



CHAPTER 1

Abnormal Psychology over Time

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Abnormal psychology is concerned with understanding the nature, causes, and treatment of mental disorders. The topics and problems within the field of abnormal psychology surround us every day. You have only to pick up a newspaper, flip through a magazine, surf the Internet, or sit through a movie to be exposed to some of the issues that clinicians and researchers deal with on a daily basis. Almost weekly some celebrity is in the news because of a drug or alcohol problem, an eating disorder, or some other psychological difficulty. Bookstores are full of personal accounts of struggles with schizophrenia, depression, phobias, and panic attacks. Films such as *A Beautiful Mind* portray aspects of abnormal behavior with varying degrees of accuracy. And then there are the tragic news stories of mothers who kill their children, in which problems with depression, schizophrenia, or postpartum difficulties seem to be implicated.

The issues of abnormal psychology capture our interest, demand our attention, and trigger our concern. They also compel us to ask questions. To illustrate further, let's consider two clinical cases.

case STUDY

Monique

Monique is a 24-year-old law student. She is attractive, neatly dressed, and clearly very bright. If you were to meet her, you would think that she had few problems in her life; but Monique has been drinking alcohol since she was 14, and she smokes marijuana every day. Although she describes herself as “just a social drinker,” she drinks four or five glasses of wine when she goes out with friends and also drinks a couple of glasses of wine a night when she is alone in her apartment in the evening. She frequently misses early morning classes because she feels too hungover to get out of bed. On several occasions her drinking has caused her to black out. Although she denies having any problems with alcohol, Monique admits that her friends and family have become very concerned about her and have suggested that she seek help. Monique, however, says, “I don't think I am an alcoholic because I never drink in the mornings.” The previous week she decided to stop smoking marijuana entirely because she was concerned that she might have a drug problem. However, she found it impossible to stop and is now smoking regularly again.

case STUDY

Donald

Donald is 33 years old. Although Donald is of relatively high intelligence, he has never been employed for more than a few days at a time, and he currently lives in a sheltered

community setting. Donald has brief but frequent periods when he needs to be hospitalized. His hospitalizations are triggered by episodes of great agitation during which Donald hears voices. These voices taunt him with insulting and abusive comments. In most social situations, Donald is socially inappropriate, awkward, and painfully unsure of himself.

In his mid-teenage years, Donald began to withdraw socially from his friends and family. At 17, he suddenly, without any obvious trigger, began to hear voices. At that time he was stubbornly insistent that the voices were coming—with malicious intent—from within a neighbor's house, transmitted electronically to the speakers of the family television. More recently he has considered the possibility that he somehow produces the voices within himself. During periods of deterioration, Donald can be heard arguing vehemently with the voices. The rest of the time he appears to be reasonably able to ignore them, although the voices are never entirely absent for sustained periods.

Prior to his breakdown, Donald had lived a relatively normal middle-class life. Reasonably popular among peers, he showed considerable athletic prowess and earned passing grades in school, although he often seemed inattentive and preoccupied. There was no evidence of his ever having abused drugs.

Perhaps you found yourself asking questions as you read about Monique and Donald. For example, because Monique doesn't drink in the mornings, you might have wondered whether she could really have a serious alcohol problem. She does. This is a question that concerns the criteria that must be met before someone receives a particular diagnosis. Or, perhaps you wondered whether other people in Monique's family likewise have drinking problems. They do. This is a question about what we call **family aggregation**—that is, whether a disorder runs in families. No doubt you were also curious about what is



Fergie has spoken about her past struggles with substance abuse, specifically crystal meth.

wrong with Donald and why he is hearing voices. Donald suffers from schizophrenia. Also, as Donald's case illustrates, it is not unusual for someone who develops schizophrenia to appear perfectly normal before suddenly becoming ill.

These cases, which describe real people, give some indication of just how profoundly lives can be derailed because of mental disorders. It is hard to read about difficulties such as these without feeling compassion for the people who are struggling. Still, in addition to compassion, clinicians and researchers who want to help people like Monique and Donald must have other skills. If we are to understand mental disorders, we must learn to ask the kinds of questions that will enable us to help the patients and families who suffer from mental disorders. These questions are at the very heart of a research-based approach that looks to use scientific inquiry and careful observation to understand abnormal psychology.

Asking questions is an important aspect of being a psychologist. Psychology is a fascinating field, and abnormal psychology is one of the most interesting areas of psychology (although we are undoubtedly biased). Psychologists are trained to ask questions and to conduct research. Though not all people who are trained in abnormal psychology (this field is sometimes called “psychopathology”) conduct research, they still rely heavily on their scientific skills to ask questions and to put information together in logical ways. For example, when a clinician first sees a new client or patient, he or she asks many questions to try and understand the issues related to that person. The clinician will also rely on

current research to choose the most effective treatment. The “best treatments” of 20, 10, or even 5 years ago are not invariably the best treatments of today. Knowledge accumulates and advances are made. And research is the engine that drives all of these developments.

In this chapter, we describe the ways in which abnormal behavior is defined and classified so that researchers and mental health professionals can communicate with each other about the people they see. We also outline basic information about the extent of behavioral abnormalities in the population at large.

We will then look back briefly—before we look forward—to see how abnormal behavior has been viewed and treated from the early times to the present. Finally, we will examine how researchers study abnormal behavior—the methods psychologists and other mental health professionals use to uncover information.

You will notice that a large section of this chapter is devoted to research. Research is at the heart of progress and knowledge in abnormal psychology. The more you know and understand about how research is conducted, the more educated and aware you will be about what research findings do and do not mean.

WHAT DO WE MEAN BY ABNORMALITY? ●●●

It may come as a surprise to you that there is still no universal agreement about what is meant by *abnormality* or *disorder*. This is not to say we do not have definitions; we do. However, every definition provided so far has proved to be flawed in some way (Maddux et al., 2005). Nonetheless, there is still much agreement about which conditions are disorders and which are not (Spitzer, 1999). How do we manage this? In part, the answer lies in the fact that there are some clear elements of abnormality (Lilienfeld & Marino, 1999; Seligman et al., 2001). We can use these in a “prototype” model of abnormality. No one element of abnormality is sufficient in and of itself to define or determine abnormality. However, the more that someone has difficulties in the following areas, the more likely he or she is to have some form of mental disorder.

1. Suffering: If people suffer psychologically, we are inclined to consider this as indicative of abnormality. Depressed people clearly suffer, as do people with anxiety disorders. But what of the patient who is manic and whose mood is one of elation? He or she may not be suffering. In fact, many such patients dislike taking medications because they do not want to lose their manic “highs.” You may have a test tomorrow and be suffering with worry. But we would hardly label your suffering abnormal. Although suffering is an element of abnormality in many cases, it is neither a sufficient condition (all that is needed) nor even a necessary condition (that all

cases of abnormality must show) for us to consider something as abnormal.

2. Maladaptiveness: Maladaptive behavior, which interferes with our well-being and our ability to enjoy our work and relationships, is often an indicator of abnormality. The person with anorexia may restrict her intake of food to the point where she becomes so emaciated that she needs to be hospitalized. The person with depression may withdraw from friends and family, and may be unable to work for weeks or months. However, not all disorders involve maladaptive behavior. Consider the con artist with antisocial personality disorder. He may be able to talk people out of their life savings, but is this behavior maladaptive? Not for him, because it is the way he makes his living. We consider him abnormal, however, because his behavior is maladaptive for and toward society.

3. Deviancy: Simply considering statistically rare behavior to be abnormal does not provide us with a solution to our problem of defining abnormality. Genius is statistically rare, as is perfect pitch. However, we do not consider people with such uncommon talents to be abnormal in any way. On the other hand, mental retardation (which is also statistically rare and represents a deviation from normal) is considered to reflect abnormality. This tells us that in defining abnormality, we make value judgments. If something is statistically rare and undesirable (as is mental retardation), we are more likely to consider it abnormal than something that is statistically rare and highly desirable (such as genius) or something that is undesirable but statistically common (such as rudeness).

4. Violation of the Standards of Society: All cultures have rules. Some of these are formalized as laws. Others form the norms and moral standards that we are taught to follow. Although many social rules are arbitrary to some extent, when people fail to follow the conventional social and moral rules, we may consider their behavior abnormal. Of course, much depends on the magnitude of the violation and on how commonly it is violated by others. For example, most of us have parked illegally at some point. This failure to follow the rules is so statistically common that we tend not to think of it as abnormal. On the other hand, when a mother drowns her children, there is instant recognition that this is abnormal behavior.

5. Social Discomfort: When someone violates a social rule, those around him or her may experience a sense of discomfort or unease. Imagine that you are sitting in an almost empty movie theater. There are rows and rows of unoccupied seats. Then someone comes in and sits down right next to you. How do you feel? In a similar vein, how do you feel when someone you met only 4 minutes ago begins to chat about her suicide attempt? Unless you are a therapist working in a crisis intervention center, you would probably consider this an example of abnormal behavior.

6. Irrationality and Unpredictability: As we have already noted, we expect people to behave in certain ways. Although



As with most accomplished athletes, Venus and Serena Williams' physical ability is "abnormal" in a literal and statistical sense. Their behavior, however, would not be labeled as being "abnormal" by psychologists. Why not?

a little unconventionality may add some spice to life, there is a point at which we are likely to consider a given unorthodox behavior abnormal. If a person sitting next to you suddenly began to scream and yell obscenities at nothing, you would probably regard that behavior as abnormal. It would be unpredictable, and it would make no sense to you. Perhaps the most important factor, however, is our evaluation of whether the person can control his or her behavior. Few of us would consider a roommate who began to recite speeches from *King Lear* to be abnormal if we knew that he was playing *Lear* in the next campus Shakespeare production—or even if he was a dramatic person given to extravagant outbursts. On the other hand, if we discovered our roommate lying on the floor, flailing wildly, and reciting Shakespeare, we might consider calling for assistance if this was entirely out of character, and we knew of no reason why he should be behaving in such a manner.

Finally, we should note that decisions about abnormal behavior involve social judgments. In other words, these decisions are based on the values and expectations of society at large. Because society is constantly shifting and becoming more or less tolerant of certain behaviors, what is considered abnormal or deviant in one decade may not be considered abnormal or deviant a decade or two later. At one time, homosexuality was classified as a mental disorder. But this is no longer the case. And 20 years ago, pierced noses and navels were regarded as highly deviant and prompted questions about a person's mental health. Now, however, such adornments are quite commonplace, are considered fashionable by many, and generally attract little attention. What other behaviors can you think of that are now considered normal but were regarded as deviant in the past?



Tattoos, which were once regarded as highly deviant, are now quite commonplace and considered fashionable by many. Angelina Jolie has several.



Pete Wentz, front man of band Fall Out Boy and husband of Ashlee Simpson, sporting his signature "guyliner."

The DSM-IV Definition of Mental Disorder

In the United States, the accepted standard for defining various types of mental disorders is the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, fourth edition*, commonly referred to as the DSM-IV. This edition was published in 1994 and was subsequently revised in 2000. This most recent edition of the DSM is known as "DSM-IV-TR" (the TR stands for text revision). Table 1.1 summarizes the current DSM-IV definition of a mental disorder.

As you can see, this diagnostic manual does not refer to the causes of mental disorders, known as "**etiology**." Instead, the DSM attempts to be "atheoretical": impartial to any specific theory of causality. It further carefully rules out, among other things, behaviors that are culturally sanctioned, such as (depressive) grief following the death of a significant other. The text of the DSM is also careful to assert that mental disorders are always the product of

"dysfunctions," which in turn reside within an individual, not in a group.

Despite widespread acceptance, the DSM definition of mental disorder still has problems. Within the DSM, a mental disorder is conceptualized as a clinically significant behavioral or psychological syndrome that is associated with distress or disability. But what is meant by the term "clinically significant" and how should this be measured? Similarly, how much distress or disability is needed to warrant a diagnosis of a mental disorder? Who determines what is "culturally sanctioned"? And what exactly constitutes a "behavioral, psychological, or biological dysfunction"? Obviously, the problematic behavior cannot itself be the "dysfunction," for that would be a definition based on circular reasoning, with a dysfunctional behavior being evidence for a dysfunction.

In an effort to address problems with the definition found in the DSM, Wakefield (1992a, 1992b, 1997) proposed the idea of mental disorder as "harmful dysfunction." In his own definition, Wakefield classifies "harm" in terms

TABLE 1.1

DSM-IV Definition of Mental Disorders

- A clinically significant behavioral or psychological syndrome or pattern
- Associated with distress or disability (i.e., impairment in one or more important areas of functioning)
- Not simply a predictable and culturally sanctioned response to a particular event (e.g., the death of a loved one)
- Considered to reflect behavioral, psychological, or biological dysfunction in the individual

(Adapted from American Psychiatric Association, DSM-IV, 2000, p. xxi)

of social values (e.g., suffering, being unable to work, etc.). And he considers “dysfunction” within an evolutionary perspective in which some underlying mechanism fails to perform according to its (presumably evolutionary) “design” (see Clark, 1999).

One merit of Wakefield’s approach is his acknowledgment of the role played by social values in the definition of a mental disorder. He also attempts to use scientific theory (the theory of evolution) in his conception of diagnosis. Nonetheless, there are still various logical and philosophical failings with his proposed solution (e.g., Lilienfeld & Marino, 1999; Maddux et al., 2005). For example, how are we to know if a problematic behavior is really caused by a *dysfunction*? Evolutionary theory does not provide us with a convenient list of functional versus dysfunctional behavior. Moreover, it seems rather unlikely that we may in the future be able to pinpoint a distinct underlying and presumably biological dysfunction for each of the nearly 300 DSM diagnoses. In short, developing a simple and straightforward definition of the term *mental disorder* has turned out to be much more problematic than we might have expected. And our evaluations of what is abnormal still rest heavily on current social norms and values.

Any definition of abnormality or mental disorder must be somewhat arbitrary. The DSM-IV definition is no exception. Rather than thinking of the DSM as a finished product, it should be regarded as a work in progress. The final goal is to have a diagnostic system that classifies disorders not only on the basis of clinical symptoms, but also on the basis of a knowledge of their etiology (causes) and the biological disturbances that are associated with them (see Hyman, 2007). Although still in the future, the results of research studies exploring genetic markers for certain disorders or findings from neuroscience will eventually find their way into the DSM and help to refine our diagnostic criteria. Much thought has already been given to the shortcomings of DSM-IV as we move toward the development of DSM-V (e.g., Clark, 2007; Luyten & Blatt, 2007; Wakefield et al., 2007). As our understanding of different disorders becomes ever more sophisticated, so too will the DSM and its definition of mental disorder.

Why Do We Need to Classify Mental Disorders?

If defining abnormality is so difficult, why do we attempt to do it? One simple reason is that most sciences rely on classification (e.g., the periodic table in chemistry and the classification of living organisms into kingdoms, phyla, classes, and so on, in biology). At the most fundamental level, classification systems provide us with a **nomenclature** (a naming system) and enable us to *structure information* in a more helpful manner.

Organizing information within a classification system also allows us to study the different disorders that we classify and therefore to learn more, not only about what

causes them, but also how they might best be treated. For example, thinking back to the cases you read about, Monique has alcohol and drug dependence, and Donald suffers from schizophrenia. Knowing what disorder each of them has is clearly very helpful, as Donald’s treatment would likely not work for Monique.

A final effect of classification system usage is somewhat more mundane. As others have pointed out, the classification of mental disorders has social and political implications (see Blashfield & Livesley, 1999; Kirk & Kutchins, 1992). Simply put, defining the domain of what is considered to be pathological establishes the range of problems that the mental health profession can address. As a consequence, on a purely pragmatic level, it delineates which types of psychological difficulties warrant insurance reimbursement, and the extent of such reimbursement.

What are the Disadvantages of Classification?

Of course, there are a number of disadvantages in the use of a discrete classification system. Classification, by its very nature, provides information in a shorthand form. However, using any form of shorthand inevitably leads to a *loss of information*. Knowing the specific history, personality traits, idiosyncrasies, and familial relations of a person with a particular type of disorder (e.g., from reading a case summary) gives us much more information than if we were simply told the individual’s diagnosis (e.g., schizophrenia). In other words, as we simplify through classification, we inevitably lose an array of personal details about the actual person who has the disorder.

Moreover, although things are improving, there can still be some **stigma** (or disgrace) associated with having a psychiatric diagnosis. Even today, people are generally far more comfortable disclosing that they have a physical illness such as diabetes than they are in admitting to any mental disorder. This is in part due to the fear (real or imagined) that speaking candidly about having a psychological disorder will result in unwanted social or occupational consequences or in frank discrimination. In spite of the large amount of information that is now available about mental health issues, the level of knowledge about mental illness (sometimes referred to as mental health literacy) is often very poor (Thornicroft et al., 2007).

Related to stigma is the problem of **stereotyping**. Stereotypes are automatic beliefs concerning other people that are based on minimal (often trivial) information (e.g., people who wear glasses are more intelligent; New Yorkers are rude; everyone in the South has a gun). Because we may have heard about certain behaviors that can accompany mental disorders, we may automatically and incorrectly infer that these behaviors will also be present in any person we meet who has a psychiatric diagnosis.

Take a moment to consider honestly your own attitudes toward people with mental disorders. What assumptions do you tend to make? Do you view people with mental illness as less competent, more irresponsible, more dangerous, and more unpredictable? Research has shown that such attitudes are not uncommon (see A. C. Watson et al., 2004). Can you recall movies, novels, or advertisements that maintain such stereotypes? What are some ways in which you can challenge the false assumptions that are so common in the media?

Finally, stigma can be perpetuated by the problem of **labeling**. A person's self-concept may be directly affected by being given a diagnosis of schizophrenia, depression, or some other form of mental illness. How might you react if you were told something like this? Furthermore, once a group of symptoms is given a name and identified by means of a diagnosis, this "diagnostic label" can be hard to shake even if the person later makes a full recovery.

It is important to keep in mind, however, that diagnostic classification systems do not classify people. Rather, they classify *the disorders that people have*. When we note that someone has an illness, we should take care not to define him or her by that illness. Respectful and appropriate language should instead be used. At one time, it was quite common for mental health professionals to describe a given patient as "a schizophrenic" or "a manic-depressive." Now, however, it is widely acknowledged that it is more accurate (not to mention more considerate) to say, "a person with schizophrenia," or "a person who suffers from manic depression." Simply put, the person is not the diagnosis.

How Does Culture Affect What Is Considered Abnormal?

Just as we must consider changing societal values and expectations in defining abnormality, so too must we consider differences across cultures. In fact, this is explicitly acknowledged in the DSM definition of disorder. Within a given culture, there exist many shared beliefs and behaviors that are widely accepted and that may constitute one or more customary practices. For instance, many people in Christian countries believe that the number 13 is unlucky. The origins of this may be linked to the Last Supper, at which 13 people were present. Many of us try to be especially cautious on Friday the 13th. Some hotels and apartment buildings avoid having a 13th floor altogether. Similarly, there is



There is no word for "depressed" in the languages of certain Native American tribes. Members of these communities tend to describe their symptoms of depression in physical rather than emotional terms.

frequently no bed numbered 13 in hospital wards.

The Japanese, in contrast, are not worried about the number 13. Rather, they attempt to avoid the number 4. This is because in Japanese, the sound of the word for "four" is similar to the sound of the word for "death" (see Tseng, 2001, pp. 105–6).

There is also considerable variation in the way different cultures describe psychological distress. For example, there is no word for "depressed" in the languages of certain Native Americans, Alaska Natives, and Southeast Asian cultures (Manson, 1995). Of course, this does not mean that members from such cultural groups do not experience clinically significant depression. As the accompanying case illustrates, however, the way some disorders present themselves may depend on culturally sanctioned ways of articulating distress.

CASE STUDY

Depression in a Native American Elder

JGH is a 71-year-old member of a southwestern tribe who has been brought to a local Indian Health Service hospital by one of his granddaughters and is seen in the general medical outpatient clinic for multiple complaints. Most of Mr. GH's complaints involve nonlocalized pain. When asked to point to where he hurts, Mr. GH indicates his chest, then his abdomen, his knees, and finally moves his hands "all over." Barely whispering, he mentions a phrase in his native language that translates as "whole body sickness." His granddaughter notes that he "has not been himself" recently. Specifically, Mr. GH, during the past 3–4 months, has stopped attending or participating in many events previously important to him and central to his role in a large extended family and clan. He is reluctant to discuss this change in behavior as well as his feelings. When questioned more directly, Mr. GH acknowledges that he has had difficulty falling asleep, sleeps intermittently through the night, and almost always awakens at dawn's first light. He admits that he has not felt like eating in recent months, but denies weight loss, although his clothes hang loosely in many folds. Trouble concentrating and remembering are eventually disclosed as well. Asked why he has not participated in family and clan events in the last several months, Mr. GH

(continued)

describes himself as “too tired and full of pain” and “afraid of disappointing people.” Further pressing by the clinician is met with silence. Suddenly the patient states, “You know, my sheep haven’t been doing well lately. Their coats are ragged; they’re thinner. They just wander aimlessly; even the ewes don’t seem to care about the little ones.” Physical examination and laboratory tests are normal. Mr. GH continues to take two tablets of acetaminophen daily for mild arthritic pain. Although he describes himself as a “recovering alcoholic,” Mr. GH reports not having consumed alcohol during the last 23 years. He denies any prior episodes of depression or other psychiatric problems (Manson, 1995, p. 488).

As is apparent in the case of JGH, culture can shape the clinical presentation of disorders like depression, which are present across cultures around the world (see Draguns & Tanaka-Matsumi, 2003). In China, for instance, individuals who suffer from depression frequently focus on physical concerns (fatigue, dizziness, headaches) rather than verbalizing their feelings of melancholy or hopelessness (Kleinman, 1986; Parker et al., 2001). This focus on physical pain rather than emotional pain is also noteworthy in Mr. GH’s case.

Despite progressively increasing cultural awareness, we still know relatively little concerning cultural interpretation and expression of abnormal psychology (Arrindell, 2003). The vast majority of the psychiatric literature originates from Euro-American countries—that is, Western Europe, North America, and Australia/New Zealand. Among the papers submitted to and published in the six leading psychiatric journals between the years 1996 and 1998, a mere 6 percent were derived from areas of the world where 90 percent of the world’s population actually lives (Patel & Sumathipala, 2001). Published research from less affluent countries is especially rare, and accounted for only 3.7 percent of papers published in leading psychiatric journals from 2002 to 2004 (Patel & Kim, 2007). There is also no evidence that the situation is improving over time. To exacerbate this underrepresentation, research published in languages other than English tends to be disregarded (Draguns, 2001).

Culture-Specific Disorders

Certain forms of psychopathology appear to be highly specific to certain cultures: They are found only in certain areas of the world, and seem to be highly linked to culturally bound concerns. A case in point is *taijin kyofusho*. This syndrome, which is an anxiety disorder, is quite prevalent in Japan. It involves a marked fear that one’s body, body parts, or body functions may offend, embarrass, or otherwise make others feel uncomfortable. Often, people with this disorder are afraid of blushing or

upsetting others by their gaze, facial expression, or body odor (Levine & Gaw, 1995).

Another culturally rooted expression of distress, found in Latino and Latina individuals, especially those from the Caribbean, is *ataque de nervios* (Lopez & Guarnaccia, 2005). The symptoms of an *ataque de nervios*, which is often triggered by a stressful event such as divorce or bereavement, include crying, trembling, uncontrollable screaming, and a general feeling of loss of control. Sometimes the person may become physically or verbally aggressive. Alternately, the person may faint or experience a seizure-like fit. Once the *ataque* is over, the person may promptly resume his or her normal manner, with little or no memory of the incident.

As noted earlier, abnormal behavior is behavior that deviates from the norms of the society in which the person lives (e.g., see Gorenstein, 1992; Scheff, 1984). Experiences such as hearing the voice of a dead relative might be regarded as normative in one culture (e.g., in many Native American tribes), yet abnormal in another cultural milieu. Nonetheless, certain unconventional actions and behaviors are almost universally considered to be the product of mental disorder.

Many years ago, the anthropologist Jane Murphy (1976) studied abnormal behavior by the Yoruba of Africa and the Yupik-speaking Eskimos living on an island in the Bering Sea. Both societies had words that were used to denote abnormality or “craziness.” In addition, the clusters of behaviors that were considered to reflect abnormality in these cultures were behaviors that most of us would also regard as abnormal. These included hearing voices, laughing at nothing, defecating in public, drinking urine, and believing things that no one else believes. Why do you think these behaviors are universally considered to be abnormal?

IN REVIEW

1. Why is abnormality so difficult to define? What characteristics help us recognize abnormality?
2. What is the DSM definition of a mental disorder? What are some of the problems with this definition?
3. In what ways can culture shape the clinical presentation of mental disorders?

HOW COMMON ARE MENTAL DISORDERS? ●●●

How many and what sort of people have diagnosable psychological disorders today? This is a significant question for a number of reasons. Such information is essential when

planning and establishing mental health services. Mental health planners require a precise understanding of the nature and extent of the psychological difficulties within a given area, state, or country, because they are responsible for determining how resources such as funding of research projects or services provided by community mental health centers may be most effectively allocated. It would obviously be imprudent to have a treatment center filled with clinicians skilled in the treatment of anorexia nervosa (a very severe but rare clinical problem) if there were few clinicians skilled in treating anxiety or depression, which are much more prevalent disorders.

Prevalence and Incidence

Before we can further discuss the impact of mental disorders upon society, we must clarify the way in which psychological problems are counted. **Epidemiology** is the study of the distribution of diseases, disorders, or health-related behaviors in a given population. Mental health epidemiology is the study of the distribution of mental disorders. A key component of an epidemiological survey is determining the frequencies of mental disorders. There are several ways of doing this. The term **prevalence** refers to the number of active cases in a population during any given period of time. Prevalence figures are typically expressed as percentages (i.e., the percentage of the population that has the disorder). Furthermore, there are several different types of prevalence estimates that can be made.

Point prevalence refers to the estimated proportion of actual, active cases of the disorder in a given population at a given point in time. For example, if we were to conduct a study and count the number of people who are suffering from major depressive disorder (that is, clinical depression) on January 1st of next year, this would provide us with a point prevalence estimate of active cases of depression. A person who suffered from depression during the months of November and December but who managed to recover by January 1st would not be included in our point prevalence calculation. The same is true of someone whose depression did not begin until January 2nd.

If, on the other hand, we wanted to calculate a **1-year prevalence** figure, we would count everyone who suffered from depression at any point in time throughout the entire year. As you might imagine, this prevalence figure would be higher than the point prevalence figure, because it would cover a much longer time. It would moreover include those people who had recovered before the point prevalence assessment, as well as those whose disorders did not begin until after the point prevalence estimate was made.

Finally, we may also wish to obtain an estimate of the number of people who have suffered from a particular disorder at any time in their lives (even if they are now recovered). This would provide us with a **lifetime prevalence** estimate. Because they extend over an entire

lifetime and include both currently ill and recovered individuals, lifetime prevalence estimates tend to be higher than other kinds of prevalence estimates.

An additional term with which you should be familiar is **incidence**. This refers to the number of *new* cases that occur over a given period of time (typically 1 year). Incidence figures tend to be lower than prevalence figures because they exclude preexisting cases. In other words, if we were assessing the 1-year incidence of schizophrenia, we would not count people whose schizophrenia began before our given starting date (even if they were still ill), because they are not “new” cases of schizophrenia. On the other hand, someone who was quite well previously but then developed schizophrenia during our 1-year window would be included in our incidence estimate.

Prevalence Estimates for Mental Disorders

Now that you have an understanding of some basic terms, let us turn to the 1-year prevalence rates for several important disorders. Three major national mental health epidemiology studies, with direct and formal diagnostic assessment of participants, have been carried out in the United States in recent years. One, the Epidemiologic Catchment Area (ECA) study, focused on sampling citizens of five communities: Baltimore, New Haven, St. Louis, Durham (NC), and Los Angeles (Myers et al., 1984; Regier et al., 1988; Regier et al., 1993).

The second, the National Comorbidity Survey (NCS), was more extensive. It sampled the entire American population using a number of sophisticated methodological improvements (Kessler et al., 1994). A replication of the NCS (the NCS-R) has been completed (Kessler et al., 2004; Kessler, Berglund, et al., 2005a; Kessler & Merikangas, 2004). The most current 1-year and lifetime prevalence estimates of the DSM-IV mental disorders assessed from the NCS-R study are shown in Table 1.2.

TABLE 1.2

Prevalence of DSM-IV Disorders in Adults

	1-Year (%)	Lifetime (%)
Any anxiety disorder	18.1	28.8
Any mood disorder	9.5	20.8
Any substance-abuse disorder	3.8	14.6
Any disorder	26.2	46.4

Source: Kessler, Berglund, et al. (2005a); Kessler, Chiu, et al. (2005).

The lifetime prevalence of having any DSM-IV disorder is 46.4 percent. This means that almost half of the Americans who were questioned had been affected by mental illness at some point in their lives (Kessler, Berglund, et al., 2005a). Although this figure may seem high, it may actually be an underestimate, as the NCS study did not assess for eating disorders, schizophrenia, or autism, for example. Neither did it include measures of most personality disorders. As you can see from Table 1.2, the most prevalent category of psychological disorders is anxiety disorders. The most common individual disorders are major depressive disorder, alcohol abuse, and specific phobias (e.g., fear of small animals, insects, flying, heights, etc.). Social phobias (e.g., fear of public speaking) are similarly very common (see Table 1.3).

Although lifetime rates of mental disorders appear to be quite high, it is important to remember that, in some cases, the duration of the disorder may be relatively brief (e.g., depression that lasts for a few weeks after the breakup of a romantic relationship). Furthermore, many people who meet criteria for a given disorder will not be seriously affected by it. For instance, in the NCS-R study, almost half (48 percent) of the people diagnosed with a specific phobia had disorders that were rated as mild in severity, and only 22 percent of phobias were regarded as severe (Kessler, Chiu, et al., 2005). Meeting diagnostic criteria for a particular disorder—and being seriously impaired by that disorder—are not necessarily synonymous.



Disorders do not always occur in isolation. A person who abuses alcohol may also be depressed or pathologically anxious.

A final finding from the NCS-R study was the widespread occurrence of **comorbidity** among diagnosed disorders (Kessler, Chiu, et al., 2005). *Comorbidity* is the term used to describe the presence of two or more disorders in the same person. Comorbidity is especially high in people who have severe forms of mental disorders. In the NCS-R study, half of the individuals with a disorder rated as serious on a scale of severity (mild, moderate, serious) had two or more additional disorders. An illustration of this would be a person who drinks excessively and who is simultaneously depressed

and suffering from an anxiety disorder. In contrast, only 7 percent of the people who had a mild form of a disorder also had two or more other diagnosable conditions. What this indicates is that comorbidity is much more likely to occur in people who have the most serious forms of mental disorders. When the condition is mild, comorbidity is the exception rather than the rule.

IN REVIEW

1. What is epidemiology?
2. What is the difference between prevalence and incidence?
3. What are the most common mental disorders?
4. How is illness severity associated with comorbidity?

TABLE 1.3

Most Common Individual DSM-IV Disorders

Disorder	1-Year Prevalence (%)	Lifetime Prevalence (%)
Major depressive disorder	6.7	16.6
Alcohol abuse	3.1	13.2
Specific phobia	8.7	12.5
Social phobia	6.8	12.1
Conduct disorder	1.0	9.5

Source: Kessler, Berglund, et al. (2005a); Kessler, Chiu, et al. (2005).

HISTORICAL VIEWS OF ABNORMAL BEHAVIOR ●●●

Our historical efforts to understand abnormal psychology include both humor and tragedy. In this section, we will highlight some views of psychopathology, and some of the treatments administered, from ancient times to the twenty-first century. In a broad sense, we will see a progression of beliefs from what we now consider superstition to those based on scientific awareness—from a focus on supernatural explanations to knowledge of natural causes. The course of this evolution has at times been marked by periods of advancement or unique, individual contributions, followed by long years of inactivity or unproductive, backward steps.

Demonology, Gods, and Magic

References to abnormal behavior in early writings show that the Chinese, Egyptians, Hebrews, and Greeks often attributed such behavior to a demon or god who had taken possession of a person. Whether the “possession” was assumed to involve good spirits or evil spirits usually depended on the affected individual’s symptoms. If a person’s speech or behavior appeared to have a religious or mystical significance, it was usually thought that he or she was possessed by a good spirit or god. Such people were often treated with considerable awe and respect, for people believed they had supernatural powers.

Most possessions, however, were considered to be the work of an angry god or an evil spirit, particularly when a person became excited or overactive and engaged in behavior contrary to religious teachings. Among the ancient Hebrews, for example, such possessions were thought to represent the wrath and punishment of God. Moses is quoted in the Bible as saying, “The Lord shall smite thee with madness.” Apparently this punishment was thought to involve the withdrawal of God’s protection and the abandonment of the person to the forces of evil. In such cases, every effort was made to rid the person of the evil spirit.

The primary type of treatment for demonic possession was exorcism, which included various techniques for casting an evil spirit out of an afflicted person. These techniques varied but typically included magic, prayer, incantation, noisemaking, and the use of horrible-tasting concoctions made from sheep’s dung and wine.

Hippocrates’ Early Medical Concepts

The Greek temples of healing ushered in the Golden Age of Greece under the Athenian leader Pericles (461–429 B.C.). This period saw considerable progress in the understanding and treatment of mental disorders, in spite of the fact that Greeks of the time considered the human body sacred, so little could be learned of human anatomy or physiology. During this period the Greek physician Hippocrates (460–377 B.C.), often referred to as the father of modern medicine, received his training and made substantial contributions to the field.

Hippocrates denied that deities and demons intervened in the development of illnesses and instead insisted that mental disorders, like

other diseases, had natural causes and appropriate treatments. He believed that the brain was the central organ of intellectual activity and that mental disorders were due to brain pathology. He also emphasized the importance of heredity and predisposition and pointed out that injuries to the head could cause sensory and motor disorders.

Hippocrates classified all mental disorders into three general categories—mania, melancholia, and phrenitis (brain fever)—and gave detailed clinical descriptions of the specific disorders included in each category. He relied heavily on clinical observation, and his descriptions, which were based on daily clinical records of his patients, were surprisingly thorough.

Maher and Maher (1994) pointed out that the best known of the earlier paradigms for explaining personality or temperament is the doctrine of the four humors, associated with the name of Hippocrates and later with the Roman physician Galen. The four elements of the material world were thought to be earth, air, fire, and water, which had attributes of heat, cold, moistness, and dryness. These elements combined to form the four essential fluids of the body—blood (*sanguis*), phlegm, bile (*cholera*), and black bile (*melancholia*). The fluids combined in different proportions within different individuals, and a person’s temperament was determined by which of the humors was dominant. From this view came one of the earliest and longest-lasting typologies of human behavior: the sanguine, the phlegmatic, the choleric, and the melancholic. Each of these “types” brought with it a set of personality attributes. For example, the person of sanguine temperament was optimistic, cheerful, and unafraid.

Hippocrates considered dreams to be important in understanding a patient’s personality. On this point, he was a harbinger of a basic concept of modern psychodynamic psychotherapy. The treatments advocated by Hippocrates were far in advance of the exorcistic practices then prevalent. For the treatment of melancholia, for example, he prescribed a regular and tranquil life, sobriety and abstinence from all excesses, a vegetable diet, celibacy, exercise short of fatigue, and bleeding if indicated. He also recognized the importance of the environment and often removed his patients from their families.

Hippocrates’ emphasis on the natural causes of diseases, on clinical observation, and on brain pathology as the root of mental disorders was truly revolutionary. Like his contemporaries, however, Hippocrates had little knowledge of physiology. He believed that hysteria (the appearance of physical illness in the absence of



Hippocrates’ (460–377 B.C.) belief that mental disease was the result of natural causes and brain pathology was revolutionary for its time.

organic pathology) was restricted to women and was caused by the uterus wandering to various parts of the body, pining for children. For this “disease,” Hippocrates recommended marriage as the best remedy.

Later Greek and Roman Thought

Hippocrates’ work was continued by some of the later Greek and Roman physicians. Particularly in Alexandria, Egypt (which became a center of Greek culture after its founding in 332 B.C. by Alexander the Great), medical practices developed to a higher level, and the temples dedicated to Saturn were first-rate sanatoria. Pleasant surroundings were considered of great therapeutic value for mental patients, who were provided with constant activities including parties, dances, walks in the temple gardens, rowing along the Nile, and musical concerts. Physicians of this time also used a wide range of therapeutic measures including dieting, massage, hydrotherapy, gymnastics, and education, as well as some less desirable practices such as bleeding, purging, and mechanical restraints.

One of the most influential Greek physicians was Galen (A.D. 130–200), who practiced in Rome. Although he elaborated on the Hippocratic tradition, he did not contribute much that was new to the treatment or clinical descriptions of mental disorders. Rather, he made a number of original contributions concerning the anatomy of the nervous system. (These findings were based on dissections of animals; human autopsies were still not allowed.) Galen also took a scientific approach to the field, dividing the causes of psychological disorders into physical and mental categories. Among the causes he named were injuries to the head, excessive use of alcohol, shock, fear, adolescence, menstrual changes, economic reversals, and disappointment in love.

Roman medicine reflected the characteristic pragmatism of the Roman people. Roman physicians wanted to make their patients comfortable and thus used pleasant physical therapies such as warm baths and massage. They also followed the principle of *contrariis contrarius* (“opposite by opposite”)—for example, having their patients drink chilled wine while they were in a warm tub.

Views of Abnormality During the Middle Ages

During the Middle Ages (about A.D. 500 to A.D. 1500), the more scientific aspects of Greek medicine survived in the Islamic countries of the Middle East. The first mental hospital was established in Baghdad in A.D. 792;

it was soon followed by others in Damascus and Aleppo (Polvan, 1969). In these hospitals, mentally disturbed individuals received humane treatment. The outstanding figure in Islamic medicine was Avicenna from Arabia (c. 980–1037), called the “prince of physicians” (Campbell, 1926) and the author of *The Canon of Medicine*, perhaps the most widely studied medical work ever written. In his writings, Avicenna frequently referred to hysteria, epilepsy, manic reactions, and melancholia.

During the Middle Ages in Europe, scientific inquiry into abnormal behavior was limited, and the treatment of psychologically disturbed individuals was characterized more often by ritual or superstition than by attempts to understand an individual’s condition. In contrast to Avicenna’s era in the Islamic countries of the Middle East or to the period of enlightenment during the seventeenth and eighteenth centuries, the Middle Ages in Europe were largely devoid of scientific thinking and humane treatment for the mentally disturbed.

Isolated rural areas were also afflicted with outbreaks of **lycanthropy**—a condition in which people believed themselves to be possessed by wolves and imitated their behavior. In the Middle Ages in Europe, management of the mentally disturbed was left largely to the clergy. Monasteries served as refuges and places of confinement. During the early part of the medieval period, the mentally disturbed were, for the most part, treated with considerable kindness. “Treatment” consisted of prayer, holy water, sanctified ointments, the breath or spittle of the priests, the touching of relics, visits to holy places, and mild forms of exorcism. In some monasteries and shrines, **exorcisms** were performed by the gentle “laying on of hands.” Such methods were often joined with vaguely understood medical treatments derived mainly from Galen, which gave

rise to prescriptions such as the following: “For a fiend-sick man: When a devil possesses a man, or controls him from within with disease, a spewdrink of lupin, bishopswort, henbane, garlic. Pound these together, add ale and holy water” (Cockayne, 1864–1866).

It had long been thought that during the Middle Ages, many mentally disturbed people were accused of being witches and thus were punished and often killed (e.g., Zilboorg & Henry, 1941). But several more recent interpretations have questioned the extent to which this was so (Maher & Maher, 1985; Phillips, 2002; Schoeneman, 1984). For example, in a review of the literature, Schoeneman notes that “the typical accused witch was not a mentally ill person but an impoverished woman with a sharp tongue and a bad temper” (p. 301). He goes on to say that



Galen (A.D. 130–200) believed that psychological disorders could have either physical causes, such as injuries to the head, or mental causes, such as disappointment in love.

“witchcraft was, in fact, never considered a variety of possession either by witch hunters, the general populace, or modern historians” (p. 306). To say “never” may be overstating the case; clearly, some mentally ill people were punished as witches.

The Resurgence of Scientific Questioning in Europe

Paracelsus (1490–1541), a Swiss physician, was an early critic of superstitious beliefs about possession. He also postulated a conflict between the instinctual and spiritual natures of human beings, formulated the idea of psychic causes for mental illness, and advocated treatment by “bodily magnetism,” later called *hypnosis* (Mora, 1967). Although Paracelsus rejected demonology, his view of abnormal behavior was colored by his belief in astral influences (*lunatic* is derived from the Latin word *luna*, or “moon”). He was convinced that the moon exerted a supernatural influence over the brain—an idea, incidentally, that persists among some people today.

Johann Weyer (1515–1588), a German physician and writer who wrote under the Latin name of “Joannus Wierus,” was so deeply disturbed by the imprisonment, torture, and burning of people accused of witchcraft that he made a careful study of the entire problem.

Weyer was one of the first physicians to specialize in mental disorders, and his wide experience and progressive views justify his reputation as the founder of modern psychopathology. Unfortunately, however, he was too far ahead of his time. He was scorned by his peers, many of whom called him “Weirus Hereticus” and “Weirus Insanus.” His works were banned by the Church and remained so until the twentieth century.

The clergy, however, were beginning to question the practices of the time. For example, St. Vincent de Paul (1576–1660), at the risk of his life, declared, “Mental disease is no different than bodily disease and Christianity demands of the humane and powerful to protect, and the skillful to relieve the one as well as the other” (Castiglioni, 1924).

In the face of such persistent advocates of science, who continued their testimonies throughout the next two centuries, demonology and superstition gave ground. These advocates gradually paved the way for the return of observation and reason, which culminated in the development of modern experimental and clinical approaches.

The Establishment of Early Asylums

From the sixteenth century on, special institutions called **asylums**—sanctuaries or places of refuge meant solely for the care of the mentally ill—grew in number. The early asylums were begun as a way of removing from society troublesome individuals who could not care for themselves. Although scientific inquiry into abnormal behavior was on the increase, most early asylums, often referred to



The monastery of St. Mary of Bethlehem in London became an asylum for the mentally ill in the reign of King Henry the VIII during the sixteenth century. The hospital, known as “Bedlam,” became infamous for its deplorable conditions and practices.

as “madhouses,” were not pleasant places or “hospitals” but primarily residences or storage places for the insane. The unfortunate residents lived and died amid conditions of incredible filth and cruelty.

The first asylum established in Europe was probably in Spain in 1409—the Valencia mental hospital founded by Father Juan Pilberto Jofre (Villasante, 2003)—although this point has been the subject of considerable discussion (Polo, 1997; Trope, 1997). Little is known about the treatment of patients in this asylum. In 1547 the monastery of St. Mary of Bethlehem in London (initially founded as a monastery in 1247; see O’Donoghue, 1914) was officially made into an asylum by Henry VIII. Its name soon was contracted to “Bedlam,” and it became widely known for its deplorable conditions and practices. The more violent patients were exhibited to the public for one penny a look, and the more harmless inmates were forced to seek charity on the streets of London.

These early asylums were primarily modifications of penal institutions, and the inmates were treated more like beasts than like human beings. This treatment continued through most of the eighteenth century.

Humanitarian Reform

Clearly, by the late eighteenth century, most mental hospitals in Europe and America were in great need of reform. The humanitarian treatment of patients received great impetus from the work of Philippe Pinel (1745–1826) in France. In 1792, shortly after the first phase of the French Revolution, Pinel was placed in charge of La Bicêtre in Paris. In this capacity, he received the grudging permission of the Revolutionary Commune to remove the chains from some of the inmates as an experiment to test his views that mental patients should be treated with kindness and consideration—as sick people, not as vicious

beasts or criminals. Had his experiment proved a failure, Pinel might have lost his head, but fortunately it was a great success. Chains were removed; sunny rooms were provided; patients were permitted to exercise on the hospital grounds; and kindness was extended to these poor beings, some of whom had been chained in dungeons for 30 or more years. The effect was almost miraculous. The previous noise, filth, and abuse were replaced by order and peace. As Pinel said, “The whole discipline was marked with regularity and kindness which had the most favorable effect on the insane themselves, rendering even the most furious more tractable” (Selling, 1943, p. 65).

TUKE’S WORK IN ENGLAND At about the same time that Pinel was reforming La Bicêtre, an English Quaker named William Tuke (1732–1822) established the York Retreat, a pleasant country house where mental patients lived, worked, and rested in a kindly, religious atmosphere (Narby, 1982). This retreat represented the culmination of a noble battle against the brutality, ignorance, and indifference of Tuke’s time.

The Quaker retreat at York has continued to provide humane mental health treatment for over 200 years (Borthwick, Holman, et al., 2001), even though the mental hospital movement spawned by its example evolved into large mental hospitals that became crowded and often offered less-than-humane treatment in the late nineteenth and early twentieth centuries.

RUSH AND MORAL MANAGEMENT IN AMERICA

The success of Pinel’s and Tuke’s humanitarian experiments revolutionized the treatment of mental patients throughout the Western world. In the United States, this revolution was reflected in the work of Benjamin Rush (1745–1813), the founder of American psychiatry and also one of the signers of the Declaration of Independence. While he was associated with the Pennsylvania Hospital in 1783, Rush encouraged more humane treatment of the mentally ill; wrote the first systematic treatise on psychiatry in America, *Medical Inquiries and Observations upon Diseases of the Mind* (1812); and was the first American to organize a course in psychiatry. But even he did not escape entirely from the established beliefs of his time. His medical theory was tainted with astrology, and his principal remedies were bloodletting and purgatives. In addition, he invented and used a device called “the tranquilizing chair,” which was probably more torturous than tranquil for patients. The chair was thought to lessen the force of the blood on the head while the muscles were relaxed. Despite these limitations, we can consider Rush an important transitional figure between the old era and the new.

During the early part of this period of humanitarian reform, the use of **moral management**—a wide-ranging method of treatment that focused on a patient’s social, individual, and occupational needs—became relatively widespread. This approach, which stemmed largely from

the work of Pinel and Tuke, began in Europe during the late eighteenth century and in America during the early nineteenth century.

Moral management in asylums emphasized the patients’ moral and spiritual development and the rehabilitation of their “character” rather than their physical or mental disorders, in part because very little effective treatment was available for these conditions at the time. The treatment or rehabilitation of the physical or mental disorders was usually through manual labor and spiritual discussion, along with humane treatment.

Moral management achieved a high degree of effectiveness—which is all the more amazing because it was done without the benefit of the antipsychotic drugs used today and because many of the patients were probably suffering from syphilis, a then-incurable disease of the central nervous system. In the 20-year period between 1833 and 1853, Worcester State Hospital’s discharge rate for patients who had been ill less than a year before admission was 71 percent. Even for patients with a longer preadmission disorder, the discharge rate was 59 percent (Bockhoven, 1972). In London, Walford (1878) reported that during a 100-year period ending in 1876, the “cure” rate was 45.7 percent for the famed Bedlam Hospital.

Despite its reported effectiveness in many cases, moral management was nearly abandoned by the latter part of the nineteenth century. The reasons were many and varied. Among the more obvious ones were ethnic prejudice against the rising immigrant population in hospitals, leading to tension between staff and patients; the failure of the movement’s leaders to train their own replacements; and the overextension of hospital facilities, which reflected the misguided belief that bigger hospitals would differ from smaller ones only in size.

Two other reasons for the demise of moral management are, in retrospect, truly ironic. One was the rise of the **mental hygiene movement**, which advocated a method of treatment that focused almost exclusively on the physical well-being of hospitalized mental patients. Although the patients’ comfort levels improved under the mental hygienists, the patients received no help for their mental problems and thus were subtly condemned to helplessness and dependency.

Advances in biomedical science also contributed to the demise of moral management and the rise of the mental hygiene movement. These advances fostered the notion that all mental disorders would eventually yield to biological explanations and biologically based treatments (Luchins, 1989). Thus the psychological and social environment of a patient was considered largely irrelevant; the best one could do was keep the patient comfortable until a biological cure was discovered. Needless to say, the anticipated biological cure—all did not arrive, and by the late 1940s and early 1950s, discharge rates were down to about 30 percent. Its negative effects on the use of moral

management notwithstanding, the mental hygiene movement has accounted for many humanitarian accomplishments.

DIX AND THE MENTAL HYGIENE MOVEMENT

Dorothea Dix (1802–1887) was an energetic New Englander who became a champion of poor and “forgotten” people in prisons and mental institutions for decades during the nineteenth century. Dix, herself a child of very difficult and impoverished circumstances (Viney, 1996), later became an important driving force in humane treatment for psychiatric patients. She worked as a schoolteacher as a young adult but was later forced into early retirement because of recurring attacks of tuberculosis. In 1841 she began to teach in a women’s prison. Through this contact she became acquainted with the deplorable conditions in jails, almshouses, and asylums. In a “Memorial” submitted to the U.S. Congress in 1848, she stated that she had seen “more than 9000 idiots, epileptics and insane in the United States, destitute of appropriate care and protection . . . bound with galling chains, bowed beneath fetters and heavy iron bails attached to drag-chains, lacerated with ropes, scourged with rods and terrified beneath storms of execration and cruel blows; now subject to jibes and scorn and torturing tricks; now abandoned to the most outrageous violations” (Zilboorg & Henry, 1941, pp. 583–584).

As a result of what she had seen, Dix carried on a zealous campaign between 1841 and 1881 that aroused people and legislatures to do something about the inhuman treatment accorded the mentally ill. Through her efforts, the mental hygiene movement grew in America: Millions of dollars were raised to build suitable hospitals, and 20 states responded directly to her appeals. Not only was she instrumental in improving conditions in American hospitals, but she also directed the opening of two large institutions in Canada and completely reformed the asylum system in Scotland and several other countries. She is credited with establishing 32 mental hospitals, an astonishing record given the ignorance and superstition that still prevailed in the field of mental health. Dix rounded out her career by organizing the nursing forces of the northern armies during the Civil War. A resolution presented by the U.S. Congress in 1901 characterized her as “among the noblest examples



Dorothea Dix (1802–1887) was a tireless reformer who made great strides in changing public attitudes toward the mentally ill.

of humanity in all history” (Karnesh, with Zucker, 1945, p. 18).

Mental Hospital Care in the Twenty-First Century

The twentieth century began with a continued period of growth in asylums for the mentally ill; however, the fate of mental patients during that century was neither uniform nor entirely positive. At the beginning of the twentieth century, with the influence of enlightened people such as Clifford Beers, mental hospitals grew substantially in number—predominantly to house persons with severe mental disorders such as schizophrenia, depression, organic mental disorders, tertiary syphilis and paresis, and severe alcoholism. By 1940 the public mental hospitals housed over 400,000 patients, roughly 90 percent of whom resided in large state-funded

hospitals; the remainder resided in private hospitals (Grob, 1994). During this period, hospital stays were typically quite lengthy, and many mentally ill individuals were destined to be hospitalized for many years. For the first half of the twentieth century, hospital care was accompanied by little in the way of effective treatment, and the care was often harsh, punitive, and inhumane. The year 1946, however, marked the beginning of an important period of change. In that year, Mary Jane Ward published a very influential book, *The Snake Pit*, which was popularized in a movie of the same name. This work called attention to the plight of mental patients and helped to create concern over the need to provide more humane mental health care in the community in place of the overcrowded mental hospitals.

Also in 1946, the National Institute of Mental Health was organized, and provided active support for research and training through psychiatric residencies and (later) clinical psychology training programs. Moreover, the Hill-Burton Act, a program that funded community mental health hospitals, was passed during this period. This legislation, along with the Community Health Services Act of 1963, helped to create a far-reaching set of programs to develop outpatient psychiatric clinics, inpatient facilities in general hospitals, and community consultation and rehabilitation programs.

During the latter decades of the twentieth century, our society had seemingly reversed its position with respect to the means of providing humane care for the mentally ill in



In the first half of the twentieth century, hospital care for the mentally ill afforded very little in the way of effective treatment. In many cases, the care was considered to be harsh, punitive, and inhumane.

the hospital environment. Vigorous efforts were made to close down mental hospitals and return psychiatrically disturbed people to the community, ostensibly as a means of providing more integrated and humane treatment than was available in the “isolated” environment of the psychiatric hospital. Large numbers of psychiatric hospitals were closed, and there was a significant reduction in state and county mental hospital populations, from over half a million in 1950 (Lerman, 1981) to about 100,000 by the early 1990s (Narrow et al., 1993). These reductions are all the more impressive given that the U.S. population increased substantially over those years. This movement, referred to as **deinstitutionalization**, although motivated by benevolent goals, has also created great difficulties for many psychologically disturbed persons and for many communities as well.

As a phenomenon, deinstitutionalization is an international movement. For example, there has been a shift in the locus of care of patients with chronic psychiatric illnesses from psychiatric hospitals to community-based residential services in Hong Kong (Chan, 2001), in the Netherlands (Pijl & Pijl, 2001), and in Finland (Korkeila, Lehtinen, et al., 1998). Some countries have experienced extensive deinstitutionalization over the past 20 years. For example, in England and Wales during the last decades of the twentieth century, only 14 of 130 psychiatric institutions remained open; and Australia showed a 90 percent reduction in hospital beds over the same period (Goldney, 2003). In a follow-up study of patients from 22 hospitals in Italy, D’Avanzo, Barbato, et al. (2003) reported that all were closed and 39 percent of the patients in these hospitals had been discharged to nursing homes, 29 percent to residential facilities, and 29 percent to other psychiatric hospitals; only 2 percent were returned to their families.

The original impetus behind the deinstitutionalization policy was that it was considered more humane (and cost-effective) to treat disturbed people outside of large mental hospitals, because doing so would prevent people from acquiring negative adaptations to hospital confinement. Many professionals were concerned that the mental hospitals were becoming permanent refuges for disturbed people who were “escaping” from the demands of everyday living and were settling into a chronic sick role with a permanent excuse for letting other people take care of them. There was great hope that new medications would promote a healthy readjustment and enable former patients to live more productive lives outside the hospital. Many former patients have not fared well in community living, however, and authorities now frequently speak of the “abandonment” of chronic patients to a cruel and harsh existence. Evidence of this failure to treat psychiatric patients successfully in the community can be readily seen in our cities: Many of the people living on the streets in large cities today are homeless mentally ill. The problems caused by deinstitutionalization appear to be due, in no small part, to the failure of society to develop ways to fill the gaps in mental health services in the community (Grob, 1994).



Freed from the confines of institutionalized care, or abandoned by society? Many homeless people suffer from one or more mental disorders. Deinstitutionalization, though motivated by benevolent goals, has created great difficulties for many psychologically disturbed individuals who have been released to a cruel and harsh existence.

IN REVIEW

1. Describe the changing views toward mental illness that evolved as scientific thinking came to have greater influence in Europe in the sixteenth and seventeenth centuries.
2. Discuss the development of the psychiatric hospital.
3. Describe the changes in social attitudes that brought about major changes in the way persons with mental disorders have been treated.

THE EMERGENCE OF CONTEMPORARY VIEWS OF ABNORMAL BEHAVIOR ●●●

While the mental hygiene movement was gaining ground in the United States during the latter years of the nineteenth century, great technological discoveries occurred both at home and abroad. These advances helped usher in

what we know today as the scientific, or experimentally oriented, view of abnormal behavior and the application of scientific knowledge to the treatment of disturbed individuals. We will describe four major themes in abnormal psychology that spanned the nineteenth and twentieth centuries and generated powerful influences on our contemporary perspectives in abnormal behavior: (1) biological discoveries, (2) the development of a classification system for mental disorders, (3) the emergence of psychological causation views, and (4) experimental psychological research developments.

Biological Discoveries: Establishing the Link Between the Brain and Mental Disorder

Advances in the study of biological and anatomical factors as underlying both physical and mental disorders developed in this period. A major biomedical breakthrough, for example, came with the discovery of the organic factors underlying general paresis—syphilis of the brain. One of the most serious mental illnesses of the day, general paresis produced paralysis and insanity and typically caused death within 2–5 years as a result of brain deterioration. This scientific discovery, however, did not occur overnight; it required the combined efforts of many scientists and researchers for nearly a century.

GENERAL PARESIS AND SYPHILIS The discovery of a cure for general paresis began in 1825, when the French physician A. L. J. Bayle differentiated general paresis as a specific type of mental disorder. Bayle gave a complete and accurate description of the symptom pattern of paresis and convincingly presented his reasons for believing paresis to be a distinct disorder. Many years later, in 1897, the Viennese psychiatrist Richard von Krafft-Ebbing conducted experiments involving the inoculation of paretic patients with matter from syphilitic sores. None of the patients developed secondary symptoms of syphilis, which led to the conclusion that they must previously have been infected. This crucial experiment established the relationship between general paresis and syphilis. It was almost a decade later, in 1906, when August von Wassermann devised a blood test for syphilis. This development made it possible to check for the presence of the deadly bacteria in the blood stream of an individual before the more serious consequences of infection appeared.

Finally, in 1917, Julius von Wagner-Jauregg, chief of the psychiatric clinic of the University of Vienna, introduced the malarial fever treatment of syphilis and paresis because he knew that the high fever associated with malaria killed off the bacteria. He infected nine paretic patients with the blood of a malaria-infected soldier and found marked improvement in paretic symptoms in three patients and apparent recovery in three others. By 1925 several hospitals in the United States were incorporating the new malarial treatment for paresis into their hospital

treatments. Today, of course, we have penicillin as an effective, simpler treatment of syphilis, but the early malarial treatment represented the first clear-cut conquest of a mental disorder by medical science. The field of abnormal psychology had come a long way—from superstitious beliefs to scientific proof of how brain pathology can cause a specific disorder. This breakthrough raised great hopes in the medical community that organic bases would be found for many other mental disorders—perhaps for all of them.

BRAIN PATHOLOGY AS A CAUSAL FACTOR With the emergence of modern experimental science in the early part of the eighteenth century, knowledge of anatomy, physiology, neurology, chemistry, and general medicine increased rapidly. Scientists began to focus on diseased body organs as the cause of physical ailments. It was the next logical step for these researchers to assume that mental disorder was an illness based on the pathology of an organ—in this case, the brain. In 1757 Albrecht von Haller (1708–1777), in his *Elementa physiologiae corporis humani* (published in 1782), emphasized the importance of the brain in psychic functions and advocated post-mortem dissection to study the brains of the insane. The first systematic presentation of this viewpoint, however, was made by the German psychiatrist Wilhelm Griesinger (1817–1868). In his textbook *The Pathology and Therapy of Psychic Disorders*, published in 1845, Griesinger insisted that all mental disorders could be explained in terms of brain pathology. Following the discovery that brain deterioration resulted in general paresis, other successes followed. Alois Alzheimer and other investigators established the brain pathology in cerebral arteriosclerosis and in the senile mental disorders. Eventually, in the twentieth century, the organic pathologies underlying the toxic mental disorders (disorders caused by toxic substances such as lead), certain types of mental retardation, and other mental illnesses were discovered.

It is important to note here that although the discovery of the organic bases of mental disorders addressed the “how” behind causation, it did not, in most cases, address the “why.” This is sometimes true even today. For example, although we know what causes certain “presenile” mental disorders—brain pathology—we do not yet know why some individuals are afflicted and others are not. Nonetheless, we can predict quite accurately the courses of these disorders. This ability is due not only to a greater understanding of the organic factors involved but also, in large part, to the work of a follower of Griesinger, Emil Kraepelin.

The Development of a Classification System

Emil Kraepelin (1856–1926), another German psychiatrist, played a dominant role in the early development of the biological viewpoint. His textbook *Compendium der*

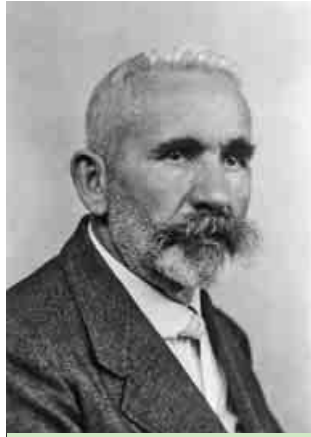
Psychiatrie, published in 1883, not only emphasized the importance of brain pathology in mental disorders but also made several related contributions that helped establish this viewpoint. The most important of these contributions was his system of classification of mental disorders, which became the forerunner of today's DSM-IV-TR. Kraepelin noted that certain symptom patterns occurred together regularly enough to be regarded as specific types of mental disease. He then proceeded to describe and clarify these types of mental disorders, working out a scheme of classification that is the basis of our present system. Integrating all of the clinical material underlying this classification was a Herculean task and represented a major contribution to the field of psychopathology.

Kraepelin saw each type of mental disorder as distinct from the others and thought that the course of each was as predetermined and predictable as the course of measles. Thus the outcome of a given type of disorder could presumably be predicted, even if it could not yet be controlled. Such claims led to widespread interest in the accurate description and classification of mental disorders.

The Development of the Psychological Basis of Mental Disorder

Despite the emphasis on biological research, understanding of the psychological factors in mental disorders was progressing as well. The first major steps were taken by Sigmund Freud (1856–1939), the most frequently cited psychological theorist of the twentieth century (Street, 1994). During five decades of observation, treatment, and writing, Freud developed a comprehensive theory of psychopathology that emphasized the inner dynamics of unconscious motives (often referred to as *psychodynamics*) that are at the heart of the **psychoanalytic perspective**. The methods he used to study and treat patients came to be called **psychoanalysis**. We can trace the ancestral roots of psychoanalysis to a somewhat unexpected place—the study of hypnosis, especially in its relation to hysteria. Hypnosis, an induced state of relaxation in which a person is highly open to suggestion, first came into widespread use in late-eighteenth- and early-nineteenth-century France.

MESMERISM Our efforts to understand psychological causation of mental disorder start with Franz Anton Mesmer (1734–1815), an Austrian physician who further developed the ideas of Paracelsus (the influential sixteenth-century physician and scholar) about the influence of the



Emil Kraepelin (1856–1926) was a German psychiatrist who developed an early synthesis and classification system of the hundreds of mental disorders by grouping diseases together based on common patterns of symptoms. Kraepelin also demonstrated that mental disorders show specific patterns in their genetics, course, and outcome.

planets on the human body. Mesmer believed that the planets affected a universal magnetic fluid in the body, the distribution of which determined health or disease. In attempting to find cures for mental disorders, Mesmer concluded that all people possessed magnetic forces that could be used to influence the distribution of the magnetic fluid in other people, thus effecting cures.

Mesmer opened a clinic in Paris in 1778 in which he treated all kinds of diseases by using “animal magnetism.” In a dark room, patients were seated around a tub containing various chemicals, and iron rods protruding from the tub were applied to the affected areas of the patients’ bodies. Mesmer passed from one patient to another, touching each one with his hands or his wand. By this means, Mesmer was reportedly able to remove hysterical anesthetics and paralyses. He also demonstrated most of the phenomena later connected with the use of hypnosis.

Eventually branded a charlatan by his medical colleagues and an appointed body of noted scholars that included the

American scientist Benjamin Franklin (Van Doren, 1938), Mesmer was forced to leave Paris and quickly faded into obscurity. His methods and results, however, were at the center of scientific controversy for many years—in fact, **mesmerism**, as his technique came to be known, led to renewed interest in hypnosis itself as an explanation of the “cures” that took place.

THE NANCY SCHOOL Ambrose August Liébeault (1823–1904), a French physician who practiced in the town of Nancy, used hypnosis successfully in his practice. Also in Nancy at the time was a professor of medicine, Hippolyte Bernheim (1840–1919), who became interested in the relationship between hysteria and hypnosis. His interest was piqued by Liébeault’s success in using hypnosis to cure a patient whom Bernheim had been treating unsuccessfully by more conventional methods for 4 years (Selling, 1943). Bernheim and Liébeault worked together to develop the hypothesis that hypnotism and hysteria were related and that both were due to suggestion (Brown & Menninger, 1940). It seemed likely that hysteria was a sort of self-hypnosis. The physicians who accepted this view ultimately came to be known as the **Nancy School**.

Meanwhile, Jean Charcot (1825–1893), who was head of the Salpêtrière Hospital in Paris and the leading neurologist of his time, had been experimenting with some of the phenomena described by the mesmerists. As a result of his research, Charcot disagreed with the findings of the Nancy School and insisted that degenerative brain changes led to hysteria. In this, Charcot was eventually

proved wrong, but work on the problem by so outstanding a scientist did a great deal to awaken medical and scientific interest in hysteria.

The dispute between Charcot and the Nancy School was one of the major debates of medical history, and many harsh words were spoken on both sides. The adherents to the Nancy School finally triumphed. This first recognition of a psychologically caused mental disorder spurred more research on the behavior underlying hysteria and other disorders. Soon it was suggested that psychological factors were also involved in anxiety states, phobias, and other psychopathologies. Eventually, Charcot himself was won over to the new point of view and did much to promote the study of psychological factors in various mental disorders.

The debate over whether mental disorders are caused by biological or psychological factors continues to this day. The Nancy School/Charcot debate represented a major step forward for psychology, however. Toward the end of the nineteenth century, it became clear that mental disorders could have psychological bases, biological bases, or both. But a major question remained to be answered: How do the psychologically based mental disorders actually develop?

THE BEGINNINGS OF PSYCHOANALYSIS The first systematic attempt to answer this question was made by Sigmund Freud (1856–1939). Freud was a brilliant, young Viennese neurologist who received an appointment as lecturer on nervous diseases at the University of Vienna. In 1885 he went to study under Charcot and later became acquainted with the work of Liébeault and Bernheim at Nancy. He was impressed by their use of hypnosis with hysterical patients and came away convinced that powerful mental processes could remain hidden from consciousness.

On his return to Vienna, Freud worked in collaboration with another Viennese physician, Josef Breuer (1842–1925), who had incorporated an interesting innovation into the use of hypnosis with his patients. Unlike hypnotists before them, Freud and Breuer directed patients to talk freely about their problems while under hypnosis. The patients usually displayed considerable emotion and, on awakening from their hypnotic states, felt a significant emotional release, which was called a **catharsis**. This simple innovation in the use of hypnosis proved to be of great significance: It not only helped patients discharge their emotional tensions by discussing their problems but also revealed to the therapist the nature of the difficulties that had brought about certain symptoms. The patients, on awakening, saw no relationship between their problems and their hysterical symptoms.

It was this approach that thus led to the discovery of the **unconscious**—the portion of the mind that contains experiences of which a person is unaware—and with it the belief that processes outside of a person's awareness can play an important role in determining behavior. Freud

soon discovered, moreover, that he could dispense with hypnosis entirely. By encouraging patients to say whatever came into their minds without regard to logic or propriety, Freud found that patients would eventually overcome inner obstacles to remembering and would discuss their problems freely.

Two related methods enabled him to understand patients' conscious and unconscious thought processes. One method, **free association**, involved having patients talk freely about themselves, thereby providing information about their feelings, motives, and so forth. A second method, **dream analysis**, involved having patients record and describe their dreams. These techniques helped analysts and patients gain insights and achieve a better understanding of the patients' emotional problems. Freud devoted the rest of his long and energetic life to the development and elaboration of psychoanalytic principles. His views were formally introduced to American scientists in 1909, when he was invited to deliver a series of lectures at Clark University by the eminent psychologist G. Stanley Hall (1844–1924), who was then president of the university. These lectures created a great deal of controversy and helped popularize psychoanalytic concepts with scientists as well as with the general public.

We will discuss the psychoanalytic viewpoint further in Chapter 2. Freud's lively and seminal views attracted a substantial following over his long career, and interest in his ideas persists today, more than 100 years after he began writing. Numerous other clinician-theorists—such



Psychoanalysis was introduced to North America at a famous meeting at Clark University in Worcester, Massachusetts, in 1909. Among those present were (back row) A. A. Brill, Ernest Jones, and Sandor Ferenczi; (front row) Sigmund Freud, G. Stanley Hall, and Carl Jung.

as Carl Jung, Alfred Adler, and Harry Stack Sullivan—launched “spin-off” theories that have elaborated on the psychoanalytic viewpoint. More will also be said of these views in Chapter 2. Here we will examine the early development of psychological research and explore the evolution of the behavioral perspective on abnormal behavior.

The Evolution of the Psychological Research Tradition: Experimental Psychology

The origins of much of the scientific thinking in contemporary psychology lie in early rigorous efforts to study psychological processes objectively, as demonstrated by Wilhelm Wundt (1832–1920) and William James (1842–1910). Although the early work of these experimental psychologists did not bear directly on clinical practice or on our understanding of abnormal behavior, this tradition was clearly influential a few decades later in molding the thinking of the psychologists who brought these rigorous attitudes into the clinic. (For a discussion of the history of clinical psychology, see L. T. Benjamin, 2005.)

THE EARLY PSYCHOLOGY LABORATORIES In 1879 Wilhelm Wundt established the first experimental psychology laboratory at the University of Leipzig. While studying the psychological factors involved in memory and sensation, Wundt and his colleagues devised many basic experimental methods and strategies. Wundt directly influenced early contributors to the empirical study of abnormal behavior; they followed his experimental methodology and also applied some of his research strategies to study clinical problems. For example, a student of Wundt’s, J. McKeen Cattell (1860–1944), brought Wundt’s experimental methods to the United States and used them to assess individual differences in mental processing. He and other students of Wundt’s work established research laboratories throughout the United States.

Another of Wundt’s students, Lightner Witmer (1867–1956), combined research with application and established the first American psychological clinic at the University of Pennsylvania. Witmer’s clinic focused on the problems of mentally deficient children in terms of both research and therapy. Witmer, considered to be the founder of clinical psychology (McReynolds, 1996, 1997), was influential in encouraging others to become involved in this new profession. Other clinics were soon established. One clinic of great importance was the Chicago Juvenile Psychopathic Institute (later called the “Institute of Juvenile Research”), established in 1909 by William Healy (1869–1963). Healy was the first to view juvenile delinquency as a symptom of urbanization, not as a

result of inner psychological problems. In so doing, he was among the first to recognize a new area of causation—environmental, or sociocultural, factors.

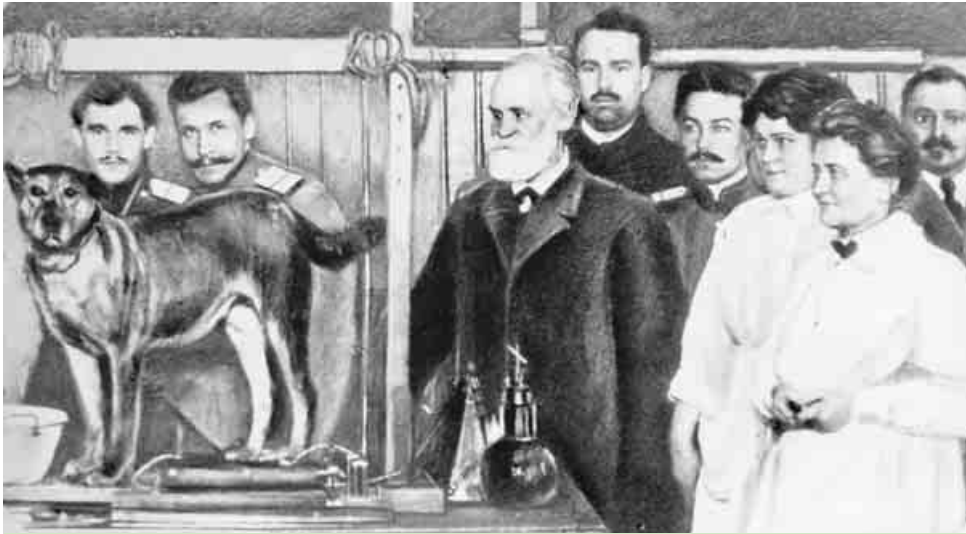
By the first decade of the twentieth century, psychological laboratories and clinics were burgeoning, and a great deal of research was being generated (Reisman, 1991). The rapid and objective communication of scientific findings was perhaps as important in the development of modern psychology as the collection and interpretation of research findings.

THE BEHAVIORAL PERSPECTIVE Behavioral psychologists believed that the study of subjective experience—through the techniques of free association and dream analysis—did not provide acceptable scientific data, because such observations were not open to verification by other investigators. In their view, only the study of directly observable behavior—and the stimuli and reinforcing conditions that “control” it—could serve as a basis for formulating scientific principles of human behavior.

The **behavioral perspective** is organized around a central theme: the role of learning in human behavior. Although this perspective was initially developed through research in the laboratory rather than through clinical practice with disturbed individuals, its implications for explaining and treating maladaptive behavior soon became evident.

Classical Conditioning The origins of the behavioral view of abnormal behavior and its treatment are tied to experimental work on the type of learning known as **classical conditioning**—a form of learning in which a neutral stimulus is paired repeatedly with an unconditioned stimulus that naturally elicits an unconditioned behavior. After repeated pairings, the neutral stimulus becomes a conditioned stimulus that elicits a conditioned response. This work began with the discovery of the conditioned reflex by Russian physiologist Ivan Pavlov (1849–1936). Around the turn of the twentieth century, Pavlov demonstrated that dogs would gradually begin to salivate in response to a nonfood stimulus such as a bell after the stimulus had been regularly accompanied by food.

Pavlov’s discoveries in classical conditioning excited a young American psychologist, John B. Watson (1878–1958), who was searching for objective ways to study human behavior. Watson reasoned that if psychology was to become a true science, it would have to abandon the subjectivity of inner sensations and other “mental” events and limit itself to what could be objectively observed. What better way to do this than to observe systematic changes in behavior brought about simply by rearranging stimulus conditions? Watson thus changed the focus of psychology to the study of overt behavior rather than the study of theoretical mentalistic



Ivan Pavlov (1849–1936), a pioneer in demonstrating the part conditioning plays in behavior, is shown here with his staff and some of the apparatus used to condition reflexes in dogs.

constructs, an approach he called **behaviorism**.

Watson, a man of impressive energy and demeanor, saw great possibilities in behaviorism, and he was quick to point them out to his fellow scientists and a curious public. He boasted that through conditioning, he could train any healthy child to become whatever sort of adult one wished. He also challenged the psychoanalysts and the more biologically oriented psychologists of his day by suggesting that abnormal behavior was the product of unfortunate, inadvertent earlier conditioning and could be modified through reconditioning.

By the 1930s Watson had had an enormous impact on American psychology. Watson's approach placed heavy emphasis on the role of the social environment in conditioning personality development and behavior, both normal and abnormal. Today's behaviorally oriented psychologists still accept many of the basic tenets of Watson's doctrine, although they are more cautious in their claims.

Operant Conditioning While Pavlov and Watson were studying antecedent stimulus conditions and their relation to behavioral responses, E. L. Thorndike (1874–1949) and subsequently B. F. Skinner (1904–1990) were exploring a different kind of conditioning, one in which the consequences of behavior influence behavior. Behavior that operates on the environment may be instrumental in producing certain outcomes, and those outcomes, in turn, determine the likelihood that the



B. F. Skinner (1904–1990) formulated the concept of operant conditioning, in which reinforcers can be used to make a response more or less probable and frequent.

behavior will be repeated on similar occasions. For example, Thorndike studied how cats could learn a particular response, such as pulling a chain, if that response was followed by food reinforcement. This type of learning came to be called “instrumental conditioning” and was later renamed **operant conditioning** by Skinner. Both terms are still used today. In Skinner's view, behavior is “shaped” when something reinforces a particular activity of an organism—which makes it possible “to shape an animal's behavior almost as a sculptor shapes a lump of clay” (Skinner, 1951, pp. 26–27).

IN REVIEW

1. Compare the views of the Nancy School with those of Charcot. How did this debate influence modern psychology?
2. Evaluate the impact of the work of Freud and that of Watson on psychology today.
3. How did early experimental science help to establish brain pathology as a causal factor in mental disorders?
4. Describe the historical development of the behavioral view in psychology.

RESEARCH APPROACHES IN ABNORMAL PSYCHOLOGY

We turn now to some of the research strategies in use today, which have evolved from the work of early experimental researchers in psychology. Through research we can learn about the symptoms of a disorder, its prevalence, whether it tends to be either **acute** (short in duration) or **chronic** (long in duration), and the problems and deficits that often accompany it.

Research allows us to further understand the etiology (or causes) of disorders. Finally, we need research to provide the best care for the patients who are seeking assistance with their difficulties.

Abnormal psychology research can take place in clinics, hospitals, schools, prisons, and even highly unstructured contexts such as naturalistic observations of the homeless on the street. It is not the setting that determines whether a given research project may be undertaken. As Kazdin aptly points out (1998b, p. x), “methodology is not merely a compilation of practices and procedures. Rather it is an approach toward problem solving, thinking, and acquiring knowledge.” As such, research methodology (that is, the scientific processes and procedures we use to conduct research) is constantly evolving.

As new techniques become available (brain-imaging techniques and new statistical procedures, to name a few), methodology in turn evolves. In the sections that follow, we introduce some fundamental research concepts so that you may begin to think critically like a clinical scientist.

Sources of Information

CASE STUDIES As humans, we often direct our attention to the people around us. If you were asked to describe your best friend, your father, or even the professor teaching your abnormal psychology class, you would undoubtedly have plenty to say. As is the case in virtually all other sciences, the foundation of psychological knowledge stems from observation. Indeed, a large amount of early knowledge was distilled from case studies in which specific individuals were described in great detail.

Much can be learned when skilled clinicians use the **case study** method. Still, the information presented is subject to **bias** because the writer of the case study selects what information to include and what information to omit. Another concern is that the material in a case study is often relevant only to the individual being described. This means that the conclusions of a case study have low **generalizability**—that is, they cannot be used to draw conclusions about other cases even when those cases involve people with a seemingly similar abnormality. When there is only one observer and one subject, and when the observations are made in a relatively uncontrolled context and are anecdotal and impressionistic in

nature, the conclusions we can draw are very narrow and may be mistaken. Nonetheless, case studies are an excellent way to illustrate clinical material. They can also provide some limited support for a particular theory or provide some negative evidence that can challenge a prevailing idea or assumption. Importantly, case studies can be a valuable source of new ideas and serve as a stimulus for research. And they may provide insight into unusual clinical conditions that are too rare to be studied in a more systematic way.

SELF-REPORT DATA If we wish to study behavior in a more rigorous manner, how do we go about doing so? One approach is to collect **self-report data** from the people we wish to learn more about. This might involve having our research participants complete questionnaires of various types. Another way of collecting self-report data is from interviews. The researcher asks a series of questions and then records what the person says.

Asking people to report on their subjective experiences might appear to be an excellent way to collect information. However, as a research approach it has some limitations. Self-report data can sometimes be misleading. One problem is that people may not be very good reporters of their own subjective states or experiences. For example, when asked in an interview, one child may report that he has 20 “best friends.” Yet, when we observe him, he may always be playing alone. Another child may say she has only one best friend, even though she is surrounded by other children who are trying to get her attention. Because people will occasionally lie, misinterpret the question, or desire to present themselves in a particularly favorable (or unfavorable) light, self-report data cannot always be regarded as highly accurate and truthful. This is something that anyone who has ever responded to a personal ad knows only too well!

OBSERVATIONAL APPROACHES When we collect information in a way that does not involve asking people directly (self-report), we are using some form of observational approach. Exactly how we go about this depends on what it is we seek to understand. For example, if we are studying aggressive children, we may wish to have trained observers record the number of times children who are classified as being aggressive hit, bite, push, punch, or kick their playmates. This would involve **direct observation** of the children’s behavior.

We may also collect information about biological variables (such as heart rate) in our sample of aggressive children. Alternatively, we could collect information about stress hormones, such as cortisol, by asking the observed children to spit into a plastic container (because cortisol is found in saliva). We would then send the saliva samples to the lab for analysis. This, too, is a form of observational data; it tells us something that we want to know using a variable that is relevant to our interests.

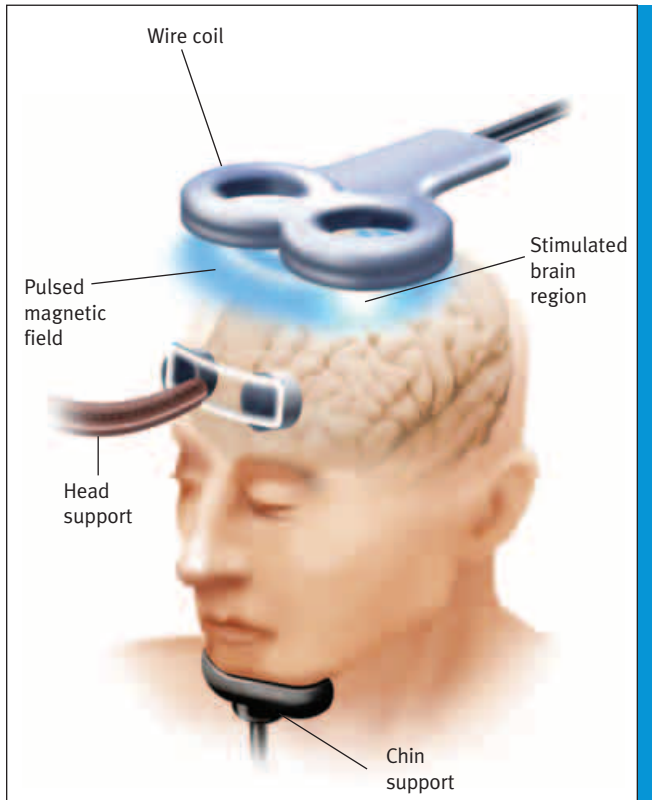


FIGURE 1.1

Researchers use technology, such as transcranial magnetic stimulation (TMS), to study how the brain works. This TMS technique generates a magnetic field on the surface of the head through which underlying brain tissue is stimulated. Researchers can evaluate and measure behavioral consequences of this noninvasive and painless brain stimulation.

Technology has advanced, and we are now developing methods to study behaviors, moods, and cognitions, which have long been considered inaccessible. We can now use brain-imaging techniques such as functional magnetic resonance imaging (fMRI) to study the working brain. We can study blood flow to various parts of the brain during memory tasks. We can even look at which brain areas influence imagination.

With other techniques such as transcranial magnetic stimulation (TMS; see Figure 1.1), which generates a magnetic field on the surface of the head, we can stimulate underlying brain tissue (for an overview, see Fitzgerald et al., 2002). This can be done painlessly and noninvasively while the person receiving the TMS sits in an armchair. Using TMS, we can even take a particular area of the brain “off-line” for a few seconds, and measure the behavioral consequences. In short, we can now collect observational data that would have been impossible to obtain a decade ago.

In practice, much clinical research involves a mix of self-report and observational methods. Also, keep in mind that when we refer to observing behavior, we mean much more than simply watching people. Observing behavior, in this context, refers to careful scrutiny of the conduct and manner of specific individuals (e.g., healthy people, depressed people, anxious people, people with schizophrenia). We may study social behavior in a sample of depressed patients by enlisting trained observers to record the frequency with which the patients smile or

make eye contact. We may also ask the patients themselves to fill out self-report questionnaires that assess social skills. If we think that sociability in depressed patients may be related to (or correlated with) their severity of depression, we may further ask patients to complete self-report measures designed to assess that severity. We may even measure levels of certain substances in patients’ blood, urine, or cerebrospinal fluid (the clear fluid that bathes the brain and that can be obtained by performing a lumbar puncture). Finally, we could possibly study our depressed patients’ brains directly via brain-imaging approaches. These diverse sources of information would provide us with potentially valuable data, the basis of scientific inquiry.

FORMING AND TESTING HYPOTHESES ●●●

Research is all about asking questions. To make sense of behavior, researchers generate hypotheses. Hypotheses are efforts to explain, predict, or explore something. What distinguishes scientific hypotheses from the vague speculation that we all routinely engage in is that scientists attempt to test their hypotheses. In other words, they try to design research studies that will help them approach a fuller understanding of how and why things happen.

Anecdotal accounts such as case studies can be very valuable in helping us develop hypotheses, although case studies are not well suited for testing the hypotheses that they may have inspired. Other sources of hypotheses are unusual or unexpected research findings. One example is the higher-than-expected rate of suicide in women who have had cosmetic breast augmentation (Sarwer et al., 2007). Possible explanations for this might include higher rates of psychopathology in women who seek breast augmentation, unrealistic expectations about the positive effects that the surgery would have on their lives, postoperative complications that could lead to depressed mood, as well as other factors such as preoperative body image dissatisfaction. Research is now needed to explore all of these hypotheses.

Hypotheses are vital because they frequently determine the therapeutic approaches used to treat a particular clinical problem. Suppose we are confronted with someone who washes his or her hands 60 to 100 times a day, causing serious injury to the skin and underlying tissues (this is an example of obsessive-compulsive disorder). If we believe that this behavior is a result of subtle problems in certain neural circuits, we may try to identify which circuits are dysfunctional in the hope of ultimately finding a means of correcting them (perhaps with medication).

On the other hand, if we view the excessive hand washing as reflecting a symbolic cleansing of sinful and unacceptable thoughts, we may try to unearth and address the sources of the person's excessive guilt and concern with morality. Finally, if we regard the hand washing as merely the product of unfortunate conditioning or learning, we may devise a means to extinguish the problematic behavior. In other words, our working hypotheses regarding the causes of different disorders very much shape the approaches we use when we study and treat the disorders.

SAMPLING AND GENERALIZATION We can occasionally glean instructive leads from careful scrutiny of a single case. However, this strategy rarely yields enough information to allow us to reach firm conclusions. Research in abnormal psychology is concerned with gaining enhanced understanding and, where possible, control of abnormal behavior (that is, the ability to alter it in predictable ways). We need to study a larger group of individuals with the same problem in order to discover which of our observations or hypotheses possess scientific credibility. The more people we study, the more confident we can be about our findings.

Whom should we include in our research study? In general, we want to study groups of individuals who have similar abnormalities of behavior. If we wanted to study people with panic disorder, a first step would be to determine criteria such as those provided in DSM-IV-TR for identifying people affected with this clinical disorder. We would then need to find people who fit our criteria. Ideally, we would study everyone in the world who met

our criteria, because these people constitute our population of interest. This, of course, is impossible to do, so instead we would try to get a representative sample of people who are drawn from this underlying population. To do this, we would use a technique called **sampling**. What this means is that we would try to select people who are representative of the much larger group of individuals with panic disorder (in the same way that jury selection involves having a representative sample of eligible voters).

INTERNAL AND EXTERNAL VALIDITY From a research perspective, the more representative our sample is, the better able we are to generalize (or extend the findings from our study) to the larger group. The extent to which we can generalize our findings beyond the study itself is called **external validity**. A research study that involves both male and female panic disorder sufferers from all age groups, income levels, and education levels is more representative of the underlying population of panic sufferers (and will have greater external validity) than research using a sample of kindergarten teachers with panic disorder who are all female, unmarried, and 23 years old. In addition, when we study a group of people who all share a defining characteristic (e.g., a specific disorder), we may then be able to infer that additional commonalities that they share (such as a family history of depression or low levels of certain neurotransmitters) may be related to the disorder itself. Of course, this is based on the assumption that the characteristic in question is not widely shared by people who do not have the disorder.

Unlike external validity, which concerns the degree that research findings from a specific study can be generalized to other samples, contexts, or times, **internal validity** reflects how confident we can be in the results of a particular given study. In other words, internal validity is the extent to which a study is methodologically sound, free of confounds or other sources of error, and able to be used to draw valid conclusions. For example, suppose that a researcher is interested in how heart rate changes when participants are told that they are about to be given an electric shock. Imagine also how much faith you might have in the results of the research if participants who have just completed the study are allowed to chat in the waiting area with people who are just about to participate. What if the latter learn that, in reality, no shocks are given at all! How might this information change how subjects respond? Failure to control the exchange of information in this way clearly jeopardizes the integrity of the study and is a threat to its internal validity. Some subjects (those who have not been given prior information) will expect to receive real shocks; others will not because, unbeknownst to the experimenter, information has been leaked to them beforehand.

CRITERION AND COMPARISON GROUPS To test their hypotheses, researchers use a **comparison group** (sometimes called a **control group**). This may be defined as

a group of people who do not exhibit the disorder being studied but who are comparable in all other major respects to the **criteria group** (i.e., the people with the disorder). By “comparable” we might mean that the two groups are similar in age, number of males and females in each group, education level, and similar demographic variables. Typically, the comparison group is psychologically healthy, or “normal,” according to certain specified criteria. We can then compare the two groups on the variables of interest.

Using the controlled research approaches we have just described, researchers have learned much about many different psychological disorders. We can also use extensions of this approach not only to compare one cohort of patients with healthy controls, but also to compare groups of patients with different disorders.

Research Designs

STUDYING THE WORLD AS IT IS A major goal of researchers in abnormal psychology is to learn about the causes of different disorders. For ethical and practical reasons, however, we often cannot do this directly. Perhaps we want to learn about factors that result in depression. We may hypothesize that stress or losing a parent early in life may be important in this regard. Needless to say, we cannot create such situations and then see what unfolds!

Instead, the researcher uses what is known as an **observational research** design (also referred to as **correlational research**). Unlike a true experimental research design (described below), observational research does not involve any manipulation of variables. Rather, the researcher

selects certain groups of interest (for example, people who have recently been exposed to a great deal of stress, or people who lost a parent when they were growing up). She would then compare the groups on a variety of different measures (including, in this example, levels of depression).

Any time we study differences between individuals who have a particular disorder and those who do not, we are utilizing this type of observational or correlational research design. Essentially, we are capitalizing on the fact that the world works in ways that create natural groupings of people (people with specific disorders, people who have had traumatic experiences, people who win lotteries, etc.) whom we can then study. Using these types of research designs, we are able to identify factors that appear to be associated with depression, alcoholism, binge eating, or alternate psychological states of distress (for a more comprehensive description of this kind of research approach, see Kazdin, 1998b).

MEASURING CORRELATION Correlational research takes things as they are and determines associations among observed phenomena. Do measures vary together in a direct, corresponding manner (known as a **positive correlation**—see Figure 1.2) such as in the case of female gender and increased risk of depression? Or conversely, is there an inverse correlation, or **negative correlation**, between the variables of interest (such as high socioeconomic status and decreased risk of psychopathology)? Or finally, are the variables in question entirely independent of one another, or *uncorrelated*, such that a given state or level of one variable fails to predict reliably the degree of the other variable?

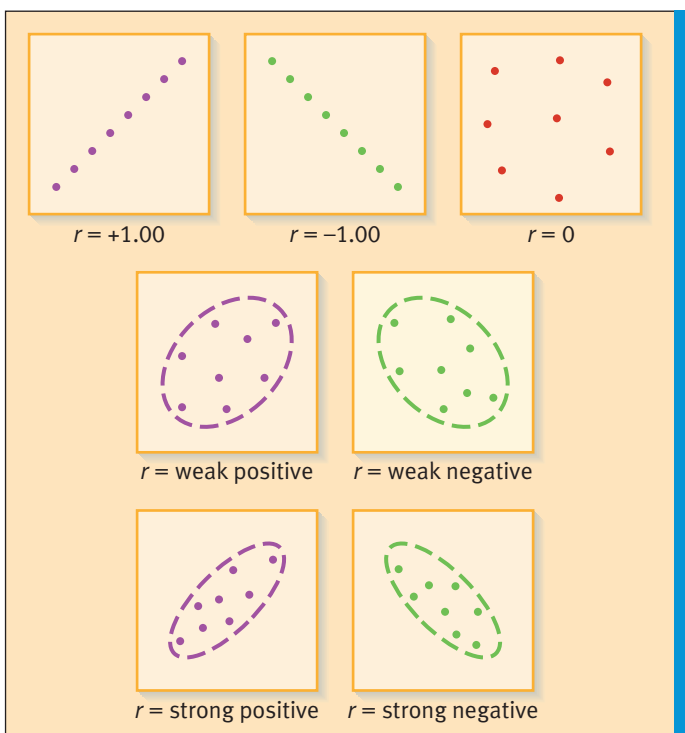


FIGURE 1.2

Scatterplots of data illustrating positive, negative, and no correlation between two variables. Dots indicate a given person's score on the *independent* variable and the *dependent* variable. When there is a strong positive correlation ($r = +1.0$), high scores on the *independent* variable are associated with high scores on the *dependent* variable, creating a forward-sloping straight line. When there is a strong negative correlation ($r = -1.0$), high scores on the *independent* variable are associated with low scores on the *dependent* variable, creating a backward-sloping straight line. When there is no correlation ($r = 0$), scores on the *independent* variable tell us nothing about scores on the *dependent* variable.

The strength of a **correlation** is measured by a **correlation coefficient**, which is denoted by the symbol r . This is a numerical value that can range from -1.0 to $+1.0$. The larger the absolute value of r is, the stronger the association between the two variables. A positive correlation means that higher scores on one variable are associated with higher scores on the other variable, as might be the case for height and weight (taller people tend to weigh more than shorter people). A negative correlation means that, as scores on one variable go up, scores on the other variable tend to go down. An example here might be the association between time spent partying and time spent studying.

CORRELATIONS AND CAUSALITY When it comes to correlations, one thing is very important to remember: Correlation does not mean causation. Just because two variables are correlated does not tell us anything about *why* they are correlated. This is true regardless of the size of the correlation. Many research investigations in abnormal psychology reveal that two (or more) things regularly occur together, such as poverty and retarded intellectual development, or depression and reported prior stressors. This in no way affirms that one factor is the cause of the other.

Consider, for example, the positive correlation that exists between ice cream consumption and drowning. Does this mean that eating ice cream compromises swimming ability and so leads to drowning? Or that people who are about to drown themselves like to have one final ice cream cone before they enter the water? Both of these alternatives are clearly absurd. Much more likely is that some unknown third variable might be causing both events to happen. This is known as the **third variable problem**. What might the third variable be in this example? After a moment's reflection, you might realize that a very plausible third variable is hot summer weather. Ice cream consumption increases in the summer months. So, too, does the number of people who drown, because more people swim during the summer than at any other time. The correlation between ice cream consumption and drowning is a spurious one, caused by the fact that both variables are correlated with the weather.

Even though correlational studies may not be able to pinpoint causal relationships, they can be a powerful and rich source of inference. They often suggest causal hypotheses (increased height may cause increased weight; increased weight is unlikely to cause increased height), generate questions for further research, and occasionally provide crucial data that may confirm or refute specific hypotheses. Much of what we know about mental disorders is derived from correlational studies. The fact that we cannot manipulate many of the variables we study does not mean that we cannot learn a great deal from such approaches.

RETROSPECTIVE VERSUS PROSPECTIVE STRATEGIES Observational research designs can be used to study different groups of patients as they are at the time of the study (that is, concurrently). For example,

if we used brain imaging to look at the size of certain brain structures in patients with schizophrenia and in healthy controls, we would be using this type of approach. But if we wanted to learn what our patients were like before they developed a specific disorder, we might adopt a **retrospective research** strategy. This involves looking back in time. In other words, we would try to collect information about how the patients behaved early in their lives with the goal of identifying factors that might have been associated with what went wrong later. In some cases, our source material might be limited to a patient's recollections, the recollections of family members, material from diaries, or other records. A challenge with this technique is the potential for memories to be both faulty and selective.

There are certain difficulties in attempting to reconstruct the pasts of people already experiencing a disorder. Apart from the fact that a person who is currently suffering from a mental disorder may not be the most accurate or objective source of information, such a strategy invites investigators to discover what they already presume they will discover concerning background factors theoretically linked to a disorder. It invites biased procedure, unconscious or otherwise.

Another approach is to use a **prospective research** strategy, which involves looking ahead in time. Here the idea is to identify individuals who have a higher-than-average likelihood of becoming psychologically disordered and to focus research attention on them *before* any disorder manifests. We can have much more confidence in our hypotheses about the causes of a disorder if we have been tracking influences and measuring them prior to the development of the illness in question. When our hypotheses correctly predict the behavioral problems that a group of individuals will later develop, we are much closer to establishing a causal relationship. A study that follows people over time and that tries to identify factors that predate the onset of a disorder employs a **longitudinal design**. A prototypical illustration might be a study that follows, from infancy to adulthood, the children of mothers who suffer from schizophrenia. By collecting data on the children at regular intervals, researchers can compare those who later develop schizophrenia with those who do not, with the goal of identifying important differentiating factors. In another example of a longitudinal design, researchers have shown that adolescents who report suicidal thoughts at age 15 are much more likely to have psychological problems and to have attempted suicide by age 30 than people who do not have suicidal ideas in their teens (Reinherz et al., 2006).

Manipulating Variables: The Experimental Method in Abnormal Psychology

As you have already learned, even when we find strong positive or negative associations between variables, correlational

research does not allow us to draw any conclusions about directionality (i.e., does variable A cause B, or does B cause A?). To draw conclusions about causality and resolve questions of directionality, an **experimental research** approach must be used. In such cases, scientists control all factors except one—the factor that could have an effect on a variable or outcome of interest. They then actively manipulate (or influence) that one factor. The factor that is manipulated is referred to as the **independent variable**. If the outcome of interest, called the **dependent variable**, is observed to change as the manipulated factor is changed, then that independent variable can be regarded as a cause of the outcome (see Figure 1.3).

In Romania, children who are abandoned by their parents are traditionally raised in orphanages rather than in foster care. To study the cognitive effects of institutional versus other forms of care, researchers randomly assigned 136 children who had been institutionalized as babies to either remain in these institutions or be raised by foster families (see Nelson et al., 2007). These foster parents had been recruited for the study by the researchers. Another sample of children who lived with their birth families

was also studied for comparison purposes. All the children received cognitive testing when they were 30, 42, and 54 months old. In this study, the independent variable is the living situation of the child (orphanage or foster care). The dependent variable is intellectual functioning.

Did the children assigned to foster care fare better than the children who remained in institutions? The answer is yes. At both the 42-month and the 54-month assessments, the children in foster families had significantly higher scores on the measure of cognitive functioning than the children who remained institutionalized. We can therefore conclude that there was something about being raised in a foster family that was responsible for the increased intellectual development of these children. Sadly, however, the cognitive development of both groups of children was much lower than the intellectual functioning of children who were raised in typical families. The results of this unique study therefore tell us that, although foster care helps abandoned children, these children remain at a disadvantage relative to children who are raised by their biological families. However, based at least partially on the findings from this remarkable study,

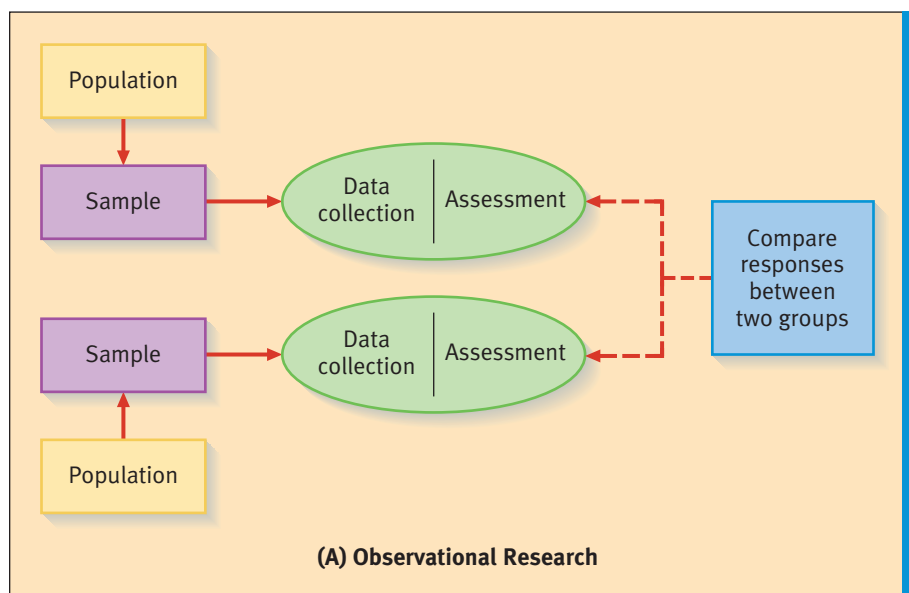
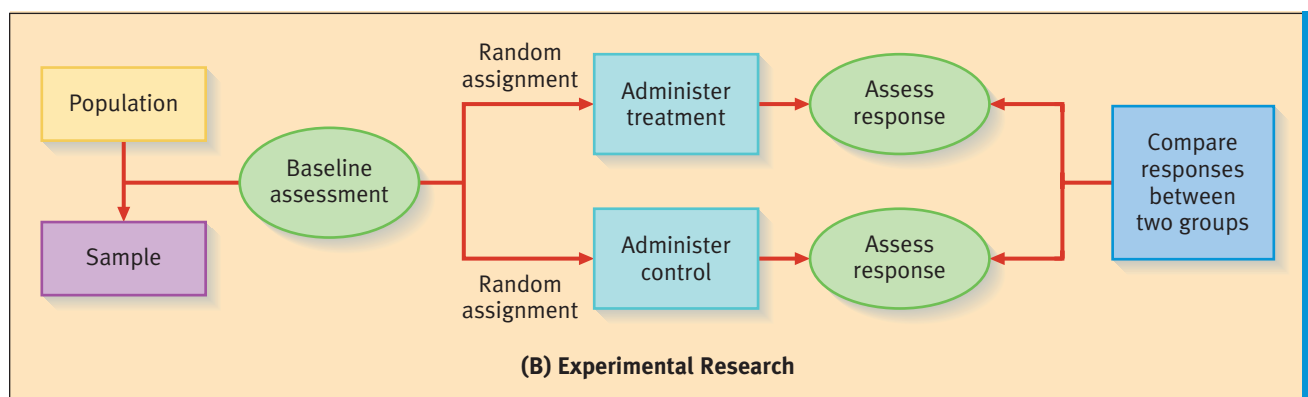


FIGURE 1.3

Observational and Experimental Research Designs

(A) In observational research, data are collected from two different samples or groups and are then compared. (B) In experimental research, participants are assessed at baseline and then randomly assigned to different groups (e.g., a **treatment and a control condition**). After the experiment or treatment is completed, data collected from the two different groups are then compared. (Adapted from Petrie & Sabin, 2000.)



Romania no longer allows children without severe disabilities to be placed in institutional care.

STUDYING THE EFFICACY OF THERAPY Researchers in abnormal psychology are often interested in learning which treatments work for specific disorders. Used in the context of treatment research, the experimental method has proved to be indispensable. It is a relatively straightforward process to establish: A proposed treatment is given to a designated group of patients and withheld from a similar group of patients. Should the treated group show significantly

more improvement than the untreated group, we can have confidence in the treatment's efficacy. We may not, however, know why the treatment works, although investigators are becoming increasingly sophisticated in fine-tuning their experiments to tease out the means by which therapeutic change is induced (e.g., Hollon, DeRubeis, & Evans, 1987; Jacobson et al., 1996; Kazdin & Nock, 2003). Developments in Research 1.1 provides a nice example of a treatment research study that yielded a surprising result.

In treatment research it is important that the two groups (treated and untreated) be as equivalent as possible,

1.1

DEVELOPMENTS IN RESEARCH



Do Magnets Help with Repetitive-Stress Injury?

Magnets are often marketed to people who have chronic hand or wrist pain. This type of problem is known as repetitive-stress injury (RSI). A common source of such problems is extensive computer use. But do magnets really relieve the chronic pain that is associated with repetitive-stress injury? Testimonials notwithstanding, the only way to answer this question is by controlled research. To investigate this issue, Pope and McNally (2002) randomly assigned college students with RSI to one of three groups. One group was asked to wear wristbands containing magnets for a 30-minute period (magnet group). A second group was also given seemingly identical bracelets to wear. In this case, however, and unknown both to the participants and to the assistant running the study, the magnets had been removed from the wristsbands (sham group). A third group of subjects did not receive any magnets (no-treatment group).

You should note here that this study is an example of what we call a **double-blind study**. In other words, neither the subjects nor the experimenter who was working with the subjects knew who got the genuine magnets. The use of the wristsbands with the magnets removed is called a *placebo treatment* condition (the word **placebo** comes from the Latin meaning "I shall please"). Placebo treatment conditions enable experimenters to control for the possibility that simply believing one is getting an effective type of treatment produces a therapeutic benefit. Finally, the no-treatment control group enables the experimenters to see what happens when they do not provide any treatment (or expectation of treatment) at all.

At the start of the study, all of the student participants completed a 4-minute typing test. This provided a measure of how many words they could type in this time period. Then, 30 minutes after wearing the magnets or fake wristsbands (or, for the no-treatment subjects, after waiting 30 minutes), all participants completed another 4-minute

typing test. In addition, those who had been assigned to either the genuine or the placebo magnet group were asked to rate their degree of pain relief (from no improvement to complete relief) using an 8-point scale.

What were the results? As might be expected, those people who had been assigned to the no-treatment group did not report that their level of pain changed in any appreciable way. This is hardly surprising, because nothing had been done to them at all. They typed an average of about four more words on the second test (the post-test) than on the first (the pretest).

Did the people who wore the magnets do better than this? The answer is yes. Those who wore the genuine magnets reported that their pain was diminished. They also typed an average of 19 more words on the second typing test than they had on the first! In other words, with respect to both their self-report data (their pain improvement ratings) and their behavioral data (how rapidly they could type), they clearly did better than the no-treatment group.

Before you rush out to buy magnetic bracelets, however, let us look at the performance of the people who received the fake bracelets. Like the subjects who wore the genuine magnets, these participants also reported that their pain had improved. And, in fact, on the behavioral typing test, subjects in the placebo treatment group typed even more words on the second test (an average of 26 more words) than subjects who wore the real magnets did. With respect to their self-reports and their behavioral data, therefore, the group who wore the fake bracelets improved just as much as the group who wore the real magnets! On the basis of this study, then, we must conclude that magnet therapy works via the placebo effect, not because there is any genuine clinical benefit that comes from the magnets themselves. If you believe that the magnet will help your RSI, you do not actually need a magnet to bring about any clinical improvement. And this, in a nutshell, is why we need controlled research trials.

except for the presence or absence of the proposed active treatment. To facilitate this, patients are typically randomly assigned to the treatment condition or the no-treatment condition. **Random assignment** means that every research participant has an equal chance of being placed in the treatment or the no-treatment condition. Once a treatment has been established as effective, it can then be provided for members of the original control (untreated) group, leading to improved functioning for all those involved.

Sometimes, however, this “waiting list” control group strategy is deemed inadvisable for ethical or other reasons. Withholding a treatment that has been established as beneficial just to evaluate a new form of treatment may deprive control subjects of valuable clinical help for longer than would be considered appropriate. For this reason, there need to be stringent safeguards regarding the potential costs versus benefits of conducting the particular research project.

In certain cases, an alternative research design may be called for, in which two (or more) treatments are compared in differing yet comparable groups. This method is termed a *standard treatment comparison study*. Typically, the efficacy of the control condition has been previously established; thus, patients who are assigned to this condition are not disadvantaged. Instead, the question is whether patients who receive the new treatment improve to a greater extent than those receiving the control (established) treatment. Such comparative-outcome research has much to recommend it and is being increasingly employed (Kendall et al., 2004).

SINGLE-CASE EXPERIMENTAL DESIGNS Does experimental research always involve testing hypotheses by manipulating variables across groups? The simple answer is no. We have already noted the importance of case studies as a source of ideas and hypotheses. In addition, case studies can be used to develop and test therapy techniques within a scientific framework. Such approaches are called **single-case research designs** (Hayes, 1998; Kazdin, 1998a, 1998b). A central feature of such designs is that the same individual is studied over time. Behavior or performance at one point in time can then be compared to behavior or performance at a later time, after a specific intervention or treatment has been introduced.

One of the most basic experimental designs in single-case research is called the **ABAB design**. The different letters refer to different phases of the intervention. The first A phase serves as a baseline condition. Here we simply collect data on or from the participant. Then, in the first B phase, we introduce our treatment. Perhaps the person’s behavior changes in some way. Even if there is a change, however, we are not justified in concluding that it was due to the introduction of our treatment. Other factors might have coincided with its introduction, so any association between the treatment and the behavior change might be spurious. To establish whether it really was the treatment

that was important, we therefore withdraw the treatment and see what happens. This is the reasoning behind the second A phase (i.e., at the ABA point). Finally, to demonstrate that the behavior observed during the B phase is attainable once again, we reinstate our treatment and see if the behavioral changes we saw in the first B phase become apparent again. To further clarify the logic behind the ABAB design, let’s consider the case of Kris (see Rapp et al., 2000).

case STUDY

Kris

Kris was a 19-year-old female who was severely retarded. Since the age of 3 she had pulled her hair out. This disorder is called *trichotillomania* (pronounced tri-ko-til-lo-mania). Kris’s hair pulling was so severe that she had a bald area on her scalp that was approximately 2.5 inches in diameter.

The researchers used an ABAB experimental design (see Figure 1.4 on p. 30) to test a treatment for reducing Kris’s hair pulling. In each phase, they used a video camera to observe Kris while she was alone in her room watching television. During the baseline phase (phase A), observers measured the percentage of time that Kris spent either touching or manipulating her hair (42.5 percent of the time), as well as hair pulling (7.6 percent of the time).

In the treatment phase (B), a 2.5-lb weight was put around Kris’s wrist when she settled down to watch television. When she was wearing the wrist weight, Kris’s hair manipulation and hair pulling was reduced to zero. This, of course, suggested that Kris’s behavior had changed because she was wearing a weight on her wrist. To verify this, the wrist weight was withdrawn in the second A phase (i.e., ABA). Kris immediately started to touch and manipulate her hair again (55.9 percent). She also showed an increase in hair pulling (4 percent of the time).

When the wrist weight was reintroduced in the second B phase (ABAB), Kris’s hair manipulation and pulling once again decreased, at least for a while. Although additional treatments were necessary (see Rapp et al., 2000), Kris’s hair pulling was eventually eliminated entirely. Most important for our discussion, the ABAB design allowed the researchers to systematically explore, using experimental techniques and methods, the treatment approaches that might be beneficial for patients with trichotillomania.

ANIMAL RESEARCH An additional way in which we can use the experimental method is by conducting research with animals. Although ethical considerations are still critical in animal research, we are able to perform studies using animal subjects that would not be possible to implement with humans (e.g., giving them experimental drugs, implanting electrodes to record brain activity, etc.).

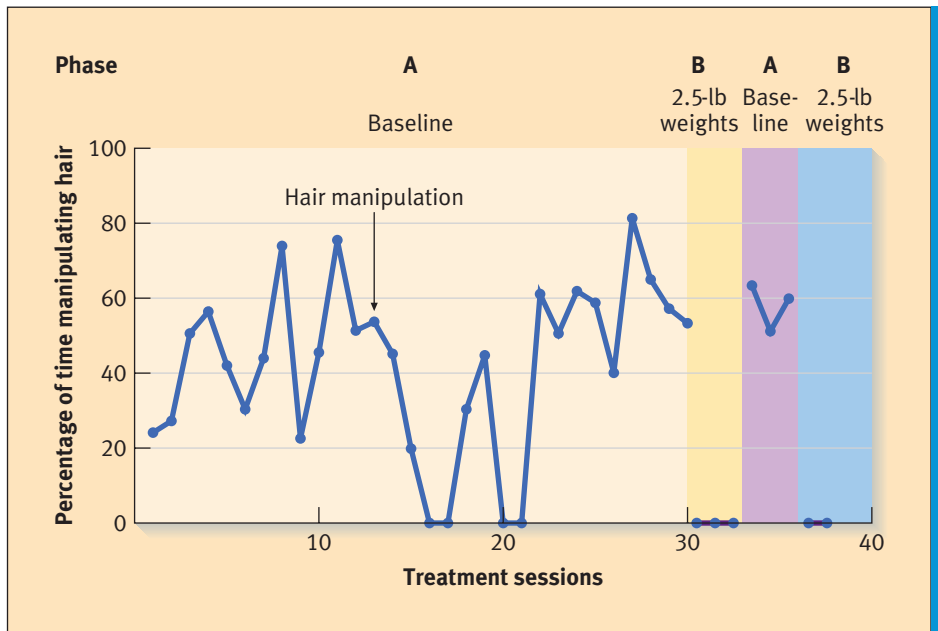


FIGURE 1.4

An ABAB Experimental Design: Kris's Treatment

In the A phase, baseline data are collected. In the B phase, a treatment is introduced. This treatment is then withdrawn (second A phase) and then reinstated (second B phase). In this example, hair manipulation declines with use of wrist weights, returns to pretreatment (baseline) levels when they are withdrawn, and declines again when they are reintroduced. (Data adapted from Rapp et al., 2000.)

One current model of depression, called “hopelessness depression,” has its origins in early research conducted with animals (Seligman, 1975). Laboratory experiments with dogs had demonstrated that, when subjected to repeated experiences of painful, unpredictable, and inescapable electric shock, the dogs lost their ability to learn a simple escape response to avoid further shock in a different situation later on. They just sat and endured the pain. This observation led Seligman and his colleagues to argue that human depression (which he believed was analogous to the reaction of the helpless dogs) is a reaction to uncontrollable stressful

events in which one’s behavior has no effect on one’s environment, leading to helplessness, passivity, and depression. In other words, the findings from these animal studies provided the impetus for what first became known as “the learned helplessness theory of depression” (Abramson, Seligman, & Teasdale, 1978; Seligman, 1975) and is now termed “the hopelessness theory of depression” (Abramson et al., 1989). These theories of depression are not without their difficulties. Nevertheless, it is useful to remain aware of the broader message: Even though problems may arise when we generalize too readily from animal to human models of psychopathology, the learned helplessness analogy has generated much research and has allowed us to refine and develop our understanding of depression.



Animal research allows behavioral scientists to manipulate and study behavior under controlled conditions that would not be possible to replicate using humans as subjects. However, results of this research may not hold up when extended to humans outside the laboratory in a “real-world” setting.

IN REVIEW

1. What are the strengths and limitations of case studies?
2. What is the difference between self-report and observational data? What range of measures could be considered to reflect observational data?
3. How is experimental research different from observational (correlational) research?
4. What is the difference between a positive and a negative correlation? If two variables are correlated, does this mean that one variable causes the other? If so, why? If not, why not?

UNRESOLVED ISSUES

Are We All Becoming Mentally Ill? The Expanding Horizons of Mental Disorder

The concept of mental disorder, as we have seen, suffers from the lack of a truly objective means of determining what is disordered and what is not. It is also in the financial interests of mental health professionals to be more and more inclusive concerning the kinds of problems that might be regarded as “mentally disordered.” Not surprisingly, there is often pressure to include in the DSM more and more kinds of socially undesirable behavior. One proposal was the inclusion in the DSM-IV of “road rage” (anger at other drivers) as a newly discovered mental disorder (Sharkey, 1997). However, anger directed toward other drivers is so common that almost all of us would be at risk of being diagnosed with this new disorder if it had been added to the DSM.

There is considerable informal evidence that the committee responsible for the production of the DSM-IV worked hard to fend off a large number of such frivolous proposals. They largely

succeeded in avoiding additional diagnoses beyond those that appeared in the previous edition (DSM-III-R) by adopting stringent inclusion criteria. Nevertheless, this promises to be an uphill battle. Mental health professionals, like the members of other professions, tend to view the world through a lens that enhances the importance of phenomena related to their own expertise. Also, inclusion of a disorder in the DSM is a prerequisite for health insurers’ reimbursement of services rendered.

It is thus in the interests of the public at large to keep a wary eye on proposed expansions of the “mentally disordered” domain. It is conceivable that failure to do so might eventually lead to a situation in which the majority of the array of human behavior—save for the most bland, conformist, and conventional of conduct—would be declared a manifestation of a mental disorder. By that point, the concept of psychopathology would have become so indiscriminate as to lose most of its scientifically productive meaning.

summary

- A precise definition of “abnormality” remains elusive. Elements that can be helpful in considering whether something is abnormal include suffering, maladaptiveness, deviancy, violations of societal norms, irrationality, and unpredictability.
- The DSM employs a category type of classification similar to that used in medicine. Disorders are regarded as discrete clinical entities even though not all clinical disorders may be best considered in this way.
- Even though it is not without problems, the DSM provides us with working criteria that help clinicians and researchers identify and study specific difficulties that affect the lives of many people. It is far from a “finished product.” However, familiarity with the DSM is essential to significant study of the field.
- Wakefield’s notion of “harmful dysfunction” is a helpful step forward. However, it still fails to provide an adequate definition of a mental disorder. It is nonetheless a good working definition.
- Culture shapes the presentation of clinical disorders in some cases. There are also certain disorders that appear to be highly culture-specific.
- Classifying disorders provides a communication shorthand and allows us to structure information in an efficient manner. This facilitates research and treatment. However, when we classify, we lose personal information about the person with the disorder. Classification also facilitates stigma, stereotyping, and labeling.
- Epidemiology involves the study of the distribution and frequency of disorders. Just under 50 percent of people will experience some form of mental disorder over the course of their lifetimes. Mood disorders and anxiety disorders are particularly common.
- In the ancient world, superstitious explanations for mental disorders were followed by the emergence of medical concepts in many places such as Egypt and Greece; many of these concepts were developed and refined by Roman physicians.
- After the fall of Rome near the end of the fifth century A.D., superstitious views dominated popular thinking about mental disorders for over 1,000 years. In the fifteenth and sixteenth centuries, it was still widely believed, even by scholars, that some mentally disturbed people were possessed by a devil.

- Great strides have been made in our understanding of abnormal behavior. For example, during the latter part of the Middle Ages and the early Renaissance, a spirit of scientific questioning reappeared in Europe, and several noted physicians spoke out against inhumane treatments. There was a general movement away from superstitions and “magic” toward reasoned, scientific studies.
- With recognition of a need for the special treatment of disturbed people came the founding of various “asylums” toward the end of the sixteenth century. However, institutionalization brought the isolation and maltreatment of mental patients. Slowly this situation was recognized, and in the eighteenth century, further efforts were made to help afflicted individuals by providing them with better living conditions and humane treatment, although these improvements were the exception rather than the rule.
- The nineteenth and early twentieth centuries witnessed a number of scientific and humanitarian advances. The work of Philippe Pinel in France, of William Tuke in England, and of Benjamin Rush and Dorothea Dix in the United States prepared the way for several important developments in contemporary abnormal psychology such as moral management. Among these were the gradual acceptance of mental patients as afflicted individuals who need and deserve professional attention; the successful application of biomedical methods to disorders; and the growth of scientific research into the biological, psychological, and sociocultural roots of abnormal behavior.
- The reform of mental hospitals continued into the twentieth century, but over the last four decades of the century, there was a strong movement to close mental hospitals and release people into the community. This movement remains controversial in the early part of the twenty-first century.
- In the nineteenth century, great technological discoveries and scientific advancements that were made in the biological sciences enhanced the understanding and treatment of disturbed individuals. One major biomedical breakthrough came with the discovery of the organic factors underlying general paresis—syphilis of the brain—one of the most serious mental illnesses of the day.
- Beginning in the early part of the eighteenth century, knowledge of anatomy, physiology, neurology, chemistry, and general medicine increased rapidly. These advances led to the identification of the biological, or organic, pathology underlying many physical ailments.
- The development of a psychiatric classification system by Kraepelin played a dominant role in the early development of the biological viewpoint. Kraepelin’s work (a forerunner to the DSM system) helped to establish the importance of brain pathology in mental disorders and made several related contributions that helped establish this viewpoint.
- The first major steps toward understanding psychological factors in mental disorders occurred with mesmerism and the Nancy School, followed by the work of Sigmund Freud. During five decades of observation, treatment, and writing, he developed a theory of psychopathology, known as “psychoanalysis,” that emphasized the inner dynamics of unconscious motives. Over the last half-century, other clinicians have modified and revised Freud’s theory, which has thus evolved into new psychodynamic perspectives.
- Scientific investigation into psychological factors and human behavior began to make progress in the latter part of the nineteenth century. The end of the nineteenth century and the early twentieth century saw experimental psychology evolve into clinical psychology with the development of clinics to study, as well as intervene in, abnormal behavior.
- Paralleling this development was the work of Pavlov in understanding learning and conditioning. Behaviorism emerged as an explanatory model in abnormal psychology. The behavioral perspective is organized around a central theme—that learning plays an important role in human behavior. Although this perspective was initially developed through research in the laboratory (unlike psychoanalysis, which emerged out of clinical practice with disturbed individuals), it has been shown to have important implications for explaining and treating maladaptive behavior.
- To avoid misconception and error, we must adopt a scientific approach to the study of abnormal behavior. This requires a focus on research and research methodology, including an appreciation of the distinction between what is observable and what is hypothetical or inferred.
- To produce valid results, research must be conducted on individuals who are truly representative of the diagnostic groups to which they purportedly belong.
- Research in abnormal psychology may be observational or experimental. Observational research examines factors as they currently are. Experimental research involves manipulating one variable (the independent variable) and observing the effect this manipulation produces with regard to another variable (the dependent variable).
- Mere correlation between variables does not enable us to conclude that there is a causal relationship between them. Simply put, correlation does not equal causation.
- Although most experiments involve the study of groups, single-case experimental designs (e.g., ABAB designs) may also be used to make causal inferences in individual instances.
- Although generalizability presents an obstacle, animal research in particular has been very informative.

KEY TERMS



- ABAB design (p. 29)
- abnormal psychology (p. 2)
- acute (p. 22)
- asylums (p. 13)
- behavioral perspective (p. 20)
- behaviorism (p. 21)
- bias (p. 22)
- case study (p. 22)
- catharsis (p. 19)
- chronic (p. 22)
- classical conditioning (p. 20)
- comorbidity (p. 10)
- comparison or control group (p. 24)
- correlation (p. 26)
- correlational research (p. 25)
- correlation coefficient (p. 26)
- criterion group (p. 25)
- deinstitutionalization (p. 16)
- dependent variable (p. 27)
- direct observation (p. 22)
- double-blind study (p. 19)
- dream analysis (p. 19)
- epidemiology (p. 9)
- etiology (p. 5)
- exorcism (p. 12)
- experimental research (p. 27)
- external validity (p. 24)
- family aggregation (p. 2)
- free association (p. 19)
- generalizability (p. 22)
- incidence (p. 9)
- independent variable (p. 27)
- internal validity (p. 24)
- labeling (p. 7)
- lifetime prevalence (p. 9)
- longitudinal design (p. 26)
- lycanthropy (p. 12)
- mental hygiene movement (p. 14)
- mesmerism (p. 18)
- moral management (p. 14)
- Nancy School (p. 18)
- negative correlation (p. 25)
- nomenclature (p. 6)
- observational research (p. 25)
- 1-year prevalence (p. 9)
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- point prevalence (p. 9)
- positive correlation (p. 25)
- prevalence (p. 9)
- prospective research (p. 26)
- psychoanalysis (p. 18)
- psychoanalytic perspective (p. 18)
- random assignment (p. 29)
- retrospective research (p. 26)
- sampling (p. 24)
- self-report data (p. 22)
- single-case research design (p. 29)
- stereotyping (p. 6)
- stigma (p. 6)
- third variable problem (p. 26)
- unconscious (p. 19)

