crits-Christoph, 1992; de Maat, de Jonghe, Schoevers, & Dekker, 2009; Leichsenring & Rabung, 2011; Steinert, Munder, Rabung, Hoyer, & Leichsenring, 2017), and these recent additions to the literature draw considerably more strong, supportive conclusions about the efficacy of these approaches than did the classic meta-analyses of Shapiro and Shapiro (1982) and Smith and Glass (1977). Moreover, the evidence suggests the efficacy and effectiveness of short-term dynamic and psychoanalytic treatments for panic disorder (Milrod et al., 2007; Milrod & Shear, 1991) as well as various anxiety, depressive, and personality disorders (Leichsenring, Leweke, Klein, & Steinert, 2015).

The reader will have also learned in this chapter that nonspecific effects in psychotherapy (like creating a good alliance, allowing venting, and establishing hope) account for up to half of the effect of psychotherapy outcomes (Luborsky et al., 2002; Strupp & Hadley, 1979). This means that creators of new therapies may be able to show small to moderate treatment benefits even if the intervention sounds peculiar and has a poorly justified rationale as long as the therapists are nice and caring. On the other hand, it is quite difficult to show that a new treatment can lead to benefits that significantly exceed those derived from nonspecific effects. In consequence, a considerable burden is faced by therapy outcome researchers who need to show sufficient statistical power and a correspondingly large sample size to assure

that the difference between their innovative treatment outcome and the nonspecific element still reaches statistical significance.

Given the consistency of therapy outcome findings showing that the great majority of people who receive psychotherapy also benefit from it, researchers have largely lost interest in conducting more horserace comparisons. Researchers are now much more interested in understanding which factors maximize the therapy process and which matches of treatment to specific application work best. In the area of psychotherapy, the Division 12, Clinical Psychology, of the American Psychological Association, has created a standing committee on what is referred to as empirically validated therapies (APA Task Force, 2006). Using rating systems like the one described in Chapter 3, interventions and outcomes are entered into a list of empirically validated therapies. The explicit purpose of such a list is to guide practitioners in choosing the right therapy for their clients and to assist clinical psychologists to get funding from insurance companies or obtain support from hospital administrators to use these therapies. Table 13.6 presents the most recently compiled list of empirically validated therapies generated by the American Psychological Association (for mental health applications).

Contrary to what many outsiders and critics believe, these lists are impressively long, indicating that clinical psychology has a large amount of valuable expertise to offer to the health care system and to patients. It is also interesting and noteworthy that certain types of therapies are considered empirically validated for only one specific application, and that for some disorders (e.g., depression) there is more than one validated therapy to choose from.

TABLE 13.6 APA List of Supported Treatments

Examples of Well-Established Empirically Validated Treatments (EVTs)
Anxiety and stress problems
Cognitive-behavior therapy for panic disorder (with and without agoraphobia)
Cognitive-behavior therapy for generalized anxiety disorder
Exposure treatment for agoraphobia
Exposure or guided mastery for specific phobia
Exposure and response prevention for obsessive-compulsive disorder
Stress inoculation training for coping with stressors
Depression
Behavior therapy for depression
Cognitive therapy for depression
Interpersonal therapy for depression
Health problems
Behavior therapy for headache
Multicomponent cognitive-behavior therapy for pain associated with rheumatic disease
Multicomponent cognitive-behavior therapy with relapse prevention for smoking cessation
Cognitive-behavior therapy for bulimia
Childhood problems
Behavior modification for enuresis
Parent training programs for those having children with oppositional behavior
Marital problems
Behavioral marital therapy

Source: Adapted from Chambless et al. (1998). Update on empirically validated therapies, II. *The Clinical Psychologist*, pp. 53–16, with permission of the Division of Clinical Psychology, American Psychological Association.

These lists are very useful in guiding training programs for clinical psychologists because they are understandably interested in equipping their students with therapy skills and methodologies that are known to be effective and allow graduates to market themselves.

Conclusion

There is a massive (and still steadily growing) literature on the effects of psychotherapy and very consistent evidence that treatment is better than no treatment, that the treatment effect on average is large (using the language of meta-analysis). This knowledge has been around for about four decades, and the core conclusions since then have been remarkably stable, getting replicated again and again. Very few active treatments (or specific applications of a treatment to a target problem) have been shown to be superior to other active treatments, and in the real, clinical world, many treatments are too short to offer patients the maximum benefit.

Ongoing Considerations

Without a doubt, clinical psychology benefits from strong and consistent evidence that our clients benefit from our treatments. Recall, however, that we described the profession as one that is both science and art because not every problem we encounter has been resolved with research efforts, and published literature is not always available to guide our practice. A decision to call some therapies effective also means that other existing therapies are thereby implicitly labeled less effective and their practitioners feel pushed aside and perhaps see themselves as the second-class citizens in clinical psychology. Being on the list of empirically validated therapies usually translates into an insurance company's willingness to pay for the treatment of phobias with cognitive-behavioral therapy, for example, but may not pay for treatment if a client-centered approach is proposed. Such decisions directly impact how practitioners with varying theoretical orientations will run their practices (and so they should, argue the supporters of these classification systems). In order to prevent premature stoppage of developing new psychotherapies, it is therefore necessary that the advantages and disadvantages of having and maintaining lists of empirically validated therapies are considered living documents, which need to be reviewed and updated on a regular basis. Also, awareness needs to be raised about the potential problems arising from their existence. Here are key arguments speaking against the lists (or at least rigid and dogmatic use thereof):

1. The existence of the list reduces the momentum in the field for creating promising and innovative therapies.
2. There is always the possibility that a given patient is not likely to respond well to the supposedly most efficacious approach or has a subjective dislike for it that can lead to poor adherence.
3. Graduate training programs have to carefully balance the need to teach the skills required for the application of empirically validated treatments, but at the same time should encourage future clinical psychologists to be open-minded and consider more than just a mere technical match of a client's presenting problem with the suitable treatment extricated from "the list." In fact, much of the training in graduate school is about preparing clinical psychologists for a practice in which individual context

variables are skillfully considered in developing an appropriate, individualized treatment plan. A cookbook-like matching of treatment to problem makes psychologists look like mere technicians and denigrates the profession and its lengthy training requirements.

4. It will be difficult to convince grant review committees to fund a new treatment research project when there are already two (or more) effective treatments for a given problem. Thus, innovative research may be harder to get funded.

Given the current economic realities, it is highly unlikely that the dogmatic opponents of all empirical validation and publishing of lists will win the argument for an abolishment of lists. In a world where accountability is called for and where there is competition for every health care dollar, one cannot justify spending health care dollars while ignoring evidence. Also, in a free-market world an informed client is more likely to pay good money to a therapist who advertises the practice of empirically validated therapies rather than some method that is considered highly controversial and for which no real evidence exists.

Key Terms Learned

Box score reviews, 309
Box scores, 309
Clinical trials, 307
Confounding effect, 317
Dodo bird verdict, 313
Ecological validity, 315
Effect sizes, 310
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Large effect, 318
Meta-analysis, 310
Narrative review, 308
Regression to the mean, 320
Single cases, 307
Statistical power, 310
Sleepers, 317
Value of particular outcomes, 314

Thinking Questions

1. Why do most active treatments tend to produce similar benefits?

2. Which criteria are the most important for determining whether or not therapy worked?

3. Who should decide what therapy success is: patients, insurance companies, or therapists?

4. What are the most urgent, unresolved questions in psychotherapy research?

5. Which therapist produces the best treatment outcomes?

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Web-based resource

A highly recommended website for research updates on therapy outcome research that is frequently updated by psychologist Kenneth Pope is http://kspope.com/hospices/meta-analyses.php

14 Evidence-Based Therapy
Innovation or Quackery?

Chapter Objectives

In Chapters 11 and 12, psychological treatment methods were introduced that are considered mainstream—the "bread-and-butter" techniques of the great majority of practicing psychotherapists. These mainstream therapies have been introduced largely in the order in which they were developed, beginning with Freud's seminal work on psychoanalysis.

The objective of this additional chapter on treatment approaches is twofold:

- Sensitize the reader to the generic issues that arise when any new treatment is brought to market and provide the tools needed to critically analyze any treatment but especially those claimed to be "new and improved" or particularly unique.
- Encourage a critical eye toward definition, rationale, and techniques and highlight how well the approach works but also evaluate whether or not the claimed mechanism is actually testable, and if tested, what was learned from these studies.

Defining Treatment Specificity and Uniqueness

Clinical psychology and the entire world of mental health are not static; new treatment options get developed all the time and we posit that innovation is generally good. When new treatments are propagated, however, it is worth putting them under a critical microscope because (a) they might be much-appreciated, innovative, and effective additions to the field, (b) they could be promising but untested, (c) they could be mere repetition with a new name (designed to create a market niche for the developer), or (d) they might be outright quackery that no consumer should be tricked into spending money on. To witness, the Internet offers a myriad of services (and promises) that cannot be trusted right away. It still is buyer beware! The Internet, of course, offers seemingly infinite information on treatments and many large cities have newspapers that serve the specific local cultural scene and alternative lifestyles; advertisements in these papers serve as a mirror of what innovative approaches are being offered in a given community. A number of such ads from a Vancouver newspaper were extensively reworded to avoid copyright violations and are presented in Box 14.1. The inherent claims and method descriptions are being offered as illustrations.

BOX 14.1 MODIFIED SAMPLE TEXTS FROM ADVERTISEMENTS OF ALTERNATIVE THERAPIES AND TRAINING WORKSHOPS IN A COMMUNITY NEWSPAPER (PHOTOS, GRAPHICS, AND IDENTIFYING INFORMATION WERE REMOVED TO AVOID COPYRIGHT VIOLATIONS)

Ad 1

Deep Belief Engineering, Founder *Albert F* (PPSEC Registered)

Professional Certification Program: This gentle, powerful approach leads to lasting, definitive, and meaningful change; it has an excellent reputation across North America since 1986. We offer 4-day basic course.

Ad 2

Love Heals, *Anna P*, PhD, Reiki Master

I offer healing sessions blending Reiki, crystals & gemstones, channeling, sacrocranial massage, aromatherapy and color healing. Past life regressions and deep trance are also available. Ongoing workshops offered for Reiki I, II, III, and IV as well as crystal and gemstone therapy.

Ad 3

Intuition: Learn an energy technique and deep intuition to assess and balance the energy body that will lead to optimum well-being for yourself and those around you.

Offered by Dr. *Maria O*, who is a doctoral graduate of Dr. *Norm M* and Dr *Karla H*'s Energy Medicine Program.

Prerequisite for *College of Medical Intuition Sept* 2010 Intake 2-evening workshop: Call yyy–xxxx.

P.S. Italicized names have been modified to prevent recognition of individuals.

These ads promise a wide range of services; make at times surprising (and often unbelievable) claims; and are often characterized by vague, esoteric language. In addition, potential clients are enticed to purchase services from practitioners who offer strings of ever-creative professional titles and degree abbreviations; evidence of professional competence is claimed that may be unconventional, to say the least. In Box 14.1, you can see numerous colorful self-descriptors of the healers themselves as well as descriptions of their vast areas of practice.

In this occasionally flaky marketplace, licensed psychologists still need to market themselves, put their best foot forward, and convince their clients to see a licensed clinical psychologist rather than the spiritual-cleansing therapist next door. On one hand it is necessary for professional psychology to be open to change, but it also needs to avoid fraudulent claims about effectiveness on the other (APA Presidential Task Force, 2005; Hunsley, 2003). The code of ethics also does not allow psychologists to make claims they cannot back with evidence so as to prevent deception of clients; that aside, we believe that truthful claims maintain credibility and market share in the long run.

A key question that needs resolution is how many truly different therapies there are. There is little debate that Rogerian client-centered therapy is different from Freudian psychoanalysis (as discussed in Chapter 11), but it is already difficult to draw a line between cognitive therapy a la Beck (1995) and rational-emotive therapy a la Ellis (1962) described in

Chapter 12. They are similar in that they target irrational and hence dysfunctional thought patterns that in turn are characterized by rigidity, overly negative tones, selective information processing, and untested assumptions. They both use the treatment method of Socratian dialogue and both are very directive. Still, they use somewhat different language and techniques, and it is therefore arguable whether or not they should count as distinct psychotherapy approaches. As much as the existence of many different therapies makes the field richer and more interesting, in the extreme too much variety confuses the public.

Anecdotal evidence holds that the Yellow Pages of the San Francisco phone book list no less than 135 different types of psychotherapy, and the corresponding figure for Los Angeles is 220. Are there really that many truly different psychotherapies? Can a trained observer reliably hold them apart by watching videotaped sessions? Arguably, a more realistic number is maybe in the 10 to 20 range, and even that might consist of an even smaller number of truly distinguishable major approaches. That aside, the field of therapy outcome research would collapse under a requirement of showing differential efficacy of over 200 different forms of psychotherapy. For the last few decades, the traditionally taught and best-known approaches (as documented via coverage in various clinical psychology textbooks) are psychodynamic, interpersonal, client-centered, behavioral, cognitive-behavioral, self-regulation methods and biofeedback, and systems therapies. These therapies were described in Chapters 11 and 12 in this book, and their effectiveness was illustrated in Chapter 13. We also presented descriptions of emotion-focused therapy, DBT, mindfulness meditation, and ACT in Chapter 12; these are more recent but are now considered mainstream because there have been ample demonstrations of their effectiveness.

In this chapter we describe four approaches that are relatively new and in varying ways have triggered discussion about their uniqueness and the claimed rationales for why they might work. New approaches spring up frequently and at times find enthusiastic receptions because (a) they fill an identified need, (b) they appear particularly efficient, or (c) the propagator of the method is particularly charismatic. The latter point should not be underestimated because progress in the sciences is not linear, and major changes can at times be triggered by single individuals (Gladwell, 2000). When a new treatment emerges, there is an obligation to be aware of its potential and limitations and to be ready for its comparison with other psychotherapies (Barlow, 2004). The majority of clinical psychologists likely agree that solutions sometimes need to be found for idiosyncratic client problems not covered in the psychologists' training program. After all, clinical psychology is a science *and* an art, and it is appropriate to use methods that are essentially based on clinical judgment and experience even if they have not undergone controlled evaluations, provided that (a) no harm is likely to arise for patients and (b) that no other effective approach already exists for a given target problem. Furthermore, for any given new approach, there cannot be empirical evidence right from the beginning; somebody has to begin with case studies, then conduct controlled research, and somebody has to publicly document the accumulation of findings and comparisons of new approaches with other treatments.

There are many questions that need answers when new approaches come on stream (Kazdin & Bass, 1989):

- Is there measurable benefit from pre- to post-treatment?
- Is the treatment approach as equally good as, better than, or weaker than other available treatments?

- What percentage of patients are likely getting better?
- Why does a treatment work?
- Is the claimed rationale testable? And if so, does the research on the claimed rationale or pathway of effects show specificity?
- How much and what therapist training is needed?

These questions are answered not only in this chapter. The concepts of therapy rationales and specificity issues are at focus here whereas data on therapy outcome were already presented in Chapter 13. This chapter will throw light on two approaches already described in Chapter 12, namely, acceptance and commitment therapy (Hayes, Luoma, Bond, Masua, & Lillis, 2006) and mindfulness meditation (Bishop et al., 2004). Not yet mentioned and included here are Eye Movement Desensitization and Reprocessing (EMDR; Shapiro, 2001) and Healing Touch (Krieger, 1993).

Eye Movement Desensitization and Reprocessing

Description, Rationale, and Method

Eye movement desensitization and reprocessing (EMDR) has quickly gained a lot of very enthusiastic followers. Prior to discussing the procedure as currently taught, the reader needs to realize that the approach has changed since the first presentation of the method, and that these differences in the original versus the more recent procedure may have correspondingly distinct impacts. The original claim was that even relatively brief exposure to rhythmic, forward-backward, semicircular finger movements that patients visually focus on would quickly reduce the negative affect associated with post-traumatic events. During the procedure, patients imagine these events while their eyes follow the rhythmic movements of the therapist's finger. Much of the excitement about EMDR has arisen from the observation that acute anxiety experienced during re-exposure to a trauma stimulus in treatment sessions rapidly subsided and that patients quickly felt relief within a session (Shapiro, 2002; Sharpley, Montgomery, & Scalzo, 1996).

The website of the EMDR Institute, www.emdr.com, provides this definition:

> EMDR integrates elements of many effective psychotherapies in structured protocols that are designed to maximize treatment effects. These include psychodynamic, cognitive behavioral, interpersonal, experiential, and body-centered therapies. EMDR is an information processing therapy and uses an eight phase approach.

The proposed eight phases of treatment are:

1. *History taking*: The therapist wants to learn recent distressing events, current situations that elicit emotional disturbance, related historical incidents, and the development of specific skills and behaviors that will be needed by the client in future situations.
2. Stress-reduction techniques (relaxation training)

3–6. *Eye movement desensitization*: A target is identified and processed using EMDR procedures. These procedures involve the client identifying the most vivid visual image related to the memory (if available), a negative belief about self, related emotions, and body sensations. Changes in beliefs and emotions are tracked. For the actual exposure,

the client is instructed to focus on the image, negative thought, and body sensations while simultaneously moving his or her eyes back and forth following the therapist's fingers as they move across his or her field of vision for 20 to 30 seconds or more, depending upon the need of the client. Other than eye movement, similar repetitive, rhythmic sensory stimulation may also be used. Key is the presence of dual stimulation (trauma image and rhythmic stimulation). After several sets, the therapist checks with the client regarding body sensations. If there are continuing negative sensations, additional exposure sets are provided.

7. Clients keep a journal of trauma and coping-related events during the week.
8. The therapist re-evaluates previous work and progress made.

The EMDR approach was initially referred to as just eye movement desensitization and was believed to be very effective even with very short treatments. However, as more clinical trials were conducted, it appeared that the quick improvements noted within session would not similarly generalize and lead to lasting outcomes. Based on these observations, the reprocessing component was added to the methodology. Reprocessing refers to essentially cognitive methods that are used to identify and change thought and behavior patterns.

Treatment Outcome

Evidence for Positive Outcome

A string of randomized controlled trials and a published meta-analysis consistently indicate that **overall EMDR is an efficacious method for reducing trauma-related distress. The effect sizes** usually observed are large and suggest considerable clinical benefit for patients (Davidson & Parker, 2001; Bradley, Greene, Russ et al., 2005; Rubin, 2003, 2004).

Is Specificity Testing Possible?

Given that the current protocol of EMDR delivery is composed of the eye movement desensitization component itself, the imaginal exposure to the distressing traumatic memory, as well as the reprocessing component (which essentially is cognitive therapy), this method could be, and has been, subjected to treatment dismantling procedures where one or the other component is removed from the full protocol, and effects could then be compared with and without this feature.

Is There Evidence for Specificity?

Aggregation of results from these dismantling approaches has consistently shown that EMDR with eye movement desensitization is not more effective than treatment with only the other two components, that is, when the eye movement desensitization component was not present (Lohr, Lilienfeld, Tolin, & Herbert, 1999; Taylor et al., 2003). Hence, claims for a specificity effect of the eye movement desensitization component are not supported, and the observed benefit of EMDR is apparently attributable to the exposure and reprocessing components. These two components, however, are not innovative and overlap with standard cognitive-behavioral therapy for post-traumatic stress disorder, which has been shown to be equally or even more effective than EMDR (Davidson & Parker, 2001; Lohr et al., 1999; Taylor et al., 2003).

Exposure to the feared stimulus appears to be the single most potent treatment ingredient, which, in turn, has been well-established knowledge for a number of decades (Linden, 1981).

Summary of EMDR

Given that the definition and actual treatment methodology of eye movement desensitization has changed over time, readers need to be very cautious and clear about which exact version they are dealing with. The research literature provides clear support that the package of methods that is clustered together in the recent version of EMDR is efficacious and comparable in effect size with competing methods like cognitive-behavioral therapy. Research has, however, also clarified that the eye movement component is not pivotal to treatment success and that a claim for uniqueness and specificity is not supported.

Acceptance and Commitment Therapy (ACT)

ACT and its rationale and treatment steps have already been described in Chapter 12. Meta-analysis (see also Chapter 13) supports the efficacy of ACT with typically large effects in pre-post comparisons and at times superior effects when compared with other active treatments (Hayes et al., 2006).

Is Specificity Testing Possible?

Given that the procedure is mostly cognitive in nature, critical cognitive concepts have to be operationalized and then tested. Hayes has shown that emotional suffering is associated with **experiential avoidance** (i.e., the unwillingness to try new solutions), and his team has developed a standardized assessment tool that can be used to test patient progress in ACT (the acceptance and action questionnaire [AAQ]; Hayes et al., 2004). Specificity would be apparent if progress in therapy is linked to corresponding changes in experiential avoidance as assessed by the AAQ. Hence, it is principally testable.

Is There Evidence for Specificity?

Testing of this mediational hypothesis around change in experiential avoidance has revealed moderately good support for a specificity claim. Hayes and colleagues (2004) have shown that change in experiential avoidance correlated $r = .40$ to .54, with other signs of improvement achieved via implementation of ACT.

Summary of ACT

ACT has quickly gained in popularity because outcome research supports its effectiveness. Hayes has very effectively propagated the method by generously sharing treatment protocols,

and users see the approach as original and a logical extension of cognitive-behavioral therapy. Specificity can be tested, and early research supports that the claimed treatment rationale indeed accounts for therapeutic change.

Healing Touch and Therapeutic Touch

Description, Rationale, and Method

Healing touch (HT) involves a healer who gently touches the patient, allegedly influencing energy flow that is believed to be within and around each human body. It is largely practiced by nurses with the explicit goal of relieving pain, achieve distress reduction, strengthen immune function, and enhance recovery from surgery (Krieger, 1993). Its goal is similar to that of other self-regulatory treatments described in Chapter 12, like muscle relaxation or meditation. Another name for essentially the same procedure is **therapeutic touch (TT)**. In therapeutic touch healers wave their hands above and around the patient's body but do not actually make contact. HT may involve actually touching the patient in various places but is not to be confused with the deft manipulation of muscles as in massage. Both are forms of "energy healing" and are based in the traditional Chinese medicine concept of *Qi*, which posits that a healthy body is in balance but in illness the energy flow is disturbed and in need of rebalancing. Therapeutic touch is purportedly taught in more than 100 colleges and universities in 75 countries (Krieger, 1993).

The critical discussion around HT and TT centers on two issues: (1) the healer's ability to sense disrupted flow in the human energy field, and (2) a researcher's ability to reliably measure activity levels and changes in the human energy field so that treatment mechanisms and benefits in a clinical trial can be quantified.

Research Evidence on Mechanisms, Specificity, and Outcomes

Sensing the energy field is considered of critical importance and this skill is presumably achieved with training in certification programs; it is also considered possible that some healers have a natural gift for sensing energy fields. Importantly, this act of sensing the presence of a human energy field can be tested empirically and this was actually done in a rather sensational study conceived and run by an 11-year-old girl who conducted the study as a school science project; she subsequently published the results in a very prestigious medical journal (Rosa, Rosa, Sarner, & Barrett, 1998)! It may be noteworthy that the child's mother was a nurse involved in research and teaching who helped Emily Rosa interpret the results and write up the article but who did not design or run the study. Emily Rosa recruited 21 practitioners with TT experience from 1 to 27 years and tested them under blinded conditions to determine whether they could correctly identify which of their hands was closest to the investigator's hand. The participants stuck their hands through cut-out holes in a cardboard wall and were asked to state whether the investigator's unseen hand hovered above their right hand or their left hand. Placement of the investigator's hand was determined by flipping a coin. Fourteen practitioners were tested 10 times each, and 7 practitioners were

tested 20 times each. To show validity of TT theory requires that healers can sense human energy fields, and the practitioners should ideally have been able to locate the investigator's hand 100% of the time. An accuracy score of 50% would be expected through chance alone and the actually recorded rate of correct sensing was 44%, at best matching pure chance guessing. This simple but cleverly designed study powerfully debunked the claim that healers could sense the presence of a human energy field.

The second premise is one's ability to reliably measure levels of activity and changes in the so-called human energy field. It is not in dispute that there is electrical activity in the human body that can be measured using electrodes (e.g., skin resistance or electrocardiogram activity) and this electrical activity systematically changes as a function of a psychological conditions like anxiety. The published research on TT and HT, however, does not attempt to connect these established facts in physiology with the conception of a human energy field that surrounds the body and as a consequence the concept of a human energy field is assumed rather than measured. Although potentially possible, researchers on TT and HT provide no hard evidence of a mechanism for change. What is left as a means of showing a positive value of HT and TT is the evaluation of pre-post changes when TT and HT treatments are applied, and the testing of specificity via controlled trials where other, known effective treatments are compared with HT and TT. Pre-post studies do exist and a meta-analysis of such studies reveal an effect of $d = .68$ which looks impressive at first glance (Astin, Harkness, & Ernst, 2000). No data are available delineating effects relative to a treatment control condition which we know will be much smaller than effects seen in pre-post tests. Unfortunately, studies published since Astin et al.'s review have shown very weak findings even for pre-post measures of HT and TT and weaken the early data on positive outcomes (Ernst, 2003).

Summary

What the reader is left with is that HT and TT likely trigger a positive placebo response. And, one may be tempted to say, where is the harm in that? We offer two answers. For once it is very confusing and may create distrust in the public when a method is "sold" as evidence-based and unique when there is no evidence for specificity or even the proposed mechanism. Secondly, as for clinical practice implications one needs to wonder whether expensive nursing time should be used to create such placebo effects. The smart clinical practice and policy implication would be not to spend expensive professional staff time if the same effect can be achieved for much less by, for example, giving a very inexpensive dose of an anxiolytic drug.

Mindfulness Meditation (MM)

Treatment Outcome

The method used in MM has already been described in Chapter 12 and MM has been applied to numerous medical conditions, including chronic pain, fibromyalgia, anxiety and panic disorders, psoriasis, depression, substance abuse, binge-eating disorders, burnout, personality disorders, cancer, and heterogeneous patient populations. Meta-analysis has revealed overall medium effect sizes (slightly exceeding $d = .5$ for all reported analyses), and this implies that these improvements are likely to be clinically meaningful (Grossmann, Niemann, Schmidt, & Walach, 2004; Ospina et al., 2007). MM has gained particular popularity for chronic disease

conditions, which have to be endured rather than allowing patients to respond with active coping efforts. Several studies of cancer patients, led by Carlson and colleagues, illustrate the kind of research that has been reported (Carlson, Speca, Patel, & Goodey, 2003; Carlson, Speca, Faris, & Patel, 2007; Speca, Carlson, Goodey, & Angen, 2000) and positive effects have been seen for change in overall quality of life and reduced stress, and cortisol and immune function.

Is Specificity Testing Possible?

Specificity could be claimed if experienced meditators are physiologically different from nonmeditators, and if changes due to MM differed from treatment responses to other self-regulatory treatments (e.g., biofeedback or Autogenic Training). Such a quest for demonstrations of treatment specificity is eminently open to empirical testing.

Has Specificity Been Demonstrated?

There is ample research support for physiological changes in experienced meditators, and the same has been observed in pre-post treatment evaluations in a clinical trial (e.g., Davidson et al., 2003; Kristeller, 2007). However, there is no convincing research to date that mindfulness meditation triggers physiological or cognitive changes that differ from those obtained with other forms of meditation or self-hypnosis (Grossman et al., 2004; Linden, 2005).

Summary of MM

Mindfulness meditation has readily grown in popularity and is readily accepted by clients. The data support clinical utility for a variety of health conditions, especially illnesses that require acceptance and emotional coping. There is little evidence to date that the physiological pathways or outcomes for MM differ from those of other self-regulation methods described in Chapter 12.

Comparing Claims of Uniqueness and Specificity for the Four Treatments Described

Applying the critical analysis tools that were offered throughout this book reveal that all four treatments lead at least some patient benefit but only one (ACT) stands out as having specific effects.

Each treatment offers a rationale and proposes mechanisms but the nature of the proposed mechanisms inherently places limits on the degree of their testability. When no acceptable tools or research methodologies are available to track change and isolate the unique benefit of these techniques, clinicians can certainly use the evidence for pre-post effects to justify the use of these techniques but they cannot credibly claim that the treatment works for the very reason that the creators claimed. As is always the case, reviewers and critics need to carefully separate what is (a) demonstrated absence of an effect versus (b) the absence of any research that had tried (and possibly failed) to show such effects. Oftentimes, research simply has not been conducted, and, in consequence, efficacy cannot be ruled out. In the case

of EMDR, there is relevant research which has shown that the eye movement desensitization component in EMDR is not critical to the treatment outcome. As for Healing Touch there were two premises to be tested. The first premise is that trained or naturally gifted healing touch therapists are able to sense human energy fields and this premise was tested and has failed. The second premise was that an energy field exists and can be measured with reliable quantified tools. The problem with this premise is that the hypothesized energy field is more of a philosophical concept germane to traditional Chinese medicine than physical/physiological construct open to reliable physical measures. Given that continuous advances in measurement technologies are likely, some of the conclusions drawn here may change over the next decade or so.

This chapter provided a magnifying glass and a tool kit for creating critical readers of a rich literature on therapy outcome that ranges from flaky to serious science. There are often vigorous debates about whether or not a given treatment works, and this is usually the result of limited knowledge on how to properly interpret the results from clinical trials. It is difficult and laborious to test claims for specificity of methods. In that respect, neither EMDR, nor MM, nor distant healing approaches live up to claims of specific effects.

An important point to consider after reviewing therapy outcome research is the implication for therapy training. On the whole, there is a wide variety of methods to choose from for generating nonspecific improvements and distress reduction in our patients; these tend to produce moderately sized benefits. Such nonspecific benefits can likely be generated by individuals with varying degrees of training in psychotherapy, provided that they have certain caring, sensitive personality predispositions, and some basic therapy training (see also Chapter 10). However, maximizing the utility of psychological treatments that possess generic and specific qualities, and teaching therapists how to properly tailor treatments to individual needs requires considerably more training (Woody, Detweiler-Bedell, Teachman, & O'Hearn, 2003) in order to achieve some of the especially large effects shown in the literature.

Conclusion and Ongoing Considerations

The arguments and data presented in this chapter served a dual purpose. On the one hand, it was shown which clinical trial methodologies are needed to reveal overall benefits, and how, with additional effort, specificity of effects can be determined once clinical researchers are trying to bring a new psychotherapy on board. As such, this chapter provided a magnifying glass and a tool kit for creating critical readers of a rich literature on therapy outcome that ranges from flaky to serious science. There are often vigorous debates about whether or not a given treatment works, and this is usually the result of limited knowledge on how to properly interpret the results from clinical trials. Many people do not appreciate how difficult it is to show specificity of effects and to properly document the mechanism of action in psychotherapy. We have tried to provide the reader with tools to make his own decisions. The publication of consensus committee reports that judge the available levels of evidence for a particular psychotherapy (see Chapters 3 and 13) greatly helped in clarifying this tricky issue. The underlying logic for this system of levels of evidence was applied here to four intriguing and innovative interventions. On the plus side, there is good evidence that all these methods can benefit our patients to some degree (as shown in effect size calculations for pre-post effects). However, that alone does not tell why improvements happen, nor does it tell what the best available treatment options are. We posit that our patients have a right to get the best available treatment rather than the one to which the therapist has the strongest theoretical allegiance.

In Chapter 10 we tried to stress how difficult it is to define psychotherapy. Unfortunately, this also means that the door is at least partly open for self-proclaimed healers and for unsubstantiated claims about what a new miracle treatment can achieve. Charismatic but untrained healers are unfortunately often successful in defrauding needy individuals with over-reaching promises. Clinical psychologists need to be perpetually on the alert for such claims and challenge these individuals to provide the evidence; this chapter provided the tools to support such critical examinations.

Key Terms Learned

Experiential avoidance, 336
Healing touch, 337
Therapeutic touch, 337

Thinking Questions

1. How is healing touch (or therapeutic touch) purported to work?

2. Is acceptance and commitment therapy essentially a cognitive therapy, or is it distinct?

3. Why is EMDR so popular when there is so little support for its specificity of effect?

4. How much and what kind of evidence is needed before a new treatment approach should be declared effective?

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15 Child Clinical Psychology

Chapter Objectives

This chapter differs from previous chapters in that it focuses on a particular population and age group. Up to this point we left the reader with the impression that the ethical problems and diagnostic and treatment procedures that clinical psychologists have in their arsenal are universally applicable. True, much of what has been said applies to people of different cultures, genders, and age groups; however, there would be many missed chances and ignored responsibilities if we did not acknowledge that different age groups have different needs. In fact, when it comes to licensure as a psychologist, practitioners are usually asked to spell out which age groups they have confidence in working with, and this is documented via academic transcripts and practical experiences with particular populations. Many clinical training programs have specifically designated child clinical program tracks, and there are numerous journals and books that focus on the uniqueness of clinical psychology applications for children. The organization of this chapter will largely mimic (on a smaller scale, of course) the basic organization of this book in that:

- We will talk about some unique ethical challenges (in particular issues around consent).
- Discuss how normal child development and child psychopathology can be seen on a continuum.
- Discuss unique features of the assessment of children.
- Survey how interventions can be offered effectively and how well they work.

What are the important issues that make work with children so different? Here is a list of unique features of child clinical psychology that also imply particular responsibilities as well as great opportunities to make a difference:

1. Even more problems go untreated in children than in adults, possibly because children have less of a sense what is abnormal and what is normal. Also, they have limited verbal ability to express it and have few means of their own to access the health care system. Furthermore, many assessment methods are based on ratings or observations made by parents who may be quite biased in judging their own child.

IMAGE 15.1 Dancing on the Moon.
Printed with permission of artist: Barbara Calvert.

2. Unresolved childhood problems powerfully mediate adaptation to the demands of adult life regarding ability to learn, job performance, ability to maintain relationships, and carry responsibility (McLaughlin, Peverill, Gold, Alves, & Sheridan, 2015). Attending to childhood problems as early as possible is critical to maximize the opportunity for correction of a problem.
3. Legally and practically children depend on their parents and under the law they can make few decisions on their own. Parental permission is required to treat or assess younger children.
4. Unique to child clinical work is the need to differentiate (a) normal development from (b) delayed development and from (c) actual pathology. Given that children change rapidly and are a product of their environment, it is not obvious what is an incipient pathology, a passing phase, or a consequence of changes in the immediate environment that is simply mirrored in the child's behavior.
5. Some problems are predominant in childhood but can be outgrown (like shyness and egocentrism); others last a lifetime (e.g., severe attention deficit/hyperactivity disorder). Many child problems or developmental abnormalities call for a lifelong perspective because they are not open to outright "cure"; these include Autism Spectrum Disorder,

Fetal Alcohol Spectrum Disorders, and low cognitive abilities. Some exceptional children will also become exceptional adults whose needs will continue to be different from that of the general population.

For example, the population prevalence of fetal alcohol syndrome is estimated at 0.3% to 1% (Burd, Selfridge, Klug, & Juelson, 2003) but in a juvenile prison sample the rate was reported as 23% (Fast, Conry, & Loock, 1999), and this reveals that the causes of criminal behavior are very complex and certainly not fixable with finger-pointing. Nevertheless, an inability to cure a problem does not justify lethargy or ignorance. Early recognition and support can make a meaningful difference to the affected families' quality of life. For example, there is no known curative treatment for fetal alcohol syndrome (FAS) but the likelihood of a child with FAS ending up in prison is greatly reduced when this child can be raised in a stable, nurturing environment and is diagnosed early (Burd et al., 2003).

Developmental Stages and Childhood Psychopathology

In adults certain behaviors like extreme dependence on others, rash decision making, or stubbornness are considered maladjustment and often a criterion for a diagnosable mental disorder. In children, on the other hand, such behaviors are quite normal for certain developmental stages and are usually outgrown. A good delineation of what is age-specific normal achievement, what are potential problems of behavior arising within a specific developmental phase, and what are actually clinical disorders (typically arising within a particular age range) can be found in Table 15.1.

TABLE 15.1 Normal and Problematic Development of the Child

	Approximate Age	*Normal Achievements*	*Areas of Common Behavior Problems*	*Clinical Disorders*
	0–2	Eating, sleeping, attachment	Stubbornness, temper, toileting	Mental retardation, feeding disorders, autistic disorder
	2–5	Language, toileting, self-care skills, self-control, peer relationships	Arguing, demanding attention, disobedience, fears, overactivity, resisting bedtime	Speech and language disorders; problems stemming from child abuse and neglect; some anxiety disorders, such as phobias
	6–11	Academic skills and rules, rule-governed games, simple responsibilities	Arguing, inability to concentrate, self-consciousness, showing off	ADHD, learning disorders, school phobia, conduct problems
	12–20	Relations with opposite sex, personal identity, separation from family, increased responsibilities	Arguing, bragging	Anorexia, bulimia, delinquency, suicide attempts, drug and alcohol abuse, schizophrenia, depression

Source: Mash, E. J., & Wolfe, D. A. (1999). *Abnormal child psychology.* Pacific Grove, CA: Brooks/Cole/Wadsworth, p. 33.

IMAGE 15.2 It Is Easy to Underestimate Children and the Insights They Are Capable Of.
Reprinted with permission.

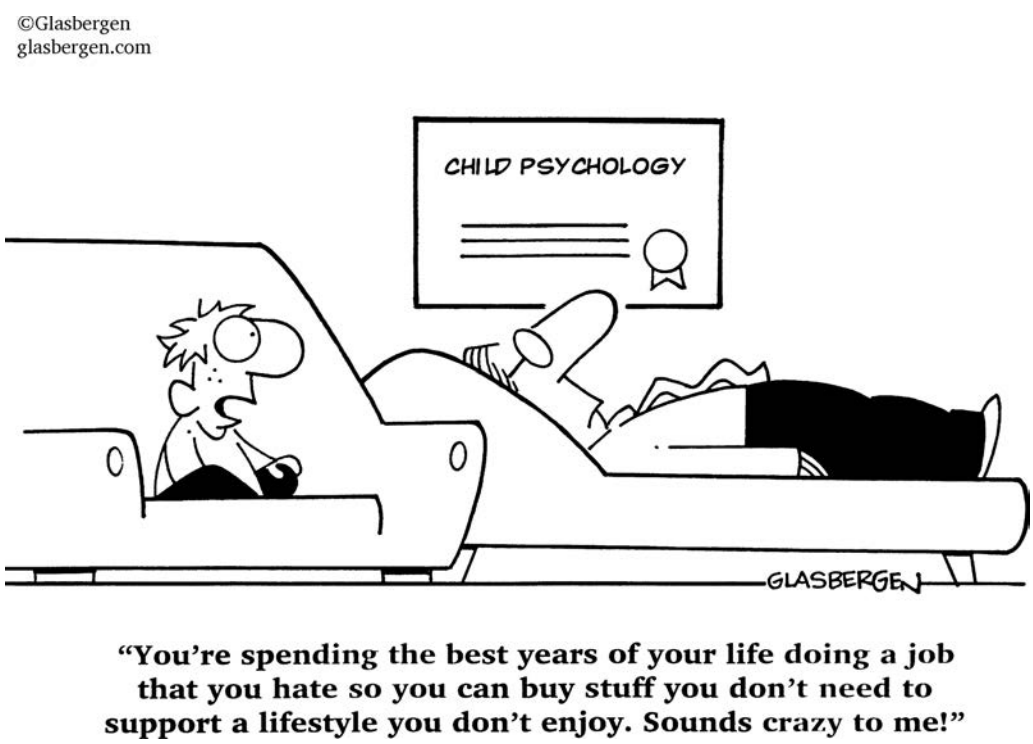


TABLE 15.2 Major Diagnostic Categories Found in the *DSM-5* for Children and Adolescents

Attention deficit and disruptive behavior disorders, including • attention deficit/hyperactivity disorder [which can be subdivided into three types], • conduct disorder [subdivided into two types], and • oppositional defiant disorder
Autism Spectrum Disorders (including Asperger's Syndrome)
Disruptive Mood Regulation Disorder
Intellectual disability
Elimination Disorders, including encopresis and enuresis
Learning disorders, including • reading disorder, • mathematics disorder, or • disorder of written expression

In terms of formal diagnostic classifications, it is noteworthy that versions I and II of the *Diagnostic and Statistical Manual* of the American Psychiatric Association saw childhood pathology as being a "junior" version of adult psychopathology whereas the more recent versions, III, IV and V, have explicitly defined some disorders as being childhood disorders (see Table 15.2 for a listing) .

In addition to the disorders described in Table 15.2 that are particularly applicable to children and adolescents, relevant additional diagnoses for adolescents include substance-related problems, schizophrenia, mood disorders, anxiety disorders, and eating disorders. For these latter disorders, it makes particularly good sense to develop a continuity perspective from adolescence to adulthood.

If some disorders are indeed unique to childhood, then there also needs to be a distinct body of research directed at understanding the underlying pathology and we need research on effective interventions. An urgent question to deal with is whether or not treatments that worked for the same (or a similar) problem in adults will also work in children, whether the components of a successful therapy are similar, and whether or not it is necessary to modify treatments to make them suitable for children. Alternatively, some treatments have to be developed that are particularly suitable for children and for childhood disorders. How researchers have responded to these challenges will be discussed in this chapter.

Ethical Challenges

The fact that in all Western nations children are minors under the law creates considerable complications and calls for caution and extra alertness for those clinical psychologists working with minors. It is critical that practicing child clinical psychologists are fully aware of the legal situation regarding **age of consent** in their particular country, state, or province. While there are many commonalities, important differences across jurisdictions are also found. For example, in the home province of the authors of this textbook, British Columbia, children below the age of 12 cannot be held legally responsible for their actions. At the age of 19, they become full adults who can vote, purchase liquor, and sign legally binding major contracts. Between the ages of 12 and 19 is a gray zone where young people can make their own decisions on certain issues. The above section is an example for the legal situation in one specific jurisdiction but the same issues principally apply in all Western nations and clinical psychologists have to familiarize themselves with the laws affecting children in every new jurisdiction that they move to.

Especially tricky are the "gray zones" for decision making. For example, first-year university students are most likely 18 years old and could normally not independently participate in research studies given that they are legally under age. Nevertheless, there is a widely accepted understanding, backed by local ethics committees, that they can indeed participate in a research study, using, for example, questionnaires to assess their personality traits, without having to seek permission of their parents. Also, young people in this age group have a right to seek medical care as needed and the law assures them confidentiality when it comes to issues like a 16-year-old seeking a prescription for contraceptives from her physician. Although this may not be welcomed by many parents, the law is quite clear about it and the physician's hands are bound. Similarly, a 15-year-old with normal intelligence could seek the help of a psychologist without formal parental consent.

Parents have legal responsibilities for children and don't require their **consent** for assessments or treatment, but it is a good practice and recommended by professional bodies in psychology to inform the child as much as possible and seek an agreement from the child to participate. This process differentiates the notions of consent [which is legally binding] from **assent** which is not required but a good practice that increases the probability of good collaboration and the formation of an effective alliance in treatment when working with young children.

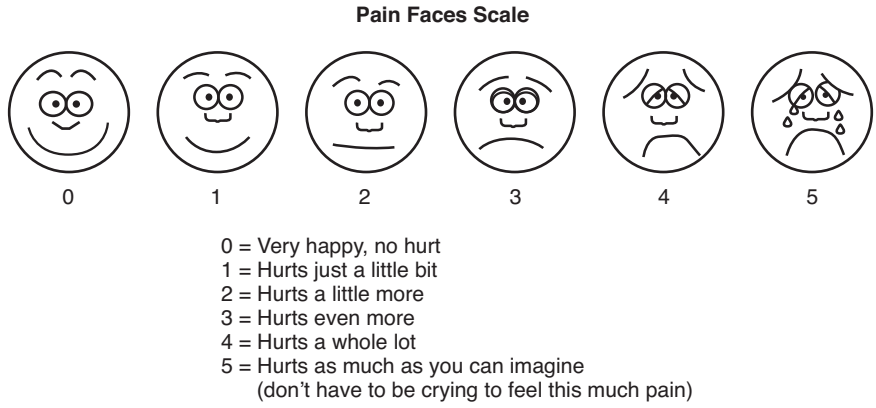
Given that children have few, if any, liberties in making their own choices about the parental home, and are deeply embedded in family and school systems, it also means that particular problems and stressors can arise from this environment. These should rarely be seen as a problem of the individual child but typically require a systems perspective (see also Chapter 10, on systems treatment). For example, it makes little sense to provide intensive therapy for an anxious, school-avoidant child who is repeatedly bullied by another child in school. There's a good chance that the bully does the same thing to other children and a good approach may be to involve teachers, the school principal, and the bully's parents (even though the latter may be rather defensive about their child being called a bully!). Also, an eating disorder like Anorexia Nervosa is most likely to begin during adolescence and cannot be understood or treated outside of the context of the family in which the youth lives. Furthermore, without a full understanding of the child's home, community, and school context, it is easy to misinterpret the source and implication of other problem behaviors. Children who are defiant and act out in school may do so because of problems at home or they may be showing early signs of sociopathic tendencies (or, of course, both!). All of this means that effective interventions for children require a broad systems perspective and often call for collaboration of the many people who already play important roles in a child's life.

Impact of Development on Assessment

Developmental stage greatly affects the suitability of typical psychological assessment tools for children. Some tools are uniquely developed for children; other tools originally developed for adults may still be suitable for older children and adolescents who have developed high levels of language and reading skills as well as abstract thinking abilities. Note that intelligence tests set an age threshold for the distinction of child versus adult IQ tests at age 16 (see Chapter 7) given the knowledge that IQ is quite stable after age 16. For interviews, the practicing psychologist can relatively easily adjust the level of questioning to the age-specific readiness of the child. Many of the frequently used psychological testing procedures involve standardized scales with rating systems, like 1–10 Likert-type scales, where an individual may be asked to state "how often do you think about suicide?" or "how likely are you to use little white lies to avoid hurting other people?". Use of such scales implies that the user is able to translate self-perception, intention, or sensation into meaningful numbers. While this can be a challenge for adults, it is even more difficult for children, and worse for those who have not received any training yet in mathematics. An interesting and useful approach to handling such a challenge has been to develop tools that do not require quantification via numbers. A good example is that of an assessment tool for acute pain that uses faces to express different degrees of distress. Research has shown that children can quite readily handle assessments using the Pain Faces Scale whereas they might not be able to make good use of a Likert-type scale of 1 to 10 ratings (Wong, Hockenberry-Eaton, Wilson, Windelstein, & Schwartz, 2001; Hicks, von Baeyer, Spafford, van Korlaar, & Goodenough, 2001) For illustrative purposes, a copy of the Faces for Pain Scale is provided here as Figure 15.1.

Typically from the age of five forward, children spend much of their time in school, and school performance is carefully tracked as children progress toward high school and possibly post-graduate training. Throughout this time period, it is critical for educators to follow the child's performance and identify children who are falling behind, hoping to intervene with remedial programs before children develop a pervasive, ingrained self-perception of failure.

FIGURE 15.1 Faces for Pain Scale.
Source: Wong, Hockenberry-Eaton, Wilson, Windelstein, & Schwartz (2001).



Hence, psychologists working in schools need to have carefully validated tools that allow age-appropriate cognitive assessments and identification of specific weaknesses.

In Chapter 7 of the book the reader was introduced to the most frequently used intelligence tests and has already learned that the beginning of intelligence testing was very much tied to and originated in the need for assessing cognitive abilities of children. When it comes to the assessment of cognitive abilities via the most frequently used tools (see also Chapter 8), namely, the **Wechsler Intelligence Scale** and the **Stanford-Binet Scale,** we already noted in the earlier chapter on cognitive assessment that the same test is suitable for individuals from age 16 until old age. Below this age, however, assessment tools are carefully chosen and normed to be suitable for very particular age groups given that children's knowledge and skill grow at an amazingly rapid rate. The same popular intelligence tests for adults also usually have corresponding versions for younger age groups. The Wechsler Intelligence Scale for Children, 5th edition (WISC-V; Wechsler, 2014), is appropriate for ages 6 to 16 but also has age-adjusted norms for each single year within that range. Test takers who are 12 years old, for example, start at a higher level of difficulty than a 6-year-old would to avoid wasting time answering many test items that almost 100% of 12-year-old test takers would know correctly. Here are examples of typical beginning questions (slightly modified by the authors from the original to avoid violating test security) for a vocabulary information test for a 6-year-old relative to that for a 12-year-old.

6 years: "What is a hammer?" or "What is a ship?"

12 years: "What is a telephone?" or "What is a law?"

The Wechsler Intelligence Scale for Children (and also the one for adults, of course) is based on the premise that individuals have learned some math and reading which means that children less than 6 years old are inherently incapable of using this test. For the age range of 4 to 6 years, tests have been developed that are much less reliant on school learning. Best known for use in this age group is the WPPSI (Wechsler Preschool and Primary Scale of Intelligence, 4th edition, 2012) that primarily differs from the Wechsler Intelligence Scale for Children (WISC V; Weiss, Saklofske, Holdnack, & Prifitera (2015)) by having fewer tests where verbal skills are needed and also fewer that have timed performance pressures. Also,

of 14 available subtests only 4 are used for the youngest respondents given that their attention span is much shorter. As the respondent gets older, more subscales are used for IQ determinations, for example, those 4–7 years old are evaluated on 6 subtests.

Any attempt to determine a child's overall IQ score, or even more specific subabilities of cognitive function, for children less than 3 years old, is seriously handicapped by the limited and uneven acquisition of language and cognitive processing ability of young children. Furthermore, children in this age group simply don't have the patience to sit for one hour or more and focus on lengthy tests. For them, cognitive function is typically judged by comparing the child's developmental stage to that of age-matched norms without actually expecting the child to sit down and respond to formal test questions.

Most tests of personality and psychopathology suitable for adults are not appropriate for children and there is—not surprisingly—no version of the MMPI for first graders. However, once children approach high school level, personality tests and structured interviews start to be usable. In the meantime, child behavior is usually evaluated by parents and teachers using interviews or structured observation.

One particularly innovative example of adapting structured interviews to children is the Dominic Interview (Valla, Bergeron, & Smolla, 2000). Here children are shown drawings of other children and are asked to indicate whether or not they would behave similarly in the situations covered by the drawings. Test-retest reliability and criterion validity has been established but construct validity is unclear.

Also used by clinicians are projective tests like the House-Tree-Person test already described in Chapter 7 of this book. Given that psychometrics for a projective test like the House-Tree-Person test are extremely difficult to establish even for adults, there is even less information available for children, and the clinician can really form only a subjective interpretation of the information inherent in the House-Tree-Person test. This could be elaborated on by actually engaging the child's inner conversation about who the people in a drawing are or what a particular drawing means to the child.

Intervention

The targets of interventions for children are frequently subdivided into three categories:

1. **Developmental disorders** (like learning disabilities).
2. **Externalizing** problem behaviors (behaviors that may be disruptive to others and/or risky). An externalizing problem would be ADHD or oppositional defiant behavior.
3. **Internalizing problems.** Examples of internalizing problems are elective mutism, depression, and shyness.

There has been extensive research on the suitability of various treatment approaches for children's problems. Before reviewing evidence on "what works for whom for what problem?", we will describe the most frequently used treatments for children.

Behavior Therapy

Behavior Therapy has been described in considerable detail in Chapter 12 of this book. One noted distinct advantage of Behavior Therapy is that many conditioning and modeling techniques do not require language abilities on the part of the person whose behavior is to change

and Behavior Therapy applications have no age limits. As you may recall, in Chapter 10 we gave an example of a Behavior Therapy application for a child less than one year old! It would be redundant to rediscuss the elementary principles and techniques of Behavior Therapy here.

Play Therapy

Below the age of 12, children lack capacity for abstract thinking, which, in turn, largely prevents them from benefiting from insight-oriented or talking therapies (Weisz, 2001). As described above, Behavior Therapy principles can be applied to people of all ages whereas therapeutic use of play is unique for children and has not been discussed previously in this book. Play is in and of itself considered essential to a child's healthy development and can be used as a tool of communication and catharsis with children (Astramovich, Lyons, and Nancy (2015). Through play, children may spontaneously act out feelings, thoughts, and experiences that they cannot otherwise express for lack of vocabulary or inhibition. Play and toys become vehicles for indirect communication, and this indirect nature of Play Therapy is less threatening to the child than would be true for direct interaction with a therapist. Although Play Therapy has been described as early as half a century ago (Bratton, Ray, Rhine, & Jones, 2005 for a review), its efficacy was in dispute until two recent meta-analyses. Leblanc and Ritchie (2001) reported an average treatment effect size of $d = 0.66$ standard deviations. The duration of therapy was related to treatment outcomes, with maximum effect sizes occurring after approximately 30 treatment sessions. Very similar results were reported by Bratton et al. (2005). In a review of 93 clinical trials an average pre-post effect size of $d = .80$ was observed and Play Therapy appeared to be as effective as nonplay therapies in treating children experiencing emotional difficulties. Recommendations for future researchers focused on explaining therapeutic or participant characteristics that are related to treatment effectiveness. Bratton and her colleagues also noticed particularly positive outcomes for forms of Play Therapy with a humanistic orientation and equally noted that involving parents in Play Therapy further magnified effects. Neither the child's gender, nor the presenting issue, nor age was associated with differential outcomes.

Systems Therapy

Given the high degree to which children are embedded in their families and immediate social environment, it often makes little sense to pathologize and blame the child for his own misfortune. Systems Therapy is particularly suitable for child clinical work even if it is not easily suited for clinical trials of its effectiveness (see also Chapters 11 and 13). As we presented earlier on, in the section on Systems Therapy, it is frequent that a child or adolescent is identified as "the patient." Nevertheless, careful assessment by a trained systems therapist often reveals that the child lives in a family with problematic dynamics such that the whole family context and the interactions of all family members with one another need to be considered if positive, lasting change is to come about (Minuchin, 1974). Therefore, a systems approach to treating children is particularly suitable in that the therapist has a chance to study direct interactions between the child, her siblings, and parents.

When equipped with observational data of the family's dynamics, the therapist can suggest changes that remove the child from the role of "black sheep" and target ways how the entire family can benefit from the intervention. A great advantage arising from this approach is that nobody is singled out for blame and therefore likely to become defensive, thus blocking the process of change. Even if a child clinical psychologist is not particularly well trained in Systems Therapy, attention to immediate environment factors that may maintain problem behaviors is critical, and successful behavioral change requires that others in the child's social network support these changes.

Overview of Treatment Outcome

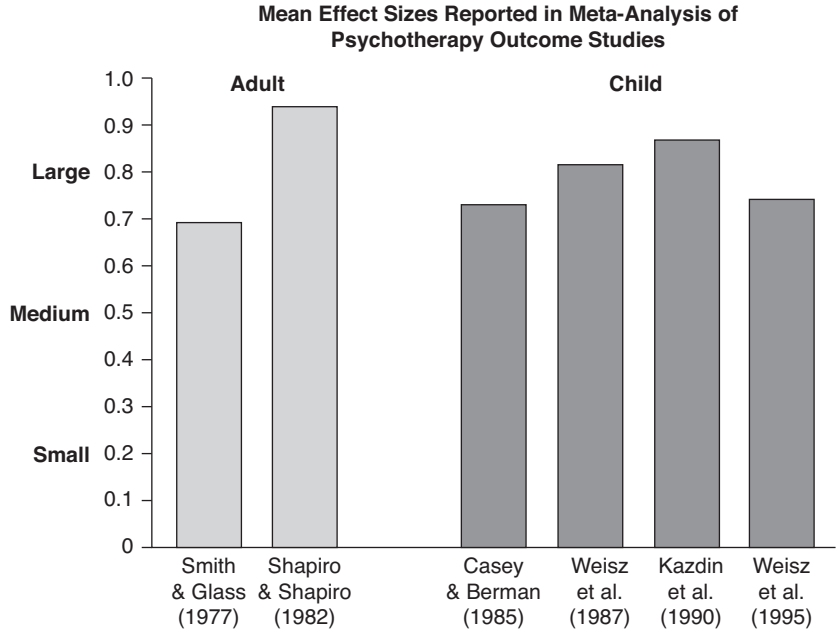
Fortunately, there is an abundance of research on the effectiveness of psychological therapies for children and adolescents, at least for some treatment approaches. Most often tested are cognitive-behavioral approaches because (1) they are eminently testable given their focus on observable behavior, and (2) there is striking evidence that talking therapies for children simply don't work. Weisz (2001) reported that talking therapies had an effects of $d = 0.0$.

On the whole, the observed effect sizes are very similar to those noted for treatments of adults (see also Chapter 13) and typically qualify for the designation of "large effect." Also, there are many interventions that meet the criteria for evidence-based treatment using the same evaluation criteria that were used to derive this designation for adult treatments, described in Chapter 13. Table 15.3 provides a listing of treatment applications shown to be efficacious, and Figure 15.2 provides an overview of observed effect sizes from meta-analyses (Brestan & Eyberg, 1999; McQuaid & Nassau, 1999; Ollendick & King, 2004).

TABLE 15.3 Empirically Validated Treatments for Specific Applications

Application	*Treatment*
Recurrent pain	CBT
Medical procedure-related pain	CBT
Chemotherapy side effects	Imagery, distraction, relaxation
ADHD	Behavioral Parent training
	Behavior Modification in the classroom
Anxiety	CBT
Depression	CBT
Phobias	Behavior Therapy
Conduct Disorder	Cognitive Therapy
	Parent training
	Problem-solving skills
	Behavior Modification
	Stress Inoculation/Anger Control training (also CBT in nature)

FIGURE 15.2 Meta-Analytic Comparison of Outcomes for Child/Adolescent Treatments.
Source: Hunsley & Lee (2005).



The Example of Attention Deficit/Hyperactivity Disorder (ADHD)

We have intentionally chosen to discuss this one treatment area in more detail because it demonstrates how different health professionals can work with each other but also how the diagnosis alone is colored by societal trends. ADHD is a pervasive problem that appears to be growing in importance (Rey & Sawyer, 2003); it invites illustration of how psychological and pharmacological agents can be used together for effective interventions, and makes for great discussion material given extensive controversy over the diagnosis itself and the ensuing treatment process. Drug prescription patterns are usually well informed and guided by science, but they are also shaped by societal trends.

One clue backing the argument of "trendiness" is apparent in different frequencies with which psychostimulant drugs are being used to treat ADHD in different environments. Approximately 5% of children in the US and Canada are currently treated with psychostimulants, the corresponding figure is 2% in Australia, and 0.03% in Britain (Rey & Sawyer, 2003). These numbers partly reflect differences in population prevalence of diagnosed impulse control disorders which are highest in North America (approx. 6–7%) and notably lower in Europe (approx 1–2%; World Health Organization, http://www.who.int/healthinfo/global_burden_disease/en/), but especially the prescription rates in Britain do not correspond with the population prevalence of impulse control disorders in other countries. Therefore, the numbers speak at least in part to a certain culture of diagnostic and treatment patterns. The question then is whether North Americans are overprescribing or are Britons underprescribing? Depending on one's stance, suitable references can be found in support of either argument. Undertreatment

appears to be the problem in a study by Jensen and his colleagues who reported that among children meeting ADHD diagnostic criteria only 12.5% had received psychostimulants treatment within the last year. On the other hand, the prescription rate is roughly 5% in all children in Canada and the US, whereas some critics urge parents of ADHD children to be more patient, to learn behavioral management techniques, and stay away from medication unless absolutely necessary. Others advocate first of all for a proper diagnosis (nobody disagrees on this one!) but also support prompt writing of prescriptions for psychostimulants. While there does not appear to be any major disagreement that psychostimulants are effective in helping children with ADHD focus and improve their academic performance, the reservations are partly justified by the fact that severe ADHD treated with drugs would need to extend to drug treatment for the entire childhood and adolescence in order to be effective. There is documentation that adults with ADHD can also benefit from such stimulants, and this might mean that individuals might spend their entire lives on medication. This prospect carries very limited appeal to many who are worried about side effects, cost, and the associated self-image as being dependent on the drug to function. The bottom line is that the ultimate extent of psychostimulant use is a blend of scientifically based recommendations and social trends and the inherent controversy is not going to go away quickly. Still, the predominant opinion among experts is that in severe cases of ADHD a combination of parent and child training and psychostimulant drug use is best whereas for mild cases parents might want to begin with behavioral training programs (Barkley, 1998; Johnston, Hommersen, & Seipp, 2008).

Another treatment option that can be brought into play is that of biofeedback, which again is both promising and controversial. The use of electroencephalogram (EEG) biofeedback for ADHD (Monastra et al., 2005) is based on studies showing that about 90% of ADHD children have an underaroused frontal lobe—the region of the brain that is involved in sustained attention, focus, concentration, and problem solving (Monastra et al., 2005). Biofeedback of electrical brain activity (EEG) teaches self-regulation of brain activity. How well does it work? In a treatment study, 51 young patients received biofeedback and medication. In the added biofeedback condition they played a video game that continued only when they exercised the portion of their brain that is deficient in the ability to focus and stay attentive. The other group received only a stimulant medication. Researchers could show a reduced need for medication and better maintenance of self-control than with drug treatment (Monastra, Monastra, & George, 2002). Forty percent were able to discontinue their medication. The bad news is that the training is lengthy and expensive; in the Monastra study, for example, the children received weekly treatment for one full year. Notwithstanding these positive findings, medication is still considered a necessity for many children with ADHD, although the biofeedback may be a useful adjunct or possibly alternative treatment for those who don't tolerate stimulant medication.

Conclusion

This chapter was designed to show how, on the one hand, clinical work with children is similar to that with older individuals but also how it is a very distinct field requiring additional training, awareness, and distinct skills:

- There are unique ethical constraints in working with children.
- Psychopathological labels are more difficult to justify because the child's identity is very much tied up with that of its family and immediate environment, which may have been disturbed and pathological even before the child arrived.

- Ignoring early signs of trouble in children can become very expensive in that the sequelae are harder and more expensive to treat. Early recognition and handling can be cost-effective prevention.
- Assessment tools need to be developed and (re-)validated for specific age groups.
- Some treatments are only suitable for children, others not at all, and some may work equally well with adults and children.

Ongoing Considerations

We encourage all readers to remain alert to the fact that research findings based on samples of adults may not generalize to children (and vice versa!). Tests continue to require development or adaptation for child test takers. There is a growing literature recognizing the importance of following childhood problems into adulthood. Often times, health care systems are designed as distinctly "child" or "adult" whereas continuity of understanding and care is vital for effective care. Also, a thorough understanding of how childhood problems (especially when left untreated) will affect an entire life can inform us how important and cost-effective early intervention or primary prevention can be.

Key Terms Learned

Age of consent, 348
Assent, 348
Attention deficit and disruptive behavior disorders, 347
Consent, 348
Developmental disorders, 351
Elimination disorders, 347
Externalizing, 351
Internalizing problems, 351
Learning disorders, 347
Stanford-Binet Scale, 350
Wechsler Intelligence Scale for Children, 350

Thinking Questions

1. Are the reservations we have about drug treatments the same for children as they are for adults?

2. Should school systems be required to screen for learning disorders as early as grade one and promptly offer a different learning approach?

3. How can we prepare for the fact that many special needs children become special needs adults?

4. How much and what kind of extra or different training is required to become a competent child clinical psychologist?

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16 Forensic Psychology

Chapter Objectives

This chapter deals with areas of practice where clinical psychology interconnects with the Law. There are many facets of the law and legal processes where clinical psychologists can be of immense use but clinical psychologists are not the only psychologists interested in this topic. Biopsychologists, for example, may take an interest in explaining violence, or social psychologists could contribute to the study of jury selection processes. Therefore, this chapter describes the field at large and attempts to clarify where and how clinical psychologists can fit into and contribute to this domain. The learning objectives of this chapter are:

- An understanding of what forensic psychology is and its uniqueness in the field of clinical psychology.
- An appreciation for the breadth of the roles that forensic psychologists can be involved in.
- An understanding of the specific tasks that can be a part of the forensic psychologist's research and clinical work.
- Be introduced to issues within the field such as lie detection and the usefulness of this assessment tool.

What Is Forensic Psychology?

Although for many, forensic psychology has been seen as a specialization within clinical psychology (Craig, 2005), the general area, also referred to as **Psychology and the Law, Law and Psychology,** or **Legal Psychology** (Wrightsman & Porter, 2006), encompasses many different domains of psychology including clinical, social, developmental, cognitive, and community psychology (American Psychology-Law Society, www.aps-ls.org/acadmics/careersoverview.html). Moreover, there are other professional groups who also provide clinical services in forensic contexts including social workers, psychiatric nurses, and psychiatrists.

Even though there is some disagreement on specific definitions of this area (Ogloff, 2002), forensic psychology can be defined, generally, as the intersection or the confluence of psychology and legal issues, and it involves the application of knowledge and principles derived from the field of psychology to issues pertaining to law and legal processes. Clinical psychology has played and continues to play a major role in many of the tasks that forensic psychologists engage in, although the area of forensic psychology has broadened considerably

and draws on many other areas within the field. Although we will be describing the domain of forensic psychology, we will try to focus much of our discussion to issues that pertain to the research and applied work of clinical psychologists.

According to Bartol and Bartol (2006) forensic psychology

> is both (1) the research endeavor that examines aspects of human behavior directly related to the legal process (e.g., research on eyewitness memory and testimony, jury decision making, and criminal behavior) and (2) the professional practice of psychology within or in consultation with a legal system that encompasses both criminal and civil law and the numerous areas they intersect.
>
> (pp. 3–4)

According to these authors there are two general views of forensic psychology. The first, the broad view, encompasses a large number of potential activities that fall under titles such as police psychology, expert witness and testimony, assessment and treatment of offenders, child custody evaluations, research and theory building, and development of interventions and prevention programs for at-risk individuals. The second view, known as the narrow view, involves a definition of forensic psychology that entails simply the application of clinical practice within the legal system that would involve assessment, treatment, and consultation.

In the current chapter, we will describe forensic psychology as a branch (and one of the newest branches) of applied psychology that involves many of the roles and activities that clinical psychologists engage in. For broader discussions of the field of forensic psychology, the student is directed to several excellent resources such as Porter and Wrightsman (2013) and Weiner and Hess (2006).

Although it was not until the 1970s that the field of forensic psychology truly emerged when, according to Bartol and Bartol (2006), there was an explosion of research and writing on all aspects of forensic psychology. There were numerous professional journals dedicated solely to the area of forensic psychology, emerging in North American and the United Kingdom, and training facilities specializing in forensic psychology began to spring up as did certification of practitioners (Ogloff, Tomkins, & Bersoff, 1996). Forensic psychology began to flourish during this time, not only in the United States, but also in the UK, Europe, Australia, and Canada (see Blackburn, 1996) and continues to be seen as an exciting and growing area of applied psychology with expanding roles for the psychologists who practice and research in this area.

Although the field truly found its legs in the 1970s, psychology's involvement in legal activities actually has a lengthy history (see Bartol & Bartol, 2006 for a historical review). For example, Alfred Binet, in France, was one of the first to look at psychological issues in legal testimony and actually suggested the creation of a "science psycho-judiciere" (Binet, 1905). Moreover, two researchers in Germany, William Stern and Franz von Liszt, in 1901 became quite active in research of court-related testimony (Stern, 1939). It was in Germany, as early as 1904, where research into the development of psychological instruments to detect lying in legal situations began. Early on, the involvement of psychologists in legal processes was not extensive but was more common in Europe than in North America and the involvement extended not only to providing testimony regarding eyewitness accounts and credibility of witnesses' statements, but also as expert witnesses in criminal cases. In North America, a particularly colorful, if not a particularly scientifically minded, German psychologist, Hugo Munsterberg, was instrumental in the development of forensic psychology. He was Director of the Psychology Laboratory at Harvard University in the early 1900s and argued vehemently for the inclusion of psychological knowledge and psychologists within legal proceedings and processes (e.g., Munsterberg, 1908).

He was generally disliked (in fact, he has been described by Benjamin [2003, p. 734] as "one of the most despised individuals in America") within the legal and psychological communities for his brash and despicable demeanor as well as his rather cavalier attitude toward scientific rigor. Despite all this, however, his work provided an impetus for the inclusion of psychological knowledge into the legal arena, and he is considered by some to be the "founder" of forensic psychology (Bartol & Bartol, 1999; Wrightsman & Porter, 2006). Thus, as the field of clinical psychology developed, with its beginnings in testing and research, and evolved, so too did its connection with the law and legal matters evolve and develop.

Forensic Psychology Today

Nowadays, forensic psychology is viewed as a vibrant and respected domain of psychology. For example, the American Psychological Association, in 2001, established forensic psychology as a specialty area within psychology. Training opportunities in forensic psychology have been on the increase in North America, Europe, the United Kingdom, and Australia including the master's doctoral, post-doctoral, and continuing education levels (Ogloff et al., 1996) and various kinds of programs are available. For example, there are a large number of clinical psychology programs that offer forensic streams or forensic training as a part of the program. As well, there are programs that have been specifically developed to train forensic psychologists, such as the Psychology and Law program at Simon Fraser University in Canada, the combined law psychology PhD degrees offered at the University of Nebraska-Lincoln, and various Investigative Psychology programs in the United Kingdom. Moreover, there are several organizations providing certification and granting credentials for forensic psychologists, and the development of specific **specialty guidelines** (i.e., guidelines that determine specific credentials and training necessary) and **practice standards** (i.e., specific guidelines for tasks and practice areas) are being called for (Otto & Heilbrun, 2002). Finally, research within forensic psychology is also an indication of the vibrancy of the area with thousands of books, and over 25 peer-review journals dedicated solely to forensic psychology (Bartol & Bartol, 2006).

The Clinical Forensic Psychologist

The clinical psychologist who has been trained to practice in forensic contexts is often known as a **clinical forensic psychologist**. This is a psychologist who is involved in the delivery of assessment, treatment, or consultation services, is often involved in training or supervision of students or other professionals, and may be involved in research-related pursuits. Clinical forensic psychologists typically have a PhD in applied areas of psychology, such as clinical psychology, and have specific training in the delivery of forensic services as well as the law and legal processes. In addition, they require a license to practice (although if the work is solely research then licensure is not necessarily needed) and often have certification to practice forensic psychology. They can work in a variety of settings including prisons, secure forensic units in hospitals, various court-related agencies, private practice, or in universities. They have been trained, as described above, in traditional clinical skills and research as well as delivery of forensic services and will be licensed with specialization in clinical forensic work.

There are numerous domains wherein clinical forensic psychologists play a variety of roles and engage in applied or research-related work. Several authors in the field have delineated these domains and they are presented below.

Police Psychology

Although the involvement of psychologists within law enforcement is relatively new, the number of psychologists involved in police-related activities has been increasing, and now, the role of psychologists has had a significant impact on law enforcement services (Scrivner, 2006). The roles of clinical forensic psychologists in this context can vary from evaluating, identifying, and selecting appropriate applicants for law enforcement work, providing psychological services for police officers and families (stress management, treatment of trauma, critical incident stress debriefings and also treatment for other psychological problems such as depression, substance abuse, post-traumatic stress disorder, family problems), conducting fitness for duty evaluations in police officers, and aiding in police work such as providing training to police officers for dealing with the mentally ill.

Some police departments will use psychologists to aid in activities such as **criminal profiling** to aid in investigations. Criminal profiling involves examining evidence obtained from a crime scene, witnesses, or victim in order to construct an accurate description of the criminal. Although television shows and Hollywood movies may give the impression that this is a common activity of clinical forensic psychologists, in reality this is often not true (Wrightsman & Porter, 2006). In fact, criminal profiling is most likely done not by psychologists but by law enforcement officers and the training for this activity is not done in forensic psychology programs; thus, there are many who do not consider profiling as within the purview of forensic psychology.

Crime and Delinquency

This domain is concerned with research on criminal behavior and how it develops, is maintained, evoked, and changed (Bartol and Bartol, 2006). For example, there has been a great deal of research on the development and manifestation of **psychopathy**, a personality style that is characterized by lack of emotions such as guilt, empathy, or remorse, impulsivity, and consistent violation of societal norms, rules, and laws. Psychopathy is very common among prison populations (e.g., between 15 and 25% in comparison to about 1% in the general population) and accounts for significant amounts of crime, violence, and social distress (Hare, 1996). In terms of more clinically related activities, work in this area could involve the development of strategies and tools to identify at-risk or potentially dangerous individuals, designing and evaluating effectiveness of intervention strategies to deal with violent or criminal behavior.

Victimology

Very often the effects of criminal behavior on victims or witnesses can be distressing in some cases and absolutely devastating in others. Psychologists can play an important role in assessing and treating persons who are victims. For example, although the necessity of treatment of individuals who are victims of major crimes (such as rape, assault, and so forth) is obvious, individuals who are victims of harassment, discrimination, and negligence are also often in need of and can benefit greatly from appropriate treatment. Individuals who have been victimized in such a manner can also experience profound distress and symptomatology not just from the initial experience, but also from the bureaucracy of attempting to secure clinical services and compensation, work absences, or gaps in the care system (Campbell, 2008).

Correctional Psychology

Psychologists working in this area typically deal with individuals in correctional facilities. The major goals of psychologists working in correctional psychology activities include developing and providing treatments that focus on the rehabilitation and reintegration of inmates as well as provision of treatment for a variety of psychological disorders and problems. Not infrequently, individual and group psychotherapy is offered as well as specific treatment modules, such as stress management, social skills training, or crisis intervention. In addition, psychologists are often involved in testing and assessment and provide information and opinions regarding security levels of prisoners, information as to parole, and suitability for various programs. As well, research efforts can be directed at effectiveness of various interventions, effects of imprisonment on behavior, or on special populations such as sex offenders, psychopaths, or juveniles.

Psychology and Law or Legal Psychology

This is a broad domain that encompasses a variety of activities that involve the relationship between psychology and the court (Bartol & Bartol, 2006) and involves research, consultation, and assessment as well as some of the activities described above. Psychologists working within this domain might be involved in such activities as research on or acting as expert witnesses in a particular area of expertise, aiding in jury selection, assessing competency (i.e., does person have the capacity to understand the nature of the proceedings), criminal responsibility (i.e., was or is the person not responsible for crime because he or she had had a mental disorder at the time of the crime), or appropriate child custody and access, conflict resolution, or child abuse allegations. This domain can, of course, involve all types of activities by clinical forensic psychologists in terms of knowing and/or contributing to relevant research domains in order to establish one's expertise, assessment techniques and strategies, and knowledge of interventions.

The above list is not meant to be exhaustive, but rather to illustrate, in a broad fashion, areas that clinical forensic psychologists work in. The two boxes that follow provide further vignettes of the domain of forensic psychology work.

BOX 16.1 THE WORK OF FORENSIC PSYCHOLOGISTS

Often the work of forensic psychologists is complex, not only in terms of the clinical issues involved and the often brutal crimes committed but also the judgments in making difficult decisions. Although in these cases the forensic psychologist is part of a team, the information and expertise of the forensic psychologist is an important element in the process. For example, as reported by the Canada Broadcasting Corporation (www.cbc.ca/news/canada/edmonton/man-who-beheaded-greyhound-bus-passenger-seeking-discharge-family-says-1.3960785), in the brutal murder of Tim Mclean on a Greyhound bus in rural Manitoba, a province in Canada, the individual responsible for the murder, Vince Li, was found to be not criminally responsible for the crime due to an untreated psychotic disorder. He was held in a psychiatric forensic unit where he received treatment for his disorder and evaluated periodically. In 2015 it was determined that Mr. Li could move to a group home, and, in 2016, based on recommendations from his treatment team, that he could be living on his own with daily monitoring and regular evaluations. Effects of the murder on witnesses and personnel on the scene have been reported, and, not surprisingly, the murder had a tremendous impact on the lives of many of those individuals (*The Globe and Mail*;

www.theglobeandmail.com/news/national/the-scream-that-haunts-the-forgotten-passengers-of-bus-1170/article1372244/?page=all). Forensic psychologists can play in all aspects of cases such as these from completing assessments to aid in determining whether a person is criminally responsible, participating in the ongoing assessment and treatment of the person who committed the crime, helping to determine appropriateness of moving the person to various facilities and release to the community. Finally, providing treatment to the witnesses and other personnel involved is also a role the forensic psychologist can play.

BOX 16.2 A FORENSIC PSYCHOLOGIST'S WORK

A colleague of both authors, Dr. Nicole Aube, practices as a clinical forensic psychologist, and, in one of her many roles, she advises police interrogations of suspected criminals, usually involving very serious crimes such as murder including serial killings. According to Dr. Aube, the purpose of the psychologist in this role is become as familiar as possible with all aspects of the suspect's life in order to understand his or her personality make-up, the nature of any psychopathology that may be evident, and behavioral styles and characteristics. Based on the training of the psychologist in personality, psychopathology, cognitive and interpersonal behaviors, and so forth, the psychologist provides his or her expertise to advise interrogators and investigators as to potential responses of the suspect or questions that would be pertinent to ask based on the history, personality characteristics, and psychopathology of the suspect. Moreover, the psychologist can view interrogations as they take place and offer on-the-spot suggestions, hypotheses, and interpretations for the interrogators and other team members.

In one case, involving the interrogation of a suspected serial killer, Dr. Aube familiarized herself with the suspect by viewing other interview tapes, written reports, criminal history including detailed information regarding past crimes, types of victims chosen, information pertinent to the presence of psychopathology, and so forth. She used this information to form a picture of the personality, psychological issues, and behavioral characteristics of the suspect in order to help in obtaining accurate information from the suspect during the interrogation. She advised the team on what kind of interviewers should conduct the interrogation, what to expect and what to watch for in terms of responses to particular questions, and how to establish a connection with the suspect and pose questions.

Thus the clinical forensic psychologist becomes a part of the investigatory team and provides input from a psychological perspective in order to obtain an accurate picture of the person in question.

The psychologist in this role familiarizes himself or herself with as much information as is available (e.g., clinical reports, practitioner observations, and witness reports).

Differences Between Traditional Clinical Psychology and Forensic Psychology Practice

Differences between the usual clinical psychology practice and forensic practice have been detailed by Craig (2005) and are useful in order to illustrate that to practice clinical psychology within a forensic context, different assumptions need to be made and specific tasks need to be done differently. These are detailed below.

1. The clinical psychologist's goal is to help his or her patient whereas the forensic psychologist's goal is to help the court. This is a fundamental difference in terms of who the psycholo-

gist is working for, and this affects the nature of the interactions between the psychologist and the person being interviewed, observed, or tested as well as the specific responsibilities of that psychologist. Although the psychologist may be working with only one individual, depending on whether the individual is the psychologist's client or the court is the psychologist's client, the behaviors and responsibilities of the psychologist will differ.

2. Clinical psychologists often see patients for multiple sessions over a period of time that is often extended and not highly structured. The forensic clinical psychologist, however, may see the client for only a couple of sessions in a highly structured and evaluative context. Additionally, whereas the clinical psychologist in a nonforensic setting may deal with broad issues pertaining to the clinical question, in a forensic setting, the psychologist is likely to focus narrowly on issues germane to the court.
3. Confidentiality is the mainstay of the clinical psychologist and allows freedom of exploration of issues that are extremely personal. In the forensic context this is not so, and, in fact, patients or clients are informed that information gleaned from the evaluation can be used against them in the courts. Whereas maintaining confidentiality is strictly adhered to in clinical contexts, confidentiality is not a requirement in the forensic context. In fact, it is incumbent upon the forensic psychologist to inform the person being interviewed or tested that their responses can and likely will be discussed openly in proceedings and that findings can be used against the person.
4. Clinical psychologists normally need to know about laws as they pertain to their practice; whereas forensic psychologists need to know about law and legal processes as they pertain to their practice and to particular cases the psychologist is involved with. Moreover, the forensic psychologist needs to understand the various rules and regulations regarding testimony as well as proceedings that bear directly on the data and evidence that may be presented.
5. Consequences of the involvement of the psychologist differ in the two contexts. In the traditional clinical situation, the outcome of the work of the psychologist will, it is hoped, improve the person's functioning, alleviate suffering or turmoil, and deter future relapses or recurrences of problems; in effect, increase the person's quality of life. In the forensic situation, the outcome of the work of the psychologist can influence whether the person loses or gains custody of a child, is denied or awarded compensation (sometime worth millions of dollars!), or is found guilty of crimes with attendant punishment.
6. With respect to treatment, the traditional clinical context involves a psychologist who is supportive, caring, and empathic (i.e., "Rogerian") in dealing with patients and assumes that the patient wants help and will be forthcoming in discussing the personal issues. The patient, in this case, is normally seeing the psychologist voluntarily and wants help from the psychologist. In forensic psychology contexts, the psychologist takes more of an investigative stance and may act neutral and detached and, importantly, make the assumption that malingering or biased responding or withholding and misrepresenting the truth can be a distinct possibility in the client's responses. Moreover, the client is normally not seeing the psychologist voluntarily and may be quite resistant of the psychologist's investigation.
7. In research in psychology, there are strict guidelines with respect to determining probability, and psychologists use empirical methods and results to "trust" in findings and to determine whether particular findings are close to being established "truths." This differs from trust in findings or evidence in forensic settings. According to Wrightsman and Porter (2006) whereas psychologists are trained to answer questions about behavior by gathering reliable data and obtaining valid and replicable findings, lawyers, judges,

and other legal professionals tend to use past experience, intuition, and other sources of information that have been shown, often, to be less than accurate. Thus, assumptions regarding trust in research findings or evidence can differ depending on the context.

It should be obvious from the above that the clinical psychologist who is doing forensic related work must think and act differently in different contexts and when performing forensic duties. Many of the parameters, assumptions, and practices in clinical work shift and change when the clinical issues are conducted in a forensic context.

Tasks of the Clinical Forensic Psychologist

In the next section, we will discuss some of the issues relevant to the major tasks and foci of clinical psychologists and how they are conducted and performed in a forensic context. We will focus on the types of tasks we have discussed in the text thus far including assessment, treatment, consultation, and research.

Assessment

As described in previous chapters, assessment is a frequent and specific task engaged in by clinical psychologists and is commonly a major part of the clinical forensic psychologist's work. Assessment in a clinical context normally involves a clinical interview, behavioral observation, objective and projective personality testing, intellectual and/or neuropsychological testing, and, at times, collateral information from others. In forensic settings these sorts of activities are also engaged in with acknowledgment that, as described above, some of the assumptions, responsibilities, and tasks of the clinical psychologist differ when conducting forensic assessments. Also, perhaps more importantly, the kinds of questions being addressed are fundamentally different. In clinical contexts, questions revolve around issues of diagnosis, formulation, and treatment recommendations whereas in forensic assessments questions revolve around attempting to answer or provide information on specific legal questions such as whether the person is competent to be involved in court proceedings.

Below we delineate several areas within forensic psychology that assessments, broadly defined, are used. These are not exhaustive but should be considered illustrative of the kinds of work conducted. Although many of the tests and assessment methods described already in this text (e.g., intellectual and neuropsychological assessment instruments) are used in forensic contexts, they are, of course, used for different purposes. The results of these tests and methods must not only have demonstrated reliability and validity but must also withstand scrutiny in court and during cross-examination by defense or prosecution lawyers.

With respect to testing in forensic assessments, it is useful to describe a typology developed by Grisso (1986) who delineates three broad kinds of instruments used in forensic psychology.

Forensic Assessment Tools

The types of instruments in this category of forensic tests were developed to assess specific legal standards or legal constructs rather than personality or psychological variables more generally. For example, tests that assess competence or a person's ability to manage his or

her own finances would fall in this category. These tests can be quite challenging to develop because definitions of validity and reliability are tied in with definitions of the legal constructs and these may vary quite markedly from jurisdiction to jurisdiction. Moreover, it is challenging to conduct the necessary research to firmly establish the validity and reliability of the measures, and there tends to be less than ideal empirical support for many of the instruments (Ogloff, 2002).

For example, measures such as the Competency Screening Test (Lippsitt, Lelos, & McGarry, 1971) or the MacArthur Competence Assessment Tool—Criminal Adjudication (MacCAT-CA; Hoge et al., 1997) and the MacArthur Competence Assessment Tool—Clinical Research (MacCAT-CR; Applebaum & Grisso, 2001) assess a person's ability to understand proceedings, knowingly make a plea, and to proceed to trial.

Forensically Relevant Assessment Tools

These instruments do not focus on legal standards or clear legally defined constructs but assess clinical issues that are pertinent to the evaluation of a person in a legal situation; for example, the assessment of malingering (i.e., voluntarily and consciously presenting a negative picture of one's functioning or lying to appear as if one has a disorder or disability), other response sets, or personality variables germane to criminal activity. The Structured Interview of Reported Symptoms (Rogers, 2010) is a measure specifically designed to assess malingering.

One very commonly used forensically relevant instrument is the **Psychopathy Checklist** (Hare, 2003) that is used in the assessment of psychopathy. This measure is an extremely popular instrument among psychologists; in fact, according to Otto and Heilbrun (2002) this instrument is administered between 60,000 and 80,000 times per year in North America! This measure is a 20-item scale that is administered as an interview and assesses the behavioral, affective, and interpersonal characteristics of this pathological personality style. It also includes a review of written records and documents. Although developed initially as a research instrument (Hare, 1991), the PCL has become one of the most commonly used measures of psychopathy in forensic assessments.

Clinical Measures and Assessment Techniques

These are instruments that have been developed for clinical purposes (i.e., assessment, diagnosis, formulation, treatment issues) that can be used in forensic assessments. Often these instruments are very well developed and have demonstrated levels of appropriate reliability and validity but do not directly assess legally defined constructs or standards.

There are a variety of objective intellectual and personality tests that are utilized very commonly in a variety of forensic assessments. One of them is the MMPI/MMPI-2. Although the MMPI/MMPI-2 can be used generally as a measure of personality and psychopathology, there have been various subscales that have developed within the MMPI-2 specifically for forensic issues. For example, Megargee (1977) developed an MMPI-based classification system of offenders and in 1994 (Megargee, 1994) evaluated and revised the classification system scoring for the MMPI-2 for males and females. The system was based on different elevations of various clinical scales. Megargee's classification system includes 10 types of offender MMPI-2 profiles. For example, high elevations on clinical scales 4, 8, and 9 constituted the "Foxtrot" profile that was characterized by individuals who were streetwise,

tough, cynical, and antisocial with extensive criminal histories. As well, the MCMI-III (Millon & Davis, 1996) is also used in forensic settings as an alternative to the MMPI-2 and can be used to detect malingering, although it is not used as frequently as the MMPI-2 nor is it uniformly considered to be appropriate for forensic purposes (Dyer & McCann, 2000). In addition to the objective tests, projective tests are also used in forensic assessments (Craig, 2005). For example, the Rorschach Inkblot Test, with scoring based on the Comprehensive System, meets the appropriate criteria for test usage in American courts and has been used for several decades in court proceedings (Craig, 2005) as well as in personality testing of police recruits. The Thematic Apperception Test has also been used in US courts, custody evaluations, and matters related to sexual abuse (Craig, 2005).

Treatment

In contrast to forensic assessment, psychological treatment-related issues germane to forensic psychology have received less attention, although clinical psychologists engage in and evaluate treatments to some degree. Some psychologists have argued that, for the most part, treatment is treatment irrespective of whether there are forensic issues or not; whereas others suggest that although generally specific forensic treatment emphasis within forensic psychology has been minimal, some domains of forensic psychology, for example, corrections psychology, have been focused upon. We will briefly discuss three such areas.

Treatment of Perpetrators of Crime

Typically, treatment of the perpetrators of crime occurs in correctional settings, although this can occur in a variety of other outpatient or private practice settings. The primary goal of treatment of offenders is to reduce criminal behavior and according to Gendreau, Goggin, French, and Smith (2006) such treatment programs:

1. Target characteristics, such as personality characteristics, appraisals of events, and life circumstances, that are seen to have a close connection to the criminal behavior of interest.
2. Use psychotherapy techniques to help to develop appropriate attitudes, skills, and behaviors.
3. Use recidivism (i.e., re-offending) as final criterion of success.

The most common treatment approaches used in correctional settings include person-centered, cognitive, behavioral, and group therapy, although mainly individual treatment modalities seem to be focused on by psychologists. These forms of treatment can be useful for general groups of individuals and for a variety of difficulties. There are also treatments that have been developed for specific populations within many correctional settings. Although treatments for specific groups may be seen by some as an appropriate strategy for treating large numbers of patients, developing a generic treatment based on criminal behavior (e.g., treatment for sex offenders) results in extremely heterogeneous groups that are not necessarily amenable to effective treatment (Otto & Heilbrun, 2002).

As an example of treatment of special populations within corrections, violent offender treatment programs are not uncommon in prisons and are seen as very important, likely due to the seriousness of the behavior and because reduction or elimination of these behaviors is an important goal for those incarcerated. Most violent offender treatment approaches have

two foci, the first of which is to help patients develop self-regulatory behaviors for aggression and anger, and the second, addressing cognitive deficits or irrational beliefs in order to change thinking. Thus a focus on both emotional and cognitive processes is thought to be appropriate in reducing violent behavior (Weiner & Hess, 2006).

Another example of a fairly common treatment for special populations involves the treatment of psychopathy which has utilized treatments from a variety of perspectives (Hare, 1996). In a strong statement regarding treatment of psychopathy, Hare (1996, p. 41) made the following observation: "There is no known treatment for psychopathy . . . the justice system and public routinely, are fooled into believing otherwise." Not only is there a lack of evidence that treatment of psychopathy is effective, but incredibly, there is an indication that treatment of psychopathy can result in *increases* in violent and criminal behavior because the treatment may actually help the psychopath develop better ways to manipulate and control others (Rice, Harris, & Cormier, 1992)! Recently, on the other hand, there is some suggestion that if the treatment of psychopaths in intensive, frequent, and long term, it may show some promise (Bonta, 2002).

Does treatment of offenders, in general, work? This has been an incredibly contentious issue. Over the past 100 years there has been what is called the **Rehabilitation Ideal** which generally refers to the idea that prisons and correctional settings should not focus so much on punishment but rather on rehabilitation of offenders in order to eradicate re-offending. Early accounts suggested that there was no evidence that rehabilitation or good treatment outcome was achieved in any way (e.g., Martinson, 1974). On the other hand, Gendreau et al. (2006) have summarized some recent meta-analyses of studies of correctional treatment programs, and, generally, concluded that the most effective types of treatment are highly structured, cognitively based interventions that are delivered outside of a correctional facility.

Treatment of Victims of Crime

The emotional and psychological impact on victims of criminal acts can be massive. This can derive both from the criminal act itself as well as the processes that the victim goes through in terms of reporting and accessing services following the victimization (Campbell, 2008). Victims of crimes can experience a variety of psychological problems and disorders, for example, depression, substance abuse, dissociative states (Kilpatrick et al., 2003), although the majority of attention with respect to treatment in forensic situations tends to be on post-traumatic stress disorder and related symptoms (Amstadter, McCart, & Ruggerio, 2007).

Although there is sometimes a perception that more clinical and research attention is paid to the perpetrators of crime than the victims, there is work that has been done with respect to treatment of those on the receiving end of criminal or illegal activities. For example, although the development of treatment for disorders such as acute stress disorder or post-traumatic stress disorder arose from work with military personnel, it is clear that there is much work being done on trauma associated with crime. For example, treatments for sexual abuse (these have actually been around for a long time) among children and adults, for victims of sex crimes, assaults, and all manner to trauma have been developed over the past several decades (Rizzo, Stover, Berkowitz, & Kagan, 2008).

With respect to trauma, there is evidence of the effectiveness of both early interventions and interventions that commence after PTSD has developed. For example, Foa, Zoellner, and Feeny (2006) found that a brief CBT-based treatment was effective in reducing trauma-related symptoms. The treatment itself included psycho-educational components to teach individuals about symptoms, the process of responses to trauma, relaxation training,

cognitive restructuring, and exposure-based elements. These elements have been shown also to be effective in other approaches to treatment of PTSD, although, most typically, the techniques are used in combination in treatment programs. As an example, exposure-based treatments expose the patient to fear-related cues either in their imagination or in actual situations and patients work with the therapist to reduce fear responses and symptoms in a supportive and trusted therapeutic relationship (Amstadter et al., 2007). Similarly, other behavioral or cognitive-behavioral approaches are used including anxiety management (i.e., focusing on reducing anxiety through breathing and relaxation techniques) and cognitive therapy that involves focusing on irrational beliefs, unrealistic appraisals, and responses to cues.

Further to the point regarding early interventions, Campbell (2008) has called attention to an important role that psychologists can take in what is termed **psychological first aid**, which involves working with patients in the midst of or in the immediate aftermath of disasters, violence, or other traumas (e.g., Ruzek et al., 2007). According to Campbell, there are eight goals and actions in providing psychological first aid to distraught survivors:

1. Initiate contact in a nonintrusive, compassionate manner
2. Enhance safety and provide comfort
3. Calm and help to orient the person
4. Identify immediate needs and concerns
5. Offer practical help to address immediate needs and concerns
6. Reduce distress by connecting to primary support persons
7. Provide individuals with information about stress reactions and coping
8. Link individuals to services and information.

Although Vernberg et al. (2008) indicate that research on the effectiveness of this approach needs to be demonstrated, there is some promise that the approach may be an effective and useful intervention.

Treatment of Workers in the Field

Although treatment can be directed at perpetrators of illegal activity and victims of those perpetrators, there is another group that is focused on by forensic clinical psychologists. These are the police officers, correction officers, or other front-line workers who are dealing with various levels of the legal system. For example, many agencies connected with police forces or corrections will have periodic critical incident stress debriefings following traumatic events such as motor vehicle accidents, shootings, murders, or any event that is viewed as potentially traumatic to the workers. The debriefings can be viewed as early interventions designed to help with coping with traumatic events in order to mitigate the development of PTSD or symptoms of PTSD. In these debriefings, participants are asked, usually in a group format that is supportive and confidential, to describe their role in the traumatic event and to express their thoughts and feelings in relation to the event. In addition, there is usually a psycho-educational component that teaches participants about stress reactions, symptoms and signs of PTSD, and coping strategies (e.g., talking to others about the event) as well as professional resources. Debriefings following distressing events have become very common in a variety of organizations. The evidence as to the efficacy or utility of the debriefings is controversial (e.g., Devilly, Gist, & Cotton, 2006), although these sorts of interventions remain a part of policing and corrections.

In addition to debriefings that are used to protect workers and others from trauma-related symptoms, some do develop PTSD and other disorders as a result of their work. In these situations, clinical forensic psychologists will provide treatment in much the same way as described above. Moreover, because policing in particular has stressful events that are uncommon in other workplaces, a variety of disorders and psychological problems can develop. Clinical forensic psychologists can play a major role in the treatment of such difficulties.

Consultation and Opinions

Several areas of consultation have been touched on to some degree in other sections of this chapter. In some cases, the clinical forensic psychologists may be called upon or asked for consultations or opinions by lawyers or judges or other legal agencies. These consultations are requested due to the unique expertise that the psychologists have either generally as psychologists, or idiosyncratically depending on the particular interests and expertise of the individual psychologist. Clinical forensic psychologists may testify in courts or other legal situations and/or provide written reports or briefs. In both cases, the psychologist needs to defend his or her opinions and conclusions. Sometimes when psychologists are acting as consultants they may meet with individuals, couples, or families depending on the question to be addressed and at other times will be asked to provide opinions on research or other domains of interest to the courts. Although the possibilities are seemingly endless with respect to potential consultations, some fairly common areas that psychologists provide consultation include expert testimony (whereby the psychologist will be deemed an expert in a particular domain and be asked to provide information and/or express an opinion to the court on that particular domain), assessment of competence (e.g., as described in the forensic assessment section), child custody and/or access issues (i.e., opinions, often based on assessment of parents and children), or jury selection for trials. As well, although not common, psychologist may provide consultation on criminal profiling which involves crime scene investigations and attempting to determine a profile or detailed description of the perpetrator. Table 16.1 provides an overview of themes and topics that expert testimony is needed for.

TABLE 16.1 A Sample of Domains for Forensic Psychologists' Expert Testimony

1. Child and Dependent Issues
   a. Parental Custody of Children
   b. Parental Access
   c. Guardianship
2. Criminal Law Issues
   a. Criminal Responsibility
   b. Competency of the Accused to Stand Trial
   c. Prognosis and Recidivism on Accused
   d. Psychological Damage and Effects on Victims
3. Civil Law Issues
   a. Malpractice
   b. Psychological Damage
4. Eyewitness Testimony Accuracy
   a. Accuracy
   b. Cognitive and Perceptual Processes Involved

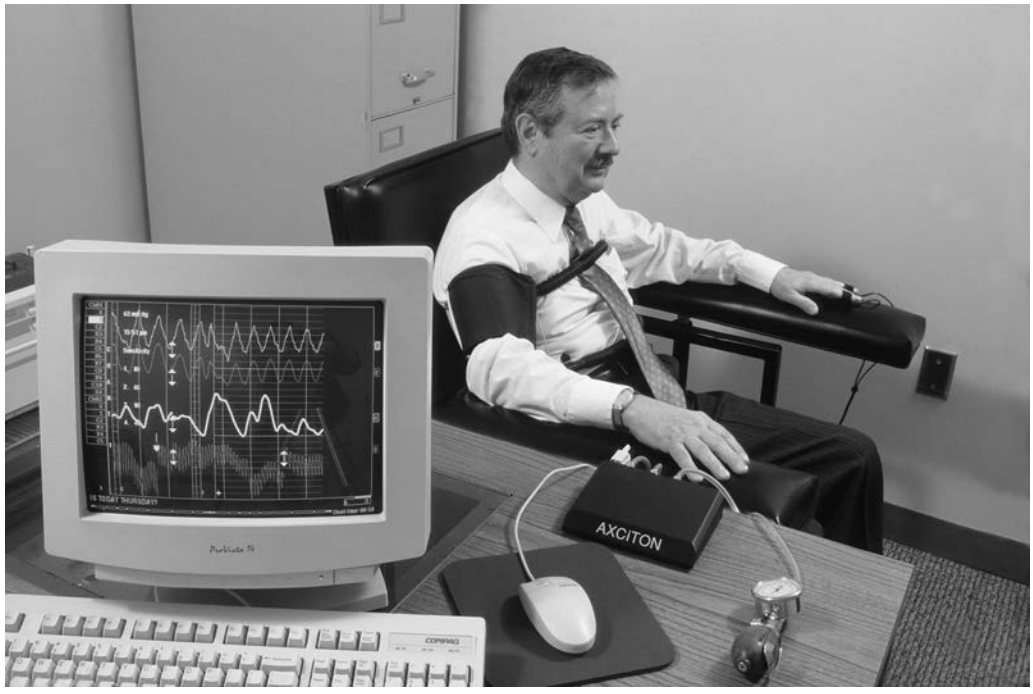
Lie Detection

As an example, one domain that clinical forensic psychologists have been involved in as consultants (and researchers) deals with lie detection. We will describe lie detection in detail because it is both fascinating and highly controversial given that the consequences of imperfect measurement and subsequent errors in decision making can be grave because of the fact that this method may affect judicial proceedings.

The application we are referring to is the use of **polygraphs** (a multichannel recording device for physiological functions) for the **detection of lying**. The ability to detect liars by use of the polygraph has not only attracted police forces but holds enough interest to make it into Hollywood movies. However, a big problem with such popular knowledge is that people tend to think of the machine itself as a lie detector. It is not. It can, however, provide information that can be used to assess lie detection by a trained assessor.

The scientific background to this type of lie detection is the core observation that it takes less effort to tell the truth than to lie. When we lie we need to go through a complex cognitive process because we are trying to figure out how to deliver the lie in a credible fashion, while appearing relaxed. Also, the lie needs to be coherently embedded in surrounding truthful information that is public knowledge or easily tested. This is quite a challenge and the fear of getting caught accentuates the overall effort and apprehensiveness. In contrast, the truth is inherently consistent with other surrounding truths and concerns about a particular delivery are unwarranted. The additional required effort associated with lying triggers sympathetic nervous system activation, and as the validation research for lie detection has shown, lying is typically associated with more arousal than truth-telling (Iacono, 2000).

PHOTO 16.1 Lie Detector
Mark Burnett/Alamy Stock Photo.



The methodology for lie detection is to collect physiological change data from multiple channels with the typical choices being respiration, continuous blood pressure, electrodermal activity, and/or heart rate. Alone, and even better in combination, these variables reflect changes in the sympathetic nervous system. To maximize reliability and validity, more than one index of sympathetic function is chosen and many questions are asked. A full polygraph examination can last hours! The questions themselves are usually subdivided into three categories and many questions are asked within each of three types of categories of questions.

1. The first category is that of the **neutral control question** which consists of questions about factual knowledge that the test taker knows is public knowledge and is not in any way problematic. For example, both the polygrapher and the test taker know where the test taker lives, how old he is, what day of the week it is, and where he is. Raising any of these questions is not likely to trigger much arousal because it makes no sense to even attempt to lie. Having these types of control questions allows the assessor/polygrapher to establish what is considered to be a resting baseline for the level of arousal that is typical while an individual speaks about neutral material. However, the very moment that questions and topics become personalized and potentially threatening, they trigger an arousal response and additional control questions are needed to learn about a typical response.
2. Given that lie detection tests may be given in the context of criminal investigations or other kinds of probing with legal consequences, the outcome of the test is also linked to potentially aversive consequences for a test taker. An individual who is accused of having stolen something from her employer is probably very anxious about the entire test situation because she may well lose her job if the lie detection test makes her look guilty. Therefore, the entire test situation is considered emotionally charged even for people who are innocent but who cannot be certain that the test will actually reveal them to be innocent. In order to prevent false positives, meaning innocent people looking guilty, a second type of control question is used, namely, a **high affect control question**. For the scenario of an employee being suspected of theft from a company, the key issue is one of honesty and whether or not the person has a habit of stealing. Therefore, good high affect control questions are like the following: "Have you ever stolen something in your life?" or "Have you at some point in the past lied to get out of trouble?" Both questions are clearly unrelated to the "crime" at hand, and even if the answer to both was "yes," that does not mean that the employee has stolen something this time. However, the employee does know [because these questions have intentionally high face validity] that the question is trying to provoke affect and tap into the individual's general honesty. It is therefore expected that during question and answer of this type, the test taker will be more aroused and show more of a physiological response than during the neutral test situation.
3. Now, in order to round out this approach, a third type of question is asked, namely, ones that are truly focused on the current situation, the crime under investigation. Together, comparison of the responses to these three types of questions is called the **control question technique.** For the relevant question, the employee may be asked: "Have you, during the last month, taken any DVD players from the store without paying for them?" Or: "Do you know another employee involved in these thefts?" The answers to these questions are the key because, if the individual is anxious given the importance of this assessment scenario but is innocent regarding this specific accusation, then there will be no difference between a physiological response to the high affect control question and

the one that is specific to the crime. If, however, the individual is lying in response to specific questions, then the physiological response to the actual crime question will be even greater than the ones to the high affect control questions.

In the past, the responses were recorded in analog fashion by a polygraph on chart paper and later analyzed by an expert interpreter. Today, this type of data acquisition and processing is undertaken by computer, which provides digitized information, and has in-built interpretation algorithms that directly compare specific versus control questions, thus simplifying the task and reducing interpreter error.

There is extensive research that the reasoning behind polygraph-based lie detection is sound and that lying is indeed associated with greater physiological arousal than telling the truth. Well-trained interpreters reach inter-rater reliability of $r = .90$ (Horvath, 1977; Patrick & Iacono, 1991). This is impressive by the usual standards of psychometrics we presented in Chapter 3 of this book. On the other hand, almost nothing is known about the test-retest reliability of polygraph testing largely because the nature of this test prevents a repeat without being influenced by the previous exposure to the test (Iacono, 2000).

Especially tricky, however, is the question of validity. In order to decide on innocence or guilt, there has to be proof of some sort. If lie detection was used in a criminal trial, somebody who appeared to have lied on the polygraph test is also more likely to get convicted in court. Can one therefore conclude that all people who were convicted were also guilty? The answer is "no" because it is well established that some of the guilty go free for lack of evidence, and some innocent people are falsely convicted, especially when the evidence is circumstantial. There are even documented cases of individuals being so confused or pressured during police investigations that they admit to things they never did. Therefore, resulting convictions in court can be partially used to support validity of lie detection, but it will remain a flawed method of validation.

Another possibility of testing lie detection is via the use of a contrived, but well-controlled experiment in the laboratory (Iacono, 2000). A fairly typical design involves an experimenter placing a $20 bill inside of a book that is placed on top of a table in a research room that has no other person in it. Research participants are then told to enter the room and either take or not take the $20 bill, and another researcher, who does not know what the subject had been instructed to do, will subsequently conduct a polygraph test and determine on the basis of the differential physiological responses to various types of questions whether or not this research participant has told the truth. In order to evaluate the meaning of such research findings, one needs to remember that the decision options are "lied" or "told the truth," so one out of two, 50%, will be correct just by chance. Ideal, of course, would be a 100% accuracy rate. The real question is how much better can lie detection do than 50% chance? Such well-controlled, contrived test conditions are not actually implying a risk that the participant suffers grave consequences when lying (like a typical college student who participated in the above experiment does not get punished); in this case, accuracy rates of detection have been reported to average 88% (Kircher, Horowitz, & Raskin, 1988). At the other end of the scale, however, when real world tests are conducted where the test taker actually is suspected of a crime and is likely to suffer the consequences, the accuracy rate is more like 60% (Lykken, 1981). Interestingly, when a similar scenario involves data interpretation by the same polygrapher who also asked the questions, the accuracy rate is more like 70% (Iacono, 2000)!

What does this all mean? Well, the most likely explanation for the difference is that an experienced polygrapher noticed additional verbal and nonverbal clues of lying emitted from the person who had been tested, and she integrated the information based on behavioral

observation during the interview with the physiological information collected at the same time. Hence, it is the blending of the two forms of assessment (a multimethod approach) that accounts for a somewhat greater accuracy rate. In an attempt to better explicate the large discrepancy between 90% accuracy possible in laboratory-based experiments and the 60% accuracy typical of real-world situations, Patrick and Iacono (1991) have devised a clever protocol where a controlled experiment was conducted in a prison with inmates who actually did have something to gain or lose by lying. This methodology blended the advantages of a controlled study with the advantage of conducting an experiment that has personal, meaningful consequences for the study participant. Maybe not surprisingly, the observed accuracy under these conditions was 79% and therefore higher than the one reported by Lykken in real-world situations but still substantially lower than the one reported by Kircher et al. (1988) for experiments with students. Irrespective of whether one concludes that the error rate is 10% or 30%, this is less important than understanding what the consequences of an error are.

Whether or not polygraph evidence can be used in criminal proceedings varies across different countries. In the United States polygraph evidence can, under certain circumstances, be used in court, whereas in Canada this is considered illegal given the concerns about imperfect validity of the test. Nevertheless, Canadians do allow police to use polygraph evidence to assist in their criminal investigations, such that they might rule out a suspect on the basis of a negative lie detection test result.

Let us get back to the consequences of wrong decisions resulting from inherently flawed lie detection procedures. Recall that even in the most optimistic scenario—where a roughly 10% error rate is apparent—some of the guilty will go free, some innocents will get convicted. There is no argument that being found guilty for a murder one did not commit is very grave and a 10% error rate is unacceptably high. In fact, in criminal law the definition of "beyond reasonable doubt" is described as reflecting greater than 99% probability. The good news is that very few people ever get accused of murder!

Let us consider a different, ultimately more insidious scenario, though. There are now commercial testing firms who are employed by private companies in personnel recruitment procedures and internal investigations of theft (Sackett & Decker, 1979). If an employee was accused or suspected of theft of goods, and refused to participate in a lie detection test, she is very likely to get fired because this refusal will be interpreted as suspicious. If she did participate, there is a 10% probability that she will be found guilty although she didn't do anything wrong. Unfortunately, theft of goods from companies by employees is very frequent, and it would not be unusual that a long-term employee might be asked to undergo lie detection tests as often as four or five times over a 10-year period. This also means that her chance of being found guilty for one of these incidents while being innocent has now reached about a 50–50 probability and she has a 50% chance of getting fired for theft although she has not committed a single one! Given that these are not criminal court proceedings but internal matters, the innocent employee does not have full protection of the law the way an accused murderer has in the criminal system. Therefore, the problems with an imperfect test in criminal court are bad enough, but when such tests are used repeatedly in an environment where individuals have few protections, the probability of injustice rises quickly.

The bottom line regarding validity is that with inaccurate test there are always problems, but when the consequence is that an innocent person serves a lifetime prison term, this imperfection becomes unacceptable. The researcher or clinician conducting assessments needs to be aware of not only what the probability of error is, but what the cost of an error is when using psychological tests to make important decisions. These issues were already

discussed earlier in this book when diagnostic assessments and decision-making processes were described.

Fortunately, there is a method to protect the innocent better. Here, the assessor, typically the police, holds back critical information on crime details, like the exact choice of weapon, the location where a body was found, or the number of times a victim was stabbed. This information is then embedded in a series of answer options that looks like a multiple-choice test students take; for example: "Did you dump the body (a) behind the tool shed?, (b) beside the garage?, (c) down by the creek?, or (d) in the ditch beside the gas station?" A truly innocent person will show the same physiological responses to all options because none of these options has a unique value, whereas a guilty person is likely to respond more strongly to the correct option because he indeed knows the difference. The method is therefore called the **Guilty Knowledge Test** and has been shown to be much better at protecting innocent people from getting falsely accused (Iacono, 2007).

Conclusion

Overall, clinical forensic psychology is a specialty area that has been increasing in popularity, scope, and credibility. There are numerous areas with the law that clinical forensic psychologists can work in, both in conducting research and in providing clinically related services. We want to stress that the rigorous training in critical, analytical thinking and multilayered assessment that is typical for clinical psychologists is also ideal preparation for forensic work. We posit that no other profession offers the same balance of depth and breadth in how their training prepares for forensic work. Consequently, psychologists doing forensic work do not need to compete with nurses, counselors, or social workers with whom, in other contexts, they may sometimes have "turf wars." Provided you have the thick skin needed to defend your opinion in court and stand up to often hostile cross-examination, you'll find that clinical psychologists willing to do court work can earn a very good living.

Ongoing Considerations

Otto and Heilbrun (2002) present several areas or strategies that need to be focused upon in order to further develop the field and move forward. These strategies include the following:

1. Updating, clarifying, and broadening the scope of specialty guidelines and practice standards for forensic psychology. Although some areas within the field of forensic psychology have well-developed practice standards and regulations, other areas fall short.
2. Enhancing and delineating different training levels for those involved in the field. Three levels of training and specialization are proposed, each one differing in breadth and depth of training:
    a. **Legally informed clinician** who has a basic education in law and psychology and knows the distinction between clinical psychology and clinical forensic psychology.
    b. **Proficient clinician** who has midlevel training and received some formal training in forensic psychology.
    c. **Specialist clinician** who has the highest level of expertise and certification, has formal and both intensive and extensive training in forensic psychology.

3. Educating the consumers of forensic psychology in order to delineate and demonstrate the skill and ability of psychologists working within the broad parameters of legal processes but also the efficacy and utility of the work that clinical forensic psychologists perform.
4. Evaluating empirically the three strategies above in order to determine whether they are effective in promoting the field.

Key Terms Learned

Clinical forensic psychologist, 361
Control question technique, 373
Criminal profiling, 362
Detection of lying, 372
Guilty Knowledge Test, 376
High affect control question, 373
Law and Psychology, 359
Legal Psychology, 359
Legally informed clinician, 376
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Specialist clinician, 376
Specialty guidelines, 361

Thinking Questions

1. What are the differences between clinical psychologists and forensic psychologists in terms of their practices?

2. How does assessment differ between a forensic clinical psychologist and a clinical psychologist?

3. What is the rationale and the evidence of the effectiveness of lie detection?

4. What are the different domains of practice in forensic clinical psychology?

5. What are differences between forensic assessment tools and forensically relevant tools, and what are some examples of each?

6. Do the ethical principles that guide clinical psychologists' work change as a result of working as a forensic psychologist? If so, how?

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17 Health Psychology and Behavioral Medicine

Chapter Objectives

This chapter has broad objectives:

- Introduce the reader to the growing fields of Health Psychology and Behavioral Medicine as specialty areas of psychology but also as subspecialties of clinical psychology.
- The second objective was to clarify the place of the clinical psychologist within primary care by using research findings from the applied Health Psychology field.

To frame this chapter, the reader is reminded of this book's title: **Clinical Psychology: A Modern *Health* Profession**. Clinical psychologists assess and treat people with psychological disorders and also play a role in the treatment of a variety of physical diseases. In recognition of this fact, numerous psychological interventions, their content and outcomes, when applied to medical populations, have been described throughout Chapters 10 and 13. For example, stress management approaches are useful for anxiety disorders but also for high blood pressure (Linden, 2006), and biofeedback can be used for anxiety reduction, as well as for neuromuscular rehabilitation or chronic pain conditions (Moss, 2007). The title of this chapter contains both, the terms "Health Psychology" and "Behavioral Medicine," because the relevant literature is covered in a variety of journals with one or the other term in the title. In everyday reality, research and clinical content covered by these areas largely overlaps; many of the same researchers serve on the journals' editorial boards and contribute articles. Where they differ is that Health Psychology embraces research on healthy functioning more so than does the domain of Behavioral Medicine, which is somewhat more likely to cover clinical application issues.

The majority of presenting problems in family physician offices are in good part psychological in nature even though they may present as physical health problems (Steven, 1999). This strongly suggests that a separation of health issues into physical versus mental problems is arbitrary and belies what health professionals encounter in everyday practice (Cummings, 2005). A family physician needs to understand the interaction of physical disease with a patient's emotional well-being and with social context factors, and the same applies for clinical psychologists. Therefore, in the preceding chapters on assessment and treatment there have been descriptions of physical health problems where psychologists are either the primary therapists or important players on multidisciplinary health care teams, and this book also has a distinct chapter on psychopharmacology that is meant to support the

work of psychologists in medical settings. Integrating these knowledge bases into a clinical psychology textbook can help prepare the student of clinical psychology for the practice of health care in the broadest sense (Linden, Moseley, & Erskine, 2005; Talen, Fraser, & Cauley, 2005). Clinical psychologists may, for example, be called on to:

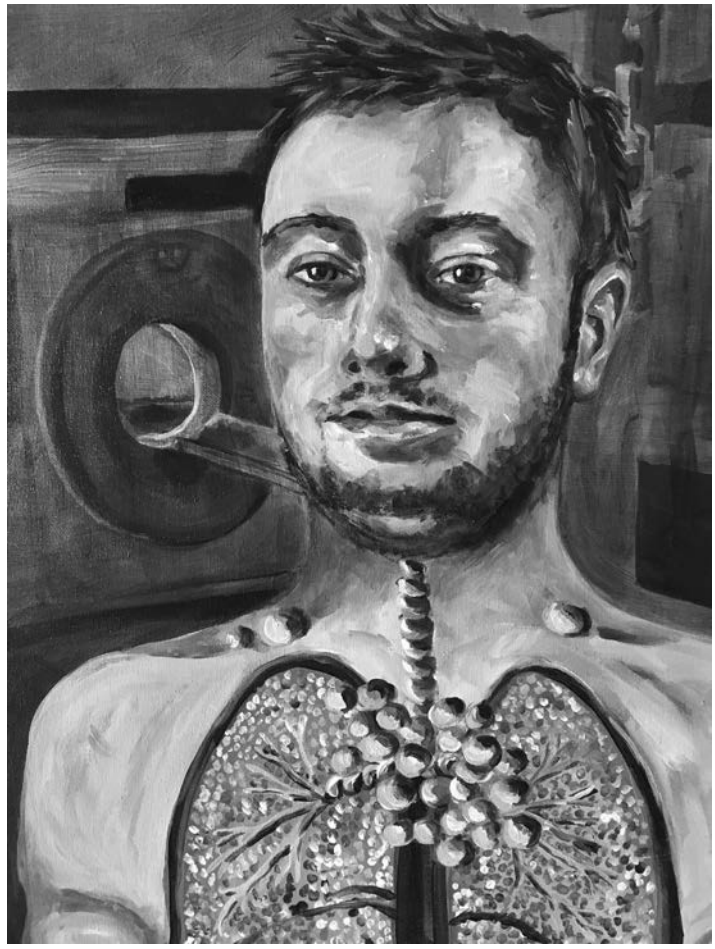
- Consult on psychological suitability of patients waiting for organ transplantation (Rodrigue, 1996).
- Treat post-traumatic stress disorder in victims of violence whose immediate physical problems have been effectively treated by the medical team (www.helpguide.org/mental/post_traumatic_stress_disorder_symptoms_treatment.htm).
- Help educate other health professionals on how to maximize adherence in patients who need to follow strict regimens of medication, diet, or blood sugar monitoring (Kripalani, Yao, & Haynes, 2007; Ruppar, Cooper, Mehr, Delgado, & Dunbar-Jacob, 2016).
- Accept referrals for psychological treatment of patients with high blood pressure who also have anger problems or are "stressed out" (Linden, 2006).
- Work in a multidisciplinary clinic for chronic pain conditions (www.iasp-pain.org/AM/Template.cfm?Section=Home&Template=/CM/HTMLDisplay.cfm&ContentID=3011).
- Teach pelvic floor muscle biofeedback for women with urinary incontinence (Burgio et al., 2002).
- Assist governments and insurance companies in devising cost-efficient health care delivery (Hunsley, 2003).

Having a separate chapter on health psychology provides an opportunity to highlight the similarities and differences between clinical psychology as a traditional *mental health profession* and clinical psychology as a broadly defined *health profession*. This chapter's objective is to provide the conceptual and research background to better understand the work of clinical psychologists in primary care and rehabilitation settings. The chapter is organized around specific areas of practice where clinical psychologists are making contributions to health care. We also stress that knowledge accumulated by psychology researchers who are not clinical psychologists can still be applied to improve patient care (Brody, 2003). For example, our colleagues with expertise in social psychology offer knowledge on how to understand and use social support systems (Sarason, Sarason, Potter, & Antoni, 1985) or frame health behavior messages. Developmental psychology teaches us to understand psychopathology as age-related and encourages adjustment in our treatment selections and methods as a function of patient age. Physiological psychologists have offered in-depth knowledge of pain processes (Melzack & Wall, 1965) and the reinforcing properties of drugs (Pinel, 2000), and help us develop treatment and prevention approaches that have a solid biological foundation.

As much as we can learn from our nonclinical colleagues, the question is what clinical psychologists can do in primary health care settings. This chapter covers the most important clinical problems that are encountered in family practice, in medical specialties, and in general hospital care, namely:

- Chronic pain
- Cardiovascular diseases
- Cancer

IMAGE 17.1 Jackson
Printed with permission of artist: Barbara Calvert.



Aside from directly managing specific diseases, clinical psychology knowledge can advance more generic objectives in health care. Therefore, a second objective of this chapter is to delineate the tasks and skills needed for:

- Prevention of disease
- Maximizing adherence
- Teaching of skills to better tolerate adverse medical procedures, and actively participate in self-care of chronic diseases (Clark, Becker, Janz, Lorig, & William, 1991)
- Rehabilitation from illness.

Understanding Health and the Causation of Diseases

To be effective as a player in health care, the clinical psychologist needs to understand at least the basics about the medical etiology of common diseases. In Western countries, the two major causes of death are cardiovascular disease and cancer. These diseases have no single

known cause but are multicausal in origin and still not fully understood. On the plus side, there is overwhelming evidence that both are in good part due to behavioral factors which may be controllable (Yusuf et al., 2004).

When a demographic, behavioral, or psychological factor has been demonstrated to predict the development of disease and there is a plausible biological pathway, then such a factor is referred to as a **risk factor,** and the intensity of the relationship between the risk factor and an outcome is referred to as the **risk ratio** or the **odds ratio**. Smoking behavior is a good example to demonstrate odds ratios. Smokers, who smoke one pack of cigarettes a day for many years, are roughly three times as likely to die of cardiovascular disease as the nonsmokers; this can also be described as odds ratio of 3:1 (Yusuf et al., 2004). The reader will see the terms "odds ratio," "risk ratio," and **hazards ratio** in the literature; all three terms describe the intensity of the relationship between risk and an outcome but they are computed using different formulas. Odds ratios by definition are slightly larger than risk ratios, although they do tell, in essence, the same story. Hazards ratios are extracted from studies with multiple repeated measurements. In order to demonstrate the importance of behavioral and psychological factors in predicting disease outcomes, we include Table 17.1 which represents summarized results from a large review describing the inter-relationship between risk factors and cardiovascular disease across 52 countries (Yusuf et al., 2004).

We consider this table to be informative for many reasons. First of all, it reveals that modifiable behavioral risk factors like smoking and lack of physical fitness are important predictors, as are certain personality traits and mood (i.e., psychosocial factors). The strength of the relationship between psychological risk factors and heart disease as an outcome is as large as the risk associated with many traditional, medical risk factors. Finally, although none of the individual risk factors carry a risk ratio greater than 4:1, their joint presence dramatically increases somebody's risk of developing heart disease. A person who carries all risk factors is 129 times more likely to die from heart disease than an individual without any of these risk factors. This statistically cumulative risk, however, does not reveal that psychological, biological, and behavioral risk factors actually do tend to occur in clusters, such that anxious individuals are also more likely to reveal depression (Friedman, Tucker, & Reise, 1995), depressed individuals are less physically active (Strawbridge, Deleger, Roberts, & Kaplan,

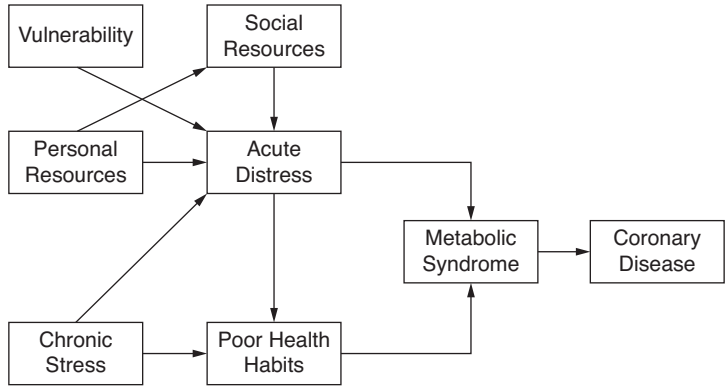
TABLE 17.1 Odds Ratios (OR) for Risk Factors from the INTERHEART Study

Rank	*Risk Factor*	*OR (and CI)*
1	Lipids (top versus lowest quintile)	3.87 (3.4–4.4)
2	Diabetes	3.08 (2.8–3.4)
3	Current smoking	2.95 (2.7–3.2)
4	All psychosocial	2.51 (2.2–2.9)
5	Hypertension	2.48 (2.3–2.7)
6	Abdominal obesity	1.36 (1.2–1.5)
7	Diet (protective effect)	0.70 (0.64–0.77)
8	Exercise (protective effect)	0.72 (0.65–0.79)
9	Alcohol intake (higher intake, lower risk!)	0.79 (0.73–0.86)
	All risk factors together	**129.2 (90.2–185.0)**

IMAGE 17.2 Healthy Living Requires a Long-Term Commitment
Glasbergen, printed with permission.

2002), and people with diabetes are also more likely to have problems with their blood lipids and their weight (Ford et al., 2002). These are just a few examples of risk factor interrelationships. In a related vein, one can pool information of known risk factors and display the presumed etiological model in a path diagram such as the one proposed by Vitaliano (Figure 17.1, Vitaliano, Zhang, & Scanlan, 2003).

FIGURE 17.1 The Path for the Development of Disease.
Source: Redrawn based on Vitaliano et al., 2003.



The advantage of proposing and testing this type of model is that it represents a sequential approach which blends genetic effects, early life influences, as well as present risk behaviors. The model is complex and requires expensive longitudinal studies for full testing but it supports and guides effective interventions with multiple benefits as has been elegantly demonstrated; for example, in a clinical trial conducted by Kostis and his collaborators (Kostis et al., 1992). In this study, hypertensive patients had been recruited and randomized into three treatment groups:

1. Treatment with a so-called beta-blocker, a drug that dampens sympathetic nervous system arousal and is considered to be a first-line, effective pharmacological treatment for hypertension.
2. A drug placebo group (designed to test whether people would have gotten better on their own).
3. A multicomponent, nondrug treatment consisting of relaxation training, exercise, and nutrition support.

Both active treatments were associated with substantial and clinically meaningful reductions in blood pressure, whereas the wait-list control group did not improve on its own. As mentioned, the drug treatment reduced blood pressure but had no discernible impact on other risk factors that were present in this sample. The nondrug treatment, however, was as effective in reducing blood pressure as the drug (but not the placebo) and it also improved other health risks. This study was chosen for discussion here because it indicates how behavioral and psychological treatments may have positive effects for multiple, inter-related health outcomes, thereby improving the entire risk factor profile for patients, whereas no such generalized benefits appeared for the drug treatment.

Early Life Influences on Health

The model shown in Figure 17.1 begins with recognizing the possibility of critical genetic and early life influences on long-term health. This view is consistent with current thinking in the behavioral medicine literature which looks upon the field as dealing with potential

challenges and opportunities across an entire lifespan (Hayman, 2007; Hawkley et al., 2005). In this vein, we will briefly review some discoveries regarding early life influences on health and prepare the reader for a discussion of how clinical psychologists working in a physical health domain can make valuable contributions to the management of chronic diseases.

Even in wealthy Western countries, children grow up in many different environments, some poor, some wealthy; in varying subcultures as a function their race, ethnicity, and maybe recency of immigration. Some of these environments are highly detrimental to acute and long-term well-being. Studies have shown that exposure to short-term acute stressors poses no particular risk for long-term health, while chronic stress weakens the immune system (Segerstrom & Miller, 2004). Along this line, a rapidly growing body of literature reveals that exposure to chronic stress in the child's early years can impair the development of brain circuitry, and can lower thresholds for stress and physical pain resulting from the release of high levels of stress hormones (McLaughlin et al., 2015). In consequence, this child is more vulnerable to a variety of infections, more susceptible to substance abuse, and is less able to learn and remember (Middlebrooks & Audage, 2008). For them life is not "equal opportunity"! On the other hand, a supportive and caring environment can buffer the impact of events such as parental separation, a frightening accident, or a natural disaster (Middlebrooks & Audage, 2008).

Particularly damaging are emotional, physical, and sexual abuse and neglect during childhood (Chen, 2004; McLaughlin et al., 2015; see also Chapter 15 on this issue). Such neglect is even more frequent in environments that are laced with violence and where chronic mental illness and substance abuse among caregivers are found (Anda, Whitfield, Felitti et al., 2002). Unfortunately, toxic environments are fairly prevalent. Middlebrooks and Audage (2008) report the results from a large representative US survey (n = 17,337) of adverse childhood experiences: there was a roughly 10% frequency of neglect, 13% physical violence in the family, 23% parental separation or divorce, and 5% with an incarcerated household member. When these children reach adulthood, their greater vulnerability to disease becomes apparent, and we cannot, of course, turn the clock back. However, the knowledge about childhood stress can sensitize us about how to formulate the problems of such individuals, remind us of the need for empathic help and avoid blame, and possibly trigger efforts at prevention of toxic environments for future generations of children by sharing our knowledge with the media and politicians.

Prevention and Management of Chronic Disease

In the previous section, we demonstrated that emotional and behavioral factors are interwoven, and we explained their role in the development of chronic and life-threatening diseases. We have also shown that when it comes to the development of chronic diseases, not all individuals are equal given their differential early life stress exposure. Equipped with this understanding, the clinical psychologist can now use knowledge acquired by all branches of psychology to play a role in the prevention and management of disease. It may be easiest to understand what can be done, and how, by introducing the major concepts of the literature on disease prevention. In this area of practice, one distinguishes three types of prevention, namely, *primary*, *secondary*, and *tertiary*.

The term ***primary prevention*** is applied to any attempt to stem disease development in healthy individuals; that is, people who do not have any sign of disease. This may include advertising campaigns that discourages teenagers from starting to smoke, encouraging seat

belt use, routine vaccinations for children and adults, or providing tips on how to handle stress. This can, in part, be implemented via the popular media, such as via newscasts or documentaries. Also, any government attempt to reduce poverty and violence via policy changes and income redistribution can be perceived as primary prevention. There is limited opportunity for clinical psychologists to participate in primary prevention, although effective advertising can be guided by research findings on attitude change and persuasive communication that our colleagues in social psychology have contributed.

Secondary prevention is specifically directed at individuals who are known to be at risk for disease development and it moves the prevention effort from the indirect, sprinkler-like nature of primary prevention to direct action with individuals. Such persons may have a predisposition for the disease through genetics or early-life stress exposure (e.g., stunted growth and learning capability due to malnutrition, or a difficulty for young adults to attach to long-term partners when as children they had early rejection experiences). Secondary prevention similarly applies to screening and early intervention for risk factors like smoking, stress, high cholesterol, or elevated blood pressure.

Given that the presence of risk factors like blood pressure or high cholesterol are generally not noticeable by the afflicted, the health-care system occasionally undertakes mass screenings in the community. Many secondary prevention efforts are built into routine medical care delivered by family physicians who use office visits to assess heart function and blood pressure level, conduct Pap smear tests for women, and rectal examinations for the detection of prostate cancer in men. More directly related to clinical psychology are community-wide screenings for the presence of depression or anxiety disorders that are offered by mental health volunteer associations. You may recall that psychologist Dr. A, in Chapter 1, was in the process of developing a suitable screening tool for psychological distress in cancer patients.

Last but not least, ***tertiary prevention*** includes efforts to maximize rehabilitation and adjustment in diseases like cancer or coronary heart disease, and also includes recommendations for behavior change that may prevent recurrence or at least help to prevent the disease from worsening. Given the unfortunate high prevalence and incidence of diseases like diabetes, arthritis, heart disease, or cancer, there is a huge patient population out there that can benefit from tertiary prevention efforts.

Given these different types and time points for possible action, the clinical psychologist is most likely involved in tertiary prevention via rehabilitation and disease management. To prevent or minimize the impact of chronic diseases, we can contribute to change in health behaviors by:

- Raising physical fitness,
- Encouraging healthy eating,
- Assisting with attempts to quit smoking,
- Keeping stress levels at bay (Linden, 2005), and
- Increasing adherence to the numerous health recommendations that patients receive from their physicians.

Ultimately, this means that a major role of the clinical psychologist in primary health care is to teach and support self-management behaviors for chronic diseases (Clark et al., 1991). Despite the fact that people in Western countries are barraged with media reports and advertising about healthy behaviors, adherence to many health recommendations is remarkably poor, even when nonadherence is acutely dangerous with possibly deadly outcomes, such as with major dietary deviations in diabetics. Table 17.2 offers some frightening data

TABLE 17.2 Degree of Noncompliance

Treatments	*% Compliance Rate*
Treatment for hypertension	53
Tuberculosis drugs	55
Anti-asthma drugs	46
Antibiotic treatment	33
Insulin injection for diabetes	48
PHYSICIAN'S ADVICE	
Quitting smoking	29
Weight-reducing diet	20
Kidney disease diet	28
Hemodialysis diet	70
APPOINTMENT KEEPING	
Dental checkup	72
Psychiatrist visit	60
Pap test	52
Hearing and eyesight, follow-up with doctor	35
Hypertension, follow-up after diagnosis	58
Hypertension treatment, annual check	30

Source: Redrawn from Burrell, C. D., and Levy, R. A. (1985). Therapeutic consequences of noncompliance. In *Improving Medication Compliance: Proceedings of a Symposium* (Reston, VA: National Pharmaceutical Council).

on the extent of noncompliance with physician recommendations for managing chronic diseases.

Given intensive investment of health dollars into public health, it is informative to review which investments have paid off and where health messages still fall on deaf ears. We can readily find examples of major worsening of risks as well as some successes with respect to population-wide risk reduction. Since the mid-1970s, for example, the prevalence of obesity has increased sharply for both adults and children. Data from two NHANES surveys (www.cdc.gov/nchs/nhanes) show that among US adults aged 20–74 years the prevalence of obesity increased from 15.0% (in the 1976–1980 survey) to 34% (in the 2005–2006 survey). The prevalence of overweight children aged 2–5 years increased from 5.0% during 1976–1980 to 13.9% during 2003–2004, and for young people aged 6–11 years the prevalence during the same time period increased from 6.5% to 18.8%, and from 5.0% to 17.4% among those aged 12–19 years.

On the other hand, as much as there are trends of growing health problems (like obesity or diabetes), there also is a truly "good news story," namely, that of changes in smoking behavior. Research has shown the remarkable success of anti-smoking campaigns: in 1965, 49% of the adult Canadian population smoked, whereas by the year 2002 this figure

had dropped to 24%, and has continued to decrease (www.ncic.cancer.ca/ncic/internet/standard/0,3621,84658243_85787780_399354909_langId-en,00.html). The same trend has been observed in the US (www.jointogether.org/news/research/summaries/2005/us-smoking-rates-continue.html). This success is widely attributed to high taxation, legislation that prohibits smoking at the workplace and in public buildings, anti-smoking ads, and prominent warning labels printed on cigarette packages themselves. This success has been furthered by the aggressive pursuit of tobacco companies in civil court for their insidious efforts to encourage smoking and to intentionally foster nicotine dependence.

Researchers have taken the inherent health threats of unhealthy lifestyles very seriously and have built an impressive knowledge base about the factors that foster or interfere with good **adherence**. Surprising to many, this literature has consistently shown that many suspected demographic and individual difference variables do not actually play a consistent role in supporting adherence: neither age, nor gender, nor education, nor intelligence are associated with differential adherence. On the other hand, the variables found critical for adherence are specific to the disease, the treatments themselves, the cost and efforts of prevention, and characteristics of the health care environment (Poole, Hunt Matheson, & Cox, 2008). A summary of these variables is offered in Table 17.3.

Later in this chapter we will describe how clinical psychologists help specific patient groups. Prior to that, however, we feel that it is useful to first delineate in what ways diseases themselves represent both similar and dissimilar challenges to patients and highlight which of the many common self-management tasks are, in turn, useful for a multitude of diseases.

Key issues for patients are the following:

- Disease-induced interference or loss of function with important life roles (like caregiver or doing one's job).
- Fear of death and disability associated with varying diseases.
- Unpredictability of the course of the disease.
- Knowing to what degree treatment and adherence to self-management tasks will actually help them live longer and maintain a high quality of life.

Key features of the most frequently seen diseases in general medical practice have been aggregated into a single table that compares diseases along these key variables (Table 17.4).

As much as Table 17.4 is designed to stress differences between diseases and their implications for patients, it also reveals many shared features which can then be translated

TABLE 17.3 Predictors of Adherence

No Consistent Effect on Adherence	*Clearly Affecting Adherence*
Age	Belief about threat
Gender	Belief about efficacy of intervention
Education/Income/Intelligence	Supportive environment
General knowledge about illnesses	Symptom strength
	Complexity of treatment (length, inconvenience, interference with other actions, effort, actual cost)
	A caring, stable health provider

TABLE 17.4 Chronic Diseases: A Comparison

Disease	*Risk of Early Death*	*Predictability of the Course of the Disease*	*Chance of Success of Treatment/ Rehabilitation*	*Controllability With Adherence to Behavior Change Recommendations*	*Impact on Daily Life*
Cancer	**Extremely variable**	**Low**	**Highly variable**	**Limited impact of adherence on disease outcome**	**Highly variable; function of type and stage**
Diabetes, insulin-dependent	**Moderate**	**Fairly high**	**Good**	**Good**	**Fairly high**
Diabetes, non-insulin-dependent	**Low**	**High**	**High**	**Very good**	**Modest**
Asthma	**Low**	**Fairly high**	**Good**	**Very good**	**Modest**
Irritable Bowel Syndrome	**Low**	**Fairly high**	**Poor**	**Modest**	**Moderate**
Rheumatoid Arthritis	**Very low**	**Fairly high**	**Limited**	**Modest at best**	**Variable**
Heart disease	**Variable**	**Fairly high**	**Often very good**	**Good in most cases**	**Mostly low**
Hypertension	**Low (if no other risk factors are present)**	**High**	**Potentially excellent**	**Excellent**	**For the most part, none**
HIV+/AIDS	**Moderately high**	**Fairly high**	**Very low**	**Moderate**	**Initially little, severe in very late stage**

into a variety of common tasks that patients can learn to regularly engage in to minimize the impact of their disease. This has been summarized in a table (Table 17.5) reprinted from an article by Clark and her collaborators (1991) who presented an excellent review of the issues in dealing with chronic health care not only for clinical psychologists but for all health care providers.

Routine adoption of these tasks can benefit from input by clinical psychologists who are trained in research on disease etiology and in behavior change principles.

Adherence

In the section above we already gave many examples of how frequent and potentially deleterious poor adherence is. This section will provide brief descriptions of programs designed to enhance adherence and provide some data on the effectiveness of adherence interventions. The basic principles that can be used for developing adherence enhancement strategies are described in Table 17.6.

One example for the study of adherence is cardiac rehabilitation. In cardiac rehabilitation patients who had a heart attack or cardiac surgery participate in systematic exercise programs, receive nutrition counseling, and learn more about problem recognition and

TABLE 17.5 Common Self-Management Tasks for Five Chronic Diseases

Tasks	*Heart Disease*	*Asthma*	*Arthritis*	*COPD*	*Diabetes*
Recognizing and responding to symptoms, monitoring physical indicators, controlling triggers to symptoms	X	X		X	X
Using medicine	X	X	X	X	X
Managing acute episodes and emergencies	X	X	X		X
Maintaining nutrition and diet	X		X	X	X
Maintaining adequate exercise and activity	X	X	X	X	X
Giving up smoking	X	X	X	X	X
Using relaxation and stress-reducing techniques	X	X	X		
Interacting with health care providers	X	X			X
Seeking information and using community services		X	X		X
Adapting to work	X	X	X		
Managing relations with significant others	X	X	X	X	
Managing emotions and psychological responses to illness	X	X	X		X

Note: COPD, chronic obstructive pulmonary disease; X, reported in a study of self-management.

Source: Redrawn from Clark et al. (1991).

TABLE 17.6 Strategies to Increase Adherence: The Four Cs

For easier memorization, these suggested strategies for maximizing adherence to recommended health behaviors can be organized into four categories, each of which carries a name beginning with a **C**.

Conviction

1. Explain the importance of adherence by showing how it affects outcomes that the patient himself is interested in.
2. Anticipate resistance, prepare for it, and encourage questions.

Convenience

3. Make a few suggestions that are prioritized and easy to remember, consider barriers, and look for ways to minimize these; propose simple regimens.
4. Tailor the regimen to coincide with existing habits.
5. Make adherence aids available (special packaging, diaries, or calendars).

Clarity

6. Provide written instructions, diaries to facilitate record-keeping.
7. Ask whether the instructions are clear, have the patient repeat instructions.

Control

8. Consider entering a contract with patients.
9. Make follow-up calls and or book follow-up meetings.

healthy lifestyles. Although it is well established that multidisciplinary cardiac rehabilitation programs save lives, only about a quarter of eligible patients participate and the participation rate of women is only half that of men (about 30% vs 15%; Abbey & Stewart, 2000). In a review of the many factors that determine adherence to cardiac rehabilitation, the single most important predictor was the strong endorsement of cardiac rehabilitation programs by the treating physician (Jackson, Leclerc, Erskine, & Linden, 2005); also important was automatic referral from the cardiac inpatient unit to cardiac rehabilitation. Interestingly, these two key predictors of adherence have to do with physician attitude and system organization; no long-term financial investment is required to use this knowledge to improve adherence!

A very simple and highly effective way of increasing adherence to taking medication is that of using little plastic boxes with compartments for every day, or even four subcompartments for each day. Although this may not look very psychological, these boxes greatly increase convenience and clarity (about what pills to take and when) and are especially welcomed by elderly patients who often have very complex medication regimens. Kripalani and colleagues (2007) analyzed 37 randomized controlled trials on interventions designed to increase adherence. These authors noted that the most predictable and (consistent with the information on pill boxes just described) large effects were observed for behavioral interventions that simplified complex medication regimes. Provision of feedback to clients and those offering information were also quite effective but resulted in more variable outcomes depending on the specific intervention and population. The diseases that had been targets for such interventions were hypertension, asthma, diabetes, chronic obstructive pulmonary disease, and HIV/AIDS.

Pain

Understanding Pain

This chapter can only provide an overview of pain research and practice and mostly focuses on the role of clinical psychologists in managing pain. Understanding and managing pain is a fascinating topic for psychologists because it brings together the biological, social, and behavioral roots of our profession. Ever since Melzack and Wall (1965) proposed that pain is a complex process where pain signal processing is modulated by cognitive and emotional activity, pain has moved from being a purely medical topic to being a bio-psycho-social topic where the expertise of health and clinical psychology joins in order to better understand and manage pain. It is pivotal to consider acute pain as distinct from chronic pain.

Acute Pain

Pain is obviously unpleasant but useful; it has a valuable evolutionary function in that it tells us that there is something wrong in our body, alerting us to action. In the case of acute pain (like that experienced after a surgical procedure) there is generally no reason to endure pain when we know that the problem leading to pain has been managed and that the pain sensations are likely temporary. It has become common practice that patients who have undergone some kind of invasive surgery are immediately treated for pain and are encouraged to take painkillers (also called analgesics) for the next few days. Modern post-surgery pain management actually begins as soon as surgery is complete and the patient is still under the influence of an anesthetic. Unfortunately, there are surgical interventions in which patients

cannot receive general anesthesia, such as when a surgeon must be able to communicate with the patient about critical functions during the surgery. This applies, for example, to some joint surgeries where an orthopedic surgeon will ask a patient to engage in certain kinds of movements during the surgery to make sure that nerves, tendons, and muscles do not lose their functions. Certain medical tests like spinal taps can also be painful and should not be done under full anesthesia. In these cases, psychologists can help patients prepare for potentially painful procedures, the emotions and the physical sensations that the patient is likely to experience (Poole et al., 2008).

Chronic Pain

Experiencing pain is a normal human experience; we all suffer from minor injuries such as an occasional minor burn by accidentally touching a hot frying pan or falling off a bicycle. These are usually short-lived pain experiences and a combination of analgesic use and distraction strategies are usually sufficient to tolerate them. Some pain experiences, however, become chronic; typically these are the result of workplace or other accidents which may result in extensive skin burns, broken bones, or severe muscle damage. In these instances the degree of damage is usually obvious and easy to document. Other pain triggers are based on soft tissue or nerve damage that is not obvious and not easy to treat. These latter conditions, in particular, also lead to litigation for damages and pension claims because patients may be debilitated for a long time. Insurance companies are very familiar with disability claims such as those arising from whiplash due to rear-ender car accidents or repetitive strain at the workplace, which may result in soft tissue injury of neck or lower back musculature; clinical psychologists are often brought in to assess the causes and functional losses of these chronic pain conditions. At the medical level it is important to swiftly apply extensive and multimodal treatments to traumatic injuries in order to speed up healing and prevent long-term damage (Katz, 2017). Some injuries do not respond well to these treatments and patients begin a dangerous spiral of trying a variety of medical treatments which do not always work; they may become discouraged, and passive, trying even more medications, giving up hobbies, and they may ultimately stop engaging in interpersonal activities they used to enjoy. They may also become unresponsive to medications and then depression and chronic pain frequently co-occur. The most common types of pain that clinical psychologists deal with are **headache pains** (either migraine or tension headaches), **arthritis**, and **lower back pain**.

The treatment of chronic pain conditions is ideally achieved by smooth collaboration of a number of different health professionals. Multidisciplinary pain clinics were the first kind of patient care where clinical psychologists worked hand-in-hand with other health professionals in order to assist patients. Since then, many such pain clinics have been set up and are used by individual patients, insurance companies, and worker safety and compensation organizations to help workers with chronic pain problems. Physiotherapists work with pain patients to restore function and minimize strain on muscles and joints, physicians prescribe and oversee treatments with various levels of analgesics, and psychologists typically work with patients on their depression and anxiety. Psychologists may also involve family members in treatment, and ensure that patients remain active and plan for the future. The content of psychologists' work is largely derived from the work of Melzack and Wall (1965) whose groundbreaking **Gate Control Theory** of pain has helped to define what psychologists can do for pain

TABLE 17.7 Conditions That Open and Close the Pain Gate

Conditions that close the pain gate:

Physical:
- — Medication
- — Counterstimulation (e.g., massage, heat)

Emotional conditions:
- — Positive emotions like happiness and gratefulness
- — Relaxation
- — Rest

Mental conditions:
- — Pleasant diversions like listening to calm music
- — Involvement in social activities

Conditions that open the pain gate:

Physical conditions:
- — Extent of an injury
- — Inappropriate activity level (too little or too much)

Emotional conditions:
- — Anxiety, worry, tension
- — Depression
- — Anger

Mental activities:
- — Focusing on the pain
- — Boredom; lack of involvement in hobbies or social activities

patients. Melzack and Wall proposed (and then extensively tested!) that pain varies as a function of the extent of the damage, but also by how this pain is interpreted and experienced. Under some conditions pain will worsen (i.e., the "gate" is open to allow easy flow of pain sensations), in others the pain experience is alleviated by engaging in activities that close the pain gate. The typical conditions that either open or close the pain gate are described in Table 17.7.

A major challenge for psychologists working with pain patients (like Dr. Ann C) is the accurate assessment of pain. There is a very high correspondence of self-reported pain with actual extent of injury in cases of burn injury where pain is proportional to the amount of skin actually damaged. However, pain is an inherently idiosyncratic experience impacted by the patient's history, the meaning of the event, the pain coping models they have developed, and acute emotional and behavioral responses and the intensity and quality of the experience. The subjective nature of pain provides considerable challenges when attempting to assess it in animals or children. Neither animals nor young children have the ability to effectively communicate their pain experience, and there has been a growing recognition that they may have been undermedicated in the past, and that careful attention should be given to nonverbal pain behaviors in order to minimize their suffering (Craig, Lilley, & Gilbert, 1996). Particularly challenging is the assessment of pain in litigation situations where the outcome of the assessment may have an impact on whether or not damages are paid or whether disability pensions are offered. In these scenarios it is important that the psychologist who conducts the assessment and provides testimony in court uses multiple modalities of assessment in order to assure that

a comprehensive picture of the patient's pain can be drawn. Insurance companies will, unfortunately, encounter occasional cases of fraud or exaggeration of an individual's pain experience, and therefore, do not trust all self-report. Do you remember the illustration of one such court case that was provided in Chapter 9, on behavioral assessment? While this was, of course, meant to be entertaining, this anecdote addressed the very problem described here and was a true story.

Psychological treatment of chronic pain, and especially the work of multidisciplinary pain clinics, has not only been shown to be effective, but it represents a model case for cost-offset studies where the cost of therapy itself is compared with money saved on other medical procedures and income loss due to extended dysfunction (see Chapter 13 on therapy outcome for a discussion of this topic; Flor, 2002).

Working With Cardiovascular Disease Patients

Clustered together, cardiovascular diseases (which include atherosclerosis, myocardial infarction, heart failure, stroke, and thrombotic disease) remain the number one cause of death in Canada and in Western countries in general (Heart and Stroke Foundation of Canada, www.heartandstroke.com/site/c.ikIQLcMWJtE/b.3483919/). Given the prominence of cardiovascular diseases, it comes as no surprise that there is a massive body of research trying to understand the pathogenesis of cardiovascular diseases, as well as learn about the modifiability of the risk factors involved in disease development, and the diseases themselves. Fortunately, there now is widespread consensus about what constitutes major cardiovascular disease risk factors. When it comes to using such knowledge to develop government and health insurance policies, one needs to distinguish between known but currently **unchangeable risk factors** and those which are open to change**,** with the obvious implication that the latter deserve special attention. Furthermore, it is extremely helpful for the development of cost-efficient health care policies to know how much impact these various risk factors currently have for the development of disease, and to be able to forecast to what degree the same risk factor may predispose patients to multiple disease outcomes. Similarly, identification and modification of the most important risk factors in the order of their relative impact promises to maximize the cost-effectiveness of health care and prevention.

In order to provide a foundation for the psychologists' work described below, a listing of agreed-upon risk factors, broken down into the two categories of "changeable" versus "not changeable," is available on the website of the Heart and Stroke Foundation of Canada:

Risk Factors Health Professionals and Patients Themselves Can Do Something About:

- High blood pressure (hypertension)
- High blood cholesterol
- Diabetes
- Being overweight
- Excessive alcohol consumption
- Physical inactivity
- Smoking
- Stress

Risk Factors We Cannot Control:

- Age
- Gender
- Family History
- Ethnicity
- History of stroke or transient ischemic accident

In psychosomatic medicine, the earliest hypothesized links between emotion and a disease outcome are those between anxiety, depression, and cardiovascular disease (Kubzansky & Kawachi, 2000; Rozanski, Blumenthal, & Kaplan, 1999). During the last few decades researchers have moved from what was once clinical lore with little evidence to back it up to an impressive body of literature with fairly consistent findings (Rozansky et al., 1999; Kubzansky & Kawachi, 2000). We now have strong prospective evidence that anxiety, depression, and trait anger predict the development of coronary heart disease over and above the effects of already established risk factors like poor diet, sedentary lifestyle, genetics, or smoking (Linden, 2008). Depression, in particular, has been associated with a high risk of disease recurrence in patients who already had one heart attack, with documented risk ratios ranging from 2:1 to 4:1 (Lesperance & Frasure-Smith, 2000). Given the prevalence of at least some depression symptoms in 30% of cardiac patients and the high costs associated with psychological distress in cardiac patients (Lesperance & Frasure-Smith, 2000), psychology researchers have developed treatment programs for cardiac patients that focus on reduction of stress and arousal via relaxation, breathing (Van Dixhoorn & White, 2005), and other cognitive-behavioral methods for stress reduction and treatment of depression (Langosch, Budde, & Linden, 2007). The outcome literature on how well these treatments work has created some confusion because reports have alternated between positive reports indicating the distress and mortality rates can be reduced, and negative reports arising from large clinical trials that have failed to show unique benefits of psychological treatments (Linden, 2013; Writing Committee for the ENRICHD Investigators, 2003). Fine-grained meta-analyses have looked at which patients, under which conditions, benefit from psychological intervention and have helped to establish the current state of knowledge, which is notably more clear now (Dusseldorp et al., 1999; Linden, Phillips, & Leclerc, 2007). The Dutch research group of Dusseldorp and colleagues have clearly shown that psychological treatment of cardiac patients reduces subsequent mortality as long as the treatment actually reduces psychological distress. Curiously, some clinical trials have offered psychological treatments to all patients even though most were not distressed to begin with and then failed to find that the treatment was effective (see the reviews of Dusseldorp et al., 1999; Linden et al., 2007). Further clarifications about this phenomenon of low base rates have been offered by Linden and his colleagues in the most comprehensive meta-analysis to date (Linden et al., 2007). Psychosocial interventions when added to other active rehabilitation conditions reduced the odds of mortality and the recurrence of nonfatal cardiac events, but this applied only to male participants. Those patients with little emotional distress did not benefit, and patients who received treatment very soon after their cardiac event also did not derive a lot of benefit. On the other hand, patients recruited many months after their surgery or hospitalization who were still in distress showed, by far, the greatest mortality reduction when distress was treated. The current challenge for the field is to develop interventions that meet the unique needs of female cardiac patients who appear to respond quite differently to cardiac disease (Abbey & Stewart, 2000).

Hypertension

High blood pressure (or hypertension) is one of the most significant risk factors for coronary heart disease and a highly prevalent disease in and of itself. Genetic factors play a major role in the development of hypertension, but the current view is that genetics need to interact with behavioral and psychological factors to fully account for the disease. Personality factors like trait hostility may play a critical role in understanding why people over-respond to stress and thereby maintain arousal levels longer than necessary (Schwartz et al., 2003; Linden et al., 1997). Consistent with research findings that link stress to hypertension via disturbed self-regulation of the autonomic nervous system (Grossmann et al., 1996; Sakakibara, Takeuchi, & Hayano, 1994), psychological treatments are designed to reduce blood pressure by reducing stress and arousal. This is attempted via two different strategies. One approach is to emphasize physiological arousal reduction and autonomic balance through relaxation training, meditation, and/or biofeedback, all of which are designed to improve a person's autonomic, self-regulatory skills. Such methods can be taught in a standardized, manual-driven fashion, and one can package two or more methods together (e.g., relaxation and temperature biofeedback are often taught together).

A second approach is to view stress as a multistep process involving triggers, coping behaviors, cognitions, and physiological stress responses (Linden, 2005). Thus, treatment or intervention may require the teaching of a broad array of problem-solving skills. Treatments using this second, less narrowly focused approach target deficient cognitive and behavioral stress coping skills and require more individually tailored, multicomponent interventions because the presumed critical skills deficits are not likely the same across all hypertensive patients nor are the patients' stimulus environments presumed to be the same. The second approach also requires a higher level of skill and more training in psychological therapies for the therapist.

Extensive evidence from over 100 randomized controlled trials indicates that behavioral treatments reduce blood pressure to a modest degree, and this change is greater than what is seen in wait-list or other inactive controls; however, the effect sizes are quite variable. Observed blood pressure reductions are highly positively related to blood pressure levels at pre-test, and behavioral studies tend to underestimate possible benefits because they usually work with patients whose blood pressure is not greatly elevated and who, therefore, can also not improve as much. Multicomponent, individualized psychological treatments lead to greater blood pressure changes than do single-component treatments like relaxation training (Linden & Moseley, 2006).

Chronic Heart Failure (CHF)

Improved surgical techniques and new, more potent medications allow cardiac patients to live longer. However, given that better management of heart disease is not equivalent to a cure, a growing number of patients survive their first myocardial infarction or respond well to revascularization (a surgical "clean-out" of blood vessels) or bypass surgery, but they may ultimately move into a condition of chronic heart failure that cannot be cured. Correspondingly, this provides new challenges for psychological support staff trying to manage symptoms and maximize quality-of-life (QOL). Once diagnosed, CHF patients have an average life expectancy of five years (McKelvie et al., 1995), and QOL is generally poor because of chronic symptoms and the sufferer's awareness of the poor prognosis. These patients account for a large portion of expensive emergency hospitalizations, often due to poor compliance

with the treatment regimen (e.g., irregular use or complete refusal of medications, and excess salt and fluid intake [Wagdi, Vuilliomonet, Kaufmann, Richter, & Bertel, 1993]). With noncompliance being the most frequent reason for medical crises, Wagdi and colleagues further investigated patient knowledge and found that a prime reason for nonadherence was a lack of knowledge about the purpose and procedure for the medication regimen; there also was insufficient follow-up by local physicians. The conclusion was that thorough patient education and close follow-up was considered a highly cost-efficient means of managing these patients and of preventing repeated emergency hospitalizations. Adding a psychoeducational component to standard medical care of heart failure patients improved functional status and led to an 85% decrease in the hospital readmission rate for the 6-month follow-up; at that time the estimated savings for the health care organization or hospital were US$9,800/patient (Fonarow et al., 1997).

Not only do CHF patients show low adherence to treatment regimens, but many suffer from depression which has serious implications for disease prognosis. In a meta-analysis of 36 published studies on depression and heart failure (Rutledge et al., 2006), clinically significant depression was present in 21.5% of heart failure patients; these figures varied, however, as a function of questionnaire use versus diagnostic interview (33.6% and 19.3%, respectively) and disease severity. Combined results suggested higher rates of death and secondary cardiac events like myocardial infarction (risk ratio = 2.1:1), trends toward increased health care use, and higher rates of hospitalization and emergency room visits among depressed patients. Treatment studies thus far have generally relied on small samples, but do suggest consistent reductions in depression symptoms. Furthermore, researchers have studied how depression affects adherence in heart failure patients. In a prospective study with 492 patients, persistently depressed patients were less likely to adhere to behaviors that reduce the risk of recurrent acute symptoms (Kronish et al., 2006). Differences in adherence to these behaviors may explain in part why depression predicts mortality in cardiac patients. Compared with persistently nondepressed individuals, persistently depressed patients reported much lower rates of adherence to quitting smoking (OR = 0.23), to taking medications (OR = 0.50), to exercising (OR = 0.57), and to attendance in cardiac rehabilitation (OR = 0.50). These findings reinforce the importance of psychosocial research in heart failure populations and identify a number of areas for future study.

Heart Transplantation

A subgroup of heart failure patients may have the opportunity to undergo heart transplantation, and, due to more experience with the transplantation surgery itself and the necessary subsequent rejection management, success rates for heart transplantation today are quite good, with 10-year survival of about 60% (Davies et al., 1996). Nevertheless, transplantation is a medically complex and emotionally difficult process, and it poses particular challenges in the area of adherence. A group of 108 transplant recipients were followed for an average of 970 days (Owen, Bonds, & Wellisch, 2006), and pre-transplant evaluations were retrospectively coded for psychiatric risk factors. Previous suicide attempts, poor adherence to medical recommendations, previous drug or alcohol rehabilitation, and depression significantly predicted attenuated survival times.

An additional, largely unavoidable stressor is the fact that transplantation surgery is done only in major hospitals, typically university teaching hospitals, and patients living in

rural areas may have to relocate at least for a few months, often isolated from their families and at considerable expense. After transplantation, patients need to follow a complex medication regimen consisting of immune-suppressants, cardiac, and often other medications. Considerable pressure has to be put on transplant patients to maintain an extremely healthy lifestyle: weight control and a healthy diet are crucial to prevent rejection of the new heart, as is a reasonable exercise program, and avoidance of sun exposure. Return to work is a viable prospect for some but certainly not all patients, and the transplantation often triggers deep existential questions like:

- How is the donor family affected?
- Why do I deserve this heart?
- What is important in my next years of life?

Heart transplantation is a very good demonstration for a primary health problem that is not psychological to begin with but where the burden of treatment and required behavior changes call for the input of a multidisciplinary health care team where a clinical psychologist can make valuable contributions.

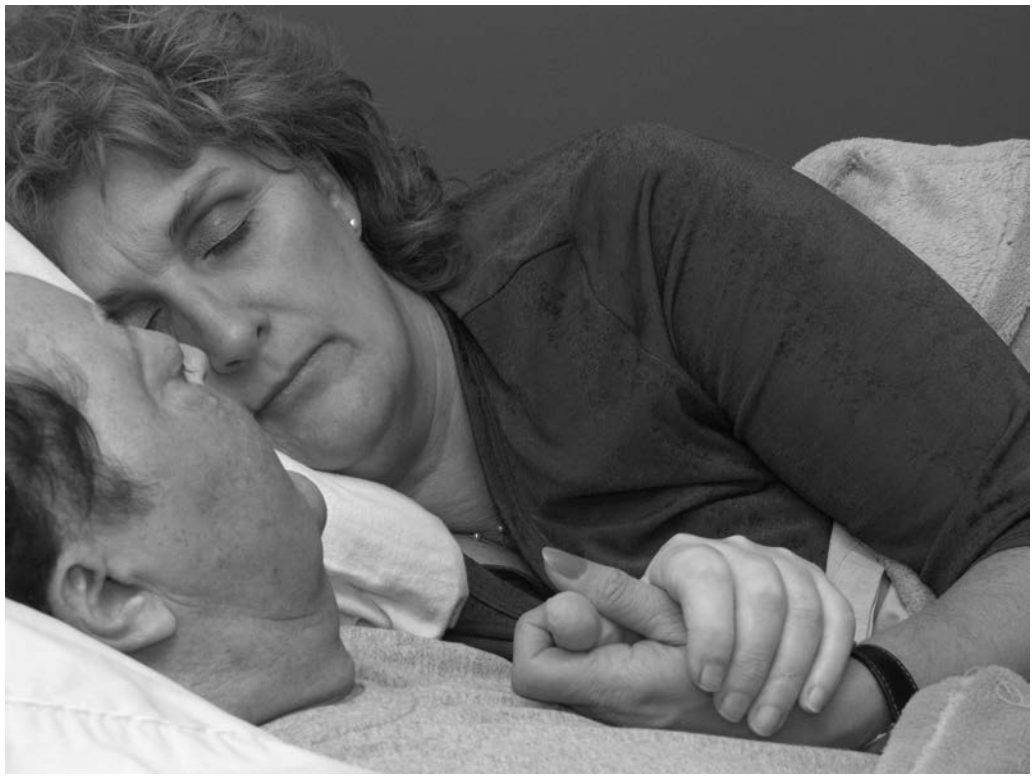
Restenosis

A surgical procedure called angioplasty (clearing out clogged blood vessels) has become a frequently used intervention largely because it is less invasive than bypass surgery. Unfortunately, 30–40% of vessels re-occlude following angioplasty (this process is called **restenosis**), mostly within 6 months following surgery. Although severity of initial blockage and location of the vessel predict restenosis to some degree, much of the medically unexplained variance has been linked to psychological and behavioral factors. The single strongest predictor for restenosis is continued smoking, and many surgeons don't want to do angioplasties on people who continue to smoke. From a psychological perspective, the constructs of **vital exhaustion** and **cognitive adaptation theory** have been used to show the predictive power of psychological factors for explaining restenosis (Appels, Baer, Lasker, Flamm, & Kop, 1997; Helgeson & Fritz, 1999). Cognitive adaptation theory captures a sense of optimism, high self-esteem, and mastery and predicts lower likelihood of restenosis (Helgeson & Fritz, 1999), whereas vital exhaustion refers to a lack of perceived energy, demoralization, and irritability and predicts greater rates of restenosis (Appels et al., 1997). Appels and his colleagues have developed a brief cognitive-behavioral intervention to increase self-efficacy and psychological adjustment; this treatment program has potential for reducing restenosis rates (Appels et al., 1997).

Working With Cancer Patients

There has been excellent progress in the quality of cancer care and the average survival rates have risen steadily over the last three decades. For example, in British Columbia, the 5-year survival rate for patients with prostate cancer is now 96% (www.bccancer.ca). Unfortunately, however, cancer incidence (i.e., the number of new cases being diagnosed) has continued to rise. Cancer remains the second most frequent cause of death after cardiovascular diseases and the gap between the two in terms of cause-of-death prevalence is closing. A diagnosis of cancer is very emotionally threatening, can provoke anxiety and depression, and is difficult to live with because of the prognostic uncertainty (Stanton, 2006; Ganz & Hahn, 2008). It

PHOTO 17.1 Dealing With Cancer Is an Emotional Process for the Whole Family
Photographer: Henri Dupond. Photo taken at Hospice Michel Sarrazin, Quebec, Canada.



usually takes many months, if not years, before cancer patients know whether or not their first wave of treatment has been really effective. Emotional distress can be reduced with psychological support, whether delivered by professionals and/or through social support networks (Helgeson et al., 2000). Psychologists working in the area of cancer refer to their field as "psycho-oncology," which is concerned with etiological factors as well as adjustment to the disease. Research on psychological contributions to the etiology of cancer has been vigorous and has brought about interesting theoretical concepts (like the **type C personality** [a tendency to be introverted, respectful, eager to please, conforming, and compliant; Temoshok & Dreher, 1992]), or that of **traumatic loss** (Gurevich, Devins, & Rodin, 2002), and **search for meaning** (Brennan, 2001), but there is unfortunately only limited evidence to date that any particular psychological factor serves as a reliable predictor for cancer development or for cancer remission (DeBoer et al., 1999). The most researched predictive factor is depression; a meta-analysis of prospective studies of the effect of depression on mortality in recently diagnosed cancer patients revealed that depressed cancer patients have a small, but still significantly elevated risk for cancer mortality, with risk increments of 20–60% depending on how risk was calculated and whether depressive symptoms or clinical depression was used as the predictor (Satin, Linden, & Phillips, 2009).

To better understand the challenges of dealing with a cancer diagnosis and treatment, it may be useful to compare cancer and cardiovascular disease. In the previous section on

cardiovascular diseases, we described how heart disease often reveals itself suddenly (the "classic example" is heart attack) and the patient is understandably distressed and confused by the suddenness of this arising threat. However, within a few weeks or months, patients have a pretty clear idea about what behavior changes they can and need to make for their own benefit, as well as what their functional limitations are, if any. Some patients with heart disease who commit to cardiac rehabilitation are healthier afterward than they had been prior to their disease (Ornish, 1990)! Very much in contrast to this kind of predictable trajectory with relatively quick and often good outcomes for the case of cardiac problems is the entire process of dealing with the diagnosis and treatment of cancer. There are two subgroups of cancer patients for whom the future is relatively clear, one is unfortunately the palliative group which is told that they have a very limited time to live and that the disease itself is no longer controllable. The second group of patients is at the other end of this spectrum; their treatment can be effective and they may find out over a period of relatively few months that they are probably disease-free now (this hopeful scenario can, for example, be seen in some melanoma patients with very clearly localized lesions). The majority of patients, however, undergo lengthy and very aversive treatments, at the end of which they still don't know for sure whether the disease has been beaten and how high the probability of a return is. In fact, they never feel totally safe (Ganz & Hahn, 2008). It is this uncertainty, with its in-built **fear of recurrence**, that represents a major challenge for the patient's quality of life. Researchers are learning about the process of seeing oneself as a survivor (Ganz et al., 1996; Ganz & Hahn, 2008), and clinicians are trying to help patients adapt to this self-perception. However fear-arousing cancer typically is, many patients respond well, and typically show gradual improvement in physical and psychological function (Helgeson, Snyder, & Seltman, 2004). However, there are subgroups for whom the trajectory of change is marked by deterioration, fear, depression, overwhelming fear of recurrence, and helplessness. It is therefore necessary to determine on repeated occasions how well patients are adjusting so as to identify the ones who may need professional support at some stage (Helgeson et al., 2004; Linden, MacKenzie, Rnic, & Vodermaier, 2015).

How well do psychological treatments work and what areas of psychological function benefit? An important target for treatment is patient quality-of-life (Coyne, Stefanek, & Palmer, 2007). Zimmermann, Heinrichs, and Baucom (2007) published results from a meta-analysis of psychological treatment outcomes revealing a small overall treatment effect ($d = -.26$) for distress reduction and also provided many additional details for the most effective delivery of psychosocial treatment for cancer patients. Interventions led by nonpsychologists produced notably smaller effects; and psycho-education was more effective than supportive therapy. One-on-one treatment was more effective than group interventions.

Even the application of a single, relatively nonspecific treatment, namely, relaxation training, was beneficial (Luebbert et al., 2001). Fifteen studies were identified in this review and they revealed significant beneficial effects on affective distress for patients undergoing chemotherapy, radiotherapy, bone marrow transplantation, and hyperthermia. Outcomes were clustered into biological indices (blood pressure, heart rate, nausea, pain) and the corresponding aggregate effect size was $d = -.49$ (weighted for sample size) for the pre-post comparison. Outcome for subjective distress (depression, tension, anxiety, mood) also was $d = -.49$.

While psychological interventions for cancer patients can have a positive effect on patient quality of life, there is no convincing evidence to date that it prolongs life and directly affects the disease process (Chow, Tsao, & Harth, 2004). In a meta-analysis on survival enhancement in psychologically treated cancer patients, 1- and 4-year overall survival rates

were obtained from eight trials and six trials, respectively. There was no statistically significant difference in the overall survival rates at 1 and 4 years (risk ratios = .94 and .95; note that neither was significantly different from chance). Four trials had examined 511 metastatic breast cancer patients. Again, there was no statistically significant difference in the overall survival rates at 1 and 4 years (risk ratios were .87 and .91, respectively). It would be premature, however, to abandon research on mortality effects of psychological treatments because not all types of patients, at all possible stages of disease, have been evaluated in clinical trials, and the types of treatments offered have been restricted to supportive therapy (Classen et al., 2001), mindfulness meditation (Speca, Carlson, Goodey, & Angen, 2000), and cognitive-behavioral interventions (Antoni et al., 1991).

The emotional experience of individuals with cancer is often very intense but may be hard to understand for outsiders; even choice of words to capture the experience matters (see Box 17.1).

BOX 17.1 CANCER AND THE "FIGHTING SPIRIT"

We suspect that few university students follow the obituaries in their local newspaper. If, however, they did, they would notice that when patients have died of cancer, they are frequently described as having engaged in a "heroic battle" (or some other description of a struggle is often given) that was ultimately lost. This kind of image has developed because of initial reports that breast cancer patients with a fighting spirit seemed to fare better than those who had given up (Pettingale, Morris, Greer, & Haybrittle, 1985). Many professionals working with cancer patients have at best mixed feelings about this image of a heroic battle, and even more rather dislike it (Coyne et al., 2007). Why is that you may wonder? First of all, nobody quite knows *how* a patient can actually fight such a battle against tiny little tumor cells, nor is there continuing evidence that a heroic battle will extend life for cancer patients (although adherence to recommendations from health professionals may help). Given the lack of evidence that engaging in a "battle" actually helps, patients may unnecessarily get their hopes up and then spend a lot of energy fighting something they can't win. Even worse is the hidden message that those who do not engage in a battle are somehow responsible for their own ill fortunes when the tumor continues to grow. Blaming victims of a potentially deadly illness for having contributed to their own death by not fighting hard enough is not justified by the facts, nor is such imposed blame appreciated by patients themselves.

Conclusion

This chapter had two objectives. On the one hand, it was meant to provide an introduction to the growing fields of Health Psychology and Behavioral Medicine as specialty areas of psychology but also as subspecialties of clinical psychology. The second objective was to clarify the place of the clinical psychologist within primary care by using research findings from the applied Health Psychology field. It should be noted that Health Psychology has been taught as a distinct course in North American universities for less than three decades. Many psychologists who taught Health Psychology courses during this time never had the advantage of having been able to take a Health Psychology course themselves simply because this course

did not exist when they went to graduate school. This includes one author of this textbook (WL) who introduced the first Health Psychology course at his university in the 1980s. The Health Psychology and Behavioral Medicine fields of today have largely grown out of the practice of clinical psychology in physical health care settings. The contribution of Clinical Psychology to Health Psychology is especially useful for the application of cognitive-behavioral principles to understand problem behavior and for behavior modification in medical settings. It is for these reasons that we view clinical psychology as a health profession in the broadest sense, a profession that integrates physical and mental health in order to understand human beings as a whole. Even though this was a fairly lengthy chapter, we could only scratch the surface of what is a rapidly growing domain in psychology, and we could only provide samplers of the role of clinical psychologists.

Ongoing Considerations

One of the areas of practice for clinical psychologists that has grown in importance is in the area of primary health care and rehabilitation. We predict that there will be additional growth in years to come and these may be good areas to specialize in. A potential problem with this trend is that clinical psychologists may join multidisciplinary health care thus allowing patients one-stop shopping for complex health care, but this also usually means that the clinical psychologists will be the only member of her profession on this team. Operating in such relative isolation from colleagues makes it hard to maintain a professional identity and requires a seasoned, assertive psychologist to begin with. But this also makes training young psychologists very difficult if there is no psychology department within which to work, and we have to resolve the question how one becomes a specialized, seasoned psychologist. There is a risk of fragmentation that we need to find ways to counteract.

Key Terms Learned

Acute pain, 393
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Thinking Questions

1. How well do traditional clinical psychology programs prepare their graduates for work in primary health care?

2. Which aspects of professional clinical psychology developed in psychiatric contexts are similarly suitable and/or transferable to work with physical health problems?

3. When an elderly patient has a major, chronic health problem like heart failure with its poor prognosis, and is depressed, is that comparable to depression in a psychiatric environment with a 20-year-old patient? Should these two be treated the same?

4. Given that many patients with physical illnesses adjust relatively well on their own, is there a risk that we overtreat as psychologists?

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18 Psychopharmacology

Chapter Objectives

This chapter will:

- Explain why clinical psychologists should have a foundation in psychopharmacology.
- Introduce concepts and language to serve as tools for delving into the topic, to communicate with experts, and read pertinent entries into medical charts.
- Explain basic principles of drug action, drug classes, drug-specific responses and side effects.
- Discuss whether psychologists should seek drug prescription privileges.

Why Cover the Topic of Psychopharmacology?

You may wonder why a clinical psychology textbook addresses the topic of pharmacological treatments when psychologists are not typically allowed to prescribe medications. Does that not fall exclusively into the domain of licensed physicians?

There are many good reasons to provide at least an overview of **psychopharmacology** here. We want to alert the reader and budding clinical psychologist to the reasons for acquiring at least basic knowledge in psychopharmacology:

- Effective professional interactions (via a shared language) between psychologists and prescribing physicians treating the same patient.
- The possibility of being proactive in collaborating with a physician to compose an ideal treatment package for patients that may consist of drug treatment and parallel psychological supports.
- Better understanding of the patient's full medical status in order to complete meaningful assessments (see the discussion of biological considerations in understanding an individual's current mental state; see also Chapter 6).
- Know the potential somatic and psychological symptoms that can arise from medication effects and—relatedly—medication side effects that could otherwise be confused with (or confound) psychological symptoms.

The first two reasons for why clinical psychologists want to have knowledge in psychopharmacology arise from the fact that the great majority (87%) of **psychoactive drugs**

are prescribed by family physicians and other specialists but not by psychiatrists (DeLeon & Wiggins, 1996). Family physicians typically receive only 4–12 weeks of training in psychoactive drugs and are not routinely trained in psychotherapy (Tucker, 1992; Zimmerman & Wienckowski, 1991; Murdoch, Gregory, & Eggleton, 2015). Together, the latter two facts increase the likelihood that a clinical psychologist will work jointly with a general practitioner in the care of a patient, whereas it is unlikely that a clinical psychologist and a psychiatrist will treat the same patient. Having a shared language with and respect for the other professional in turn enhances the chances of giving the patient the best treatment.

A Clinical Case Scenario

An example from clinical practice may help to demonstrate the value of knowing at least the basics of psychopharmacology:

> Our graduate student Vincent has made excellent progress in graduate school and managed to defend his thesis before going on the 1-year full-time internship required by his accredited training program. One of his internship rotations is in a geriatrics unit, and Vincent gets involved in the process of evaluating patients to determine whether or not they should be hospitalized or moved to a long-term care facility, or whether they can continue to live safely on their own. He is asked by his supervisor to conduct an assessment of the cognitive abilities of Joseph M, who is a slight, 69-year-old widowed man living on his own. Joseph M's children live too far away to look after him on a daily basis, and he has refused an offer from his oldest son to move in with him. On the other hand, the children are worried about him, noting that he has deteriorated. Vincent is meeting Joseph M for the first time today and plans to complete a mental status exam and a full IQ test, using the Wechsler Intelligence Test. In preparation for this test day, Mr. M was asked to bring all his medications with him. Vincent was not initially planning to look into Mr. M's pharmacological regimen because that is not the psychologist's usual domain of expertise. When, however, Vincent begins his interaction with Mr. M, he finds him very slow and disoriented. Although Mr. M provides mostly correct answers during the mental status exam, he does so with long breaks between answers, hesitates a lot, and displays slightly slurred speech. He appears so subdued that Vincent doubts Mr. M's ability to complete a full IQ test, and even if he did, wonders whether or not the test would be valid for the current assessment objective. Given his age, and Vincent's knowledge that Mr. M has had psychotic episodes earlier in life (and still takes antipsychotic medication), Vincent directly asks Joseph M which drugs he takes but Mr. M doesn't know the names; instead he shows the pills to Vincent. He says he takes two white, round pills "for the nerves" every day and another blue cylindric one "for the heart." Vincent pulls out a reference manual for pharmaceuticals (the *Compendium of Pharmaceuticals and Specialties*; published annually by the Canadian Pharmaceutical Association, 2017) that is readily available in his hospital department (and also on the Internet) and learns that the round, white ones have the inscription OZ10 in blue and are Olanzapine, a second-generation antipsychotic. In Mr. M's case, the number 10 on the tablet implies that Mr. M is taking 20 mg a day which is in the high range for an adult and exceeding the usually recommended dosage of 5 mg for geriatric cases. The other medication is a so-called beta-blocker with the trade name Inderal (generic Propranolol). Comparing this knowledge with the pill boxes that Mr. M fortunately

brought along, Vincent discovers a worrisome discrepancy: Mr. M tells Vincent that he has recently been taking two of the Olanzepine pills except he did not notice that he actually had the 10 mg pills instead of the prescribed 5 mg pills, thus unintentionally ending up doubling the dosage. The second medication, the Inderal, is a beta-blocker, which is meant to reduce arousal and strain on the heart, and is often prescribed for patients who have had a heart attack (as Mr. M did 2 years prior). The dosage of 80 mg/day is at the high end of the recommended dosage range for adults. Noteworthy is the fact that beta-blockers reduce sympathetic nervous system arousal and may therefore synergistically act with the Olanzapine to reduce Mr. M's alertness and activity level (CPS, 2017; Simacola & Peters-Strickland, 2006). Vincent wonders whether Mr. M may be overly sedated and thinks that conducting a full IQ test is probably not a good idea at this time. Vincent knows from a class he took in psychopharmacology that geriatric patients have a slower metabolism, and even a standard adult dosage can become toxic. He consults the resident psychiatrist and asks for a review of Mr. M's prescription to ensure that Mr. M is indeed properly medicated. If Vincent had not made the effort to fully understand Mr. M's medication regimen and its implications, he might have wasted time completing a cognitive evaluation with a patient whose performance would be slow and spotty, increasing the likelihood that Mr. M would not be considered capable of living on his own.

In summary, Vincent clearly recognized that it was not his role to be the judge on the appropriateness of Mr. M's medication regimen, but his recognition of Mr. M's possible oversedation and its effect on the validity of his test performance was a valuable step in assuring validity of the assessment. A medication review preceding the cognitive assessment might have ultimately led to a different conclusion from the one derived from a cognitive evaluation that would have ignored medication status.

The Language of Pharmacology

Important Concepts

Medical and pharmacological terminology has been around for thousands of years, and that explains the Greek and Latin roots of many medical terms. It also creates what seems to be a secret code that only members of a privileged club know how to speak. As with many profession-specific lingos, this one is also learnable with a bit of effort. The plan here is not to make the reader an expert but at least provide a few explanations that make this world less mysterious.

When it comes to prescription drugs there is considerable opportunity for confusion because each drug company creates **trade names** for its drugs. In order to provide a standard or shared language, the science of pharmacology uses a terminology of its own that associates one specific name with one specific drug type; we refer to these terms as generic names. For example, a frequently prescribed and effective prescription drug for use with attention deficit and hyperactivity disorder in children is the generic drug methylphenidate (classified as a psychostimulant drug) that is sold under the trade names Ritalin, Meta date, Methylin, or Concerta (a slow-release version), depending on who the drug manufacturer is (Simacola & Peters-Strickland, 2006). It becomes quickly apparent that the use of generic terms also allows a systematic approach to the development of names that can help recognize which type of drug we are talking about. Drug companies, for reasons of competition, are not particularly interested in having similar-sounding trade names for the same generic drug type

because they want their trade name to stick just like people tend to refer to "Kleenex" when they mean paper tissue.

To retain transparency and assure patient safety, the Canadian medical-pharmaceutical world has created a reference book, referred to as the ***Compendium of Pharmaceuticals and Specialties (CPS)*** that is updated annually. The *CPS* provides a listing of trade names that can then be matched with generic names and also allows the reverse, namely, to look up a generic drug name and identify which company offers this product under what trade name. For each drug listed in the *CPS*, there is also information about the chemical itself, typical dosages, the intended effect, and known side effects. Another helpful feature, especially in emergency situations, is the beginning section of the *CPS*, where a very large number of prescription drugs are displayed visually so that the reader can take a given medication, and, judging simply by its size, color, shape, and whatever is inscribed on a pill, can determine which drug and dosage it is without having to ask the patient or locating the prescribing physician. We think it is a highly commendable habit for a clinical psychologist to have either a relatively recent *CPS* sitting within reach on the bookshelf or corresponding websites bookmarked on her office computer so that she can quickly determine the intended purpose (and appropriate dosage) of her patient's medications. The same information on drugs can also be obtained free on the web under "Medscape." Given that brand names of drugs vary across different countries, the practicing clinical psychologists should know about and have quick access to drug information relevant to their jurisdictions.

In addition to the thousands of drug names that are in use (have no fear, we will not try to teach these here), there is a much smaller list of broad classes of drugs that we do, however, want to introduce to help understand basic principles of drug action and also clarify what written prescriptions mean.

PHOTO 18.1 Drug Names and Choices Can Be Confusing
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Frequently Used Terms and Abbreviations

Frequently used terms and abbreviations that one may find in a medical chart or on a prescription are listed and explained in Tables 18.1 and 18.2.

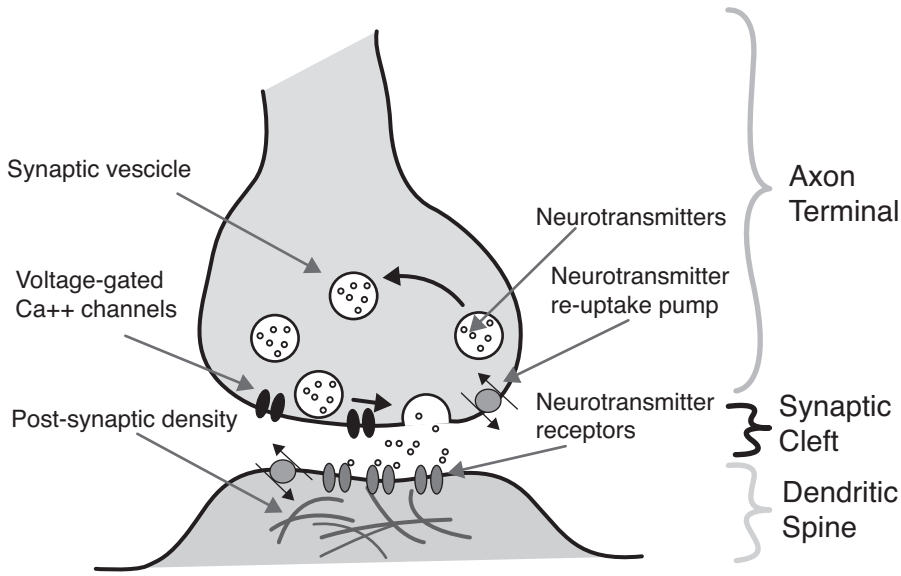
TABLE 18.1 Concepts and Definitions

Toxicity	This term refers to the fact that prescription drugs often are powerful in order to have their intended impact but that taking too much of a drug becomes actually harmful.
Side effects	Because prescription and illicit drugs have potentially strong effects, they may also produce uncomfortable and undesirable symptoms that are not intended but are often unavoidable. To complicate things, not every drug produces the same side effects in every patient. Relatively frequent and predictable side effects should be mentioned to patients early on so that they are not scared when side effects do occur.
Adverse effects	While side effects are often surprising and may be unpleasant, they tend to be predictable and often harmless. However, with some drugs the unintended effects can become truly dangerous and lead to such dangerous conditions as liver failure, pulmonary hypotension, or damage to an unborn baby if the medication is taken by a pregnant woman.
Tolerance	This term describes the fact that with many medications patients will need higher dosages to attain the same effect if the medication is taken over an extended period of time.
Half-life	Whether medication is taken orally or injected, it usually takes awhile before a therapeutic effect is reached, and this effect has a limited lifespan. It is therefore useful to know what the length of the likely effect is by describing at what point the medication has roughly reached the midpoint of the time interval for which it is effective.
Withdrawal	Stopping of medications or illicit drugs often leads to unpleasant symptoms because the patient's body has adjusted to the medication; when this chemical is no longer in the system, the body will have to readjust. It is therefore common practice to gradually fade out medication to minimize withdrawal effects.
Potentiation and synergism	Many patients take more than one kind of medication, and some individuals even mix prescription drugs and illicit chemicals without being aware that these chemicals may interact with each other. For example, both may have the same basic drug action, such as uppers, that is, drugs that increase arousal and alertness. In such a case, the taking of two or more medications will produce a much stronger outcome. The use of two or more downers like alcohol and a drowsy-making type of antihistamine can be dangerous.
Dependence	Medications and illicit drugs taken over a long period of time lead to adjustments of the patient's physiological functions such that he will become used to, and even rely on, the presence of such chemicals in his body. In some cases, medications or street drugs replace chemical compounds that the body naturally produces on its own. A classic example for this is that the extended consumption of heroin, morphine, or methadone leads to cessation of production of enkephalin, which is a natural painkiller. When this happens, dependence is at its worst because an attempt at withdrawing the drug produces highly aversive withdrawal symptoms.

TABLE 18.2 Abbreviations

Rx	Prescription (recipere)
qd	Every day (quaque 1 diem)
b.i.d.	2 × /day (bis in idem)
t.i.d.	3 × /day (ter in diem)
q.i.d.	4 × /day (quater in diem)
p.r.n.	As needed (pro re nata)
p.o.	Per mouth (per os)
stat	Immediately (statim)

FIGURE 18.1 Neurotransmitter Processing at the Synapse.



Basic Principles of Drug Action, Drug Classes, Drug-Specific Responses and Side Effects

Psychologists are particularly interested in hormones and neurotransmitters, the role these play in understanding behavioral disorders and to what degree this knowledge can be used for effective pharmacological treatment. Hormones and neurotransmitters serve to communicate action instructions throughout the body via nerve cells; these chemicals travel in vescicals that need to jump synaptic clefts whenever one nerve cell meets another; and receptors "accept" the traveling signal on the other side of the synapse (see Figure 18.1).

It would be ideal if all definable psychiatric disorders were entirely due to the presence of excessive amounts of a singular neurotransmitter (or lack thereof), and if a drug

exclusively binds to their specific receptors. When (or if) that happens, the drug is described as having a high affinity for a particular receptor and will selectively bind to that type of receptor even at low doses and will stay bonded for a relatively long time.

Unfortunately, however, drug molecules do not generally seek out particular receptor molecules but spread widely throughout the body. When neurotransmitters do come into contact with receptor molecules that possess the specific shape that fits the drug molecule, the two molecules bind together briefly and begin a chain of events, like a lock and key! Preferred drugs are receptor selective and only fit a subset of these locks. If there is good therapeutic response to the drug, then this response effectively confirms a positive diagnosis of the disorder that this particular drug is designed to treat. Given that drugs do have many nonspecific effects and typically spread throughout the body, they often create unintended and undesired side effects. Side effects can vary from plain uncomfortable to subjectively very distressing to being outright dangerous.

Types of Psychopharmacological Medication and Areas of Application

How can drugs be classified? What are categories of drugs that are similar to one another but distinct from others? Let's first look at street drugs. A very crude, but still useful, approach to classifying psychoactive street drugs is to block them into (a) uppers (drugs that increase arousal and alertness) and (b) downers (drugs that decrease excessive arousal and produce calm). While this is already a simplistic approach to street drugs, prescription drugs tend to have more complex mechanisms and do not fit well into this simple classification scheme. In terms of drug actions as such, there is overlap between street drugs and prescription drugs. For example, both amphetamines and cocaine have stimulant effects, whereas anxiolytics and heroin have calming effects. What does apply to all drugs (illicit and prescription) is that increasing dosage also increases toxicity and ultimately the probability of death. Some uppers (like amphetamines) and many sedatives (e.g., morphine or strong painkillers like Demerol) have very high addiction potential and should be taken only for well-defined, short periods of time, prescribed by a physician who closely follows the patient (Schatzberg & Nemeroff, 2004).

The main areas of interest to clinical psychologists for psychological, psychiatric, and general medical practice applications and the corresponding drugs that can be broadly called psychopharmacological agents are:

- Pain (analgesics)
- Anxiety (anxiolytics)
- Depression (antidepressants)
- Bipolar disorder (mood stabilizers, e.g., lithium derivatives)
- Schizophrenia (antipsychotics)
- Post-traumatic stress disorder (various affect-modulating drugs)
- Smoking cessation (anticraving substances like Bupropion)
- Attention deficit and hyperactivity disorder (stimulants like methylphenidate)

It is beyond the scope of this introductory textbook to address the unique mechanisms of action for all these classes of drugs; we do, however, suggest to all practitioners to have either a reference book or website at their fingertips for needed consultations.

Combining Pharmacological Treatment and Psychological Interventions

The nature of possible relationships between pharmacological medication and psychological interventions can be seen as fitting into one of these four categories:

1. Pharmacological medication is recognized as a highly effective and necessary first-line treatment and there is a widespread consensus that this currently applies to the treatment of schizophrenia, schizoaffective disorder, bipolar disorder, acute pain, and attention deficit hyperactivity disorder (ADHD; Baethge, 2002; Goodwin, 2002; Sachs, 2004; Schatzberg & Nemeroff, 2004). However, despite the fact that medication is needed and effective for these conditions, there also is consistent evidence that the addition of psychological support and behavioral training can further enhance the benefits of many first-line drug treatments (see, e.g., Barkley, 2002; Cuijpers, 2017; Huxley, Rendall, & Sederer, 2000).
2. A second possibility is that both psychological and drug treatments are recognized as effective, and either one can be an appropriate first-line treatment. Typically, medication takes effect more quickly than psychological treatment, whereas the psychological treatment is often associated with lower relapse rates and better follow-up outcomes (Rupke, Blecke, & Renfrow, 2006; Cuijpers, 2017). Areas where this second principle applies are depression, generalized anxiety disorders, and smoking cessation. Also, to maximize treatment outcomes for patients, one could begin with a psychological treatment, and, if it fails, or it is not sufficient, switch to medication.
3. There is evidence that psychological treatment is a superior choice to medication (where "superior" is defined by high efficacy, lack of side effects, and durability of outcomes) and should be considered as a first option, even though this may not necessarily rule out that medication can also produce benefit or could be added later. Currently, this applies to the treatment of phobias, post-traumatic stress disorder, and bulimia with cognitive-behavioral interventions or the treatment of urinary incontinence with biofeedback (e.g., Burgio et al., 2002; see also Chapter 13).
4. A fourth possible option is to plan from the outset to integrate medication and psychological therapy such that a physician and a psychologist form a treatment team. For example, this could involve a severely depressed patient with suicidal tendencies, where the quicker initial response of the drug appears desirable to swiftly tackle suicide risk but where long-term maintenance with added psychological treatment complements the treatment strategy. In a similar vein, multidisciplinary pain clinics (as described in Chapter 17) systematically plan integrated approaches of pharmacological and behavioral treatments to act synergistically for the benefit of the patient. Another example for this category would be the treatment of ADHD where the use of a stimulant medication is best paired with a behavioral intervention involving the parents, the child, and possibly teachers (Barkley, 2002, and see related coverage in Chapter 14).

When clinical psychologists enter the world of clinical psychiatry practice, they will quickly discover greatly varying opinions about which disorder is best treated by what method. As described in Chapter 13, clinical psychologists don't necessarily agree with each other, and neither do physicians. And, predictably, clinical psychologists often take a profession-specific stance that physicians may not necessarily share. Of course, instead of personal attacks based on opinions, treatment decisions should be based on empirical evidence

and consensus committee reports, which, if properly conducted, avoid fruitless turf disputes arising from mere personal opinions or false beliefs in the superiority of one's own clinical experience (Meehl, 1960).

Another important area where clinical psychology skills connect with pharmacological treatment is frequently via the problem of poor adherence. In Chapter 17, we discussed the frequency and severity of the problem and provided some strategies and tips for how to handle this issue.

How the Arrival of the Internet Has Changed Clinical Practice

With the advent of the Internet, patients themselves have become more savvy about medical conditions, diagnoses, and possible interventions (although the resulting partial knowledge can be dangerous). It is therefore more and more frequent that patients approach either their physician or clinical psychologist with very specific ideas on what disease they have and what treatment they should be getting for it. More and more patients know of effective psychological treatments and will try to sway their physicians to try a psychological intervention over a drug treatment. Not surprisingly, the patient's physician will not always agree with the patient, and good communication and bedside manner on the part of the professional is needed to resolve a possible impasse. The authors of this book have encountered a number of patients over the years who were unhappy with the medications they took, either because of side effects or lack of desired effects, and they were planning to stop or had already stopped taking certain medications. Patients with schizophrenia might stop their medications because they despise the resulting sense of lethargy and the associated weight gain, for example. To make matters worse, they might mistakenly perceive these symptoms as side effects of the drug when they are actually negative symptoms associated with the disease itself. Quitting the medication might then become a trigger for a relapse. Sometimes, they do so without informing their prescribing physician (largely because they wanted to avoid an argument). While it may be tempting for a clinical psychologist to side with the patient and prefer psychotherapy over a drug, it is not only a major lack of professional courtesy but actually a safety requirement that the psychologist communicates with the patient's physician about poor drug adherence so that a proper flow of communication between all three parties can occur and that a coherent treatment plan can be implemented (Vos, Corry, Haby, Carter, & Andrews, 2005).

Given that patients have grown more cognizant of treatment options, they often try to reduce their medication intake because they:

- Dislike medication dependence and don't accept the implicit role of "chronic patient."
- Notice unpleasant side effects.
- Are aware that long-term drug use can negatively affect their liver or lead to dependency.
- Learn from reports of scientific advances in the popular press that particular drugs are not as effective as initially believed. For example, most recently, it was learned that the frequently prescribed antidepressant drug, referred to as selective serotonin reuptake inhibitor (SSRI), is ineffective for a substantial number of patients, may lose its effect over time, and is less effective overall than was initially claimed (Kirsch et al., 2008; Fournier et al., 2010).

- Lastly, it is tempting to stop using medication when the crisis time is over and not understanding that continued use of mood stabilizers, antipsychotics, and antidepressants is needed for relapse prevention.

Should Psychologists Have Drug Prescription Privileges?

The practice of medicine is tightly regulated by law and is relatively easy to define, namely, diagnosis, prescription of medications, surgery, or direct injection of drugs. In almost all jurisdictions, clinical psychologists are not allowed to prescribe medications, although (in recognition of their good training) they often do have protected diagnostic privileges. Interestingly, and unknown to many people, nurse practitioners are permitted to prescribe medications under certain conditions (Lavoie & Fleet, 2002).

What started the debate about prescription privileges for psychologists? Clinical psychologists in the United States had noted that there are many counties that have no psychiatrist services, meaning that patients needing psychiatric medications can obtain them only through family physicians. Clinical psychologists in the United States have argued that this is a violation of antitrust legislation and a poor service to patients who may not have access to a psychiatrist. In order to meet these demands, but also to expand their own range of practice, clinical psychologists have challenged authorities to consider opening up the question of prescription of psychotropic medications to professionals other than physicians. The first arena in which this type of practice has been evaluated was via a demonstration project in the US military. In 1989, the US Congress directed the Department of Defense (DoD) to create a Psychopharmacology Demonstration Project (PDP) to train military clinical psychologists to issue appropriate psychotropic medications to beneficiaries of the Military Health Services System. This program was put into place in 1991 (Lavoie & Fleet, 2002). Between 1991 and 1997, 10 military psychologists completed a thorough training program and were subsequently granted the right to prescribe medications. Predictably, medical associations spoke out against the program and raised concerns about effectiveness and safety. Although many of the supervising clinical psychiatrists had reservations about the appropriateness of affording psychologists prescribing privileges, in the end they unanimously rated the quality of care provided by these psychologists as good to excellent. Some supervisors reported that graduates brought a unique combination of psychopharmacology and behavioral expertise to their programs that many of the psychiatrists in these programs lacked. Clinical supervisors reported no adverse patient outcomes resulting from treatment provided by psychologists who completed the PDP program (Lavoie & Fleet, 2002). Following these positive outcomes of the DoD demonstration project, some groups of clinical psychologists in New Mexico and Louisiana have battled for psychopharmacology privileges and have won this (lengthy and expensive) battle. Predictably, the medical profession provided vigorous opposition because they considered prescribing medications to be their unique turf and argued that patient safety would be at risk if psychologists were given psychopharmacology privileges. To this date, there is no evidence that clinical psychologists exercising prescription privileges (following appropriate training, of course) produce outcomes that are in any way dangerous to patients and different in quality from the prescription habits of physicians. Although psychologists in New Mexico and Louisiana ultimately did persist after great efforts, a similar push in Hawaii looked initially promising but was finally killed in the Hawaiian legislature in 2007, again with the unproven claim that patient safety would be a problem.

Irrespective of the major implementation problems and well-organized vocal opposition by physicians (that is contrary to evidence) against psychologists obtaining prescription privileges, the profession itself is split over the issue, with one group arguing that a combination treatment of medication and psychological support is often best and that patients are not well served by having two different practitioners providing these two forms of treatment in parallel. This is a reasonable argument. The other side takes a more philosophical stance and posits that the very values and beliefs that characterize the practice of clinical psychology are the emphasis on emotion, thought, and behavior and an attempt to gradually empower patients to look after themselves. Many psychologists see medications as a quick fix that just manages, instead of cures, symptoms. At the current time, it appears that most clinical psychologists are not interested in prescription privileges, and in most jurisdictions no substantive efforts are underway to obtain such prescription privileges (Lavoie & Fleet, 2002). Nevertheless, the prescription privilege debate highlights an existing moral obligation to provide patients with the best possible service irrespective of the profession of the provider. Also, this discussion challenges the field of clinical psychology to define itself, and we posit that this discussion in and of itself can be seen as constructive and progressive.

Conclusion

Psychopharmacological agents are a reality and a necessity in psychiatric care. In fact, the prescription rates for psychopharmaceutic agents have risen greatly over the last few decades (Cavalucci, 2007). Medication can be a blessing for many psychopathological conditions, most notably for psychoses and bipolar disorders where treatment without medication is unthinkable today. In many other instances, psychopharmacological agents compete with psychological treatment (e.g., sleep problems, anxiety, depression, PTSD), and there also are good examples where drugs and psychotherapy can enhance each other's effects (depression, ADHD).

We believe the closing quotation is well placed here because it poignantly describes how most clinical psychologists see themselves and their role when it comes to the treatment of psychopathological conditions:

"Pills don't give skills".

(Anonymous)

Some (Sobering) Ongoing Considerations

Another important issue for the question of psychological versus drug treatment is simply affordability. Certain drugs no longer have patent protection, and long-term use can therefore be quite inexpensive. On the other hand, the cost of drugs varies extraordinarily even within the same class of treatment like antipsychotic medications where unfortunately the most-easy-to-tolerate antipsychotics also tend to be most expensive. In most Western countries, medications are fully or partly paid for by health insurance companies whereas only a fraction of people, even in rich Western countries, have full third-party coverage for professional psychological services. Therefore, affordability alone sometimes determines the choice of the first-line psychiatric treatment that is offered and received, with psychoactive drugs often winning this decision. We do anticipate that in the long run psychologists and physicians will

collaborate in designing clinical treatment paths where pharmacological agents and psychological therapies will work together for maximally cost-effective patient benefit. For example, prescription drugs may be used to kick-start treatment and the pharmacological agent will be weaned as nondrug treatments come into play.

Key Terms Learned

Adverse effects, 414
Compendium of Pharmaceuticals and Specialties (*CPS*), 413
Dependence, 414
Half-life, 414
Potentiation and synergism, 414
Psychoactive drugs, 410
Psychopharmacology, 410
Side effects, 414
Tolerance, 414
Toxicity, 414
Trade names, 412
Withdrawal, 414

Thinking Questions

1. What do you feel about prescription privileges for psychologists?

2. Is pharmacotherapy the enemy of or the competition for psychological therapies?

3. How much should clinical psychologists know about psychopharmacology?

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Web-based resource

A highly recommended, user-friendly website about medications (intended uses, adverse effects, dosages, pill appearance, etc.) is found under "Medscape" on the Internet (https://reference.medscape.com/).

19 Current Trends and the Future of Clinical Psychology

Chapter Objectives

Closing this book with a chapter on the future of clinical psychology is like forecasting the weather or predicting how the economy will perform. In each case, experts have learned from changes that have occurred over time, try to see the patterns driving such changes, and then complement these efforts with plenty of guesswork and subjective opinion. This chapter will be no different, and we encourage the reader to take it with a grain of salt.

The topics we raise are definitely in current debate (and may have a long history), or they are brewing. The wide range of topics and the vigor of the debate speak to the creativity, drive, and willingness of clinical psychologists to renew the profession. Given that this book is meant to help educate and create sparks in future clinical psychologists like our graduate student Vincent, it is opportune to alert them to the issues and problems that will need to be faced when they start practicing. Not only will Vincent and his colleagues have to *react* to these pending changes, but *alerting* future clinical psychologists early underlines that they are going to benefit greatly by being *proactive* and getting involved in shaping trends rather than merely reacting to them.

The objective of this concluding chapter is to touch on four themes and stimulate thinking and discussion. These four themes are:

- The implications of global changes in the demographics of an aging population and its consequences for health care delivery.
- Ongoing issues around training and the place of psychologists in the health care system (i.e., issues of turf), which includes discussion of the hot topic of prescription privileges for psychologists.
- Challenges and opportunities arising from the increasing role the Internet plays regarding the practice of clinical psychology.
- The growth of the positive psychology movement.

Health Care System Changes to Accommodate Aging Populations

The last century has seen dramatic improvements in health care, and the pace of change appears to have accelerated over the last few decades. A number of important trends are converging that together place massive strains on existing health care systems. On the one hand, this includes good news: Life expectancy continues to increase and is now in the range of 80–85 years in Western countries. These improvements in longevity are largely attributable to the almost complete eradication of many previously mortal childhood diseases like the measles, effective treatment of infectious diseases at all ages, but also improvements in the quality and efficacy of care for many other prevalent diseases, in particular, cardiovascular disease and cancer. The latter two cause roughly two-thirds of the deaths in the United States and Canada (www.benbest.com/lifeext/causes.html). Nevertheless, although annual mortality due to heart disease and cancer has decreased, the frequency remains high, and for cancer, the incidence is unfortunately increasing (www.bccancer.bc.ca/NR/rdonlyres/95E7EFA1-57A4-4BA6-A3B4-4A1C661A9E1F/25076/IncidenceAllCancers1.pdf).

One consequence of the improvements in medical care is a mixed blessing, namely, that individuals stay alive today even when afflicted with diseases that might have led to accelerated death just a few decades ago. Unfortunately, this also means that there is a growing segment of the population with chronic, often debilitating diseases; their quality of life is frequently poor due to pain, reduced mobility, and/or loss of function. These aging individuals need a great deal of expensive medical care to manage their symptoms (Boult et al., 2009). In fact, the practice of family medicine is dominated by symptom management in older patients with chronic diseases. Considering the large number of deaths due to controllable behavior, clinical psychologists have much to offer to the health care system (see Table 19.1, and Johnson & Radcliffe, 2008; see also Chapter 17).

In Chapter 13 we have challenged the wisdom and desirability of a narrow focus on lowering mortality as the endpoint for medical and psychological interventions in older people. Patients themselves have indicated that they do not want to have their lives extended at all cost but seek quality of life and dignity instead. For example, it has been shown that

TABLE 19.1 Frequency of Behavioral Causes of Death: US Data, 2008

Cause of Death	*Per Year*
Tobacco	400,000
Diet/physical inactivity	300,000
Alcohol consumption	100,000
Microbial agents	90,000
Toxic agents	60,000
Firearms	35,000
Unsafe sexual behavior	30,000
Motor vehicle accidents	25,000
Use of illicit drugs	20,000

over 90% of gravely ill older patients who are sufficiently lucid to make their own health care decisions will refuse to participate in any dramatic (and likely expensive) medical treatment that simply maintains an incurable and painful disease for just a few months more (Malloy, Urbanyi, Horsman, Guyatt, & Bédard, 1992). This realization has led to the burgeoning area of research on **living wills** and **advanced directives**, where older patients are increasingly permitted, and even encouraged, to clearly express their personal wishes for the palliative stage of a degenerative disease (You et al., 2014). Often it is patients themselves who trigger and define this process. It is estimated that more than half of all the dollars spent on a person's health care in a lifetime is spent during his last year of life and advanced directives may be excellent tools to maintain dignity and still reduce costs. Given the cost of high-tech medical care and aging patients' general lack of interest in it, we predict that much more attention will be paid in the future to personalized, emotional support in palliative care that is delivered in the dignity of patients' own homes. Supported home care reflects a true win-win scenario because it reduces the financial burden on the health care system while actually giving patients what they ask for, namely, more dignity rather than more technology (Maksoud, Jahnigen, & Skibinski, 1993; Molloy et al., 2000).

Arguably, Western countries have reached the point where technical advances in medical care allow for improved patient care but the ability of these countries to actually pay for these expensive services has not followed suit. There is a widening gap between what can be done and what is actually accessible and affordable to the average citizen. Together, these health care trends lead to the realization that a growing portion of health care dollars will need to be spent on an aging population that makes up a steadily growing segment of the population. We posit that gerontology is the science and professional specialty of the future.

Partly driven by aging populations, all Western countries have seen frightening increases in needed health care expenditures to the point where they represent a major economic threat. At the very top of the list of big spenders in health care is the United States of America where health care expenditures make up over 17% of the country's gross national product (www.southsearepublic.org/story/2005/8/29/05538/332315). How and at what cost health care is delivered is a political hot potato, especially in the US. When Barack Obama became president at least 18% of US citizens had no health insurance at all, primarily because they could not afford to pay the premiums (www.org/facts/coverage.shtml). With the introduction of the Affordable Care Act, this situation had greatly improved; however, with the new (2017) Republican administration this may change yet again. Other countries with a similar style of life and high prosperity have succeeded in keeping their expenditure for health care at or below 10–12% of gross national product (www.southsearepublic.org/story/2005/8/29/05538/3323).

Nevertheless, even in these countries, health care expenditures are heavily scrutinized and are threatening to choke national economies. All Western countries are continuously looking for ways to provide better health care at the same cost, or preferably, at lower cost. Given that such a large proportion of health care expenditure is related to behavioral factors, psychologists are well placed to play pivotal roles in the future of health care, and psychologists' skills, if widely applied, may significantly impact the economics of health care. Consistent with this reasoning, clinical psychologists need to consider whether or not current training models are properly preparing them for this future. Linden, Moseley, and Erskine (2005) have called for review and revision of training models to prepare the profession for the future. In particular, it is recommended that clinical psychologists be trained to apply their skills outside their usual offices and to provide services not only in a one-on-one fashion. The section "Clinical Psychology, Computers, and the Web" (later in this chapter)

IMAGE 19.1 Clinical Psychology Has a Lot to Offer for the Future of Health Care
Shutterstock photo 15031 1492 019

provides numerous examples of where and how clinical psychologists can "step outside their offices" to provide innovative and cost-effective services. Given the long and comprehensive training of clinical psychologists (Murdoch, Gregory, & Eggleton, 2014), they are well prepared to serve as consultants to many aspects of the health care system, ranging from prevention to treatment and rehabilitation, embracing mental health and physical applications (see Table 19.1 and Chapter 17).

Trends in Clinical Training

For well over half a century the predominant training model in clinical psychology has been the scientist-practitioner model that was first defined in a conference in the city of Boulder (Raimy, 1950) and has since then been dubbed the **Boulder model** (see also Chapter 1 of this book). As the title suggests, clinical psychologists are seen as wearing two hats or carrying dual aspirations that are meant to be closely integrated with each other. The emphasis on science was brought in because the attendees at the Boulder conference had recognized that clinical psychology was so young that it had a limited research base to draw from. It was deemed necessary to train practitioners in science, so that they can understand and apply the available empirical evidence as well as use all of their learning experiences to expand the scientific basis itself. Both the scientist and the practitioner roles were meant to nurture each other, and it is difficult to find a principal flaw in this thinking. Nevertheless, it is expensive to train students in both skill sets, and the Boulder model has therefore been considered an idealistic view of the profession. Since the Boulder conference, the knowledge base available to clinical psychologists has dramatically grown as, for example, the long lists of empirically

validated therapies presented and discussed in Chapters 11–13 have shown. Along with this growth of scientific knowledge supporting the practice of clinical psychology has been the ongoing debate about the best training models. These changes have fueled the creation of practitioner-oriented training programs, most of which operate on a cost-recovery basis and provide their graduates with PsyD degrees. Now, some 60 years later, it may be time to raise the question of whether all practitioners still need to be trained as potential creators of scientific evidence. If we followed the model of medical school training, then the typical practitioner would no longer be extensively trained in creating more scientific knowledge. A counter-position would be to see the scientist-practitioner orientation as so pivotal to our professional identity that major changes would be disorienting and maybe even self-destructive. The authors of this textbook encourage this debate but do not hold strong views for either stance themselves because they see the validity of the pro and the con arguments as being similar in weight.

Another trend that has fueled major changes in training models has been the economics of training and the issue of supply and demand. Academic programs that follow the Boulder model train very small numbers of students, usually fewer than 10 per year, and are therefore expensive to operate. Given these small numbers, academic training programs may not be able to supply the market with enough needed practitioners. Furthermore, it is routine that clinical psychology programs in academic departments of psychology receive more applications for each available training spot than any other program in their department. In consequence, large numbers of students are refused admission and find themselves thwarted in their desire to receive training as a clinical psychologist. This has also spurred the growth of freestanding PsyD programs and has encouraged nonclinical psychology graduates with somewhat of a patchwork of training experiences to still go out there and market themselves as practitioners (Linden et al., 2005; Linden, 2015). In order to do justice to future patient populations and assure patient safety, licensing and other regulatory bodies in psychology have moved to defining core competencies (rather than a specific academic degree) that applicants need to possess before they can be licensed to practice. Ultimately, the regulation of training and licensing ought to be driven by the supply and demand of the job market and should include dialogue and collaboration of governments, the universities that train clinical psychologists, and the colleges of psychologists that regulate their practice. Unfortunately, many governments do not do human resource forecasting and subsequently fail to integrate this knowledge into the funding of training programs.

A highly innovative approach to training and licensing has recently been undertaken in Québec, Canada. Here, the licensing body, L'Ordre des psychologues du Québec (OPQ), has joined forces with the universities and government to move toward a minimum standard of doctoral level training (www.ordrepsy.qc.ca/fr/psychologue/devenir.html). This licensing body no longer trains individuals or licenses psychologists to begin their practices with only master's-level training. These dialogues have been critically influenced by a government assessment of the future need for psychologists, which had projected a large need for psychologists that was not met by the universities.

Another major trend in clinical psychology, already described in Chapters 1 and 2, has been the massive shift from practicing clinical psychology in employed positions to private practice models (Cantor & Fuentes, 2008). Henceforth, graduate students in clinical psychology need training in how to set up a private practice and how to run their profession as a business. This represents a challenge to the university faculty who train psychologists because faculty are employees and are unlikely trained to run a business. Similarly, there is widespread agreement that the typical 1-year internship is critical for preparedness for

independent practice, yet almost all such internships occur in hospital-type environments although this environment no longer represents the setting that the majority of clinical psychologists will end up practicing in. To prepare students for careers as independent business operators, the best training model might be internship training programs that are integrated with clinical psychology practices and that are operating outside of hospitals. At the current time, such training is rare, and those attempting to implement it will encounter challenges. In private practice most patients pay directly for services, and they may not want to be seen by students or residents. Also, there is lots of variety in how private practices are run; some are very narrow in focus, and in order to function as internship training programs, these practices would have to be broad in focus and operate on agreed-on models of cost-efficient practice. Whether or not that is logistically possible remains to be seen.

Prescription Privileges

The practice of medicine is protected by law, and it is relatively easy to define medical practice as the prescription of medications and any form of surgery or injection of needles into people. In almost all jurisdictions, clinical psychologists are not allowed to prescribe medications. Interestingly, and unknown to many people, senior nursing practitioners in outlying areas are permitted to prescribe medications under certain conditions (www.ordrepsy.qc.ca/fr/psychologue/devenir.html). Clinical psychologists have challenged authorities to consider opening up the question of psychotropic medication prescription privileges to professionals other than physicians. Details on the history and outcome of this process as well as underlying issues regarding our professional self-definition have already been provided in Chapter 18.

Clinical Psychology, Computers, and the Web

The advent of computers and the Internet has revolutionized the world. Although this is strong language, we posit that there is no disagreement anywhere about this boisterous claim. Inevitably, this new technology spills over to the practice of clinical psychology as well. But, is it a constructive development?

Our graduate student Vincent and the three practicing psychologists no longer go to the library to search for hours and hours in the library stacks. An extraordinary amount of information is literally at their fingertips while sitting in front of a computer hooked up to the Internet, and especially to the local electronic library system. Both authors of this book began their careers spending endless hours in the library tracking journal articles, making expensive photocopies, and returned home with heavily smudged hands from ink that did not stick to the paper. Now, we don't need to leave our offices to conduct massive searches that will return 2,000 relevant references in 5 minutes or less. Mind you, this search strategy is great for speed and comprehensiveness in that it gives masses of information but the paring-down process to the maybe 50 articles that we actually need still requires time and analytical skill.

This section will touch on the advantages and disadvantages of this electronic revolution. Undisputed is the tremendous time saving inherent in Internet access for data searches. Both clients and psychologists now have similar access to web-based information, and patients are likely to come to psychologists' offices having some idea of what's wrong with them.

IMAGE 19.2 Physicians Now Have to Compete with the Internet
Glasbergen, reprinted with permission.

Complex personality tests like the Minnesota Multiphasic Personality Inventory 2 (MMPI-2) or Personality Assessment Inventory (PAI) that were presented in Chapter 7 can now be scored on the computer, and there are even computer programs that provide a narrative interpretation of the findings. Patients can sign on to support groups that meet only on the Internet (Stephen et al., 2017) or can download programs for self-help treatments.

A review of usage patterns of online support groups revealed that patients with debilitating diseases that present physical mobility challenges like chronic fatigue or multiple sclerosis and patients with illnesses that are stigmatized (like HIV/AIDS status) are the most likely users (Davison, Pennebaker, & Dickerson, 2000). Of course, people in outlying areas

may be able to access services via the Internet that are otherwise not available to them at all (Stambor, 2006). The physical distance inherent in treatment that is not direct, one-on-one, does come at some cost. Rees and Stone (2005), for example, observed that therapist empathy ratings obtained in a videoconference format were almost a full standard deviation lower than those obtained when one-on-one therapy was delivered in an office. As such it is remarkable that the benefits for patients using Internet therapies are largely the same as those for direct one-on-one treatment (e.g., Kuester, Niemeyer, & Knaevelsrud, 2016; see also Chapter 13 in this book).

The difficulty with making standardized self-help programs useful to individuals in varying circumstances can be countered with program tailoring. Using decision trees, computer programs can identify readiness and stage of change as well as focus on specific targets that are in need of intervention for one given individual. Tailored treatment increases the efficacy of an intervention and the satisfaction with and completion rates of a treatment program (Ryan & Lauver, 2002; Kaufmann, 2007).

Table 19.2 summarizes the advantages and disadvantages of computers and Internet applications and uses within clinical psychology.

Earlier in the book (Chapter 13) and in the section above we provided evidence that e-therapy is in general effective. Nevertheless, such a broad claim needs to be placed under a microscope to identify the conditions when it works best and clarify how it remains different from one-on-one therapy (Danaher & Seeley, 2009). A diligent meta-analysis of computer-delivered interventions for changing unhealthy behaviors can answer a number of critical questions. Portnoy, Scott-Sheldon, Johnson, and Carey (2008) studied the results of 75 trials on computer-delivered interventions on a wide range of targets, namely, obesity, nutrition, exercise, tobacco use, safe sex, health maintenance, and eating disorders. The observed effect sizes for pre-post changes were comparatively small, ranging from $d = .05$ to $d = .36$. Interestingly, the effects on knowledge

TABLE 19.2 Advantages and Disadvantages of Using the Web

Domain	*Advantages*	*Disadvantages*
Literature search for scientific facts about disease etiologies, diagnoses, and treatments	Tremendous time savings and greater transparency in available information	User must be sophisticated in differentiating possibly biased commercial websites from web information that is more objective/free of commercial interests
Diagnoses	Time and cost savings	Overstandardization may lead to laziness and loss of context information
Treatment	Access to self-help information not otherwise available due to financial and/or geographic reasons	Internet information is not sufficient for individual case formulation Maintenance of confidentiality is difficult and may require sophisticated users and encryption technologies

and attitude were equally strong as were the effects seen for actual behavior change. The strongest benefits were seen for safe sex behaviors, tobacco use, and knowledge acquisition, whereas physical activity and weight loss saw essentially no impact. Also, there was a dose-response relationship in that the more sophisticated, tailored programs tended to produce larger effects. One may be disappointed with these observed effect sizes, but we posit that a replicable small effect of d = .2 or .3 for relevant behavior change obtained with a very inexpensive treatment is a major cost-efficient addition to the tools needed for population-wide health behavior changes.

Research in Clinical Psychology

Although there are almost an infinite number of directions for research in this field, recently, Roberts and Ilardi (2006) have described several directions that they believe are particularly relevant, and we share their views. They suggest the following:

1. Research on the formulation and dissemination of the development of novel interventions and assessment strategies as well as demonstration of the reliability and validity of these clinical endeavors. There are always new or renewed treatments and treatment elements that are developed or offered in the literature. For example, we have described various newer treatment approaches in the therapy chapters that need to be shown to be effective. Moreover, numerous traditional treatments that have been used for many years need to be evaluated appropriately. Future research needs to focus on these treatments to demonstrate their efficacy, efficiency, utility, and assessment procedures.
2. Establishment of the specific and nonspecific active ingredients in the treatment approaches. Questions as to what it is that facilitates change still have not been answered. It is important to understand and demonstrate what it is about psychotherapeutic experiences that is helpful to people. For example, after decades of psychotherapy research, it is still the case that nonspecific factors, rather than specific techniques, often account more for good outcome in treatments.
3. Advantages and disadvantages of pharmacological and psychological interventions. As there is an ease with which medications can be dispatched to reduce symptoms and a rather warm reception by much of the public for what is viewed as a quick treatment for various psychological difficulties, it is important to delineate and understand the differences between drug and psychotherapy approaches to treatment. This knowledge is particularly relevant as the number of clinical psychologists prescribing medication increases. It is imperative to have a good empirical basis for the choice of medication versus psychotherapy or for a combined medication and psychotherapy approach.
4. Integration of neuroscience methods and theories to aid in understanding psychological disorders. With this last point, we would suggest that all human behavior is represented in the central nervous system, and, as technology increases, the ability to use newer forms of technology to understand psychological processes in clinical psychology also increases. One domain where this is evident is neuroimaging, and there is much literature that identifies brain differences among individuals with or without certain types of psychopathology. There seem to be incredible possibilities for understanding many

psychological processes that have been traditionally assigned to "the mind" and often thought to be inaccessible via imaging techniques. For example, Howard Shevrin (2006) has described procedures from neuroscience to help understand unconscious processes germane to clinical issues. Certainly, the technological advances that have occurred and advances that we can anticipate in the future will influence the kinds of psychological constructs available for research.

Positive Psychology and Spirituality

Clinical psychology has at times been accused of being too closely allied with medicine and as having adopted a "deficit model." This underlying value then leads to a treatment approach that stops when the disease has been treated and the patient is back to neutral. To counterbalance this slanted view of the world, a number of psychologists, especially those with social psychological and personality expertise, have been advancing the **positive psychology** movement. The challenge for clinical psychology is to expand its self-definition and move away from the mere alleviation of distress and misery (Duckworth, Steen, & Seligman, 2004). Treatment models in the stress-management domain were among the first to adopt this more balanced approach and suggest that the use of humor, systematic building of social support networks, forgiveness, and gratefulness are good ways to expand stress-management packages (Linden, 2005). Similarly, the introduction of positive affect has been shown to reduce anxiety and depression (Taylor, Lyubomirski, & Stein, 2017). All these treatment elements are meant to create a counterbalance such that many stressors may be unfixable whereas the addition of pleasure is under the patient's control and may weaken the salience of the stressor. A particularly good use of such an approach has already been suggested for pain control in patients with chronic pain conditions (see Chapter 17).

At a theoretical level, it has been proposed that happiness results from three core subconstructs: pleasure, engagement, and meaning (Duckworth et al., 2004), and there is now vigorous research activity around the development and evaluation of interventions geared toward increasing happiness and meaning (Taylor et al., 2017). At the current time, the field is too new to allow strong conclusions about the degree of effectiveness of positive psychology interventions, but we anticipate explosive growth in this area. A caveat is that medical insurance companies may not want to pay for making people happy; for them it might be expensive enough to alleviate obvious signs of disease!

Conclusion

This chapter contained a mix of facts and opinions, and the authors' opinions about trends in the field may not be ideally suited for rote-memorization and repetition on a test. On the other hand, they reflect overarching and very important questions in the clinical psychology field that are hotly debated at professional conferences, in journals, and at after-hours meetings of psychologists over a drink or at dinner. Especially with regard to the topics discussed in this chapter, we challenge you to write to us a few years down the road and tell us that we were "out to lunch" or maybe dead-on. In either case, we want to know.

Key Terms Learned

Advanced directives, 425
Boulder model, 426
Living wills, 425
Positive psychology, 432

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