

Identifying, Detecting, and Classifying Mental Disorders: MAPS of the Territory

CHAPTER 1

Chapter Outline

Identifying Mental Disorders: What Are They?

Assessment and Diagnosis

Assessment Tools: How Do Health Professionals Detect Mental Disorders?

Diagnostic Classification: How Do Health Professionals Categorize Mental Disorders?

The Frequency of Mental Disorders: How Common Are They?

The Four Guiding Principles: MAPS of the Territory



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From the Case of Bill

When Bill contacted the clinician, he told her that he had been constantly nervous for the past year or so. She learned that he was a 58-year-old business executive at a national computer company. Bill grew up in a working-class family, the oldest of three brothers. He was an average student through school, except for some behavior problems in the fifth grade, as well as a car accident when he first learned to drive. (Both events are discussed later in this chapter.) Bill also remembered never “having much fun” growing up. He was quiet and overweight as a teenager and always felt slighted by other boys who were more interested in and successful at sports.

Bill married his high-school girlfriend while they both were attending the same college. They have been married for 35 years and have two grown children. In addition to his salary of about \$150,000 per year, Bill has reaped excellent profits from rental properties and business ventures. Despite his material success, Bill has felt restless and unhappy for the past 2 years.

Now, Bill says, his stomach is “always upset,” and often he feels he can’t “get his breath.” According to his physician, Bill has Crohn’s disease, a potentially dangerous intestinal disorder. Bill also says that he feels so agitated he can’t

After reading this chapter, you will be able to answer the following key questions:

- What are mental disorders?
- How do health professionals detect mental disorders?
- How do health professionals categorize mental disorders?
- How common are mental disorders in the United States and worldwide?
- What are four guiding principles to keep in mind when studying abnormal psychology?

mental disorder: A behavioral or psychological syndrome that produces harmful dysfunction in an individual, causing objective impairment and/or subjective harm.

sit still, can't concentrate at work, and has trouble remembering things. One night he drove out of the parking lot at work and left his briefcase on the pavement where he had parked his car. His success at work has begun to decline. He can't fall asleep until 3 A.M. most nights because his mind is "spinning" with constant worry about work and marital problems. He reports being sexually "impotent," a problem that has caused so much conflict with his wife that, 2 months ago, they "just gave up" trying to have sex. He describes their marriage as "extremely tense and uncomfortable"; he and his wife avoid each other as much as possible. He has been carrying on an affair with a co-worker for over a year and has kept this relationship a secret from everyone, a deception that he recognizes is beginning to take a toll on him.

Bill is also worried because his company is downsizing its workforce. Other mid-level executives have recently been fired, and Bill is sure it is just a matter of time before he gets his pink slip. At his age, he is convinced that no one else will hire him. Increasingly, when he thinks about the future, Bill feels depressed and desperate. In fact, he becomes so obsessed with the fear that he will die an early death that he sometimes wonders whether he just shouldn't kill himself and put an end to his insecurity and fear.

Bill's complaints are familiar to most clinicians. Like many clients, he complains of a mixture of anxiety, depression, physical symptoms, and marital discord. What has caused Bill's problems? Is he suffering from a **mental disorder**, or is he just going through a rough time in his life? Are Bill's problems the cause or the result of his marital difficulties? How could a clinician decide? If Bill does have a mental disorder, which diagnosis would be most accurate? What methods should a clinician use to diagnose Bill? Will his treatment differ depending on his diagnosis? These are some of the questions that mental health professionals try to answer through clinical assessment and diagnostic classification.

In this chapter, we review several definitions of mental disorders, discuss their advantages and disadvantages, and then offer a working definition to be used throughout the book. We will describe how mental health professionals assess and classify mental disorders in North America, how they distinguish disorders from nondisorders, and how they differentiate one disorder from another. We also discuss the frequency with which different mental disorders are diagnosed and how these diagnoses are affected by various real-world considerations, including financial concerns and cultural differences. We then lay out a map of the territory by describing the four guiding principles to keep in mind when studying abnormal psychology that will reappear throughout this textbook. Finally, we return to the case of Bill and see how his clinician assessed and diagnosed his problem.

Identifying Mental Disorders: What Are They?

If you decided that Bill (in the chapter-opening case) does indeed have a psychological disorder, what was it that led to your decision? Was it because you think it is unusual for someone to have such strong physical symptoms? Was it because Bill seems to be so upset by his anxious thoughts? Perhaps it was because Bill is seeking treatment for his problem. Was it because you disapprove of Bill's behavior? Maybe you concluded that Bill's behavior or emotional state could be harmful to himself and others. Or did you question whether Bill actually had a mental disorder? Each of these views reflects a different perspective on what constitutes a mental disorder.

What Is a Mental Disorder?

Mental disorder has been defined in five general ways throughout history as:

1. deviation from social expectations,
2. what mental health professionals treat,

3. a label for disliked actions,
4. subjective distress, and/or
5. a dysfunction that causes harm.

We discuss each of those five definitional approaches in more detail next.

Disorder As a Deviation From Social Expectations

Mental disorder can be defined as a deviation from social expectations. Typically, the deviation is in the negative direction from expectations. Otherwise, all unusual qualities, including high intelligence or outstanding memory abilities, for example, would be classified as disorders. Usually, a behavior that deviates from social expectations is also statistically rare. In fact, when a formerly unusual behavior becomes too frequent in society, it stops being a sign of nonconformity or a violation of expectations and starts becoming an expected behavior or norm. For example, after James Dean popularized them in the movie *Rebel Without a Cause*, wearing blue jeans became a symbol of youth rebellion during the 1950s. Because of this, jeans were sometimes banned in theaters, restaurants, and schools. During the 1960s, wearing jeans became more acceptable, and by the 1970s, it had become general fashion in the United States for casual wear (Sullivan, 2007).

Several serious problems make this social-deviation definition incomplete. First, it ignores characteristics that are not rare but are still problematic and require treatment. For example, if many people in a community suffer severe anxiety following a devastating hurricane, should the high frequency of the symptoms rule out a diagnosis of disorder? Second, how rare must a condition be before qualifying as a disorder? For schizophrenia, which affects about 1% of adults in North America, a statistical approach works fairly well because 1% is a reasonable definition of “rare.” However, a deviation-based definition is less adequate for alcohol use disorder or attention-deficit/hyperactivity disorder (ADHD), each of which may affect up to 10% of American adults. Third, deviation-based definitions imply that conformity to social expectations is synonymous with mental health, but this is not necessarily the case. Not everyone who meets a society’s expectations is mentally healthy, nor are those—such as jean-wearers in the 1950s or today’s modern artists—who challenge those expectations necessarily mentally disordered.



Source: Mikael Damkier/Shutterstock.com.

This photo shows the city hall in Stockholm, Sweden, where the Nobel banquet occurs annually each December in recognition of cultural and/or scientific advances since 1895. The Nobel Prize in Physiology or Medicine 2013 was awarded jointly to James E. Rothman, Randy W. Schekman, and Thomas C. Südhof “for their discoveries of machinery regulating vesicle traffic, a major transport system in our cells” (Nobel Media, 2013). Many of the characteristics of such prize winners—such as high intelligence and creativity—are extremely rare, but because they are valued achievements in our culture, they are not viewed as signs of mental disorder.

epidemiology: The scientific study of the onset and frequency of disorders in certain populations.

Connections

Is schizophrenia rare in all cultures? To learn about the frequency of this disorder in different countries, see Chapter 4.

Disorder As What Mental Health Professionals Treat

A second, pragmatic definition is that mental disorders are whatever problems or symptoms clinicians treat. This definition is occasionally used in **epidemiology**, the scientific study of the onset and frequency of disorders in certain populations. The greatest strength of this definition is its simplicity, but it has several disadvantages. First, not everyone who consults a clinician is suffering symptoms. Many people consult mental health professionals because they want to learn how to communicate better with their spouses, to be more effective parents, or to be happier in their jobs. Obviously, people can pursue such goals without having a mental disorder. Second, this definition assumes that everyone—regardless of the disorder they suffer, the availability of treatment, or their ability to pay for it—is equally likely to seek professional treatment. However, this assumption is incorrect, so the definition of disorder on which it is based would be misleading. It would underestimate, for example, the frequency of disorders among those of low socioeconomic status, who are least likely to receive treatment.

Disorder As a Label for Disliked Actions

Some argue that most mental disorders represent nothing more than labels bestowed by mental health professionals on people whose behavior is disturbing to others. Thomas Szasz (1961) argued that mental illness should refer only to those relatively few behavioral problems that are clearly traceable to organic causes. Skeptics such as Szasz believe that labeling people who fall outside this category as mentally ill harms them by stigmatizing them. In addition, the labels often lead to the imposition of treatment, which invades people's privacy and limits their freedom.

This skeptical view has a declining influence today, mainly because it appears to trivialize the problems of people in whom no specific biological deficit has been found but whose troubles are nevertheless very real to them. It also fails to account for the fact that behavior problems often do not go away and sometimes worsen if unlabeled, and they often improve when treated. However, this definition, along with the two other definitional approaches already discussed—deviation from social expectations and what mental health professionals treat—serves to remind us of the importance of cultural factors in mental disorders.

Disorder As Subjective Distress or Unhappiness

Personal distress and unhappiness often accompany mental disorders; indeed, these feelings frequently lead people to seek treatment. Although subjective distress is a symptom of some mental disorders, distress alone cannot define disorder. People feel unhappy over many events in their lives. They worry about finances, become jealous of lovers, and get angry at bosses. In fact, *not* feeling emotionally upset in the face of a devastating loss or a callous insult might be interpreted as a sign of disorder. In addition, this definition does not distinguish between the temporary upset that accompanies stressful events and distress that may be more chronic, intense, and seemingly unrelated to external stressors. Finally, certain patterns of behavior, such as some of the personality disorders described in Chapter 16, cause little or no distress for individuals displaying them, although they create problems for other people around them. Few would argue that such behavior patterns should be disqualified as mental disorders.

Disorder As Dysfunction That Causes Harm

A useful definition is provided by Jerome Wakefield (1992), who said that mental disorders are dysfunctions that cause harm. *Dysfunction* refers to the failure of a biological or psychological mechanism to operate as it should; there is a breakdown in the way a person thinks, feels, or perceives the world. When Bill (from the chapter-opening case) experiences problems in concentration and memory, he is experiencing cognitive dysfunctions.

The concept of *harm* in this definition refers to the consequences of dysfunction that a society or an individual considers to be negative. Because not every dysfunction produces harm, not every dysfunction would be considered a disorder by this definition. Bill's cognitive lapses produced harm because they led to growing problems at work.

Defining mental disorders as harmful dysfunctions is not ideal for all circumstances and purposes, and it is not always entirely clear (Lilienfeld & Marino, 1995). For example, how much impairment must appear before it becomes a “dysfunction”? Are some psychological conditions dysfunctional in one culture, but functional in others? And when do the consequences of dysfunction cease to be merely annoying and become harmful? One parent, for example, might tolerate a child’s misbehavior as “just a phase” of rambunctiousness, whereas another might see the same behavior as a symptom of a disorder requiring medication. Clearly, there is room for bias to creep into the definition. And, like all other definitions, this one can be misused and misapplied. Still, defining mental disorder as harmful dysfunction appears to be the most workable, least arbitrary definition, and the one that best captures both the objective impairment and the subjective harm that is usually associated with the concept of mental disorders.

The DSM Definition

The *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (American Psychiatric Association, 2013a) is a widely used compendium that lists all known mental disorders and that is discussed in detail later in this chapter. The *DSM-5* introduced an updated definition of a *mental disorder* when it was published in May 2013. The new definition retained the ideas already discussed of cultural context, distress/disability, and individual dysfunction found in the *DSM-IV* (American Psychiatric Association, 1994), but added the concepts of emotion regulation and developmental processes:

A mental disorder is a syndrome characterized by clinically significant disturbance in an individual’s cognition, *emotion regulation*, or behavior that reflects a dysfunction in the psychological, biological, or *developmental processes* underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above. (American Psychiatric Association, 2013a, p. 20)

By including “emotion regulation” in its revised definition, the *DSM-5* affirms that mental health does not arise so much from reducing certain emotions but, rather, from adaptively managing the range of human “positive” and “negative” emotions; this reflects our rapidly growing understanding of the deep primary roles played by our affective systems (Sander, 2013; Davidson, Jackson, & Kalin, 2000). For instance, you can think about particular emotions that you find challenging when you feel them, and reflect upon how long it takes you to get “unstuck” from different emotions, as well as strategies you might use to cope with them.

The inclusion of “developmental processes” as a potential area of dysfunction emphasizes the *DSM-5*’s use of a lifespan developmental approach to classification (Klott, 2012), which you will see reflected throughout this textbook. Once you understand how mental disorders are defined, you can then think about how to detect and categorize them, as discussed in the remainder of this chapter.

Section Review

Mental disorders have been defined as:

- deviations from social expectations,
- conditions that clinicians treat,
- labels applied to unpopular behavior,
- conditions causing subjective distress and unhappiness, and
- dysfunctions or breakdowns in a biological or psychological process that lead to harm.

Assessment and Diagnosis

assessment: The collection of information for the purpose of making an informed decision.

diagnosis: The classification of mental disorders by determining which of several possible descriptions best fits the nature of the problem(s).

nosology: A classification system containing categories of disorders and rules for categorizing disorders depending on observable signs and symptoms.

reliability: Consistency or agreement among assessment data; includes test-retest reliability, internal consistency, and interrater reliability.

validity: The degree to which an assessment instrument measures what it is supposed to measure, thereby providing an estimate of accuracy or meaning.

Imagine that nothing happens when you turn on your television set to watch your favorite show. You check to see whether the TV has been unplugged. If it hasn't, has an electric switch in the room been flipped off? If not, is a circuit breaker tripped? If the answer to all these questions is no, you check whether other electrical devices in the house are working, whether your neighbors have power, and so on. These steps are all part of **assessment**, the collection of information for the purpose of making an informed decision. In the case of the malfunctioning TV, you are assessing the situation to classify or to make a **diagnosis** of the problem. Unless you can classify the problem with your TV, it will be hard to understand or fix it. The relationship between assessment and diagnosis is the same when trying to understand mental disorders. Clinical assessment is the foundation on which accurate diagnosis of mental disorders rests.

Assessment proceeds in three steps. Clinicians first gather assessment information. Next, they organize and process this information into a description or understanding of the person they are assessing. Finally, they compare this description with what is known about various disorders to arrive at a diagnosis of the problem. This last step in diagnosis is guided by a **nosology**, a classification system containing a set of categories of disorder and rules for categorizing disorders based on the signs and symptoms that appear (Millon, 1991). As noted earlier, the *DSM-5* is the main diagnostic nosology in North America; clinicians in other parts of the world use the World Health Organization's *International Classification of Diseases (ICD-11)*.

Clinicians use a variety of sources to gather assessment information—from interviews and observations to psychological tests and personal diaries. The quality of assessment sources and the information they provide is evaluated on two dimensions: reliability and validity.

Reliability and Validity

Reliability, which refers to consistency or agreement among assessment data, can be measured in several ways. If an assessment is repeated at different times with essentially the same results, the assessment instrument is said to have high *test-retest reliability*. Another form of reliability that is especially important for psychological tests is *internal consistency*, which is judged to be high if one portion of a test provides information that is similar to that coming from other parts of the test. A third type of reliability that is especially important for diagnosis is interrater reliability. High *interrater reliability* means that different clinicians typically reach the same diagnosis, description, or conclusion about a person after using the same assessment tools. As a teenager, one of our friends was shooting Coke cans with a BB gun with a boy she had a crush on and wanted to impress. She was an excellent shooter but kept hitting just to the left side of the can without hitting the can itself. Then she realized the sight on the BB gun was off. So initially she was consistent (reliability), but not accurate (validity, as discussed next). Once she adjusted the sight, “Bam!”

The **validity** of an assessment instrument reflects the degree to which the instrument measures what it is supposed to measure. It provides an estimate of an instrument's accuracy or meaning. There are several types of validity. *Content validity* refers to the extent to which a tool measures all aspects of the domain it is supposed to measure. For example, an intelligence test that measures only math skills would be low in content validity because intelligence involves more than mathematical ability. If an assessment procedure accurately forecasts a person's behavior (e.g., grade-point average, suicide attempts), it is said to have high *predictive validity*. When the results of one procedure agree closely with the results of another assessment method that was given at about the same time, the two methods are said to have high *concurrent validity*.

A final form of validity is construct validity (Cronbach & Meehl, 1955). An assessment method has high *construct validity* when its results coincide with what a theory about some construct would predict. For example, theories of anxiety predict that people's anx-

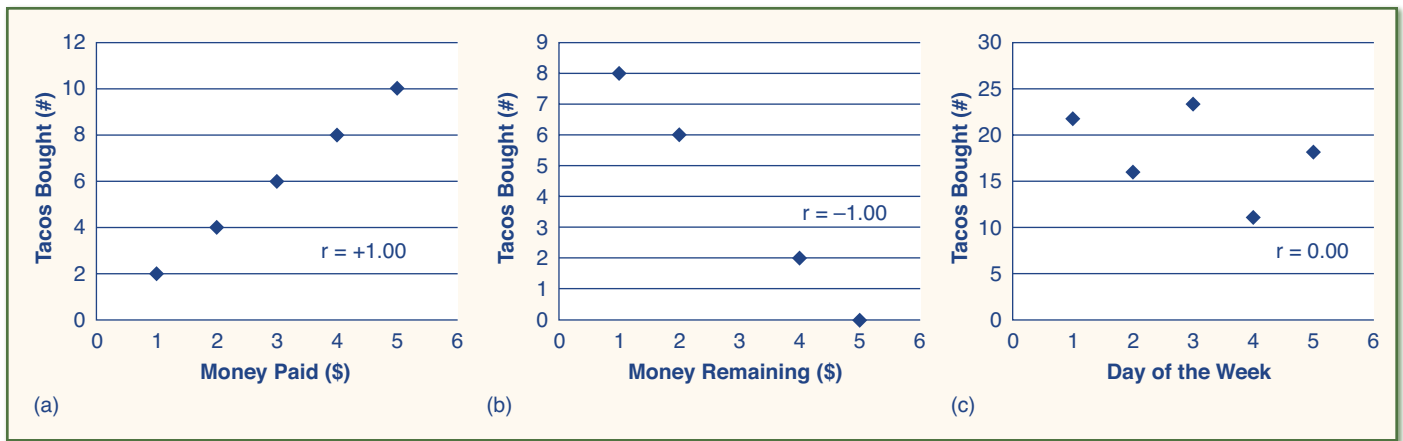


FIGURE 1.1 Correlations Showing Different Relationships Between Two Variables

(a) The cost of a taco purchase shows a *perfect positive correlation* (+1.00) with the number of tacos purchased; the more 50-cent tacos you buy, the more you pay. (b) The amount of money remaining in your wallet shows a *perfect negative correlation* (−1.00) with your purchase; the more you buy, the less cash you have left. (c) This graph illustrates a *zero correlation* in which the number of tacos purchased is unrelated to day of the week on which the purchase is made. (This last graph might change, of course, if your local taqueria has two-for-one taco Tuesdays!)

xiety levels will increase under stressful circumstances. Thus, an anxiety assessment tool would have construct validity if it yields higher scores when people are in situations they fear, such as speaking in public. If not, the tool may not be measuring anxiety—that is, its construct validity is suspect. Construct validity cannot usually be established with a single experiment or demonstration; it requires a series of studies. The availability of assessment devices with good construct validity is important for identifying factors that place a person at risk for certain disorders and, in turn, for guiding the development of prevention programs, as discussed in the “Prevention” feature in this chapter. (Each chapter in the book has a “Prevention” feature covering the application of scientific methodology [see Chapter 2] that seeks to prevent or moderate mental disorders before they occur.)

The reliability and validity of assessments are typically expressed as **correlation coefficients**, which summarize the relationship between two variables. The size of a correlation, noted by the symbol r , ranges from 0.00 to +1.00 or −1.00. As Figure 1.1 illustrates, an r of 0.00 means that there is no relationship between two variables. A correlation of +1.00 or −1.00 is a perfect correlation, which means that if you know the value of one variable, you can predict the value of the second one with certainty. The larger the correlation (whether positive or negative), the stronger is the relationship between the two variables. In psychological assessment, adequate reliability is usually indicated by correlation coefficients in the .70 to .90 range. In most psychological research, validity correlations are in the .20 to .60 range, indicating that two variables are related to some less-than-perfect degree.

The validity of an assessment device can be no higher than its reliability, but it can be lower, sometimes much lower. In other words, high reliability does not guarantee validity. Consider the example provided by the popular *Harry Potter* series in literature and film. One of the main characters in the series, Professor Severus Snape, typically appears angry and mean. Most readers initially judge Snape to be evil, and this assessment would have high interrater reliability—that is, most readers (or film viewers) would have agreed. This high reliability did not ultimately make their assessment correct or valid, however.

Diagnostic Errors

It is fun to be fooled in the context of entertainment, but there is nothing funny about diagnostic errors in real life. Because people’s lives can be drastically affected by clinicians’ diagnostic judgments, the validity of those judgments is crucial. A clinician can reach two kinds of correct diagnostic conclusions: true positives and true negatives. In the case of

correlation coefficient: A number that quantifies the size of relationship between two variables, noted by the symbol r , and ranging from +1.00 to −1.00. The larger the absolute value of the correlation, the stronger the relationship between the variables.

The Role of Early Detection

Juvenile delinquency and crime has long been one of our society's most pressing problems. In the United States, the rate at which juveniles committed serious violent crimes changed little between 1973 and 1989, peaked in 1993, and then declined to the lowest level since 1986 (Snyder & Sickmund, 1999). Females accounted for one fourth (28%) of the nearly 1.4 million delinquency cases handled by juvenile courts in 2010, youths under age 16 accounted for 52% of all cases, and minority youths accounted for one third (36%) of all cases (OJJDP Statistical Briefing Book, 2013). The costs of these crimes is enormous, as is the fear they cause, but the declining rates in the past two decades suggests that juvenile delinquency can be prevented. An approach to further reducing juvenile delinquency depends, first, on whether we can:

- pinpoint early risk factors that lead to delinquency,
- assess which children actually possess or have been exposed to these risk factors, and
- design preventive interventions to reduce these risks.

Research by behavioral scientists has uncovered a valid set of early childhood risk factors for later aggression and chronic delinquency (Tolan, Guerra, & Kendall, 1995). Children at greatest risk are those who (1) have a difficult temperament; (2) are subject to abusive, hostile, or inconsistent parental discipline; (3) experience family adversity or other negative life events, including exposure to peer violent victimization; (4) lack self-control and do poorly at school; and (5) come from a low socioeconomic background (Yoshikawa, 1994; Jackson, Hanson, Amstadter, Saunders, & Kilpatrick, 2013). Further, family disruption and deviant behavior of friends have more influence on delinquent behavior of females, whereas the lack of self-control is more strongly related to delinquency among males (Steke-tee, Junger, & Junger-Tas, 2013).

Several of these risk factors can be detected during the preschool or elementary school years with special assessment techniques. These assessments include scales that measure antisocial behavior, family risk, and socioeconomic status to yield reliable and

valid information about the early risk factors preceding juvenile delinquency (Zara & Farrington, 2013).

Early detection, in turn, allows interventions to be put in place before problems become entrenched. The newest delinquency prevention programs recognize that early aggression and later delinquency are caused by multiple factors arising in homes, schools, and peer systems and that changes must be achieved in each of these settings for prevention to be successful (Borduin et al., 1995; Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995). The prevention programs that have proved most successful with early-aggression children combine extra educational assistance (such as Head Start) to improve commitment to school with training of parents to use more consistent and nurturing child-rearing methods (Yoshikawa, 1994; Zigler, Taussig, & Black, 1992).

Head Start programs began in 1965 as part of the Johnson administration's War on Poverty efforts to help reduce the gap in achievement between children from low-income families and their more advantaged peers (Resnick, 2010); they alone have resulted in improvement of about a quarter of a standard deviation across all cognitive and achievement outcomes (Shager et al., 2013). Often used together with Head Start, the Incredible Years is an evidence-based program that trains parents to relate to and discipline their children more effectively, and it has shown improvements in children's negative behaviors of anywhere from half to one-and-a-half standard deviations (Hurlburt, Nguyen, Reid, Webster-Stratton, & Zhang, 2013).

Despite these research-backed prevention programs, juvenile awareness programs based on confrontation, fear, and threat rather than empirically validated risk factors remain in operation. For instance, "Scared Straight," parodied on *Saturday Night Live* by Kenan Thompson, typically involves adult inmates describing the extremely brutal, harsh, and unpleasant conditions associated with jail or prison incarceration to delinquent or at-risk youth in a secure setting. These programs have no statistically significant effect on at-risk juveniles and in fact may even increase the likelihood of future offending (Klenowski, Bell, & Dodson, 2010).

sensitivity: The probability that a person with a mental disorder is diagnosed as having that disorder.

specificity: The probability that a person without any mental disorder will be diagnosed as having no disorder.

a *true positive*, the clinician correctly concludes that a condition is present. This is also called the **sensitivity** of diagnosis, which is the probability that a person with a mental disorder will be diagnosed as having that disorder. Conversely, a *true negative* conclusion occurs when the clinician correctly states that the person does not have the condition. This is called the **specificity** of the diagnosis, the probability that a person without any mental disorder will indeed be seen not to have one.

Unfortunately, clinicians can also make two kinds of diagnostic errors: false positives and false negatives. A *false positive* occurs when the clinician concludes that the person

suffers a mental disorder when no disorder is, in fact, present. A *false negative* occurs when the clinician diagnoses no mental disorder when the person actually has one. Both kinds of errors can have severe consequences. False positives can lead to unnecessarily labeling and possibly stigmatizing people with no disorders. False negatives can keep troubled people from receiving the professional help they need. As you will see, scholars have argued that the *DSM-5* is much more concerned with avoiding false negatives and therefore raises the number of false positives—that is, people who will be diagnosed with mental disorders that they do not actually have.

Section Review

The three major steps in assessment and diagnosis are:

- gathering information,
- organizing the information into a clinical description of the person, and
- using this description and a nosology to reach a diagnosis.

The quality and utility of diagnoses depend on:

- the reliability and validity of the assessment tools used, and
- the sensitivity and specificity of the diagnoses (false positives and negatives).

Assessment Tools: How Do Health Professionals Detect Mental Disorders?

To avoid false positives and false negatives, clinicians need reliable sources of information. In practice, clinicians usually combine information from one or more assessment tools. When they use multiple channels of information, clinicians can compare the results from all sources, thus strengthening their confidence in their findings. Here we consider the reliability and validity of the five most commonly used assessment tools—life records, interviews, tests, observations, and biological measures—and how each is used by clinicians in reaching diagnoses.

Life Records

Life records are documents associated with important events and milestones in a person's life, such as school grades, court records, police reports, and medical records. This information can be helpful in determining whether, when, and how often a certain problem has occurred. Because life records are usually made for reasons other than a formal assessment, they are unlikely to be distorted by a person's attempt to create a certain impression.

Forensic psychologists generally rely heavily on life records when completing post-mortem assessments following unusual death circumstances to attempt to determine whether an individual's death was related to suicide or other causes. This is called a psychological autopsy. In these cases, the psychologist does not have the opportunity to use any of the next four assessment tools (except to possibly interview friends and family members), and so they must use whatever records are at their disposal to piece together the deceased person's mental state prior to his or her death.

life records: Documents associated with important events and milestones in a person's life, such as school grades, court records, police reports, and medical histories.

Interviews

Interviews are the most widely used assessment tool for classifying mental disorders. Because they resemble other forms of conversation, interviews are a natural way of gaining personal information. In addition, they are relatively inexpensive and flexible with respect to their content.

Modern diagnostic interviewing usually follows a structured format. In a **structured interview**, the interviewer asks questions in a predetermined sequence so that the procedure is essentially the same from one respondent to another. Consistent rules are provided for scoring respondents' answers or for using additional probes designed to obtain scorable responses. Usually, the interviewer is also given detailed guidelines for what to

structured interview: An interview in which the interviewer asks questions in a predetermined sequence so that the procedure is essentially the same from one interview to another.

TABLE 1.1 Structured Interviews Frequently Used to Assess Clinical Conditions

Interview	Purpose
The Schedule of Affective Disorders and Schizophrenia (SADS)	Differential diagnosis of more than 20 categories of mental disorder
The Diagnostic Interview Schedule (DIS), which led to the Composite International Diagnostic Interview (CIDI)	Used by nonprofessionals in large-scale epidemiological studies of mental disorder
Structured Clinical Interview for <i>DSM</i> (SCID)	Broad-scale differential diagnoses tied to the <i>DSM</i> criteria
Diagnostic Interview Schedule for Children–Revised (DISC-R)	Parallel formats for children and parents for making differential diagnoses of childhood disorders
Anxiety Disorders Interview Schedule (ADIS)	Differential diagnoses among anxiety disorders
Personality Disorders Interview-IV	Differential diagnoses among the <i>DSM</i> personality disorders
Interdisciplinary Fitness Interview, Revised (IFI-R)	Evaluation of competence to stand trial
Rogers Criminal Responsibility Assessment Scales (R-CRAS)	Assess criminal responsibility against specific legal criteria
Psychopathy Checklist, Revised (PCL-R)	Evaluation of major dimensions of psychopathic (antisocial) behavior

ask when the respondent answers questions in a given manner (for example, “If the respondent answers ‘no,’ skip to question 32 and continue with the interview.”). Of course, interviewers are permitted some flexibility in how they word questions and in the number of questions they ask, but they are expected to indicate such changes whenever they deviate from the standard format so that the effects of any changes can be studied.

Table 1.1 describes some of the most common of the many structured interviews in use today (see also Gross & Hersen, 2008; Rogers, 2001). Several of these interviews are coordinated with *DSM* criteria to help the interviewer arrive at a diagnosis, and most are updated/revised periodically to reflect new research or changing diagnostic criteria. The Personality Disorders Interview-IV (Widiger, Mangine, Corbitt, Ellis, & Thomas, 1995) is one example. Clinicians can use it to determine whether a given client meets criteria for any of the personality disorders in the *DSM-5*. For instance, one criterion for diagnosing someone with *borderline personality disorder* is whether the person has acted impulsively in at least two areas that could be personally damaging. An interviewer assesses this criterion with the following questions:

1. Did you ever spend so much money that you had trouble paying it off?
2. Have you ever gone on a drinking or eating binge?
3. Have you ever taken any major chances or risks with drugs?
4. Have you ever done anything impulsive that was risky or dangerous?
5. Have you ever become sexually involved with someone in a risky or dangerous way?

mental status examination (MSE): A brief, specialized, and focused interview designed to assess a person’s memory, mood, orientation, thinking, and concentration.

Another type of structured interview is the **mental status examination (MSE)**, a brief, specialized, and focused interview designed to assess a person’s memory, mood, orientation, thinking, and ability to concentrate. The MSE is analogous to the brief physical exam that physicians employ at the beginning of patient assessments. The questioning is direct, as suggested by the following excerpt:

Clinician: Good morning. I would like to ask you some questions. Is that all right?

Client: Fine.

Clinician: How long have you been here?

Client: Since yesterday morning.

Clinician: What are you here for?

Client: I don't know. I think my wife called the police and here I am.

Clinician: Well, what did you do to make her call the police?

Client: I don't know.

Clinician: What day is today?

Client: Tuesday, the twelfth.

Clinician: What year is it?

Client: 2015.

Clinical interviews also assess a person's **social history**, including educational achievements, occupational positions, family history, marital status, physical health, and prior contacts with mental health professionals (and this information can be augmented by life records if available). An accurate social history is crucial to the correct diagnosis of mental disorders because it helps to establish whether the person has experienced symptoms of mental disorders in the past and, if so, which of the symptoms have been most prominent.

Interrater and test-retest reliability generally exceed $+ .70$ for structured diagnostic interviews and mental status examinations, although, as the interval between interviews becomes longer, test-retest reliability sometimes decreases (Olin & Zelinski, 1991). The validity of structured interviews has been studied less often than their reliability has, but they are generally superior to any other diagnostic assessment tool (Rogers, 2003). Occasionally, they even serve as the standard against which to judge the diagnostic validity of other assessment methods, such as tests or observations.

Unfortunately, many clinicians do not routinely use structured diagnostic interviews, preferring instead to "play their interviews by ear." In fact, clinicians reported using structured interviews, on average, with only about 15% of their clients (Bruchmüller, Margraf, Suppiger, & Schneider, 2011). Often, clinicians say that structured interviews are too bothersome to learn and that less-structured interviews increase flexibility and save time. Or they mistakenly believe that their clients will not accept the use of structured interviews, even though about 80% of clients report finding these interviews helpful (Bruchmüller, Margraf, Suppiger, & Schneider, 2011). However, unstructured interviews are almost always less reliable and less valid than structured ones (Samuel et al., 2013). Thus, what clinicians gain in flexibility and efficiency by using unstructured interviews instead of more-structured formats tends to be offset by what they lose in accurate and comprehensive information (Rogers, 1995, 2001, 2003).

Psychological Tests

A **psychological test** is a systematic procedure for observing and describing a person's behavior in a standardized situation. **Standardization** means that the test is administered and scored using uniform procedures for all test-takers. Tests require a person to respond to a set of stimuli such as inkblots, true/false statements, or multiple-choice questions. These responses are then scored and compared with **norms**, scores obtained from large numbers of people who have taken the test previously under the same conditions.

Almost all of the thousands of psychological tests now in use can be grouped into one of five categories: achievement and aptitude tests, attitude and interest tests, intelligence tests, neuropsychological tests, and personality tests. **Aptitude tests** measure the accumulated effects of educational or training experiences and attempt to forecast future performance; the Scholastic Aptitude Test (SAT), which most American high-school graduates take before applying to college, is a familiar example. **Achievement tests** measure

social history: Obtained as part of clinical interviews, it includes assessment of educational achievements, occupational positions, family history, marital status, physical health, and prior contacts with mental health professionals.

psychological test: A systematic procedure for observing and describing a person's behavior in a standardized situation.

standardization: Administering and scoring a test using uniform procedures for all respondents.

norm: A score obtained from large numbers of people who have taken a test previously under similar conditions.

aptitude test: A measure of the accumulated effects of educational or training experiences that attempts to forecast future performance. One example is the Scholastic Aptitude Test (SAT).

achievement test: A measure of how much a person has learned about a specific area. One example is the Wide Range Achievement Test-Revised (WRAT-3).

attitude and interest tests:

Tests that measure the range and strength of a person's interests, attitudes, preferences, and values.

intelligence test: A measure of general mental ability and various specific intellectual abilities, such as verbal reasoning, quantitative skills, abstract thinking, visual recognition, and memory.

neuropsychological test: A psychological assessment tool that measures deficits in behavior, cognition, or emotion known to correlate with brain dysfunction and damage, and helps to determine whether a person is suffering from brain damage or deterioration.

how much a person knows or can do in a specific area; the Wide Range Achievement Test–Revised (WRAT-3) is a good example. Although achievement and aptitude tests are often used in diagnosing learning disorders and, occasionally, disorders that have an organic cause, they do not play a major role in diagnosing most mental disorders. Similarly, **attitude and interest tests**—which measure the range and strength of a person's interests, attitudes, preferences, and values—are seldom used in diagnostic classification, although they can add important information to a general psychological assessment.

Intelligence Tests

Intelligence tests measure general mental ability and various specific intellectual abilities, such as verbal reasoning, quantitative skills, abstract thinking, visual recognition, and memory (see Figure 1.2). The Stanford-Binet Intelligence Scale (5th edition; Roid & Barram, 2004), the Wechsler Intelligence Scale for Children (WISC-IV; Wechsler, 2003), and the Wechsler Adult Intelligence Scale (WAIS-IV; Wechsler, 2008) are the best-known intelligence tests in the world today. Like structured interviews, these tests have been revised several times throughout their history. Although originally written in English, these tests have all been translated into several languages, and norms are available for many different countries. The Wechsler scales have an especially high correlation with *g*, the general factor of intelligence, also known as intelligence quotient or IQ (Reynolds, Floyd, & Niileksela, 2013). Intelligence tests are used in the assessment and classification of brain damage, intellectual disabilities, and other developmental disorders (see Chapter 3 for more on their use and limitations).

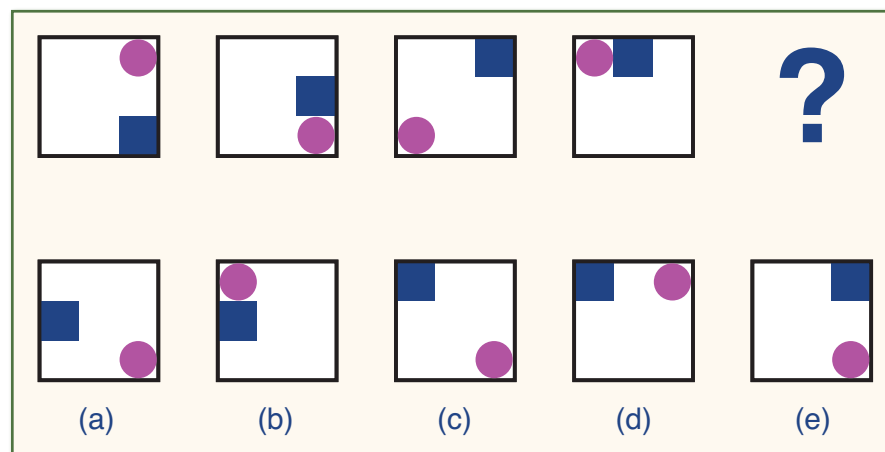
Neuropsychological Tests

Neuropsychological tests measure deficits in behavior, cognition, or emotion that are known to correlate with brain dysfunction and damage. They are valuable tools for determining whether a person is suffering brain damage or deterioration, or for assessing how well a person has recovered following neurosurgery (Prigatano, Parsons, & Bortz, 1995). Neuropsychological testing often consists of a standardized set, or *battery*, of tests, but as illustrated in the continuation of the chapter-opening case that follows, it may also be individualized, beginning with a few standard tests, followed by tests selected with questions specific to the client in mind (Lezak, 1995).

When Bill, whose case opens this chapter, was 16 years old and first started driving, he was involved in a car accident and sustained a closed-head injury. About a year later, Bill's family physician referred him to a psychologist for diagnostic testing because of a variety of lingering symptoms, including sleeplessness, loss of memory and concentration, and unusual outbursts of impulsivity and anger.

FIGURE 1.2 A Sample Figure Completion Task From a Test of Cognitive Ability

Intelligence tests have started to incorporate more items that are less reliant on language and specific cultural information, such as a figure completion task like the one shown here. The item is designed to assess the ability to recognize figural series. The correct answer is *d*.



After taking a social history and learning about Bill's accident, the psychologist was especially interested in determining whether Bill might be suffering from some sort of head injury or from an anxiety disorder due to the stress of the accident. A number of neuropsychological tests were selected to measure Bill's attention, memory, perceptual accuracy, and language skills. When they all yielded normal results, the psychologist concluded that Bill's symptoms were the result of posttraumatic stress and recommended brief psychotherapy.

The most widely used neuropsychological test battery in North America is the one developed by Ward Halstead and later modified by his student, Ralph Reitan. Table 1.2 summarizes some of the tests included in the Halstead-Reitan Neuropsychological Test Battery (Reitan & Wolfson, 2009). Two additional popular batteries are the Adult Luria-Nebraska Neuropsychological Battery (Golden, 2004) and the Luria-Nebraska Neuropsychological Children's Battery (Golden, 2011). Many neuropsychologists question the validity

TABLE 1.2 Some Tests Used in the Halstead-Reitan Neuropsychological Test Battery

Test	Description
Categories test	Consists of 208 slides that require a subject to form correct categorizations of the visual stimuli in the slides. The test measures mental efficiency and the ability to form abstract concepts.
Tactual performance test	Consists of a board with spaces into which 10 blocks of various shapes can be fitted, somewhat like a large jigsaw puzzle. The subject is blindfolded and then asked to fit the blocks into the spaces as quickly as possible. This test measures such abilities as motor speed, tactile and kinesthetic perception, and incidental memory.
Rhythm test	Presents 30 pairs of rhythmic beats. The subject says whether the rhythms are the same or different. It is a measure of nonverbal auditory perception, attention, and concentration.
Speech-sounds perception test	Requires that the subject match spoken nonsense words to words on written lists. Language processing, verbal auditory perception, attention, and concentration are measured by this task.
Finger-tapping test	A simple test of motor speed in which the subject depresses a small lever with the index finger as fast as possible for 10 seconds. Several trials with each hand are performed, allowing comparison of lateralized motor speed.
Trail-making test	A kind of "connect-the-dots" task involving a set of circles that are numbered or lettered. The circles must be connected in a consecutive sequence, requiring speed, visual scanning, and the ability to use and integrate different sets.
Strength-of-grip test	A right-side versus left-side comparison of strength. The subject simply squeezes a dynamometer twice with each hand.
Sensory-perceptual exam	Assesses whether the subject can perceive tactile, auditory, and visual stimulation when presented on each side of the body.
Tactile perception tests	Various methods to assess the subject's ability to identify objects when they are placed in the right and left hand, to perceive touch in different fingers of both hands, and to decipher numbers traced on the fingertips.
Aphasia screening test	A short test that measures several aspects of language usage and recognition, as well as abilities to reproduce geometric forms and pantomime simple actions.

of the Luria-Nebraska batteries (Purisch, 2001), but their major advantage is that they can be administered in 3 to 4 hours, about half the time required for the Halstead-Reitan battery. Although these comprehensive batteries were originally designed primarily for differentiating between brain-injured and normal individuals, they have good test-retest reliabilities (Calamia, Markon, & Tranel, 2013) and continue to offer a rich array of clinical information regarding brain-behavior relations (Davis, Johnson, & D'Amato, 2005).

Personality Tests

personality test: A standardized psychological assessment of an individual's predominant personality traits and characteristics.

projective tests: Personality tests that require the person to respond to ambiguous stimuli, such as inkblots, incomplete sentences, or vague drawings. The responses are thought to reveal important characteristics about people by the way they project meaning onto the ambiguous stimuli.

Personality tests measure an individual's predominant personality traits and characteristics. There are projective and objective personality tests. **Projective tests** present ambiguous stimuli, such as inkblots, incomplete sentences, or vague drawings to which people are asked to respond in any way they choose, often by telling a story or filling in a blank. Three major projective instruments are the Rorschach Inkblot Test (see Figure 1.3), the Thematic Apperception Test (TAT), and human figure drawings. Users of projective tests assume that these responses will reflect the meaning that people “project” onto the ambiguous stimuli—that is, the way they perceive and interpret them—and thus reveal important characteristics about their personalities.

Recently developed scoring systems, such as the widely used comprehensive system for scoring Rorschach responses (e.g., Exner, 1993), are designed to provide quantitative summaries of projective tests and have increased the tests' reliability, but they are still not as reliable as the best objective personality tests (Rogers, 2001; Wood, Nezowski, & Stejskal, 1996). In addition, there is empirical support for the validity of a small number of indexes derived from the Rorschach and TAT. However, the substantial majority of Rorschach and TAT indexes, as well as human figure drawings, are not empirically valid (Lilienfeld, Wood, & Garb, 2000). The Rorschach may be especially valuable for detecting psychosis (see Chapter 4), but overall, it has not lived up to the lofty claims made in its scoring manual (Mihura, Meyer, Dumitrascu, & Bombel, 2013). Finally, utilizing the



FIGURE 1.3 Inkblot Such As Those Used in the Rorschach

What do these inkblots look like to you? Your response to this question might be determined by the shape of the blot (“The top one looks like a pelvis”), the whole blot (“The bottom one on the right looks like two socks tied together”), just some part of it (“The bottom left blot has a butterfly in the center”), or even the white spaces in the middle (“The bottom middle blot has two eyes in the center”). Some people might even perceive movement taking place, such as two clowns dancing in the top blot.

Source: Dimec/Shutterstock.com.

comprehensive scoring system correctly takes extensive and ongoing training, and therefore, few practicing clinicians actually apply the system as it was intended (Hunsley & Bailey, 1999). Accordingly, projective tests tend to be less useful (and less often used) for diagnostic classification than other assessment tools.

Objective tests require answers or ratings to specific questions or statements (for example, “Have you ever felt depressed?”); the responses can be scored quantitatively. The most widely used objective test of personality is the Minnesota Multiphasic Personality Inventory (MMPI). Originally developed in the 1930s, it was revised in the 1980s and 2000s and, more recently, reconceived as the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF; Ben-Porath & Tellegen, 2008/2011). A separate form of the MMPI has been developed for adolescents (the MMPI-A) (Butcher et al., 1992).

The MMPI-2-RF takes 35 to 50 minutes to complete and consists of 338 true/false statements that are included in the test because they (1) distinguish between people who do and do not display mental disorders, and (2) differentiate people with different mental disorders. For example, one group of items tends to be answered in the same way by people with schizophrenia, a different set of items tends to be answered similarly by people with depression, and a third set is answered in a typical way by people who are socially introverted. Based on these empirical differences, 9 groups of differentiating items, called *clinical scales*, were named for the groups of people with which they were originally associated. Note that the original MMPI had 10 such clinical scales, but these were empirically refined into 9 restructured clinical (RC) scales (Tellegen et al., 2003). These 9 RC scales demonstrate a moderate improvement in validity over the standard clinical scales (van der Heijden, Egger, Rossi, Grundel, & Derksen, 2013).

Table 1.3 summarizes the RC scales, along with key *validity scales*, groups of items on the MMPI-2-RF that help detect test-taking attitudes and distortions that may influence clinical scale scores. For example, the *F* (or infrequency) scale contains items that are rarely endorsed by members of any diagnostic group. High *F* scores suggest that a respondent was careless, attempted to exaggerate symptoms, or displayed a severe disorder. The MMPI validity scales can help detect *malinger*ing, the purposeful production of falsely or grossly exaggerated complaints with the goal of receiving a reward (Wygant et al., 2011).

To interpret a valid MMPI-2-RF, clinicians create a *scale profile* showing a client’s scores, such as the one presented in Figure 1.4. They then conduct a *profile analysis* by comparing the client’s scale profile with the profiles of other clients. Based on that comparison, they form hypotheses about the person’s psychological condition. The comparison can be based on the clinician’s own experience with the MMPI-2-RF or on published norms showing the profiles of clients with various kinds of disorders. Increasingly, clinicians rely on computerized scoring and interpretation of the MMPI-2-RF, in which a given client’s profile is compared with thousands of other clients using actuarial formulas applied by a computer. The MMPI-2-RF normative sample is drawn from the MMPI-2 normative sample and consists of 2,276 men and women, 1,138 of each gender, between the ages of 18 and 80, from several regions and diverse communities in the United States (Ben-Porath, 2012).

Despite its continued widespread use, the MMPI system has been criticized for having been developed without reference to any underlying psychological theory about mental disorders (Helmes & Reddon, 1993). Items were included on the test as long as they differentiated people with different disorders, but the items themselves may not possess much construct validity or explain much about the nature of the disorders with which they correlate. Several other objective personality tests have attempted to overcome the perceived weaknesses of the MMPI system and to conform more closely to the *DSM*. Among the more influential of these tests are the Millon Clinical Multiaxial Inventory-III (Millon & Meagher, 2004) and the online Personality Inventory for the *DSM-5* (PID-5; American Psychiatric Association, 2013b). In addition, tests of normal personality, such as the California Personality Inventory (Gough, 1987; Megargee, 2009) and the NEO Personality Inventory–Revised (Costa & McCrae, 1992a), are also used to assess characteristics associated with mental disorders (Costa & McCrae, 1992b), usually as supplements to other objective measures of psychopathology (Ben-Porath & Waller, 1992).

objective test: A personality test that requires answers or ratings to specific questions or statements that are scored quantitatively.

TABLE 1.3 MMPI-2-RF Scales and Simulated Items

Key Validity (or Test-Taking Attitude) Scales	Description
CNS (Cannot Say)	Number of items left unanswered
L (Lie or Uncommon Virtues)	Items of overly good self-reports, such as “I smile at everyone I meet” (True)
F (Infrequent Responses)	Items answered in the scored direction by 10% or less of test-takers, such as “There is an international plot against me” (True)
K (Correction or Adjustment Validity)	Items reflecting defensiveness in admitting to problems, such as “I feel bad when others criticize me” (False)
Restructured Clinical (RC) Scales (With Original MMPI-2 Scale Name in Parentheses)	Description
RCd : Demoralization (New Scale)	Twenty-four items derived from clients showing general unhappiness and dissatisfaction, such as “I usually feel that life is interesting and worthwhile” (False)
RC1 : Somatic Complaints (Hypochondriasis)	Twenty-seven items derived from clients showing diffuse physical health complaints, such as “I have chest pains several times a week” (True)
RC2 : Low Positive Emotions (Depression)	Seventeen items from clients showing a distinctive, core vulnerability factor and depression, such as “I often feel sad” (True)
RC3 : Cynicism (Hysteria)	Fifteen items from clients who show beliefs that others are bad and not to be trusted, such as “People do not usually do what they say they will” (True)
RC4 : Antisocial Behavior (Psychopathic Deviate)	Twenty-two items from clients showing rule-breaking and irresponsible behavior, such as “I don’t like following rules” (True)
RC6 : Ideas of Persecution (Paranoia)	Seventeen items from clients showing self-referential beliefs that others pose a threat to them, such as “There are evil people trying to influence my mind” (True)
RC7 : Dysfunctional Negative Emotions (Psychasthenia)	Twenty-four items from clients showing obsessions, compulsions, abnormal fears, and guilt and indecisiveness, such as “I save nearly everything I buy, even after I have no use for it” (True)
RC8 : Aberrant Experiences (Schizophrenia)	Eighteen items from clients showing bizarre or unusual thoughts or behavior, who are often withdrawn and experiencing delusions and hallucinations, such as “Things around me do not seem real” (True) and “It makes me uncomfortable to have people close to me” (True)
RC9 : Hypomanic Activation (Hypomania)	Twenty-eight items from clients characterized by emotional excitement, overactivity, and flight of ideas, such as “At times I feel very ‘high’ or very ‘low’ for no apparent reason” (True)

Source: Ben-Porath & Tellegen, 2008/2011.

Objective personality tests tend to have good reliability and adequate validity. For example, test-retest reliabilities for the RC scales of the MMPI-2-RF range from .67 to .88, averaging .78 (van der Heijden, Egger, & Derksen, 2008). Several studies have also demonstrated that these scales possess good construct validity for the assessment of different mental disorders and clinical conditions (Tellegen et al., 2003; Tellegen, Ben-Porath, & Sellbom, 2009).

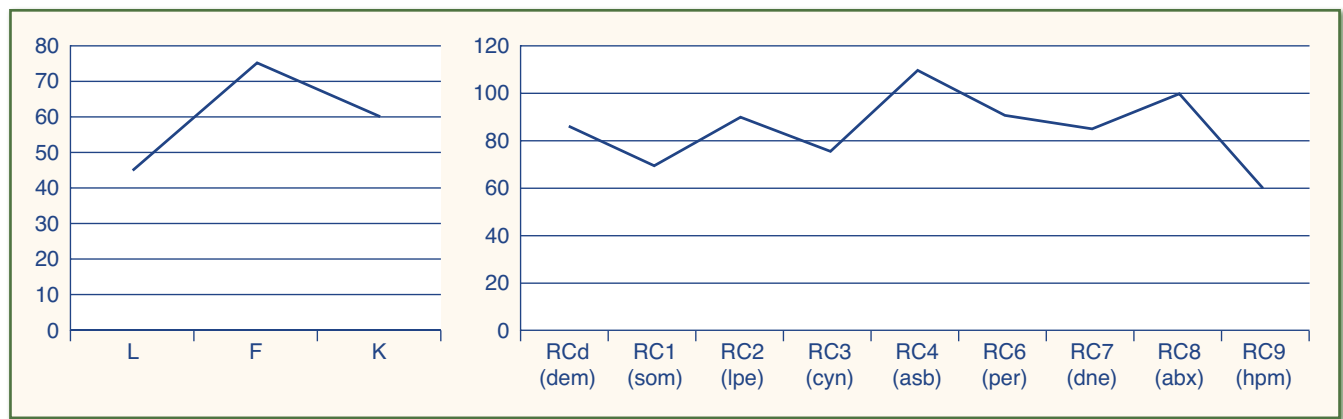


FIGURE 1.4 MMPI-2-RF Profile

This profile is based on the actual MMPI-2 taken by Jeffrey Dahmer in 1992. Jeffrey Lionel Dahmer (May 21, 1960–November 28, 1994), also known as the Milwaukee Cannibal, was an American serial killer and sex offender who raped, murdered, and dismembered 17 men and boys between 1978 and 1991, with many of his later murders also involving necrophilia, cannibalism, and the permanent preservation of body parts. Dahmer's scale would be valid despite an elevated F scale. He would be considered a 4-8 code type (based on RC scales 4 and 8 being his most elevated), which is common among violent offenders, especially sex offenders, though is not in itself diagnostic of a criminal (Fraboni, Cooper, Reed, & Saltstone, 1990) and represents only about 5% of incarcerated offenders (Wise, 2009).

Source: Based on data from Nichols, 2006.

Nonetheless, objective test results are not foolproof indicators of mental disorders. They can be distorted by clients who are motivated to appear either overly healthy or extremely disturbed. Furthermore, test publishers sometimes assert claims for the test's predictive powers that go beyond the findings of empirical research. Accordingly, most clinicians are careful not to use psychological tests in isolation. Such tests should be just one element in a comprehensive evaluation that includes several assessment methods as cross-checks.

Observations

Observational data often contribute to clinical assessment and diagnosis. Observational assessments are especially popular with clinicians who follow a behavioral model of mental disorders (discussed in Chapter 2). In combination with other methods, observations can lead to a more comprehensive view of mental disorders, particularly when other instruments produce conflicting results. Observation is also useful when it helps clinicians learn how changes in the environment might affect a problem behavior. These advantages are illustrated in the continuation of the chapter-opening case that follows:

Bill, whose case begins this chapter, was 10 when he was referred by his fifth-grade teacher to a psychologist because of behavior problems at school. According to the teacher, every time she asked Bill a question or gave him a direction, Bill talked back to her, making such statements as "I hate school, and you can't make me like it" or "You're picking on me; the other kids don't have to work so hard." Bill's mother disputed the teacher's account. She said that Bill never misbehaved at home and that the teacher did not know how to manage Bill, who was bored with school because he was "too smart" for the fifth grade. The psychologist gave Bill an intelligence test and found his IQ to be in the normal range. She then obtained permission to observe Bill at school and also arranged for Bill and his mother to come to the clinic, where she could watch them through a one-way mirror.

The classroom observation revealed that, compared with his classmates, Bill spent more time talking to other children, completed fewer tasks, and was often inattentive. During the play assessment, Bill frequently contradicted his mother or ignored her

suggestions. Bill's mother tried to persuade him to cooperate by reasoning with him or by threatening to cancel their planned trip to the mall. Based on these observations, the psychologist concluded that Bill was noncompliant in both settings, but in different ways.

Observations can be conducted in many different settings. Clinicians use *naturalistic observation* to look at people's behavior as it occurs spontaneously in a school, home, hospital, or office. In *controlled observation*, a clinician arranges for people to be observed reacting to controlled and standardized events, such as a video about a feared stimulus.

Naturalistic observations are often impractical because of the obvious difficulty of following people around in their everyday environments. In addition, most people would not give clinicians permission to watch them in this fashion, creating an ethical barrier to many observations. As a result, direct observation for the purpose of assessing or diagnosing mental disorders is used mainly with children in school, daycare, or at play, and with severely disturbed patients in mental hospitals (Paul & Lentz, 1977). With adults, **self-monitoring** may be used instead. This is a special form of observation in which clients record the frequency, duration, intensity, or quality of their own moods, thoughts, and behaviors, such as smoking and eating (Nietzel, Bernstein, & Milich, 1998).

Most modern observational approaches using well-trained observers achieve excellent interrater reliabilities. Self-monitoring clients often attain correlations in the .90s between their observations and those of external observers. Observations can also be highly valid if they meet three important criteria (Nietzel, Bernstein, & Milich, 1998). First, the observed behavior (e.g., a parent speaking in a raised voice to a child) must provide a satisfactory example of the construct being assessed (e.g., aggression). Second, the format for summarizing the observations (e.g., counting the number of voice raisings) must fairly represent the behaviors observed. Finally, the summary must provide a fair representation of the client's behavior when it is not being observed; for instance, the presence of an observer might cause a parent to be more controlled than usual.

self-monitoring: A special form of observation in which people record the frequency, duration, intensity, or quality of their own behaviors, such as smoking, eating, moods, or thoughts.

Connections

Are measures of sexual arousal reliable enough to use in diagnosing specific sexual disorders? For the pros and cons, see Chapter 13.

Biological Measures

Biological methods allow a special kind of observation of changes in a client's body chemistry or other internal functioning that are almost never available to the naked eye (Tomarken, 1995) or revealed through self-reports. Biological assessment is especially important because genetic and biological factors are becoming more prominent in explaining mental disorders (see Chapter 2).

Advances in medical technology have led to the possibility of assessing several mental disorders via the measurement of the biological changes that are uniquely associated with those disorders. These *biological markers* include counting fat cells that are associated with obesity (Brownell & Wadden, 1992), monitoring elevations in liver enzymes or blood proteins (e.g., platelet monoamine oxidase B) to detect alcoholism (Allen & Litten, 1993; Snell et al., 2012), measuring changes in the immune system following exposure to stressors (Kielcolt-Glaser & Glaser, 1992), and monitoring neurochemical, endocrinological, and more recently, immunological/inflammatory changes in depression (Slavich & Irwin, 2014), bipolar disorder (Mathews et al., 2013), and schizophrenia (Hazlett, Dawson, Buchsbaum, & Nuechterlein, 1993; Bergink, Gibney, & Drexhage, 2014).

Biological measurements are also useful for assessing anxiety, mood, sexual, and other disorders that have clear physiological components. For example, in people with anxiety disorders, heart rate, respiration, blood pressure, muscle tension, and skin conductance are often measured as a way of studying the relationships between physiological arousal, subjective distress, and behavioral dysfunction (McNeil, Vrana, Melamed, Cuthbert, & Lang, 1993). Physiological measures are also important in assessing sexual arousal, especially for clients who are attracted to socially deviant stimuli. Several studies, for example, have found that rapists show more arousal to rape stimuli than to scenes of consensual sex, while nonrapists show the opposite pattern (Hall, 1990).

TABLE 1.4 Some Neurodiagnostic Procedures

Procedure	Description
Neurological clinical exam	The physician screens the patient's sensory abilities, eye movements, cognitive and perceptual abilities, language, motor and postural irregularities, and symptom history as a preliminary investigation of brain disturbance.
Lumbar puncture	Spinal fluid is extracted from the spinal cord through a needle. Examination of the fluid can help diagnose brain infections, hemorrhages, and some tumors. It has some complications, the most common of which are headaches.
Electroencephalogram (EEG)	The EEG monitors the electrical activity of the cerebral cortex. EEGs are useful in diagnosing seizure disorders and vascular diseases affecting large blood vessels in the brain, but they yield a relatively high rate of false positives. EEG recordings as a person sleeps— <i>polysomnographic measures</i> —are used to assess sleep disorders and can be collected in a person's home (Lacks & Morin, 1992).
Other electrical tests—electromyogram (EMG), evoked potentials, and nerve conduction velocities	All three tests measure electrical activity of some sort: in muscles (EMG), in the brain when elicited by an external stimulus (evoked potentials), or in peripheral nerves (nerve conduction velocities). They are useful in the diagnosis of muscle disease, sensory deficits, serious headaches, and nerve disease caused by conditions such as diabetes (Blanchard, 1992). Evoked potentials also have shown promise as a substitute for the polygraph in lie detection (Bashore & Rapp, 1993).
Arteriography	Dye is injected into arteries, and a series of X-rays is taken of the arteries as the dye passes through them. It is used to diagnose cerebrovascular disease, especially strokes and hemorrhages. Arteriograms can be uncomfortable and sometimes dangerous.
Biopsies and exploratory surgery	Both of these procedures involve direct examination of suspect tissue. Although they are risky, they can give definite diagnoses of some neurological conditions.
Computerized topographic mapping of EEGs	This technique uses computers to synthesize EEGs more efficiently. The computer analyzes EEG signals, codes their different frequencies with different colors, and then prints a multicolored map of the brain, showing differences in EEG activity. Use of this technique has declined in recent years as other brain-imaging procedures have evolved (Figure 1.5).

The most widely used biological measures of mental disorders are techniques for studying the brain and its functions. Some direct neurodiagnostic procedures are summarized in Table 1.4; others involve brain-imaging procedures shown in Figure 1.5. These latter procedures, several of which have been introduced during the past 20 years, identify abnormalities in the structure or functioning of certain areas of the brain. For example, **computerized tomography** (CT scan) provides computer-enhanced, three-dimensional images of successive slices of the brain. CT scans are valuable in diagnosing tumors, traumatic damage, and degenerative diseases such as Alzheimer's and cerebrovascular disease (Imabayashi et al., 2013).

Positron emission tomography (PET scan) shows changes not just in the structure of the brain but also in its metabolic functioning. PET scans do this by tracking the rate at which brain cells consume radioactive glucose injected into the brain. Since diseased tissue uses glucose at a different rate than normal tissue, PET scans can reveal specific areas of abnormal brain physiology, as shown in Figure 1.5c. Before fMRI technology came online, PET scanning was the preferred method of functional (as opposed to structural) brain imaging, and it still continues to make large contributions to neuroscience (Meyer, Rijntjes, & Weiller, 2012). PET scanning is also used for diagnosis of brain disease, most notably because brain tumors, strokes, and neuron-damaging diseases that cause dementia

computerized tomography (CT): A neurodiagnostic procedure that provides computer-enhanced, three-dimensional pictures of the brain.

positron emission tomography (PET): A neurodiagnostic procedure that shows changes in the structure of the brain and in its metabolic functioning by tracking the rate at which brain cells consume injected radioactive glucose.

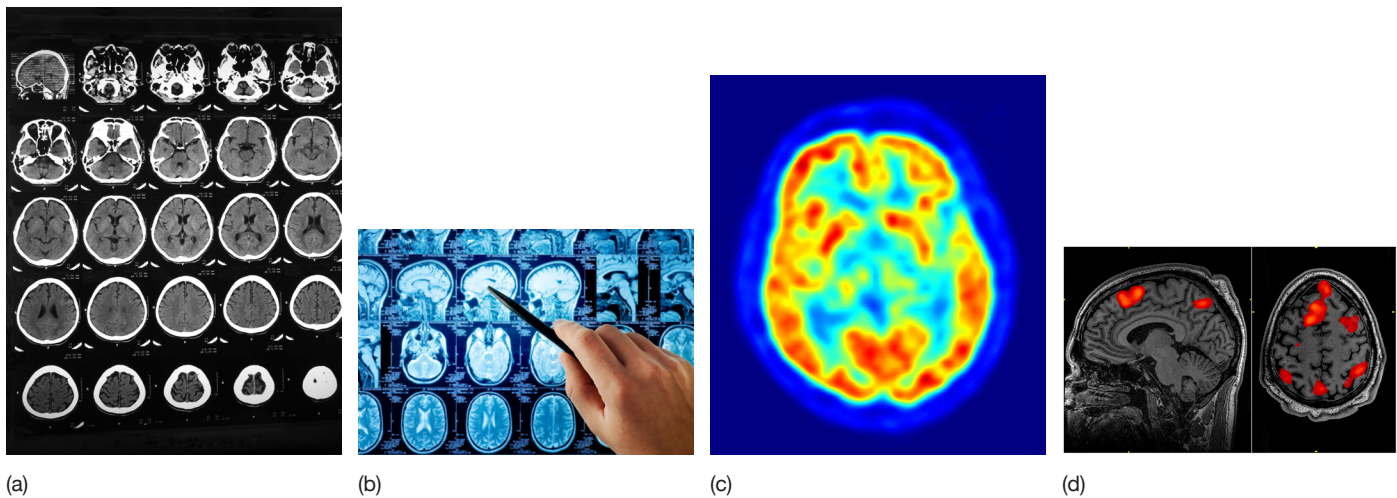


FIGURE 1.5 Mapping the Geography of the Brain

CT, MRI, PET, or fMRI? Each type of brain scan has advantages and disadvantages. (a) CT scans show detailed pictures of the brain, but they cannot distinguish a live brain from a dead one. (b) MRIs can resolve structures that are only a fraction of an inch apart, but they cannot picture the activity of these structures. (c) PET scans rely on radioactive sugar (glucose) to allow neuroscientists to watch different areas of the brain “light up” as they go about their work, but they cannot picture structure. (d) fMRI scans, which track cerebral blood flow, have largely superseded PET scans for the study of brain activation patterns. PET scans, however, retain the significant advantage of being able to identify specific brain receptors (or transporters) associated with particular neurotransmitters through their ability to image radio-labelled receptors (Kim et al., 2014).

Sources: (a) Santibhavanak P/Shutterstock.com. (b) Triff/Shutterstock.com. (c) Jens Maus (Langner) (<http://www.jens-langner.de>) (d) John Graner, Neuroimaging Department, National Intrepid Center of Excellence, Walter Reed National Military Medical Center, 8901 Wisconsin Avenue, Bethesda, MD 20889, USA.

single photon emission computed tomography (SPECT): Similar to positron emission tomography (PET), a SPECT scan uses a radioactive chemical that allows pictures of the brain from several angles.

magnetic resonance imaging (MRI): A neurodiagnostic procedure that tracks the activity of atoms in the body as they are “excited” by magnets in a chamber or coil placed around the patient.

functional magnetic resonance imaging (fMRI): Functional magnetic resonance imaging or functional MRI (fMRI) is a functional neuroimaging procedure using magnetic resonance imaging (MRI) technology that measures brain activity by detecting associated changes in cerebral blood flow.

(such as Alzheimer’s disease) all cause great changes in brain metabolism, which in turn causes easily detectable changes in PET scans even before MRI scans (see next paragraph) can detect any damage (Scott & Poon, 2004). **Single photon emission computed tomography (SPECT)** is a similar procedure using a radioactive chemical that lasts longer than those used in PET scans. Therefore, SPECT can take pictures of the brain from several angles.

Another technique, called **magnetic resonance imaging (MRI)**, works by tracking the activity of atoms in the body as they are “excited” by magnets in a chamber or coil placed around the patient (see Figure 1.5b). MRIs do not involve X-ray exposure. A newer version of magnetic resonance imaging, called **functional magnetic resonance imaging (fMRI)**, allows the simultaneous imaging of the brain’s structure and function by detecting changes in cerebral blood flow (Huettel, Song, & McCarthy, 2009). Most fMRI scanners allow subjects to press a button or move a joystick in response to different visual images, sounds, and touch stimuli. Consequently, fMRI can be used to reveal brain structures and processes associated with perception, thought, and action. The resolution of fMRI is 2 to 3 millimeters, limited by the spatial spread of the hemodynamic response to neural activity (Huettel et al., 2009). Clinicians also use fMRI to anatomically map the brain and detect the effects of tumors, stroke, head and brain injury, or diseases such as Alzheimer’s, although direct clinical use of fMRI still lags behind its use in research (Rombouts, Barkhof, & Sheltens, 2007).

Diffusion MRI (or dMRI), also referred to as diffusion tensor imaging, is yet another magnetic resonance imaging (MRI) method that allows the mapping of the diffusion process of molecules, mainly water, in biological tissues, in vivo and noninvasively (Alexander, Lee, Lazar, & Field, 2007). These water molecule diffusion patterns can reveal microscopic details about the architecture of the brain—that is, how the neurons of the brain are connected to or communicating with one another. For instance, recent studies using dMRI have identified abnormal diffusion patterns in the left middle temporal region of the brains of people with schizophrenia, which correspond with functional abnormalities in the language network (Leroux et al., 2013). Because it can reveal abnormalities

in white matter fiber structure and provide models of brain connectivity, dMRI is rapidly becoming a standard for white-matter disorders, such as multiple sclerosis and stroke (Hagmann et al., 2006).

The reliability of biological measures is generally good, although each is sensitive to the effects of such factors as medication, circadian cycles, smoking, and overall fitness (Tomarken, 1995). These factors can also lower the validity of biological measures by misleading the diagnostician or researcher about a client's biological functioning. For example, most people with severe mental disorders receive medication, often for months or years. The effects of such medication may make it impossible to obtain a valid assessment of the original biological factors that might have contributed to their disorder (Rombouts et al., 2007). Further, the validity of biological assessments can vary from one disorder to the next or from one population to the next. Children, for example, often display abnormal EEGs, despite the absence of any brain damage. Like other assessments, biological methods are fallible, and their relationship to psychological variables is often ambiguous. Overall, the promise of the 1990s ("the decade of the brain") for research on mental disorders has remained largely unfulfilled even several decades later. Neuroscience has shed great light on how the brain functions, but the causes of mental disorders still elude us (Paris, 2013).

diffusion MRI (dMRI):

Diffusion MRI, also known as diffusion tensor imaging, is a magnetic resonance imaging (MRI) method that allows the mapping of the diffusion process of molecules, mainly water, in biological tissues, in vivo and noninvasively; these water molecule diffusion patterns can reveal microscopic details about brain architecture.

Section Review

Clinicians collect assessment data from five sources, which are then usually combined to help them diagnose mental disorders. Each of these assessment sources has unique strengths:

- Life records are relatively immune to deliberate attempts by individuals to create particular impressions.
- Interviews are flexible sources of information that, when sufficiently structured, yield highly reliable diagnoses.
- Psychological tests are standardized instruments that allow accurate comparisons of a person's scores to those of others.
- Observations permit clinicians to assess the effects of situations on a person's behavior and to resolve discrepancies among other assessment sources.
- Biological measures permit assessment of internal changes that are neither observable nor reportable by clients themselves.

Diagnostic Classification: How Do Health Professionals Categorize Mental Disorders?

The ultimate purpose of the different assessment tools discussed in the previous section is to arrive at a diagnosis of the client's problem. Accurate diagnosis is a necessary first step for the treatment and scientific study of mental disorders. Diagnosing disorders helps bring order to what would otherwise be a confusing welter of individual symptoms. Classifying mental disorders makes it possible to study them, to better understand their likely course, and to look for common causal factors in the backgrounds, experiences, and other characteristics of people with similar disorders. Diagnosis also allows clinicians to describe mental disorders with a common language that is efficient and easy to understand.

A Brief History

Although efforts to classify mental disorders began as early as Hippocrates' humoral system, scientifically based classification schemes did not appear until the nineteenth century. Several European physicians in that era proposed classification systems, beginning with Wilhelm Griesinger (1817–1868), who argued that mental disorders should be understood as biological diseases of the brain. The most influential classification scheme of this era was developed by Emil Kraepelin, a German psychiatrist. Kraepelin believed that the thousands of mental patients he observed throughout the world could be placed in three categories: *dementia praecox* (now called schizophrenia), *manic-depressive*



Source: Adriaen Collaert.

Personification of the four temperaments—sanguine, choleric, melancholic, phlegmatic—from the title page of Adriaen Collaert: *Septem Planetae* (*The Seven Planets*, 1581). The four temperaments, first described by Hippocrates and later named by Galen, formed an early classification system. Hippocrates believed that all disorders were biologically caused, and he linked different mental disorders to body fluids, or humors: Too much blood (upper left) resulted in an optimistic or a changeable temperament, an excess of yellow bile (upper right) caused mania or irritability, too much black bile (lower left) resulted in melancholy or depression, and too much phlegm (lower right) caused sluggishness or lethargy.

psychosis (now called bipolar disorder), and *organic brain disorders* (now called dementia, delirium, and other neurocognitive disorders).

By 1917, a simple classification system for mental disorders was being used to gather hospital statistics in the United States. It did not prove clinically useful, however, so other classification schemes were developed in the 1930s and 1940s, including systems by the military to classify the many veterans who suffered mental disorders as a result of combat in World War II (see Widiger et al., 1991 for an historical review of this period). In 1948, the World Health Organization (WHO) published the sixth edition of the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (ICD-6).

The First DSM

The ICD-6 included some mental disorders, classified essentially in the same way as in the system used by the U.S. military. However, because the classification schemes were often in substantial disagreement with one another, the American Psychiatric Association (APA) decided to create its own system. In 1952, it published the first edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-I). To make the DSM conform more closely to the eighth edition of the *International Classification of Diseases* (ICD; World Health Organization, 1968), a second version of the DSM (DSM-II) was published in 1968.

The DSM-I and DSM-II had several major weaknesses. They lacked a uniform principle for assigning diagnoses. Some diagnoses were based on theories of causation (often psychoanalytic; see Chapter 2), others concentrated on symptoms that tended to cluster, and some reflected an assortment of criteria. Many disorders were defined so vaguely that it was difficult to obtain adequate reliability for them. Low reliability, in turn, ensured low validity for many diagnoses. Furthermore, early DSM systems focused almost exclusively on a single label. They failed to consider background factors that influence the severity and prognosis of disorders, such as a client's medical problems, psychosocial stress, and cultural influences. Ultimately, and ironically, these systems had little effect on how different clients were treated, and they did not predict the course of disorders the way that a valid classification system should.

To correct these and other problems, the APA published the DSM-III, a radically revised edition of the DSM, in 1980, followed by another slightly revised edition, known as the DSM-III-R (American Psychiatric Association, 1987). The advent of the DSM-III and DSM-III-R signaled a major change in how the North American classification system was constructed. The DSM-III was the first edition of the DSM to provide specific, clearly defined criteria, some combination of which had to be present for a disorder to be diagnosed. These operational definitions uncoupled the DSM diagnoses from warring theoretical assumptions about the cause and nature of disorders. By focusing instead on the observable signs and symptoms of various disorders, the DSM-III and DSM-III-R greatly improved the reliability of diagnoses by clinicians, regardless of their theoretical model of psychopathology (American Psychiatric Association, 1980, 1987).

Despite their many improvements, the DSM-III and DSM-III-R continued to have serious weaknesses. Several diagnostic criteria were still too vague and sometimes inconsistent, and interrater reliabilities were low for some of the diagnoses. Furthermore, the influence of clients' gender, age, and cultural factors on diagnosis was not emphasized. In addition, many clinicians believed that too little attention was paid to the construct validity of many diagnoses (see Bellack & Hersen, 1988; Kaplan, 1983; McReynolds, 1989;

Millon & Klerman, 1986; Nathan, 1987a; and Vaillant, 1984 for these and other critiques of the *DSM-III* and *DSM-III-R*). In the *DSM-III* and *DSM-III-R*, many diagnostic criteria were based on the opinions of experts, not on empirical findings, because an insufficient number of diagnostic research studies were available at that time. Finally, the *DSM-III* and *DSM-III-R* did not clearly document the rational or empirical support for their diagnostic criteria.

One year after the publication of the *DSM-III-R*, the APA formed a task force to develop the *DSM-IV*, chaired by Allen Frances. This task force was charged with correcting many of the weaknesses in the *DSM-III-R*, but there were other reasons for the revision as well. First, WHO was ready to publish the latest edition of its *ICD* (*ICD-10*) in 1993, and the United States was under a treaty obligation to maintain classification systems consistent with those of WHO. Second, there was a desire to build a stronger empirical foundation for *DSM* criteria. As discussed next, these two objectives—harmonizing with WHO and improving the evidence base—also have heavily guided the most recent versions of the *DSM*—*DSM-5*.

Harmonizing With WHO

Between 2003 and 2008, a cooperative agreement between the APA and WHO, supported by the National Institute of Mental Health (NIMH), convened 13 international *DSM-5* research planning conferences involving 400 participants from 39 countries. These conferences reviewed the world literature in specific diagnostic areas to prepare for revisions in developing both WHO's *ICD-11* and the *DSM-5* (American Psychiatric Association, 2013a).

Diagnosis of mental disorders in the United States and Canada is guided by the *DSM*, while the *ICD* is officially used in the rest of the world as the global clinical and research standard. Like the *DSM*, the *ICD* is updated periodically, with the *ICD-11* published in 2017. In truth, the *DSM-5* has been used unofficially by clinicians around the world, many of whom believe its diagnostic criteria are better validated than those of the *ICD*.

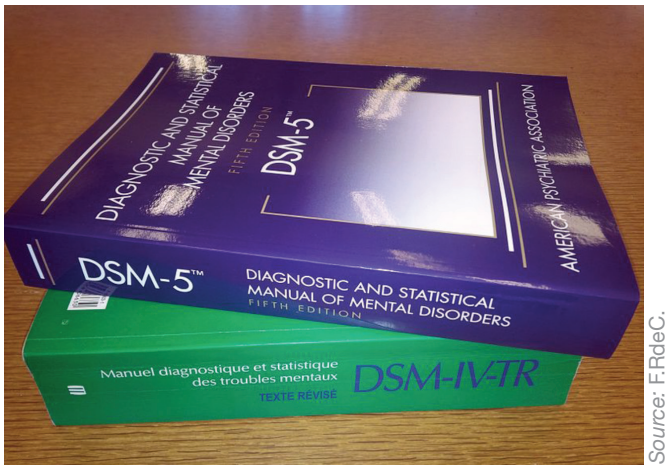
However, since October 2015, all mental health professionals in the United States have been required to use *ICD* diagnostic codes—not *DSM* codes, though the categories are similar—for insurance reimbursement and compliance with the Health Insurance Portability and Accountability Act (HIPAA; Goodheart, 2014). As a result of WHO's decision to also use specific operational definitions of mental disorders, the two systems have moved closer in their approaches to diagnosis, making greater international cooperation possible and reducing cross-cultural variations in diagnostic practices (Sartorius, Ustün, Korten, Cooper, & van Drimmelen, 1995; American Psychiatric Association, 2013). International contributions to classification are important, given that about 75% of psychiatric populations live in developing countries, primarily in Asia, Africa, and South America (Mezzich & von Cranach, 1988).

Improving the Evidence Base

Both the *DSM-IV* and *DSM-5* started by assembling groups of researchers and clinicians to study specific disorders and recommend the best way to diagnose them (Widiger et al., 1991; American Psychiatric Association, 1994, 2000, 2013a). For the *DSM-5*, David Kupfer chaired an overall task force of 28 members and oversaw 13 work groups generally consisting of 6 to 15 experts each in that particular disorder; these experts were mainly medical doctors, with some psychologists and other mental health professionals in the mix as well.

To resolve specific diagnostic controversies, the work groups conducted a series of field trials. A **field trial** is a research study conducted in the natural environment. For *DSM-5* field trials, diagnostic interviews using *DSM-5* criteria were conducted by 279 clinicians of varied disciplines, who received training comparable to what would be available to any clinician after publication of the *DSM-5*. Overall, 2,246 participants with various diagnoses and levels of comorbidity were enrolled in these field trials, of which over 86% were seen for two diagnostic interviews (Clarke et al., 2013). In adults, test-retest

field trial: A research study conducted in the natural environment.



The more recent *DSM-5*, stacked on top of a French version of the *DSM-IV-TR*.

reliabilities of the cross-cutting symptom items generally were good to excellent. Reliabilities were not as uniformly good for child respondents. Clinicians rated psychosis with good reliability in adult clients but were less reliable in assessing clinical domains related to psychosis in children and to suicide in all age groups (Narrow et al., 2013).

Between 2010 and 2012, the APA posted various iterations of draft diagnostic criteria and proposed changes in organization on a website dedicated to this process (www.dsm5.org) for three separate comment periods. Feedback from more than 13,000 submissions was reviewed by each of the 13 work groups before arriving at the final version of the *DSM-5* in 2013. The website remains operative today and is an excellent resource for students to learn about the process and issues surrounding the long-awaited publication of the *DSM-5*.

Why Use the *DSM-5*?

There is a critical dichotomy in the *DSM* between its value as a guide for researchers and its clinical utility—that is, how useful it is for mental health professionals in actual practice. Some scholars have even suggested the creation of two separate diagnostic manuals—one for researchers and one for clinicians—to account for the fact that these two groups use the manual quite differently (Paris, 2013). Whereas researchers may follow the algorithmic model of *DSM* diagnosis (e.g., using a structured interview to examine and check for at least five of the nine listed symptoms of major depression), clinicians rely on a prototype model, retaining a general idea of what a specific disorder looks like, rather than taking the time to count criteria (Zimmerman & Galione, 2010).

According to the *DSM-5* Task Force, improving clinical utility was among the top priorities for the latest *DSM* revision (American Psychiatric Association, 2013a). Therefore, although the *DSM* retains its high value as a research tool, its mental health classifications are also useful in helping clinicians: (1) communicate; (2) select effective interventions; (3) predict course, prognosis, and future management needs; and (4) differentiate disorder from nondisorder for the purpose of determining who might benefit from treatment (First, 2010).

In addition, the *DSM-5* opens with a cautionary statement about its use in forensic (legal) settings:

Although the *DSM-5* diagnostic criteria and text are primarily designed to assist clinicians in conducting clinical assessment, case formulation, and treatment planning, *DSM-5* is also used as a reference for the courts and attorneys in assessing the forensic consequences of mental disorders. As a result, it is important to note that the definition of mental disorder included in *DSM-5* was developed to meet the needs of clinicians, public health professionals, and research investigators, rather than all the technical needs of the courts and legal professionals. (APA, 2013a, p. 25)

This detailed warning has been lauded by many forensic psychologists as a vital attempt to prevent misuse of the *DSM-5* in legal cases (Kocsis, 2013).

Because of their widespread acceptance and use in a multitude of settings both in the United States and worldwide, the *DSM-5* categories and criteria are followed in this textbook. We describe the general strategy for using the *DSM-5* in the next section. However, using the *DSM-5* does not mean that you should be blind to its serious shortcomings, as outlined in the final major section of this chapter (“The Four Guiding Principles: MAPS of the Territory”). As Joel Paris (2013, p. 187) advises, you should “learn the *DSM-5* but do not believe it.”

Diagnoses With the *DSM-5*

The *DSM-III* first introduced **multiaxial classification**, which was continued through the *DSM-IV*; this means that a person was described along several dimensions or *axes* (the plural of *axis*), such as physical health and social and occupational functioning, as well as the presence of mental disorders. The *DSM-5*, however, has moved to a nonaxial documentation of diagnosis, combining what was formerly **Axis I**/most mental disorders, **Axis II**/Personality Disorders, and **Axis III**/General Medical Conditions onto a single axis, with separate notations for important psychosocial and contextual factors (formerly **Axis IV**) and disability (formerly **Axis V**). *DSM-5* diagnoses of mental disorders are now arranged on a single axis according to the following 20 major categories, provided here with a brief description and indication of which chapter in this textbook covers that particular category:

1. **Neurodevelopmental disorders.** These include a group of conditions with onset in the developmental period (i.e., childhood) and are covered in Chapter 3. Included here are intellectual disabilities, learning disorders, communication disorders, autism spectrum disorder, attention-deficit/hyperactivity disorder, and several other problem behaviors typically associated with childhood.
2. **Elimination disorders.** These involve the inappropriate elimination of urine or feces and are usually first diagnosed in childhood or adolescence, so they are covered in Chapter 3.
3. **Disruptive, impulse-control, and conduct disorders.** These include conditions involving problems in the self-control of emotions and behaviors. Although there is no set age limit for these disorders, they usually appear at least by adolescence and are also covered in Chapter 3.
4. **Schizophrenia spectrum and other psychotic disorders.** Covered in Chapter 4, schizophrenia and other psychoses typically involve serious disturbances in a person's perception and thinking, emotional responsiveness, and behavioral appropriateness. Several bizarre symptoms can be present in a psychosis; the most prominent usually involve distorted perceptions and thinking.
5. **Bipolar and related disorders.** These disorders, covered in Chapter 5, involve disturbances in emotion and usually entail shifts between periods of depression and periods of highly elevated mood and energy, known as *manic episodes*. These have been separated from the depressive disorders in the *DSM-5* and placed between the chapters on schizophrenia and depression in recognition of their place as a bridge between those two diagnostic classes in terms of symptomatology.
6. **Depressive disorders.** Covered in Chapter 6, these disorders involve disturbances in emotion that usually include prolonged periods of sad, empty, or irritable mood, similar to bipolar disorder. Issues of duration, timing, or presumed etiology (cause) differentiate the disorders in this category from one another.
7. **Anxiety disorders.** Strong "irrational" feelings of fear, anxiety, and panic, along with avoidance of feared situations, typify the anxiety disorders, detailed in Chapter 7. Various anxiety disorders are defined by the nature of the feared stimulus and the primary way the anxiety is expressed, such as through panic attacks, chronic worry, or avoidance of specific stimuli.
8. **Obsessive-compulsive and related disorders.** In Chapter 8, we cover disorders that involve persistent thoughts, urges, or images that are experienced as unwanted, which may also be accompanied by behaviors or mental acts that an individual may feel driven to perform.
9. **Trauma- and stressor-related disorders.** These include disorders in which exposure to a traumatic or stressful event is listed explicitly as a diagnostic criterion, ranging from posttraumatic stress disorder (PTSD) to adjustment disorders, covered in Chapter 9.

multiaxial classification: A system for diagnosing mental disorders and describing a person along several dimensions, or axes, including physical health, psychosocial and environmental problems, and global functioning.

Axis I: In *DSM-IV*, the dimension that contained 16 general groupings of major mental disorders.

Axis II: In *DSM-IV*, the dimension that consisted of 10 personality disorders and mental retardation. *DSM-5* now includes these 10 disorders with all the other (former Axis I) disorders on a single axis.

Axis III: In *DSM-IV*, the dimension where clinicians listed general medical conditions that could be relevant to understanding or treating a person's mental disorder. Using *DSM-5*, medical conditions are simply listed along with the mental disorders on the same axis.

Axis IV: In *DSM-IV*, the dimension where clinicians recorded psychosocial and environmental stressors that could affect the diagnosis, treatment, and course of a mental disorder. Using *DSM-5*, these factors may be listed along with the mental disorders on the same axis.

Axis V: In *DSM-IV*, the dimension on which clinicians rated a person's overall level of functioning at the time of the evaluation, giving a summary assessment of the person's general clinical status and providing a gauge for how well the person responded to treatment. *DSM-5* encourages use of the WHODAS system instead.

10. **Dissociative disorders.** These disorders, covered in Chapter 10, involve a disturbance or alteration in the normally integrated functions of identity, consciousness, or memory. Examples include multiple personality disorder (now called dissociative identity disorder) and psychologically caused memory disruptions.
11. **Somatic symptom and related disorders.** The central feature of these disorders is the existence of physical complaints or symptoms that suggest a physical disorder but that are, in fact, caused by psychological factors. The temporary loss of a sensory ability such as vision is a common example, to be covered in Chapter 11.
12. **Feeding and eating disorders.** Covered in Chapter 12, these disorders are characterized by a persistent disturbance of eating or eating-related behavior that results in the altered consumption or absorption of food and that significantly impairs physical health or psychosocial functioning. *Anorexia nervosa* (self-starvation) and *bulimia nervosa* (binging and purging) are the main disorders in this category.
13. **Sleep-wake disorders.** Insomnia, excessive sleepiness, recurrent nightmares and sleep terrors, and other sleep-related difficulties are included here. These problems, covered in Chapter 12, are not considered disorders when they occur only occasionally.
14. **Sexual dysfunctions.** This is a heterogeneous group of disorders, covered in Chapter 13, that are typically characterized by a clinically significant disturbance in a person's ability to respond sexually or experience sexual pleasure.
15. **Gender dysphoria.** There is only one overarching diagnosis in this category, covered in Chapter 13, which is indicated by a strong, persistent discomfort with one's gender and a preference to be the other sex.
16. **Substance-related and addictive disorders.** Included in this category are mental disorders arising from dependence on or abuse of alcohol, amphetamines, caffeine, cannabis, cocaine, hallucinogens (such as phencyclidine), inhalants, nicotine, opioids, and other drugs. Covered in Chapter 14, this category also includes gambling addiction.
17. **Neurocognitive disorders.** These disorders all involve impairment in a person's cognitive functioning. Discussed in Chapter 15, they can be the result of substance abuse, disease, trauma, or age-related deterioration.
18. **Personality disorders.** Formerly covered on Axis II, these disorders entail enduring patterns of inner experience and behavior that deviate markedly from the expectations of the individual's culture. Further, these patterns are stable over time, pervasive and inflexible, have an onset in adolescence or early adulthood, and lead to distress or impairment. They are covered in Chapter 16.
19. **Paraphilic disorders.** This category, covered in Chapter 17, involves people who derive intense and persistent sexual interest from acts or objects other than physically mature, consenting human partners.
20. **Other mental disorders.** This category includes certain mental disorders for which historical, physical, or laboratory findings point to a medical condition as the cause, along with a variety of clinical conditions that do not meet the criteria for being a mental disorder but are problematic conditions nonetheless and may be the focus of professional treatment. Examples include psychological symptoms that lead to a medical problem, that make a medical condition worse, or that delay a person's recovery from the condition; interpersonal conflicts involving romantic partners or family members; academic and occupational problems; bereavement; and other life crises.

Connections

How do personality disorders, which used to be listed on a separate axis during diagnosis, differ from other mental disorders? Are they simply less severe? Are they the causes or the results of some mental disorders? See Chapter 16.

polythetic approach: An approach to classification that requires a person to meet a particular number of criteria out of a larger set of criterion symptoms to be diagnosed with a specific mental disorder.

Criteria for Diagnosis

Like the *DSM-III* and *DSM-IV*, the *DSM-5* lists specific operational criteria that must be met before a given disorder can be diagnosed. And like its predecessors, the *DSM-5* retains a **polythetic approach** to classification, meaning that, to be diagnosed with a mental disorder, a person must meet a particular number of criteria out of a larger set of possible criterion symptoms. For example, Figure 1.6 shows that even though Gollum, from *The Hobbit* and *Lord of the Rings* literature and film series, does not display all possible

symptoms of schizotypal personality disorder, he meets enough *DSM-5* diagnostic criteria (four of the seven) to be diagnosed with the disorder (see Chapter 16). The polythetic approach contrasts with the **classical method of classification** in which every disorder is assumed to be a distinct, unique condition for which each and every attribute must be present for a diagnosis to be made.

Classical models are commonly used to diagnose physical illnesses, and they usually yield *homogeneous* categories. In other words, all individuals given the same diagnosis appear very similar to one another. Polythetic systems, on the other hand, produce greater variability among people receiving the same diagnosis. They generate *heterogeneous* categories; the same diagnosis can be given to patients who have a similar, *but not identical*, set of symptoms.

In addition, a person may be diagnosed with more than one *DSM-5* disorder at the same time if he or she meets the criteria for each disorder. In fact, there are several reasons why mental disorders are likely to coexist, a condition known as **comorbidity** (Kendall & Clarkin, 1992). First, different disorders can result from the same cause or from different, but simultaneous, causes. For example, exposure to a violent stressor, such as the 2013 bombing near the finish line of the Boston Marathon, could lead to both an anxiety disorder and to depression. Second, the appearance of one disorder can lead to the development of another disorder. Third, comorbidity may merely reflect the fact that different disorders often share similar criteria, resulting in an increased probability that diagnosis of one disorder will be accompanied by diagnosis of another disorder with overlapping criteria.

The comorbidity of mental disorders, to be discussed again later in this chapter and in several other chapters, has numerous implications for how clinicians diagnose and treat mental disorders (Clarkin & Kendall, 1992). Does each disorder require different, but simultaneous, treatment, or should the more serious disorder be treated first? Does the presence of a comorbid disorder make the targeted disorder more difficult to treat? These are some of the questions that researchers will study as comorbid mental disorders are fully investigated in the future.

The *DSM-5* also contains new supplementary material that accompanies the criteria for many disorders. For example, one special section provides descriptions on specific cultural, age, and gender features that might accompany a particular diagnosis. Another section lists physical examination or general medical findings that might be associated with a disorder. These portions of the *DSM-5* reflect two modern directions in the study of abnormal behavior—an increasing interest in discovering the biological foundations of disorders and a recognition that mental disorders need to be understood in their larger cultural and social context.

Diagnosis in the Real World

When clinicians conduct assessments and assign specific diagnoses, their decisions are affected by many factors other than a person's social history, test responses, or clinical interview. Consider again the case of Bill that opened this chapter. Based on Bill's history and current symptoms, what diagnosis do you think a clinician would give him?

classical method of classification: A method of classification in which every disorder is assumed to be a distinct and unique condition for which each and every attribute must be present for a diagnosis to be made.

comorbidity: The co-occurrence of two or more mental disorders in the same person.



FIGURE 1.6 A *DSM-5* Diagnosis of Gollum from *The Hobbit* and *Lord of the Rings* (J. R. R. Tolkien, 1937, 1954–1955)

Here is Bashir et al.'s (2004) diagnosis of the case: Sméagol (Gollum), a 587-year-old homeless male of hobbit descent, presents with antisocial behavior, increasing aggression, and preoccupation with a specific object (a ring). His criminal history consists of at least one murder and another attempted murder (of Samwise Gamgee). He has no history of a substance use disorder, although he smoked "pipe weed" in adolescence, like many of his tribe.

Several differential diagnoses need to be considered, as well as potential organic (biological) causes for his symptoms. Gollum is hypervigilant and does not seem to need much sleep. Along with his bulging eyes and weight loss, this suggests hyperthyroidism.

Psychologically, Gollum displays a pervasive pattern of detachment from social relationships and a restricted range of emotions in interpersonal settings, beginning in childhood. He fulfills four of the seven criteria for schizoid personality disorder, as per *DSM-5*: lack of desire for close relationships, almost always choosing solitary activities, lack of close friends, and showing emotional coldness.

Source: Mawardi Bahar/Shutterstock.com.

Money, Privacy, and Diagnoses

Bill's symptoms satisfy the criteria for an anxiety disorder, the amount of conflict in his marriage points to a marital problem, and the psychological stress of an impending job loss indicates the likelihood of an adjustment disorder. The clinician may assign any or all of these diagnoses, but additional factors that are distinct from, and go beyond, Bill's clinical complaints will influence the final decision.

First, like the majority of Americans, Bill has health insurance, paid for in part by his employer. His health insurance covers mental disorders according to the Mental Health Parity Act, legislation signed into U.S. law on September 26, 1996 that requires that annual or lifetime dollar limits on mental health benefits be no lower than any such dollar limits for medical and surgical benefits. So Bill's insurance policy will pay for psychotherapy for *DSM* disorders, including anxiety disorders, but it does not cover treatment of marital problems. There is thus an obvious *financial* incentive for the clinician (and Bill) to diagnose an anxiety disorder.

To make Bill's treatment financially feasible, the clinician could decide to diagnose anxiety disorder, but Bill is concerned that his insurance company will review the diagnosis and treatment before reimbursement is made. He wants assurance from the clinician that the diagnosis will be kept confidential; otherwise, he is convinced that his employer will use the anxiety disorder diagnosis to hasten his dismissal. The clinician cannot, in good conscience, provide this assurance because, if Bill's case goes to court, confidentiality may be overridden by a judge's order.

In addition to Bill's financial and social considerations, the clinician's professional interests may influence the diagnosis. Clinicians who have expertise in treating one disorder may construe ambiguous cases in a way that results in the favored diagnosis. Some clinicians try to build a reputation for specializing in specific disorders, so marketing considerations might also influence diagnoses.

Another factor that influences diagnosis is that many people with mental disorders do not go first to mental health professionals, but to a hospital emergency room, their family physician, or a health maintenance organization (HMO). Compared with mental health specialists, primary care physicians tend to underdiagnose mental disorders (Munoz, Holton, McGrath, Rehm, & VandenBos, 1994). If Bill had first consulted his primary care physician, he might well have been diagnosed with, and treated for, a physical rather than a mental disorder.

Diversity and Assessment Measures

When you first read about Bill, how did you visualize him? If you are like most of the people who have read this case, you may have assumed that Bill was Caucasian. But, in fact, Bill is African American. Assumptions about Bill's ethnicity illustrate another major influence on the way clinical diagnosis is conducted in the real world. Human diversity affects the manifestation and diagnosis of mental disorders in several ways. For example, most psychological tests, structured interviews, and observational systems were first developed and normed on Caucasian samples. Could these measures be biased against ethnic minorities as a result?

A test can be biased in at least two ways. First, people from a certain ethnic group may do poorly on a test relative to other groups *for reasons that have nothing to do with what the test is measuring*. For example, a person whose first language is not English will probably not perform as well on an IQ test administered in English as a person who has always spoken English. Many popular IQ and personality tests have been translated into different languages to overcome this bias, but you still must be cautious that the translation does not introduce subtle differences in meaning that may distort the interpretation of test scores.

A second type of bias occurs when scores on a test lead to valid predictions for one ethnic group but invalid predictions for another group. For example, if subjects from different ethnic groups take a personality test, do their scores lead to equally accurate predictions? If not, the test is biased. In one study (Timbrook & Graham, 1994), African Americans and Caucasians completed the MMPI-2, and their spouses or partners rated

them on a variety of traits and behaviors that should correlate with the test scores. No ethnic differences were found for the accuracy of MMPI-2 scores in predicting the partners' ratings. At least on the basis of this preliminary study, the MMPI-2 was therefore not biased in its ability to predict outcomes for African American and Caucasian test-takers.

Another possible problem is that members of various ethnic groups may respond differently to interviews. To take just one example, being surveyed about symptoms of a mental disorder over the telephone by a stranger probably has a unique meaning for an older Chinese woman whose traditions suggest that personal problems are matters to be kept within the family (Ying, 1989). At the same time, she might see refusing to cooperate with an interviewer as unacceptably rude. Many traditional Chinese women appear to resolve this dilemma by not acknowledging to interviewers that they have experienced certain symptoms.

Diversity and Definitions of Mental Disorders

Ethnic or cultural factors are most likely to distort diagnoses when clinicians do not understand a person's cultural or ethnic background. For example, Asian Americans may express psychological problems through physical complaints, a tendency known as **somaticizing**. This form of complaint may be less embarrassing to people from an Asian background than admitting to emotional problems. Another example is the use of culturally specific expressions of distress, such as *susto* (fright), *nervios* (nerves), and *ataque de nervios* (attack of nerves), which are widely experienced amongst Hispanic Americans and often associated with psychiatric disorders (Durà-Vilà & Hodes, 2012). Therefore, clinicians need to consider how cultural tolerance and language for different kinds of problems may affect the way clients experience and present distress.

To foster an appreciation of how diversity affects the expression of mental disorders, the *DSM-5* includes a separate section on cultural formulation, which provides a framework for assessing information about the cultural features of an individual's mental health problem and how it relates to a social and cultural context and history (American Psychiatric Association, 2013a, p. 749). In addition, the *DSM-5* describes many **culture-bound syndromes**, patterns of abnormal behavior that appear only in certain localities or cultures. For instance, *koro*, covered in Chapter 2, appears in the *DSM-5* under Obsessive-Compulsive and Related Disorders, as well as in the special appendix called "Glossary of Cultural Concepts of Distress."

somaticizing: A tendency to express psychological problems through physical complaints.

culture-bound syndrome: A pattern of abnormal behavior that appears only in certain localities or cultures.

Connections

How could social adversity and poverty contribute to the incidence of mental disorders? See Chapter 2.

Diversity and Interactions Between Clients and Clinicians

The effect of ethnic or cultural factors on diagnosis stems in part from their impact on how clinicians and clients interact. At the most obvious level, if they have difficulty understanding each other's spoken language, the clinician will have difficulty understanding the client's psychological functioning. In particular, clinicians must be cautious about how they interpret idioms, such as "My nerves are shot" or "I'm having my spells again."

Cultural values can also affect a person's willingness to disclose personal problems to a professional. The cultural background of many Hispanic Americans, for example, tends to discourage seeking help from outside professionals, so it is not surprising that Hispanic Americans use formal mental health services less than other ethnic groups (Sue, Zane, & Young, 1994).

Failure to understand the influences of clients' cultural background and experience can lead clinicians to make two fundamental mistakes (Lopez, 1989). First, clinicians can misconstrue a certain behavior as a symptom of a mental disorder when, in fact, the behavior is considered desirable in the client's culture. An example of this **overpathologizing** error is when a Hispanic American's deference to family authority figures is interpreted as a sign of anxiety or immaturity. The opposite of this tendency is the **underpathologizing** error, in which clinicians dismiss some bizarre behavior as merely the reflection of a cultural difference when, in fact, it is the symptom of a mental disorder. This mistake sometimes occurs when clinicians try too hard to prove their cultural sensitivity and can result in people being denied the treatment they clearly need.

overpathologizing: A tendency to mistakenly construe some behavior as a symptom of a mental disorder when, in fact, the behavior is culturally appropriate.

underpathologizing: A tendency for clinicians to mistakenly construe some behavior as merely reflecting a cultural difference when, in fact, it is the symptom of a mental disorder.

Section Review

Scientific classification of mental disorders was first widely established in the United States with the introduction of the *DSM* in 1952. In *DSM-5* diagnoses:

- a person's behavior is compared with a set of clearly specified criteria for each disorder;
- the person's behavior must satisfy a predetermined number of these criteria for a disorder to be diagnosed; and
- a person is also assessed for medical conditions, exposure to stressors, and overall functioning, as well as the presence of mental disorders.

Diagnoses of mental disorders in the real world are influenced by:

- financial considerations,
- concerns about privacy, and
- ethnic and cultural factors that shape the way clinicians and clients understand and interact with each other.

The Frequency of Mental Disorders: How Common Are They?

How many people currently suffer from a mental disorder or have suffered from one at some point in their lives? These are among the questions addressed by the field of epidemiology. The total number of people who suffer from a disorder in a specific population is called the **prevalence** of a disorder. Lifetime prevalence is the percentage of people in a population who have had a disorder at any time in their lives, and point prevalence includes only those who have the disorder at one specific point in time (i.e., at the time of interview). The 1-year prevalence is a hybrid type of prevalence between lifetime prevalence and point prevalence, recording the history of the disorder within a year prior to assessment (Eaton et al., 1985). The number of people who develop a new disorder in a specific time period (usually the previous 6 or 12 months) is known as the **incidence** of a disorder.

prevalence: The total number of people who suffer from a disorder in a specific population.

incidence: The number of people who develop a disorder in a specific time period, usually the previous six or twelve months.

Epidemiologists have studied the prevalence of mental disorders in the United States and other parts of the world throughout the latter half of the 20th century. Their studies are usually based on interviews with large numbers of people who have been selected to represent a larger population. For example, researchers conducting the Midtown Manhattan Study (Srole, Langner, Michael, Opler, & Rennie, 1962) interviewed more than 1,600 people in New York City. Based on these interviews, the authors estimated that about 26% of the population had a mental disorder.

The most comprehensive study of mental disorders in the United States was the Epidemiologic Catchment Area (ECA) Project sponsored by the National Institute of Mental Health (Robins & Regier, 1991). In this study, trained interviewers used a structured interview (the Diagnostic Interview Schedule [DIS], discussed in Table 1.1) to collect information about 30 major mental disorders in five large “catchment” areas: Los Angeles, California; St. Louis, Missouri; New Haven, Connecticut; Baltimore, Maryland; and Durham, North Carolina. More than 20,000 subjects were selected so that their age, gender, economic status, education, and place of residence made them as representative as possible of the U.S. population in general. Interviews were conducted not only with community residents, but with people living in prisons, nursing homes, hospitals, and other institutions.

More recently, WHO expanded its Composite International Diagnostic Interview (CIDI; Table 1.1), the interview used in almost all major psychiatric epidemiological surveys in the world over the past decade, to include detailed questions about severity (Kessler & Ustun, 2004). This expanded CIDI was used in a coordinated series of epidemiological surveys carried out under WHO auspices and known as the World Mental Health (WMH) Survey Initiative. Using similar methodology, these surveys continue to be conducted regularly worldwide (Eaton et al., 2012), as well as in the United States as the National Comorbidity Survey (NCS; Kessler, Chiu, Demler, & Walters, 2005).

So what can these large-scale epidemiological projects tell us about national and global mental health? Note that these studies were all based on *DSM-IV* diagnostic criteria, so the precise numbers may change somewhat as surveys begin to use *DSM-5* criteria instead. In addition to being a product of the screening tool used (e.g., the *DSM*), measuring the frequency of mental disorders may also be subject to errors due to differential reporting (e.g., some people may not want to reveal that they have a disorder). However, these data still provide a vital snapshot of the approximate frequency of mental disorders. Some highlights of this ongoing research are:

1. Mental disorders are common in the United States and internationally. An estimated 26.2% of Americans ages 18 and older—about one in four adults—suffer from a diagnosable mental disorder in a given year (Kessler et al., 2005), which translates to about 60 million people. Even though mental disorders are widespread in the population, the main burden of these disorders is concentrated in a much smaller proportion—about 6%, or 1 in 17—who suffer from a serious mental illness. In addition, mental disorders are the leading cause of disability in the United States and Canada.
2. The lifetime prevalence of mental disorders is frequently related to demographic or social variables. Within the United States, higher rates of disorder are associated with being poor and not completing high school. African Americans have higher rates of mental disorder than Caucasian or Hispanic Americans. However, according to more detailed ECA and NCS results, if cognitive symptoms that are strongly correlated with social class are excluded, African Americans actually show a lower prevalence of several disorders, including mood disturbances and substance use disorders, than Caucasian Americans (Kessler et al., 1994).
3. In the United States, about 38% of people with a history of disorder are “in **remission**,” defined as being free of symptoms during the year prior to the interview. Over half of the persons who had suffered drug abuse/dependence, generalized anxiety disorder, alcohol abuse, or antisocial personality disorder had been without symptoms of these disorders during the prior year.
4. In the United States, remission rates far exceed the percentage of people seeking treatment for a disorder. Indeed, only 19% of community residents with a current disorder report receiving recent treatment for it, usually from general physicians rather than mental health professionals. Children, the elderly, ethnic minorities, the poor and homeless, and people with physical disabilities are especially likely to be *underserved*, meaning that they do not receive interventions that may be needed.
5. Comorbidity of mental disorders is common in the United States. If we define comorbidity simply as having at least two different diagnoses, 18% of the ECA sample would be classified as comorbid, and 60% of people with one disorder in their lifetime had at least one additional diagnosed mental disorder. The comorbidity results from the NCS are even more striking. Among respondents with a history of at least one disorder, 56% had suffered one or more other disorders in their lifetime, and over half of all lifetime disorders occurred in the 14% of the sample having a history of three or more comorbid disorders. In other words, the major burden of mental disorders is concentrated in a group of comorbid people who constitute less than one sixth of the population.
6. In the ECA study, the first symptoms of most mental disorders occur at a surprisingly early age. Considering all disorders, the average age for noticing the first symptoms of a disorder was 16. In the NCS study, anxiety disorders and eating disorders often began in people’s teenage years, and as you might expect, disorders such as ADHD and autism were typically diagnosed in childhood (Kessler, Chiu, Demler, & Walters, 2005). This finding helps explain the dual emphases throughout this book on understanding the developmental origins of mental disorders and on the need for preventive programs that focus on children and adolescents.
7. As Table 1.5 shows, the prevalence and projected lifetime risk of mental disorders varies considerably worldwide. For instance, the projected risk of a person meeting

remission: When symptoms of a previously present disorder are no longer apparent, implying improvement or recovery.

TABLE 1.5 Worldwide Prevalence of *DSM* Disorders (Percent of Sample With Disorders in Their Lifetime and Projected Lifetime Risk As of Age 75)

Country	Any Anxiety Disorder		Any Mood Disorder		Any Substance Use Disorder		Any Mental Disorder	
	Prevalence (%)	Projected Lifetime Risk (%)	Prevalence (%)	Projected Lifetime Risk (%)	Prevalence (%)	Projected Lifetime Risk (%)	Prevalence (%)	Projected Lifetime Risk (%)
Belgium	13.1	15.7	14.1	22.8	8.3	10.5	29.1	37.1
Columbia	25.3	30.9	14.6	27.2	9.6	12.8	39.1	55.2
France	22.3	26.0	21.0	30.5	7.1	8.8	37.9	47.2
Germany	14.6	16.9	9.9	16.2	6.5	8.7	25.2	33.0
Israel	5.2	10.1	10.7	21.2	5.3	6.3	17.6	29.7
Italy	11.0	13.7	9.9	17.3	1.3	1.6	18.1	26.0
Japan	6.9	9.2	7.6	14.1	4.8	6.2	18.0	24.4
Lebanon	16.7	20.2	12.6	20.1	2.2	—	25.8	32.9
Mexico	14.3	17.8	9.2	20.4	7.8	11.9	26.1	—
Netherlands	15.9	21.4	17.9	28.9	8.9	11.4	31.7	42.9
New Zealand	24.6	30.3	20.4	29.8	12.4	14.6	39.3	48.6
Nigeria	6.5	7.1	3.3	8.9	3.7	6.4	12.0	19.5
China	4.8	6.0	3.6	7.3	4.9	6.1	13.2	18.0
South Africa	15.8	30.1	9.8	20.0	13.3	17.5	30.3	47.5
Spain	9.9	13.3	10.6	20.8	3.6	4.6	19.4	29.0
Ukraine	10.9	17.3	15.8	25.9	15.0	18.8	36.1	48.9
United States	31.0	36.0	21.4	31.4	14.6	17.4	47.4	55.3

Source: Based on data from Kessler et al. (2007).

diagnostic criteria for any mental disorder at some point in his or her lifetime ranges from 18% in China to over 55% in the United States, with most European countries somewhere in the middle of those extremes. In addition, the specific type of disorders that are frequently diagnosed differs by nation. Anxiety disorders are most common in the United States, Columbia, and New Zealand, whereas mood disorders are most often diagnosed in the United States, New Zealand, and France. Substance use disorders are highest in the United States, the Ukraine, and South Africa.

8. Overall, the most common disorders worldwide are personality disorders and alcohol use disorders, followed by dementia for older adults, major depression, and anxiety disorders such as simple phobias (see Table 1.6).
9. Having a mental disorder in the developing world can be grim (Clay, 2014). Up to 85% of people with severe mental disorders in low- and middle-income countries receive no treatment, according to WHO. People with mental disorders often face inhumane living conditions and harmful, degrading treatment practices in health-care facilities. They are frequently denied the right to work, go to school, and have families. That may soon change, thanks to WHO's new Comprehensive Mental Health Action Plan 2013–20 (World Health Organization, 2013). Adopted by the World Health Assembly in October 2013, the plan is a call to action that will help guide countries as they strive to ensure that all citizens with mental disorders receive the treatment they need. The plan has four specific objectives: (1) strength-

TABLE 1.6 Prevalence of Specific Mental Disorders in Adults Worldwide (Percent of Sample With Disorders in the 12 Months Prior to Interview)

Mental Disorder	Median 1-Year Prevalence	Prevalence Range	Number of Studies
Panic disorder	0.9	0.6–1.9	33
Social phobia	2.8	1.1–5.8	30
Simple phobia	4.8	3.5–7.3	25
Major depressive disorder	5.3	3.6–6.5	42
Obsessive-compulsive disorder	1.0	0.6–2.0	19
Drug use disorder	1.8	1.1–2.7	11
Alcohol use disorder	5.9	5.2–8.1	14
Personality disorders	9.1	9.0–14.4	5
Schizophrenia	0.5	0.3–0.6	23
Bipolar disorder	0.6	0.3–1.1	16
Dementia (age > 65 years)	5.4	3.2–7.1	25

Source: Based on data from Eaton et al. (2008).

ening leadership in mental health, (2) providing comprehensive mental health and social services in community-based settings, (3) implementing prevention and mental health promotion strategies, and (4) strengthening research programs and information systems for mental health fields.

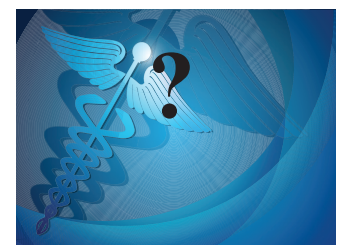
The Four Guiding Principles: MAPS of the Territory

Criticisms of *DSM* Diagnoses

As we discuss in the “Controversy” feature as well as in this section, the *DSM-5* is still a target of significant criticisms (Clark, Watson, & Reynolds, 1995; Frances, 2012; Paris, 2013) despite continued improvement in the empirical foundations for diagnoses and greater sophistication in the way the diagnostic system is organized. It is all too easy to assume that the wide variety of mental disorders we describe in this textbook are real “things” (diseases) that people “have.” Whereas that is sometimes true, we want you to remember that there are potential limitations to traditional notions about the nature, diagnosis, and treatment of mental disorders. To remind you of these potential limitations, we offer you the acronym MAPS, which stands for *Medical myths*, *Attempted answers*, *Prejudicial pigeonholing*, and *Superficial syndromes*. Each of these four guiding principles, discussed in more detail in the sections that follow, is represented by an icon that will display throughout the text whenever that particular principle applies.

M = Medical Myths

Medical myths is the notion that, despite the urgings of powerful drug companies and the potential increases in diagnosis of mental disorders in the *DSM-5* (Frances, 2012), pills are not always (or even often) the optimal first-line treatment for most of the disorders in the *DSM-5* (Heuzenroeder et al., 2004; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012), with the exception of bipolar disorder (Smith, Cornelius, Warnock, Tacchi, & Taylor, 2007). Furthermore, the biological/medical model discussed in Chapter 2 is only



MAPS - Medical Myths

DSM-5 Is Guide Not Bible—Ignore Its Ten Worst Changes

The following was published on December 2, 2012 by Allen J. Frances, M.D., in *DSM-5 in Distress* blog and is reprinted with permission of the author.

Allen Frances, M.D., was chair of the DSM-IV Task Force and of the department of psychiatry at Duke University School of Medicine, Durham, NC. He is currently professor emeritus at Duke and is the author of two recent (2013) books: Saving Normal: An Insider's Revolt Against Out-of-Control Psychiatric Diagnosis, DSM-5, Big Pharma and the Medicalization of Ordinary Life and Essentials of Psychiatric Diagnosis, Revised Edition: Responding to the Challenge of DSM-5.

This is the saddest moment in my 45-year career of studying, practicing, and teaching psychiatry. The Board of Trustees of the American Psychiatric Association (APA) has given its final approval to a deeply flawed *DSM-5* containing many changes that seem clearly unsafe and scientifically unsound. My best advice to clinicians, to the press, and to the general public—be skeptical and don't follow *DSM-5* blindly down a road likely to lead to massive overdiagnosis and harmful overmedication. Just ignore the ten changes that make no sense.

Brief background. *DSM-5* got off to a bad start and was never able to establish sure footing. Its leaders initially articulated a premature and unrealizable goal—to produce a paradigm shift in psychiatry. Excessive ambition combined with disorganized execution led inevitably to many ill-conceived and risky proposals.

These were vigorously opposed. More than 50 mental health professional associations petitioned for an outside review of *DSM-5* to provide an independent judgment of its supporting evidence and to evaluate the balance between its risks and benefits. Professional journals, the press, and the public also weighed in—expressing widespread astonishment about decisions that sometimes seemed not only to lack scientific support but also to defy common sense.

The *DSM-5* has neither been able to self-correct nor willing to heed the advice of outsiders. It has instead created a mostly closed shop—circling the wagons and deaf to the repeated and widespread warnings that it would lead to massive misdiagnosis. Fortunately, some of its most egregiously risky and unsupportable proposals were eventually dropped under great external pressure (most notably “psychosis risk,” mixed anxiety/depression, Internet and sex addiction, rape as a mental disorder, “hebephilia,” cumbersome personality ratings, and sharply lowered thresholds for many existing disorders). But APA stubbornly refused to sponsor any independent review and has given final

approval to the ten reckless and untested ideas that are summarized below.

The history of psychiatry is littered with fad diagnoses that in retrospect did far more harm than good. Yesterday's APA approval makes it likely that the *DSM-5* will start a half dozen or more new fads which will be detrimental to the misdiagnosed individuals and costly to our society. . . .

So, here is my list of *DSM-5*'s ten most potentially harmful changes. I would suggest that clinicians not follow these at all (or, at the very least, use them with extreme caution and attention to their risks); that potential patients be deeply skeptical, especially if the proposed diagnosis is being used as a rationale for prescribing medication for you or for your child; and that payers question whether some of these are suitable for reimbursement. My goal is to minimize the harm that may otherwise be done by unnecessary obedience to unwise and arbitrary *DSM-5* decisions.

1. Disruptive mood dysregulation disorder: *DSM-5* will turn temper tantrums into a mental disorder—a puzzling decision based on the work of only one research group. We have no idea whatever how this untested new diagnosis will play out in real-life practice settings, but my fear is that it will exacerbate, not relieve, the already excessive and inappropriate use of medication in young children. During the past two decades, child psychiatry has already provoked three fads—a tripling of attention deficit disorder, a more than 20-times increase in autistic disorder, and a 40-times increase in childhood bipolar disorder. The field should have felt chastened by this sorry track record and should engage itself now in the crucial task of educating practitioners and the public about the difficulty of accurately diagnosing children and the risks of overmedicating them. *DSM-5* should not be adding a new disorder likely to result in a new fad and even more inappropriate medication use in vulnerable children.
2. Normal grief will become major depressive disorder, thus medicalizing and trivializing our expectable and necessary emotional reactions to the loss of a loved one and substituting pills and superficial medical rituals for the deep consolations of family, friends, religion, and the resiliency that comes with time and the acceptance of the limitations of life.
3. The everyday forgetting characteristic of old age will now be misdiagnosed as minor neurocognitive disorder, creating a huge false positive population of people who are not at special risk for demen-

DSM-5 Is Guide Not Bible—Ignore Its Ten Worst Changes (*Continued*)

tia. Since there is no effective treatment for this “condition” (or for dementia), the label provides absolutely no benefit (while creating great anxiety) even for those at true risk for later developing dementia. It is a dead loss for the many who will be mislabeled.

4. *DSM-5* will likely trigger a fad of adult attention deficit disorder, leading to widespread misuse of stimulant drugs for performance enhancement and recreation and contributing to the already large illegal secondary market in diverted prescription drugs.
5. Excessive eating 12 times in 3 months is no longer just a manifestation of gluttony and the easy availability of really great-tasting food. *DSM-5* has instead turned it into a psychiatric illness called binge eating disorder.
6. The changes in the *DSM-5* definition of autism will result in lowered rates: 10% according to estimates by the *DSM-5* work group, perhaps 50% according to outside research groups. This reduction can be seen as beneficial in the sense that the diagnosis of autism will be more accurate and specific—but advocates understandably fear a disruption in needed school services. Here the *DSM-5* problem is not so much a bad decision, but the misleading promises that it will have no impact on rates of disorder or of service delivery. School services should be tied more to educational need, less to a controversial psychiatric diagnosis created for clinical (not educational) purposes and whose rate is so sensitive to small changes in definition and assessment.
7. First-time substance abusers will be lumped in definitionally with hard-core addicts, despite their very different treatment needs and prognosis and the stigma this will cause.
8. *DSM-5* has created a slippery slope by introducing the concept of behavioral addictions that eventually can spread to make a mental disorder of everything we like to do a lot. Watch out for careless overdiagnosis of Internet and sex addiction and the development of lucrative treatment programs to exploit these new markets.
9. *DSM-5* obscures the already fuzzy boundary around generalized anxiety disorder and the worries of everyday life. Small changes in definition can create millions of anxious new “patients” and expand the already widespread practice of inappropriately prescribing addicting antianxiety medications.

10. *DSM-5* has opened the gate even further to the already-existing problem of misdiagnosis of PTSD (posttraumatic stress disorder) in forensic settings.

DSM-5 has dropped its pretension to being a paradigm shift in psychiatric diagnosis and instead (in a dramatic 180-degree turn) now makes the equally misleading claim that it is a conservative document that will have minimal impact on the rates of psychiatric diagnosis and in the consequent provision of inappropriate treatment. This is an untenable claim that *DSM-5* cannot possibly support because, for completely unfathomable reasons, it never took the simple and inexpensive step of actually studying the impact of *DSM* on rates in real-world settings.

Except for autism, all the *DSM-5* changes loosen diagnosis and threaten to turn our current diagnostic inflation into diagnostic hyperinflation. Painful experience with previous *DSMs* teaches that if anything in the diagnostic system can be misused and turned into a fad, it will be. Many millions of people with normal grief, gluttony, distractibility, worries, reactions to stress, the temper tantrums of childhood, the forgetting of old age, and “behavioral addictions” will soon be mislabeled as psychiatrically sick and given inappropriate treatment.

People with real psychiatric problems that can be reliably diagnosed and effectively treated are already badly shortchanged. *DSM-5* will make this worse by diverting attention and scarce resources away from the really ill and toward people with the everyday problems of life who will be harmed, not helped, when they are mislabeled as mentally ill.

Our patients deserve better, society deserves better, and the mental health professions deserve better. Caring for the mentally ill is a noble and effective profession. But we have to know our limits and stay within them.

DSM-5 violates the most sacred (and most frequently ignored) tenet in medicine: First Do No Harm! That’s why this is such a sad moment.

Thinking Critically

The previous article shows that, although the APA and WHO have gone to great lengths to offer national and international diagnostic systems that they believe to be of scientific value, doubt remains about the science behind these systems. Specifically, there are concerns about whether these systems might continue to create diagnostic errors and other problems. To what extent are such concerns valid? Deciding requires critical thinking, which involves asking yourself the following questions about this or any other controversial topic,

(Continued)

DSM-5 Is Guide Not Bible—Ignore Its Ten Worst Changes (*Continued*)

such as those featured in the “Controversy” feature present in each chapter in this text (Bernstein, 2007; Burke, Sears, Kraus, & Roberts-Cady, 2014):

1. What are you being asked to *believe or accept*?
2. What *evidence* is available to support the claim?
3. What *alternative* ways are there to interpret the evidence?
4. How would you rate all the evidence/alternatives on a 0–10 scale based on *validity/strength*?
5. What *assumptions or biases* came up when answering questions 1–4 (e.g., using intuition/emotion, authority, or personal experience rather than science)?
6. What *additional evidence* would help you evaluate the alternatives?
7. What *conclusions* are most reasonable or likely?

Regarding question 1, Allen Frances makes several key claims in his blog, including the notion that *DSM-5* will lead to increased diagnosis of depression, neurocognitive disorders, PTSD in forensic settings, and ADHD in adults. Additional critical-thinking steps you should consider are:

- What evidence would you need to be convinced that these disorders will (or will not) be overdiagnosed now that the *DSM-5* is in wide use?
- What types of research studies could psychologists design to test Frances’s key claims?

This is precisely the kind of thinking that we hope you will engage in as you read this book.

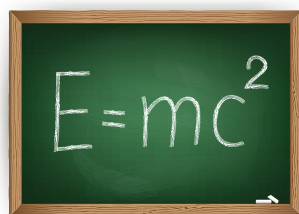
one narrow lens through which we view disorders, and we currently have no disorders for which the biological/genetic underpinnings have been fully established (Paris, 2013). It is tempting to take the simplest route possible to understanding and treating mental disorders—for instance, to view depression as an illness or disease resulting merely from low serotonin levels in the brain. But viewing mental disorders as physical diseases is oversimplified and sometimes just plain wrong.

The Medical Model Stresses the Individual Above the Sociocultural Context

Especially with the removal of the multiaxial system (and Axis IV, which formerly listed psychosocial stressors), the *DSM-5* emphasizes individual dysfunction far more than the effects of harmful environments and social policies that impair people’s psychological adjustment. Some critics believe that this emphasis on internal factors is one of the most harmful effects of the medical model of mental disorders around which the *DSM* is organized. By focusing diagnoses exclusively on individual problems, mental health professionals run the risk of blaming the victims of poverty, discrimination, undereducation, unemployment, and abuse. In a country such as the United States, where one in every five children lives in poverty, the potential significance of considering the external factors contributing to psychopathology is obvious. If destructive environments and social policies are the true culprits behind some mental disorders, diagnostic practices that distract mental health professionals from working on these external problems do a disservice to people with mental disorders and to society at large.

A = Attempted Answers

Far from being medical illnesses, mental disorders are just a collection of potentially interrelated symptoms—subjective observations a person makes, indicating that something might be wrong. What is important to note is that these symptoms often arise as the person’s attempted solution to a problem. For instance, delusions may create meaning for people who are depressed, compulsive behaviors (e.g., hand-washing) may reduce the anxiety caused by obsessional thoughts (e.g., worries about getting sick), children with autism may seek sameness/rituals to manage their discomfort, and children with ADHD



MAPS - Attempted Answers

may overstimulate themselves to “wake their brains up.” Moreover, there may be adaptive advantages to certain mental disorders. For instance, depression can help people temporarily withdraw from others after losses/stressors so they can “lick their wounds” (in ancestral environments, sometimes literally!) and return to society when they are ready to reengage. Throughout this textbook, we help you understand *why* specific symptoms might emerge in specific situations and what functions they might serve for the individual who may have generated them.

P = Prejudicial Pigeonholes

We delve deeper into our history of understanding mental disorders in Chapter 2, and you will see how the historical context can change the way we view them. Even in modern times, the labels included in each version of the *DSM* and which treatments are implemented first are partly reflections of historical trends and sociocultural attitudes. For example, homosexuality was included as a mental disorder until its removal from the *DSM-III-R* in 1987, and several scholars still argue that the remaining sexual behavior categories of disorders in the *DSM*, now called paraphilic disorders in the *DSM-5* (covered in Chapter 17), should be removed as well (Silverstein, 2009). As we discuss next, pigeonholing someone, which means thinking of that individual unfairly as belonging to a particular group, can have dire consequences for that person’s future.

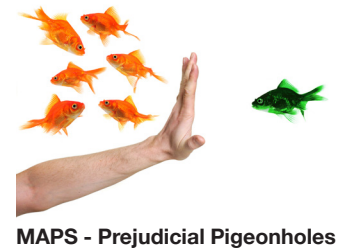
Labeling Produces Stereotypes, Prejudice, and Harm

It is easy to forget that diagnoses apply to disorders, not individuals. When people overlook this fact, diagnoses can have many adverse effects, including rejection and discrimination.

The potential dangers of labeling were suggested several decades ago by a famous study conducted by David Rosenhan (1973). Rosenhan and seven other people, *none of whom suffered from a mental disorder*, presented themselves to psychiatric hospitals in five states and asked to be admitted as patients. Each person complained of the same, single symptom: hearing voices saying the words *thud*, *empty*, and *hollow*. In almost every instance, the hospital staff admitted these people and diagnosed them with schizophrenia, a serious disorder. Following their admissions to the hospitals, these pseudopatients behaved as normally as possible. Nonetheless, their actions were often interpreted as signs of disorder. For example, the hospital staff interpreted behaviors intended to relieve boredom, such as keeping a personal journal, as symptoms of mental illness. Despite their normal behavior, the researchers were kept in the hospitals anywhere from 7 to 52 days. After being discharged, they were usually given the diagnosis “schizophrenia, in remission,” suggesting that the disorder (which they never had in the first place!) might return someday.

You should be careful not to make too much of this study. As many critics have pointed out (e.g., Spitzer, 1975), hospital staff are rarely confronted by normal people who report hearing nonexistent voices and ask to be admitted. Usually, something is wrong, and the clinician’s wisest and safest course is to take the complaint seriously and admit the patient to the hospital. In fact, failing to do so might well be negligent, so legal considerations make the staff’s reactions appear more reasonable. Still, the Rosenhan study did dramatically demonstrate how labels can exert too much influence, distorting the interpretation of a labeled person’s behavior.

Labels of mental disorders can also lead to detrimental changes in the labeled person’s behavior. If a person is incorrectly diagnosed as having diabetes, this false-positive diagnosis may be frightening and could lead to additional, costly, medical procedures. But the label itself would not cause diabetes. With mental disorders, however, false labels can sometimes make the conditions they describe more likely, an outcome known as a *self-fulfilling prophecy*. This concern is particularly strong with some childhood disorders. For example, children incorrectly diagnosed as having learning disabilities may decrease their academic effort because they believe that no amount of effort can ever overcome their “disabilities.” Tragically, decreased motivation might increase their risk of academic difficulties, until the diagnosis finally appears accurate.



MAPS - Prejudicial Pigeonholes

The good news here is that abnormal psychology classes—the likely reason you are reading this textbook—can reduce students’ prejudices against people with mental disorders (Barney, 2014).

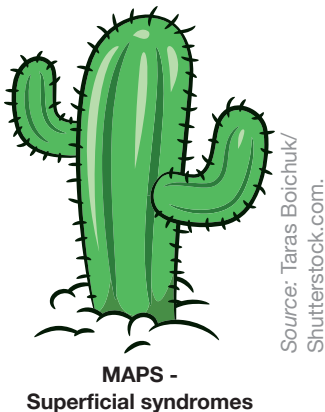
Gender Bias in the *DSM*

Also under the broad umbrella of prejudicial pigeonholing is the claim that the diagnosis of mental disorders is gender biased. For example, some charge that *DSM* diagnostic criteria codify “masculine-based assumptions about what behaviors are healthy and what behaviors are crazy” (Kaplan, 1983) and that this shows up especially in diagnosis of personality disorders (Chapter 16). Others object that society encourages women to be submissive and dependent, but then labels them as mentally disordered if they show too much of these qualities. In the *DSM-5*, for example, one criterion for histrionic personality disorder (which is much more commonly diagnosed in women than men) is “consistently uses physical appearance to draw attention to self.” Our male-dominated society appears to want women to be physically beautiful so they are more sexually desirable, but it then condemns them with a diagnostic label if they show what men think to be too much of this quality.

In one study (Ford & Widiger, 1989), psychologists read one of three case histories that illustrated antisocial personality disorder (APD; diagnosed more often in males), histrionic personality disorder (HPD; diagnosed more often in females), or an ambiguous mixture of the two. One third of the psychologists were told that their case involved a female client, one third were told it was a male, and one third were not informed of the client’s gender. A second group of psychologists rated the extent to which each symptom presented in the cases represented a criterion for antisocial or histrionic diagnosis. For the antisocial case, the psychologists failed significantly more often to diagnose APD for the female (15%) than for the male (42%). The reverse was true for the HPD case; the psychologists significantly underdiagnosed this disorder in males (44%) compared with females (76%). The ambiguous case was not affected by the gender of the client, and the gender of the psychologists themselves made little difference to their diagnoses. This and other research suggests that the diagnosis of personality disorders in the *DSM-5* may result in prejudicial pigeonholing, using data that go beyond the relevant symptoms of each client.

S = Superficial Syndromes

The last several versions of the *DSM* (*III*, *IV*, and 5) have had high interrater reliability in diagnoses—that is, agreement between different observers—because the diagnostic criteria are commonly based on superficial signs and symptoms. In other words, diagnosis is made typically using features that clinicians or clients can easily see/observe, such as depressed mood, restlessness, social awkwardness, or hypervigilance, rather than by any deeper understanding of cause. Many of the later chapters will have a photo or two of a specific cactus to illustrate the key caveat that the *DSM* is based on observable syndromes rather than diseases per se (Paris, 2013). The cactus icon also reappears throughout this textbook because it shows how easily we can diagnose people—and even cactus trees—with mental disorders using only what we see on the outside (e.g., droopy cactus arms = depression). In this textbook, we explore abnormality behind the cactus to get at what causes these disorders and how to treat them, and not just how to spot them based on surface characteristics.



Mental Disorders Occur on a Continuum, Not in Discrete Categories

Related to their reliance on superficial syndromes, *DSM*-based diagnoses imply that a person either does, or does not, have a disorder. This categorical, all-or-none approach to classification has been challenged by mental health professionals, who argue that mental disorders are not arranged so neatly in real life (Carson, 1991). Many argue as well that the line separating disorder from nondisorder in the *DSM*—in terms of the particular number of symptoms needed to define a disorder—tends to be rather arbitrary (Paris, 2013).

One alternative is for clinicians to think of disorders occurring along different dimensions (Widiger, Trull, Hurt, Clarkin, & Frances, 1987). In a **dimensional approach**, a person receives scores on several dimensions of personality, such as extraversion, openness to different kinds of experiences, conscientiousness, and emotional stability. When taken together, these scores produce a profile that summarizes the person's standing on those dimensions. How would Bill from the chapter-opening case be described by a dimensional system? Using the most common personality dimensions—sometimes called “The Big Five”—a clinician might describe Bill as moderately open, introverted, relatively conscientious, mildly disagreeable, and emotionally unstable.

The categorical approach has remained dominant in the *DSM* for several reasons: (1) the medical tradition of diagnosis emphasizes discrete illnesses (see the “Medical Myths” section earlier), (2) clinicians find it easier to use categorical systems, and (3) theorists have not been able to agree on the nature or number of personality dimensions necessary to describe psychopathology adequately (Millon, 1991).

The *DSM* Pays Too Much Attention to Reliability, Not Enough to Validity

To ensure high interrater reliability, the diagnostic criteria for *DSM* disorders were simplified and made specific enough that clinicians could agree on them. However, this simplification may have distorted the true nature of some disorders (Carson, 1991; Widiger & Trull, 1991). Imagine that you used the same approach in setting up a movie review system to help different movie critics agree on whether a particular film is good enough to earn four stars. You might require that only movies with French subtitles be rated four stars. This four-star criterion would produce excellent agreement among movie critics but would not be valid because it excludes many potentially excellent movies from consideration. Likewise, too much simplification in diagnostic criteria may enable clinicians to agree, but their diagnoses may not adequately reflect the core features or implications of many mental disorders behind the cacti.

To sum up MAPS (the four guiding principles that reappear throughout this book), the diagnosis of mental disorders is frequently based on oversimplified medical assumptions and surface characteristics of human beings, as well as influenced by sociopolitical climate and stereotypes, rather than on a profound and real understanding of mechanism and cause. As (Paris 2013) puts it:

Thirty-odd years after the *DSM-III*, we are still in the dark about the nature of most disorders. . . . Advances in neuroscience have not succeeded in explaining ANY mental disorder. Genetics has raised more questions than it can answer. Neurochemistry turns out to be much more complex than most people believed. And the beautiful pictures of neuroimaging will be seen by future generations as, at best, suggestive and, at worst, primitive. Clinical observation and consensus from experts, rather than hard facts, are still the guiding forces behind the manual. (pp. 183–184)

Revisiting the Case of Bill

The case of Bill, which began this chapter, is typical of what clinicians encounter in their everyday practice. Bill's symptoms are common, and his concerns about being diagnosed are also familiar to most clinicians. His case illustrates how clinicians must constantly balance knowledge about disorders and official classifications with the many practical consequences of a *DSM* diagnosis.

The clinical psychologist who assessed Bill conducted a comprehensive psychological assessment that included a social history and review of Bill's medical and work records, an extensive structured interview geared to measure *DSM-5* diagnostic criteria, and psychological testing with the MMPI-2-RF and the Wechsler Adult Intelligence Scale (WAIS-IV). The clinician also conducted one session in which, after obtaining

dimensional approach: An approach to describing mental disorders in which disorders are portrayed along different personality dimensions that produce a profile summarizing the person's functioning.

Bill's permission, she interviewed Bill's wife to gain additional information about the couple's marital problems.

Based on these assessment data, the clinician concluded that Bill was experiencing a generalized anxiety disorder, which, as discussed in Chapter 7, is a common type of disorder found somewhat more often among minority than among Caucasian populations. Bill's nervous stomach and shortness of breath are examples of the physical symptoms often associated with generalized anxiety disorder, as is the marital dissatisfaction that Bill reported. To provide a thorough diagnostic evaluation, Bill's psychologist completed his chart as follows: generalized anxiety disorder; medical conditions: Crohn's disease; stressors: threat of job loss, marital difficulties.

Before reporting the diagnosis to Bill's health insurance company, the psychologist discussed with Bill the implications of the diagnosis. She explained that she would do all that she could to protect against unnecessary disclosures of information about his condition but that she was almost certain that his diagnosis would be known to the claims manager of the insurance company. She also explained that generalized anxiety disorder can be effectively treated with cognitive-behavioral therapy (CBT) even more so than with medication, which is discussed further in Chapter 7.

Because he concluded that the risks of breaches of confidentiality were outweighed by the reimbursement offered by his insurance, Bill decided to continue in psychotherapy. Like most good clinicians, Bill's therapist took the time to explain what is known about the cause of his disorder. His treatment lasted 14 sessions, after which he reported that most of his symptoms had declined considerably, that he no longer felt suicidal, and that he was doing better at work. He said that his marital problems had not changed much but that neither he nor his wife was ready to work on them.

As Bill's case illustrates, diagnoses seldom help clients understand how or why they developed a disorder. This is both a strength and weakness of systems such as the *DSM*. Because it bases diagnoses on specific symptoms rather than on presumed causes, the *DSM* allows clinicians of different theoretical persuasions to agree on most diagnoses. However, this agreement sometimes comes at the price of not indicating enough about the origins or implications of a disorder. In the remaining chapters, we describe what clinicians know about the causes and treatment of mental disorders to get a glimpse behind the cacti.

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Summary

Identifying Mental Disorders: What Are They?

Mental disorders have been defined in various ways, but the definition that we prefer is that mental disorders involve a dysfunction or failure of biological or psychological processes to operate as they should, resulting in some harm to the individual.

Assessment and Diagnosis

Clinical assessment is the process that clinicians follow to gather the information necessary for diagnosing mental disorders. The quality of clinical assessment is judged along two dimensions: reliability and validity.

Assessment Tools: How Do Health Professionals Detect Mental Disorders?

Clinicians use life records, interviews, psychological tests, behavioral observations, and biological measures as their primary sources of information. Data from these sources are usually then combined to help clinicians diagnose mental disorders.

Diagnostic Classification: How Do Health Professionals Categorize Mental Disorders?

Although attempts to classify mental disorders have been made from antiquity, formal nosological systems

A CONVERSATION WITH

Thomas Widiger



Dr. Thomas Widiger, professor of psychology at the University of Kentucky, is a leading expert on the diagnosis of mental disorders. Dr. Widiger has written extensively about classification issues, and he served as the research coordinator for the DSM-IV.

Diagnosis

Q *Why do we need a classification system such as the DSM?*

A The main reason is the one you discuss in this chapter. We have to have a common language so we can discuss what we are studying. Classification allows us to communicate about mental disorders. Without it, meaningful communication would be impossible. Even though diagnosis carries risks of bias and stigmatization, these risks are outweighed by the communication advantage that formal classification provides. On the other hand, careful construction of a system such as the *DSM* is crucial because, like any language, it governs how clinicians think about their clients.

Q *What is the role of psychological assessment in diagnosis?*

A Beginning with the *DSM-III*, the use of well-defined classification criteria has resulted in an increased emphasis on structured and semistructured diagnostic interviews. Although psychological testing remains an important element in assessment, its role in diagnosis is diminishing. Obviously, this trend means that students need much better training in interviewing techniques than they have typically received so that they are competent in using the new structured interviews.

Q *How prevalent are mental disorders?*

A I actually think they are much more prevalent than existing studies in fact suggest. I am convinced that all people suffer a mental disorder at some point in their lives. We recognize this to be true for our neighbors or roommates or friends, but we find it difficult to admit ourselves. If we acknowledged that mental disorders are more common in ourselves, it would have the added advantage of decreasing their stigma. People are less stigmatized by physical illnesses, in part, because we recognize they are just a part of life. Mental disorders are really no different. Nobody is entirely physically healthy, and nobody is entirely psychologically healthy.

Q *How will diagnosis change in the future?*

A The biggest change in the future will be an increasing reliance on neurochemical models of disorder. You can already see this trend in the progress and emphasis on medication treatments and in the *DSM* itself, which includes a special section for listing any lab and physical exam findings that are associated with the disorder. This emphasis is, of course, part of a larger trend within psychiatry, which is betting more and more of its money on biological horses. NIMH (National Institute of Mental Health) has, in fact, developed its own diagnostic system that is explicitly tied to neurobiological models of brain disease. However, I believe the pendulum is swinging too far in the biological direction. We are psychosocial beings as well as biochemical animals, and our understanding of mental disorders needs to reflect this fact.

I also think we will see dimensional approaches to mental disturbance becoming more accepted. This was, in fact, an explicit emphasis in *DSM-5*. Very few mental disorders will have single or specific etiologies and pathologies. Mental disorders are the result of a complex interaction of a variety of genes with an array of environmental experiences. The end result can be a complex profile of psychopathology that is not well described by a single, homogenous diagnostic category. It will be much better to recognize that many of the existing categories do not refer to distinct conditions but rather to different slices or forms of underlying dimensions that usually shade into normality.

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are a product of the twentieth century. The two systems in widest use—the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* in North America and the *International Classification of Diseases (ICD)* in the rest of the world—have been revised many times. In their most recent versions, these two nosologies base diagnoses on specific, operational criteria. The *DSM-5* also allows for evaluations of other dimensions that contribute to mental disorders.

The Frequency of Mental Disorders: How Common Are They?

According to major epidemiological surveys, about one third to almost one half of adults have experienced a mental disorder at some point in their lives, and about one quarter have suffered a disorder in the prior year. Mental disorders often coexist (are comorbid); in fact, most people with one disorder in their lifetimes have had at least one other diagnosed mental disorder. The prevalence of mental disorders is associated with various demographic factors, including age, gender, educational level, and ethnicity, and varies throughout the world.

The Four Guiding Principles: MAPS of the Territory

Criticisms of the *DSM* include concerns that official labels can have harmful effects, that disorders do not constitute clear categories that are distinct from other variations in behavior, that too much attention has been paid to the reliability of diagnoses at the expense of their validity, and that most diagnostic labels imply that mental disorders are caused by individual, internal factors, thus minimizing the role of possible social causes. Diagnoses may also be affected by such real-world factors as the reimbursement requirements of health insurance companies, clients' concerns about the confidentiality of their diagnoses, clinicians' personal preferences and interests, and the ethnic and cultural backgrounds of both clinicians and clients.

Throughout this textbook, we keep four guiding principles about the *DSM* and the nature of mental disorders in mind via the acronym MAPS—medical myths, attempted answers, prejudicial pigeonholing, and superficial syndromes. Icons representing each of these four principles appear throughout the book to signal whenever a particular principle is relevant.

Key Terms

achievement test, p. 11	field trial, p. 23	positron emission tomography (PET), p. 19
aptitude test, p. 11	functional magnetic resonance imaging (fMRI), p. 20	prevalence, p. 30
assessment, p. 6	incidence, p. 30	projective test, p. 14
attitude and interest test, p. 12	intelligence test, p. 12	psychological test, p. 11
Axis I, p. 25	life record, p. 9	reliability, p. 6
Axis II, p. 25	magnetic resonance imaging (MRI), p. 20	remission, p. 31
Axis III, p. 25	mental disorder, p. 2	self-monitoring, p. 18
Axis IV, p. 25	mental status examination (MSE), p. 10	sensitivity, p. 8
Axis V, p. 25	multiaxial classification, p. 25	single photon emission computed tomography (SPECT), p. 20
classical method of classification, p. 27	neuropsychological test, p. 12	social history, p. 11
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