Risk and Prevention of Mental Disorders

© DeShawn / What Do You Think?

The Diathesis-Stress Model

Epidemiology: How Common Are Mental Disorders?

Risk, Protective Factors, and Resilience

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Prevention

FINAL COMMENTS

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C / DeShawn case

DeShawn is a 21-year-old business major who has been attending a large public university for 3 years. DeShawn was initially anxious about attending college because no one else in his family had done so. He thought the transition to college was going to be tough and unlike anything he had experienced previously. His actual transition to college was a "mixed blessing." On one hand, DeShawn was invigorated by his classes and by meeting so many new people. He liked interacting with his professors and looked forward to graduating with an eye toward an MBA.

On the other hand, DeShawn had never been to so many parties. His experience was far beyond his expectations about the party scene at college. His experience began during his first semester when DeShawn was invited to a party at the dorm room of a new acquaintance. The beverage that night was "trash-can punch" that tasted good and had plenty of alcohol. DeShawn thus felt poorly the next day when he woke up around noon, but he could not turn down an invitation for another party later that evening. DeShawn kept telling himself he would eventually slow down, but that was 3 years ago. DeShawn did not drink every night but seemed to attend a party at least 4 nights a week—every sporting and campus event and weekend was an opportunity for someone to throw a big party.

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DeShawn met hundreds of people at these parties in 3 years, but there was a clear downside. DeShawn's drinking increased over the years to the point where he could get tipsy only after 6 to 10 drinks. Of course, DeShawn did not usually stop at 6 to 10 drinks and so felt miserable the next day. Over time he tried to schedule his classes in the late afternoon or early evening to accommodate his "social" activities, but even these classes he often skipped because they conflicted with "Happy Hour." DeShawn's studying suffered tremendously, and he almost failed school his first semester, first year, and two semesters since then. He accumulated only three semesters worth of credits during his 3 years at school.

DeShawn's parents were unhappy about their son's progress. He did his best to hide his grades, but the registrar regularly informed parents about poor academic performance. DeShawn's parents could not understand why their son was doing so poorly in college because he had been a straight-A student in high school. They did not know about the parties, however, and DeShawn was certainly not going to tell them about his social life. DeShawn thus rarely went home on weekends—too many parties to miss, and who wants to get "grilled" by their parents?—but promised his parents via telephone and e-mail that he would concentrate better and improve his grades.

DeShawn felt he had things under control until he looked in his rearview mirror one night to see flashing lights. He had been drinking heavily and was weaving across lanes. He was a bit confused and even wondered if he had accidentally hurt someone. He was processed at the police station, and DeShawn knew he faced his greatest challenge. What was he going to tell his parents about this "driving under the influence" charge? They were going to go ballistic. He had trouble believing what was happening but resigned himself to the possibility that his college days might be over.

What Do You Think?

1. Do you think DeShawn has a problem with alcohol? Why or why not?
2. Why do you think DeShawn is drinking so much?
3. What should DeShawn do? Should he tell his parents? To whom should he turn for help?
4. Do you know people who have had similar experiences? What did they do?
5. Do you think DeShawn's situation could have been prevented? If so, how?

The Diathesis-Stress Model

Why do some college students like DeShawn develop problems with alcohol use but others do not? College is stressful for most students, but not everyone develops a drinking problem. Did DeShawn have a certain genetic structure, an oral fixation, or a maladaptive cognitive schema that led to his drinking problems? Or was some combination of these factors within a stressful college environment responsible?

We discussed different models of mental disorder in Chapter 2 that have various strengths and limitations. We also introduced the *diathesis-stress model* as a way of integrating these models to explain mental disorders. The diathesis-stress model not only integrates perspectives but is consistent with a continuum of mental health and mental disorder. We thus begin this chapter by examining the diathesis-stress model in detail and discussing its implications for studying, treating, and preventing mental disorders.

Diathesis, Stress, and Mental Health

A **diathesis** is a biological or psychological predisposition to disorder. Diatheses are often genetic or biological, but some diatheses are psychological. Some people expect alcohol use to make them more sociable and fun to be around. These people are more likely than others to drink alcohol. This expectancy is thus a psychological predisposition to use alcohol excessively. DeShawn expected that drinking would make him more sociable, so he is more likely to drink and use alcohol excessively.

Another psychological predisposition is *impulsivity*, or acting too quickly without thinking of the consequences. Impulsive people may predispose themselves to dangerous situations such

as drinking too much and then driving. Cognitive schemas can also be considered psychological diatheses or predispositions. Recall Mariella from Chapter 2. Her negative views or schemas about herself, the world, and the future can be viewed as a diathesis or predisposition for her depression.

Biological or psychological diatheses *do not guarantee* one will develop disorders like alcoholism or depression. A diathesis is a *vulnerability*—you can be vulnerable to a certain disorder, but this does not mean you will necessarily develop it. Many people have a genetic predisposition for lung cancer but never develop the disease. Why? Because they never smoke tobacco! DeShawn's expectancies about alcohol or Mariella's cognitive style predispose them toward certain disorders but do not guarantee these disorders will occur. Something must *trigger* these predispositions, such as smoking cigarettes or experiencing the stress of college life. Traumatic experiences such as assault are another stressor linked to many of the mental disorders we discuss in this textbook.

A *combination* of predisposition *and* stress produces psychological problems according to the diathesis-stress model. Stress can be environmental, interpersonal, or psychological, but it must *interact* with a predisposition for a disorder to occur. Predispositions and stressors also occur on a continuum from weak to strong (or low to high). This is consistent with current research and this textbook's dimensional approach to mental health. We need to examine the diathesis-stress model in general (the big picture) and more specifically (the little picture) to understand it better.

Diathesis-Stress: The Big Picture

Let's examine the big picture of the diathesis-stress model using DeShawn as an example. **Figure 3.1** illustrates predisposition, stress, and a potential psychological problem involving alcohol use on a continuum. This model shows the interaction of a predisposition (impulsivity) with stress along a continuum as they contribute to levels of alcohol use. Predisposition to be impulsive is on a continuum because people are impulsive to *varying degrees.* Some people may even have no impulsivity traits (labeled *Predisposition to impulsivity absent* in Figure 3.1). One of DeShawn's friends, Kira, is quite conscientious about her life and always considers decisions carefully. Kira is not impulsive and would not likely develop alcoholism even when faced with substantial stress.

Most people have *some* degree of diathesis or predisposition or vulnerability, whether low or high. Most of us are impulsive to *some* extent, and this is illustrated in Figure 3.1 as multiple lines bracketed by *Predisposition to impulsivity present.* Each line represents a different impulsivity level. Higher levels of a predisposition— impulsivity in this case—even with smaller amounts of stress result in more alcohol use. Lower levels of impulsivity, even with high stress, result in less alcohol use. *However, the combination of strong predisposition and high stress results in the most alcohol use.*

This model helps us understand why two people exposed to the same level of stress do or do not develop a certain

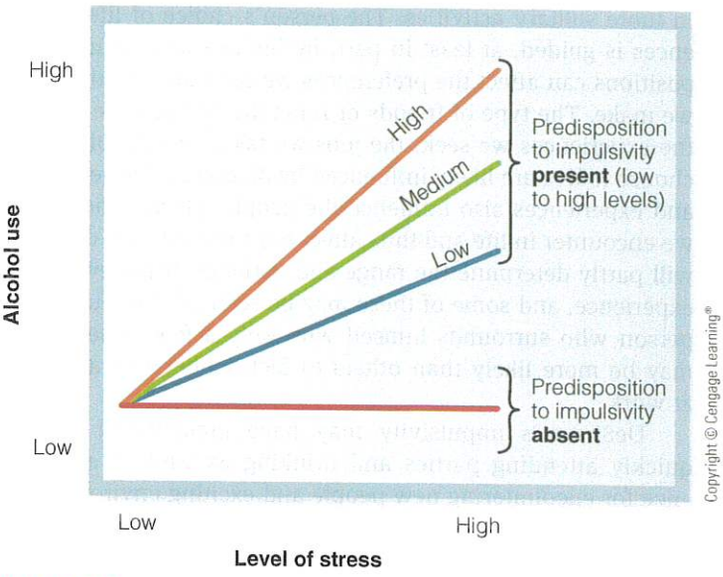


FIGURE 3.1 A DIATHESIS-STRESS MODEL OF ALCOHOL USE

mental disorder. DeShawn and Kira's college stress is likely similar, but their predispositions for high alcohol use are quite different. Many soldiers in Afghanistan developed posttraumatic stress disorder (Chapter 5), but many did not. Why? Because soldiers (and people in general) differ considerably with respect to their vulnerability to posttraumatic stress disorder.

Diatheses such as impulsivity are clearly important but interact with stressors that can also be viewed along a continuum (Figure 3.1). Two people with the same level of impulsivity may show different outcomes based on level of stress. Mariella may have been troubled because significant college stress triggered her predisposition for depression. Her friend Gisela, however, who had the same type of predisposition but who stayed home after high school, showed no symptoms of depression.

Diathesis-Stress: The Little Picture

Let's also examine the little picture of the diathesis-stress model by showing how diatheses and stressors can interact in subtle ways. One example is that a diathesis or predisposition can *influence a person's perception of stress.* Stress is subjective, and so one event can be perceived and experienced as much more stressful by one person than another who has a different level of diathesis or vulnerability. Mariella's cognitive predisposition for depression—viewing the world as disappointing, unsympathetic, and unforgiving—likely affects her internal definition of a stressful event and her experience of the event as stressful. Mariella's rejection or lack of support from friends is more likely to be seen as stressful and lead to depression than someone without such a worldview. We therefore must recognize that stress varies from person to person and can actually depend on level and type of diathesis or predisposition.

Our predispositions also *influence our life course and choice of experiences.* Someone predisposed toward a shy temperament may choose over time to have fewer friends and engage

in more solitary activities. The person's choice of life experiences is guided, at least in part, by his diathesis. Our predispositions can affect the preferences we have and the decisions we make. The type of friends or romantic partners we choose, the experiences we seek, the jobs we take, and the places we choose to live are likely influenced by diatheses. These choices and experiences also influence the people, places, and events we encounter in life and thus affect our life course. A diathesis will partly determine the range and varieties of life events we experience, and some of these may be seen as stressful. A shy person who surrounds himself with only a few close friends may be more likely than others to feel deliberately alienated at work.

DeShawn's impulsivity may have predisposed him to quickly attending parties and drinking as well as a preference for encountering new people and exciting environments. These preferences helped expose him to certain environments and experiences where excessive alcohol use is more likely to occur. Some of these experiences may also have created stress from poor grades and nagging parents, which may have led to more drinking to cope with the stress. The diathesis of high impulsivity affects a person's life choices and life course. The opposite is also true—less impulsive people will not seek these experiences and will not be exposed to some of these stressors.

Implications of the Diathesis-Stress Model

The diathesis-stress model has many implications for studying, treating, and preventing psychological problems. A key implication is that we must study certain diatheses or vulnerabilities to mental disorder to fully understand why and how these disorders develop. We must understand the **etiology**, or cause, of mental disorders. A diathesis-stress model does so by including aspects of all theoretical models discussed in Chapter 2. All possible diatheses are considered, such as genetics, neurochemical and brain changes, unconscious processes, learning experiences, thought patterns, and cultural and family factors. Knowing these diatheses is also important for treating mental disorders when they occur and for preventing mental disorders before they begin.

Diatheses or vulnerabilities are *risk factors* for mental disorders. Risk factors are discussed later in this chapter and all chapters describing mental disorders. Researchers study risk factors by comparing people with many symptoms of a disorder to people with few or no symptoms of a disorder. Differences between these groups may represent risk factors or vulnerabilities for the disorder. People like DeShawn with excessive alcohol use can be compared to people like Kira with less alcohol use. We may find key differences such as genetic structure, impulsivity, and stress, and some of these differences could be useful for treatment and prevention. College freshmen found to be impulsive and stressed could undergo an awareness program to decrease excessive alcohol use. The search for risk factors intersects with the study of patterns of mental disorder in the general population, a topic we turn to next.

Interim Summary

- A diathesis is a biological or psychological predisposition or vulnerability to disorder.
- A combination or interaction of diathesis and stress produces mental disorder.
- A diathesis can influence perception and experience of stress as well as life course and choice of experiences.
- A diathesis-stress model integrates theoretical perspectives of mental disorder and provides information about etiology (cause), treatment, and prevention.

Review Questions

1. What is a diathesis, and how does a diathesis affect the way we view and experience stressful events?
2. Why might two people exposed to the same traumatic event act differently afterward?
3. How is a diathesis-stress model consistent with a dimensional or continuum approach to mental disorder?
4. How might a diathesis-stress model help us understand mental disorders?

Epidemiology: How Common Are Mental Disorders?

Epidemiology is the study of patterns of disease or disorder in the general population. Epidemiology can involve any physical or mental condition related to poor health or mortality among children and adults. **Epidemiologists** are scientists who investigate the extent of a public health problem such as a mental disorder by making observations, surveying people, and using other methods. **Box 3.1** presents a famous example of epidemiology: John Snow's discovery of the cause of a cholera outbreak and subsequent prevention of new disease cases. Prevention is an important application of information gathered from epidemiological research.

Epidemiologists often focus on incidence and prevalence of mental disorder. **Incidence** refers to *new* cases of a mental disorder within a specific time period such as a month or year. A *1-year incidence* of a mental disorder is the percentage of people who, for the first time, developed that disorder in the previous 12 months. **Prevalence** refers to *all* cases of a mental disorder, including new and existing cases, within a specific time period such as a month or year. A *1-year prevalence* of depression includes all cases of existing depression during the previous 12 months, regardless of when the disorder began.

Epidemiologists also provide **lifetime prevalence** estimates of mental disorders. Lifetime prevalence refers to the proportion of those who have had a certain mental disorder *at any time in their life* up to the point they were assessed. Lifetime prevalence indicates risk for certain disorders over the entire life span, whereas smaller prevalence times such as a year provide a

3.1 John Snow: A Pioneer in Epidemiology and Prevention

John Snow (1813–1858) is often referred to as the "Father of Epidemiology." His investigation of a catastrophe is considered classic among epidemiologists, and his simple intervention is a fine example of prevention. An outbreak of cholera occurred in 1854 London primarily among people living near Cambridge and Broad Streets; 500 deaths were reported in this area over a 10-day period. Snow thought people were contracting cholera from a contaminated water source, so he obtained information on cholera deaths from the General Register Office. He used this information and surveyed the scene of the deaths to determine that nearly all deaths occurred a short distance from the Broad Street pump (a water source for this area). He went to each address of the deceased and calculated the distance to the nearest water pump, which was usually the Broad Street pump. He also determined that some of the deceased recently drank from this pump. These data supported his theory of the spread of cholera through water, and he concluded that the water source for the Broad Street pump was contaminated. Snow presented his findings to local authorities, the handle to the pump was removed, and the local cholera outbreak ended. This is a great example of epidemiological findings leading to a preventive intervention—one that saved untold lives.

The map featured here shows the distribution of cholera deaths in a London area. The circles represent the way the deaths were concentrated in one region, leading John Snow to question whether the source of the outbreak originated there.

The Bridgeman Art Library

Map showing the distribution of deaths from cholera in an area of London.

snapshot of whether people have recently been diagnosed with a specific disorder. Both prevalence types help us understand the likelihood of mental disorder and are discussed in more detail next and throughout this textbook.

Prevalence of Mental Disorders

Epidemiologists help determine the prevalence of mental disorders. A major epidemiological survey of Americans, the *National Comorbidity Survey-Replication* (NCS-R), is a representative, community-based survey of about 10,000 people aged 18 years and older. The survey included structured interviews to assess people for major mental disorders and serves as the basis for the next several sections.

Overall Prevalence and Severity

NCS-R data revealed that 46.4 percent of Americans experience a mental disorder at some point in their life (Kessler, Berglund, Demler, Jin, & Walters, 2005). This percentage may seem high, but keep two key points in mind. First, not everyone who meets criteria for a mental disorder is in treatment. Most people who experience psychological symptoms, including college students, do not seek a mental health professional during the first year of their diagnosis (Eisenberg, Hunt, & Speer, 2012). Friends, peers, or family members may not even know about a person's symptoms. Many symptoms of mental disorders are not obvious, such as sadness, so other people may not recognize a person has a serious problem. Such may have been the case for Mariella.

Second, mental disorders differ with respect to severity and many people show only mild symptoms. This point reinforces a major theme of this textbook: Symptoms of mental disorders are present to some extent in all of us and can be represented along a continuum. People with certain symptoms or diagnoses are not qualitatively different from those without. Mariella's symptoms of depression are something we all feel from time to time. Her symptoms may be more severe than ours at the moment, but the symptoms are something with which we can identify.

NCS-R data included serious, moderate, and mild levels of severity (Kessler, Chiu, et al., 2005). Each level was defined by certain features associated with a disorder. For example, *serious severity* was defined by features such as suicide attempt with lethal intent, occupational disability, psychotic symptoms, or

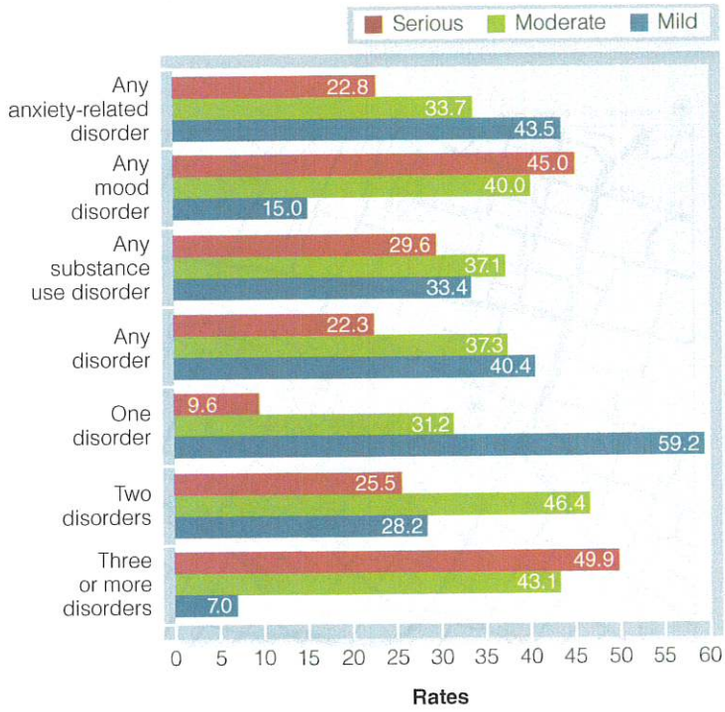


FIGURE 3.2 SEVERITY OF 12-MONTH MAJOR MENTAL DISORDERS. *Rates* indicate the proportion of people in the United States with the mental disorder at each level of severity (serious, moderate, mild). *Adapted from Kessler, Chiu, et al. (2005).*

intense violence. **Figure 3.2** illustrates percentage of severity levels for some major mental disorders. Mental disorder was generally classified as serious (22.3 percent), moderate (37.3 percent), or mild (40.4 percent) in severity. Serious severity was most evident with respect to mood (i.e., depressive and bipolar) disorders (45.0 percent).

Specific Prevalence Rates

Prevalence information for specific disorders is crucial so we know where to assign treatment and prevention resources. **Figure 3.3** outlines lifetime and 12-month prevalence rates for some major mental disorders. Lifetime prevalence rates for anxiety-related disorders (28.8 percent), including specific phobia (12.5 percent) and social phobia (12.1 percent), are substantial. Mood disorders (20.8 percent) are also relatively common. Lifetime prevalence for substance use disorders in general was 14.6 percent and for alcohol use disorder in particular was 13.2 percent.

The NCS-R also provided *12-month prevalence rates*, which are lower than lifetime prevalence rates because of the shorter time frame. Researchers found that more than one-fourth of Americans (26.2 percent) had one or more mental disorders over the previous year (Kessler, Chiu, et al., 2005). Anxiety-related (18.1 percent), mood (9.5 percent), and substance use (3.8 percent) disorders were quite common (Figure 3.3).

Comorbidity

Comorbidity refers to the presence of two or more disorders in a person and is a significant concern for mental health professionals. This is so because recovery among people with two or more mental disorders is less likely than among people with one mental disorder. According to the NCS-R, 27.7 percent of Americans will have more than one mental disorder in their lifetime, and 11.8 percent will have had more than one mental disorder in the past year (Kessler, Berglund, et al., 2005; Kessler, Chiu, et al., 2005). A significant percentage of Americans thus experience more than one mental disorder. Comorbidity is also clearly related to severity of mental disorder. Data from Figure 3.2 indicate that a much higher percentage of those with three or more disorders (49.9 percent) were classified as serious severity than those with only one disorder (9.6 percent).

Age of Onset

A unique aspect of the NCS-R was that questions were asked about the *onset* of mental disorder. People who received a diagnosis for a mental disorder at some point in their lives were asked if they could remember when their symptoms started and how their symptoms progressed. Several interesting findings emerged (see **Figure 3.4**). First, the median age of onset for a mental disorder is 14 years. Second, *anxiety-related* disorders have an earlier onset (age 11 years) than *substance use* (age 20 years) or *mood* (age 30 years) disorders. Not everyone diagnosed with these disorders has these exact ages of onset, of

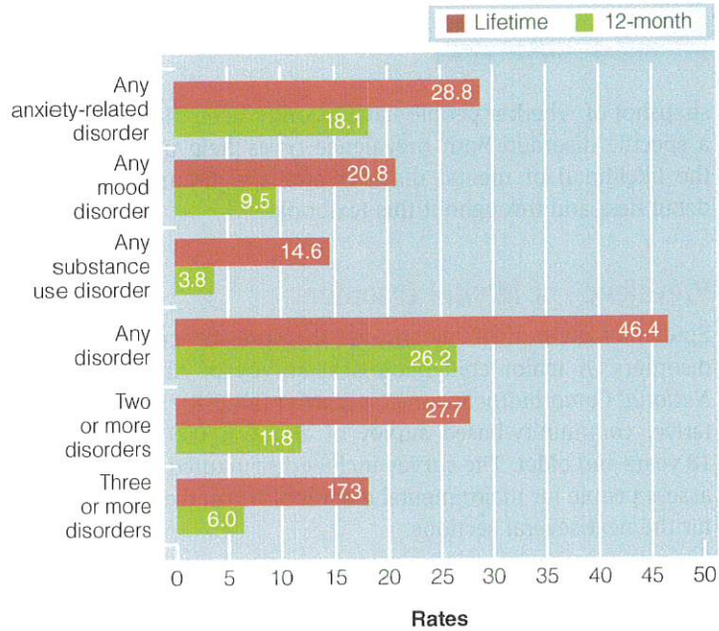


FIGURE 3.3 LIFETIME AND 12-MONTH PREVALENCE OF MAJOR MENTAL DISORDERS. *Lifetime* and *12-month rates* represent the proportion of U.S. residents with the mental disorder. *Adapted from Kessler, Berglund, et al. (2005); Kessler, Chiu, et al. (2005).*

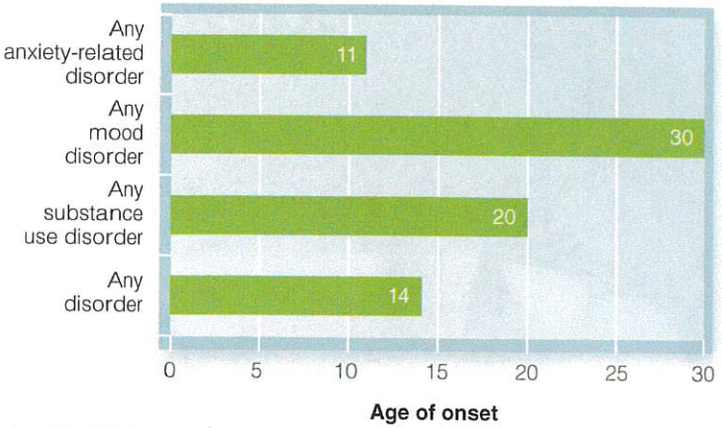


FIGURE 3.4 MEDIAN AGE OF ONSET OF MAJOR MENTAL DISORDERS.
Adapted from Kessler, Berglund, et al. (2005); Kessler, Chiu, et al. (2005).

course, but these estimates do indicate that many mental disorders first appear in adolescence or young adulthood.

Cohort Effects and Children

Cohort effects are significant differences in disorder expression depending on demographic features such as age or gender. Younger Americans may be more likely to develop substance use disorders compared with older Americans. Why? One possible reason is that alcohol was not as available to adolescents 30 years ago as it is today. Our views on underage college drinking have also changed over the years, and the behavior may be more tolerated now than in the past. Attention-deficit deficit/hyperactivity disorder is also diagnosed more now than in the past. Another example is addiction to online gambling such as poker. Which group might have this problem more—older Americans with less expertise about computers or college students raised in a technological era?

Figure 3.5 presents NCS-R data on mental disorders by age. People aged 18 to 59 years have higher lifetime rates of some major (anxiety-related, mood, substance use) mental disorders than people aged 60 years or older. Why these age differences exist is unclear. Higher lifetime prevalence rates for younger people may be due to greater willingness to admit psychological problems, or adults may underreport or forget symptoms as they get older and further from their disorder onset.

What about youth? Epidemiologists estimate that about 40 percent of American children and adolescents have a mental disorder. Children and adolescents are most likely to be diagnosed with anxiety-related, disruptive, mood, and substance use problems (Kessler, Avenevoli, et al., 2012). Many children are also reported by their parents to have emotional or behavioral difficulties that interfere with family, academic, and social functioning (Sellers, Maughan, Pickles, Thapar, & Collishaw, 2015).

Mental disorders will generally affect about half of us in our lifetime, and many of these disorders begin in adolescence or early adulthood. Many of us will experience more than one mental disorder, and younger people tend to report higher rates of mental disorder than older people. Mental disorders can be of varying severity, and even people without a formal diagnosis may experience symptoms to some degree. Mental disorders and their symptoms are dimensional, and this is why the study of abnormal psychology is a key part of life in general. The high prevalence of mental disorder also means people often seek treatment, which is discussed next.

Treatment Seeking

The NCS-R researchers asked people with anxiety-related, mood, or substance use disorders about their use of mental health services in the previous year (Wang, Lane, et al., 2005). Many (41.1 percent) used services, including 21.7 percent who used mental health services, 22.8 percent who used general medical services, and 13.2 percent who used non–health care services such as alternative medicine (some used two or more types of service). People who sought treatment were generally younger than age 60 years, female, from a non-Hispanic white racial background, previously married, more affluent, and living in urban areas. People who sought treatment also tended to have more severe mental disorders or two or more mental disorders.

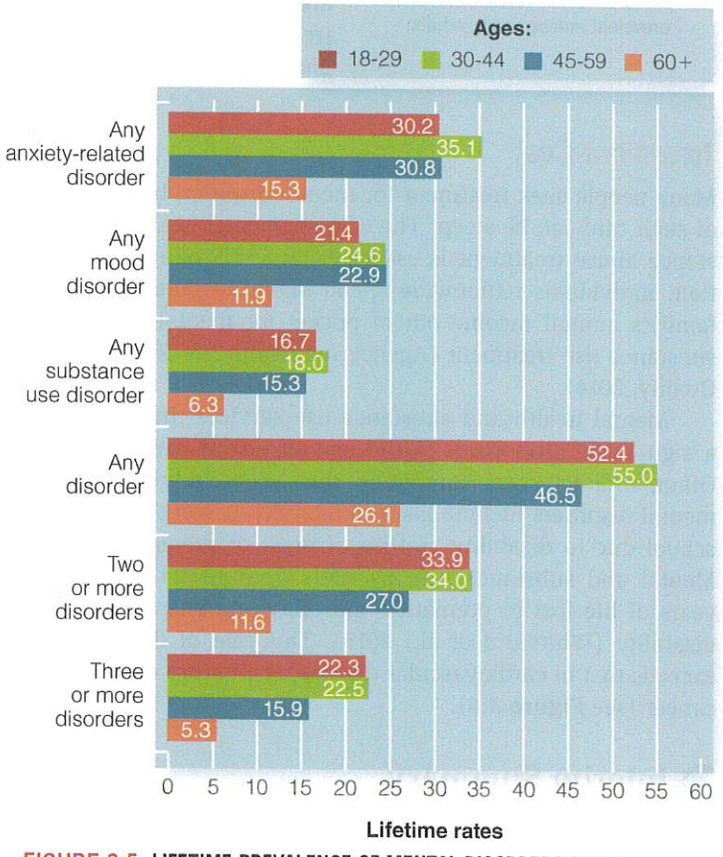
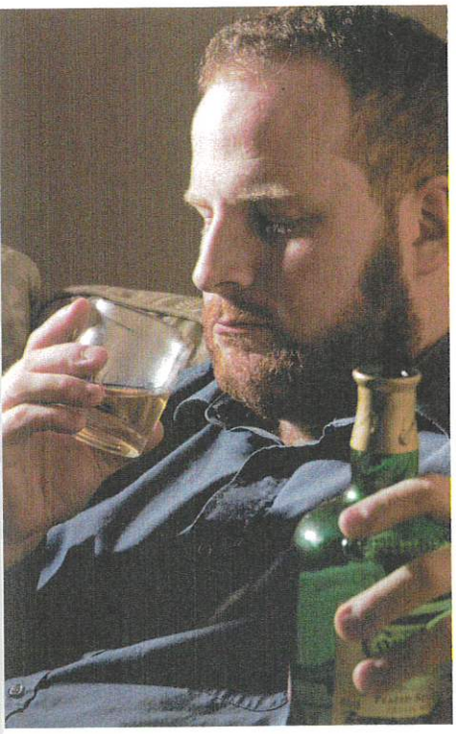


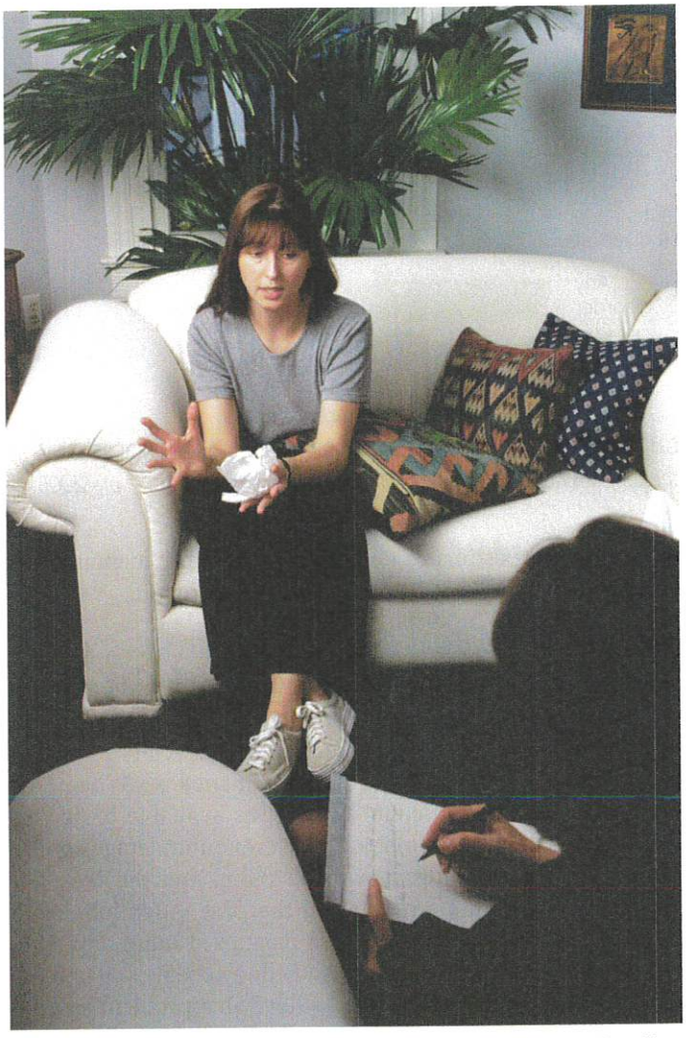
FIGURE 3.5 LIFETIME PREVALENCE OF MENTAL DISORDERS BY AGE.
Lifetime rates represent the proportion of U.S. residents with a mental disorder. *Adapted from Kessler, Berglund, et al. (2005).*



Ian west/Alamy Stock Photo

Epidemiological studies show that some mental disorders, such as alcohol use disorder, are most prevalent among young adults.

Many people with a mental disorder do eventually seek treatment. Unfortunately, a lengthy delay often occurs between onset of a disorder and first treatment contact. Less than half of those with a mental disorder seek treatment within the first year of onset (Wang, Lane, et al., 2005). The typical delay between diagnosis and treatment for many disorders was *10 years or more*. Less delay was evident for mood disorders but greater delay was evident for anxiety-related disorders. Younger people are more likely to seek treatment, and a later age of onset is linked to more timely treatment contact. This may reflect the idea that younger people are more open to seeking treatment than their parents or grandparents.



David Buffington/Photodisc/Jupiter Images

Most people eventually seek treatment for their psychological problems but only after a delay of many years.

Treatment Cost

Many people seek treatment for mental disorder, but the price of such care can be steep. The cost for mental health and substance abuse treatment is estimated at $57.5 billion. In addition, individuals nationwide spend about 10 percent of their family's annual income out of pocket for mental health and substance use treatment (Agency for Healthcare Research and Quality, 2014).

Mental health and substance use services thus represent a significant proportion of the overall health care economy. Other, indirect costs compound this issue. Indirect costs of mental disorders include lost productivity at work, home, and school due to disability and impairment or premature death. Mental and substance use disorders account for substantial years of life lost to premature mortality and years lived with disability (Whiteford et al., 2013). This rate of disability far exceeds that of cardiovascular disease, respiratory disease, and cancer (see **Figure 3.6**).

Interim Summary

- Epidemiology is the study of patterns of disease or disorder in the general population.
- Incidence refers to number of new cases of a mental disorder within a specific time period, and prevalence refers to all cases present during a specific time period.
- Lifetime prevalence refers to proportion of those who have had a certain mental disorder at any time in their life up to the point they were assessed.
- About half of American adults have a diagnosable mental disorder, although many are not in treatment or have mild symptoms.
- Anxiety-related, mood, and substance use disorders are especially common.
- Comorbidity refers to the presence of two or more disorders in a person and is related to greater severity of mental disorder.
- Most mental disorders first appear in adolescence or early adulthood.
- Cohort effects refer to significant differences in expression of mental disorder depending on demographic features such as age and gender.
- Mental disorders are more common among youth and younger adults than older adults, although underreporting in older adults may be a factor.

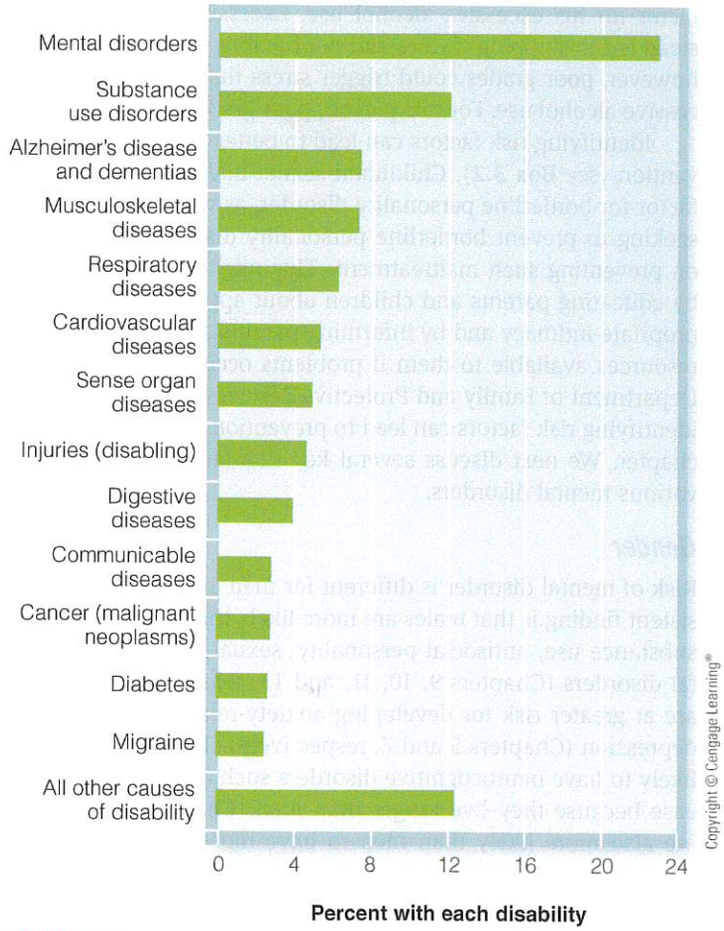


FIGURE 3.6 MENTAL DISORDERS ARE THE LEADING CAUSE OF DISABILITY. *Adapted from President's New Freedom Commission on Mental Health (2003).* Achieving the promise: Transforming mental health care in America. *Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.*

- Many people eventually seek treatment for a mental disorder, but many others delay treatment for several years.
- The cost of mental health care is prohibitive because mental disorder is a leading cause of disability worldwide.

Review Questions

1. What is epidemiology, and how do epidemiologists help us understand mental disorders?
2. What is the difference between incidence and prevalence?
3. What do we know about the prevalence of mental disorders among Americans?
4. What factors are associated with treatment seeking?
5. Describe the financial and disability costs of mental disorders.

Risk, Protective Factors, and Resilience

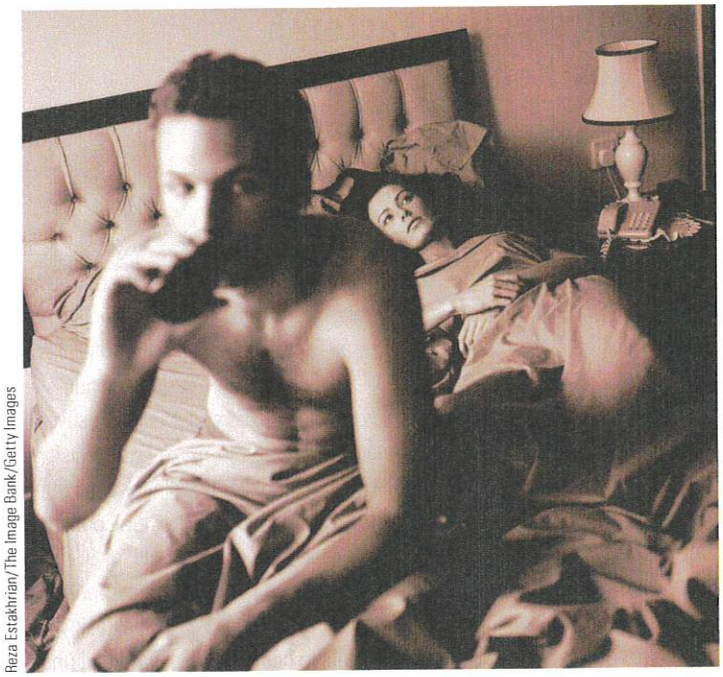
© / Jana case

Jana is a 22-year-old college student with a long history of psychological problems. Jana often feels depressed and anxious, has trouble controlling her moods, and can lash out at others for no reason. This has affected her relationships because many people are afraid they might "set her off." Jana has frequently cut herself with razor blades when under stress or when she is angry at herself. Jana has wanted to die many times and has made several suicide attempts over the past 10 years. She tends to make bad decisions and does so impulsively, which has landed her in legal trouble for shoplifting and writing bad checks. Jana has also struggled with excessive alcohol and other drug use for years. Her friends say Jana often "zones out" for 30 minutes or so when she gets upset, as though she is not really there. Jana has seen many mental health professionals over the years. When they ask what may have caused her problems, Jana points to her childhood, when an uncle maltreated her sexually.

How do mental health professionals understand problems like Jana's? A diathesis-stress model helps us understand factors involved in the development of mental disorder. Some factors are *diatheses* or *vulnerabilities*: features or attributes within a person. Other factors comprise the "stress" part of the model and are typically seen as "environmental": outside a person and perhaps more transient in nature. Diatheses and stressors may be *risk* factors for a mental disorder, but, as we have seen, not everyone with a predisposition for a mental disorder necessarily develops one. Something must therefore *protect* some people from developing a mental disorder. We next discuss further the concepts of *risk* and *protective factors*.

Risk Factors

A **risk factor** is an individual or environmental characteristic that precedes a mental disorder and is correlated with that disorder. Risk factors can be biological, psychological, or social. Jana's severe childhood sexual maltreatment is a risk factor for problems she experienced in adulthood. Risk factors are associated with an increased probability a disorder will develop, but they do not imply cause. Jana has a mental disorder called *borderline personality disorder* (Chapter 10). A childhood history of severe sexual maltreatment is more common in people with borderline personality disorder than those without the disorder. Recall that risk factors are often identified by comparing prevalence of the risk factor in those with and without a certain disorder. Factors more common in people with a mental disorder may be the ones that place them "at risk" for developing the disorder.



Reza Estakhrian/The Image Bank/Getty Images

Women are at greater risk for developing anxiety-related and depressive disorders. Men are at greater risk for developing antisocial personality disorder and substance use disorders.

Some risk factors are "fixed," such as gender or family history of a disorder. Other risk factors are dynamic and can change over time, such as social support. Risk factors can also vary across age, gender, or culture. Risk factors for excessive alcohol use in a 21-year-old African American college student like DeShawn are not the same as those for a 45-year-old European American businessman. Many risk factors also exist for a particular mental disorder and may interact with each other in complex ways to influence the development of the disorder.

Risk factors must *precede* the development of a condition, so the mental disorder itself cannot cause its risk factors. We would not consider DeShawn's college struggles to be a risk factor for his excessive alcohol use. Excessive alcohol use instead led to skipping classes and poor grades. For someone else, however, poor grades could trigger stress that then leads to excessive alcohol use. For this person, poor grades are a risk factor.

Identifying risk factors can lead to better treatment and prevention (see **Box 3.2**). Childhood sexual maltreatment is a risk factor for borderline personality disorder, as with Jana, so those seeking to prevent borderline personality disorder might focus on preventing such maltreatment. This might be accomplished by educating parents and children about appropriate and inappropriate intimacy and by informing parents and children about resources available to them if problems occur (such as a state Department of Family and Protective Services). We discuss how identifying risk factors can lead to prevention efforts later in this chapter. We next discuss several key risk factors identified for various mental disorders.

Gender

Risk of mental disorder is different for men and women. A consistent finding is that males are more likely than females to have substance use, antisocial personality, sexual, and developmental disorders (Chapters 9, 10, 11, and 13, respectively). Women are at greater risk for developing anxiety-related disorders and depression (Chapters 5 and 7, respectively). They are also more likely to have neurocognitive disorders such as Alzheimer's disease because they live longer than men (Chapter 14). Women are also more likely than men to have more than one mental disorder at any point in time (Eaton et al., 2012; Halladay et al., 2015; Mielke, Vemuri, & Rocca, 2014).

Age

Age is also a significant risk factor for mental disorders, especially during the period moving from adolescence to early adulthood (Whiteford, Ferrari, Degenhardt, Feigin, & Vos, 2015; Figure 3.5). For example, 75 percent of anxiety disorders occur by age 21 years, 75 percent of substance use disorders occur by age 27 years, and 75 percent of mood disorders occur by age 43 years (Jones et al., 2013). Unfortunately, earlier onset of a

3.2

Focus on

College Students

Suicide

One of the leading causes of death among young adults is suicide, especially those in college (Centers for Disease Control and Prevention, 2015). One explanation may be the stress of college, combined with negative life events (Rowe, Walker, Britton, & Hirsch, 2013). Such stress may come from leaving family and peers, facing new academic demands, or even sexual assault. These stressors may create new psychological difficulties or exacerbate existing ones. Significant risk factors for college student suicide include having an existing mental disorder such as depression, alcohol or other drug use, history of trauma, major physical illness, lack of social support and access to care, stigma associated with seeking help, and identification as lesbian, gay, or bisexual. Conversely, however, protective factors include resilience, access to appropriate care, family and community support, good problem-solving and conflict resolution skills, positive beliefs about the future, and cultural and religious beliefs that discourage suicide (Shadick, Dagirmanjian, & Barbot, 2015; Taub & Thompson, 2013). Research regarding risk and protective factors is important for developing good assessment strategies and for targeting prevention and treatment efforts (King et al., 2015).

disorder can be related to poorer chance for recovery (Costello & Maughan, 2015). Other disorders, however, such as dementia, tend to occur at later ages (Prince et al., 2013).

Race and Ethnicity

The extent to which race and ethnicity are risk factors for mental disorder has been difficult to establish. European Americans have been found in general to have higher lifetime prevalence rates for anxiety-related, mood, and substance use disorders than African Americans, Asians, and Latinos (Holzer & Copeland, 2013). Most studies of race and ethnicity focus on more nuanced aspects of mental disorder, however. For example, rates of posttraumatic stress disorder tend to be higher among African Americans who may have greater exposure to certain traumatic events (Benitez et al., 2014). In addition, mood disorders tend to be higher among Hispanic adolescents than non-Hispanic whites (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015). Alcohol use disorder is most frequent among Native Americans (Grant et al., 2015). Some specific differences may be evident, but we cannot yet conclude that race and ethnicity are general risk factors for mental disorder. We discuss specific racial and ethnic differences in greater detail for each disorder throughout this textbook.

Education, Socioeconomic Status, and Marital Status

Less education, low socioeconomic status, and poverty are well-established risk factors for mental disorder (Lund et al., 2011; Reiss, 2013). Marital status is a significant and consistent risk factor for mental disorder as well. Entry into marriage is generally associated with enhanced psychological well-being and less distress, whereas divorce and widowhood are strongly associated with substantial declines in mental health (Umberson, Thomeer, & Williams, 2013). Marital disruption is most strongly associated with a higher risk for anxiety-related, mood, and substance use disorders, as well as suicide (Kessler, Berglund, et al., 2005). A summary of risk factors for mental disorder is found in **Table 3.1**.

Other Risk Factors

Other risk factors seem to represent more general vulnerabilities to mental disorder. *Individual risk factors* include genetic predisposition, low birth weight and premature birth, neuropsychological deficits, language disabilities, chronic physical illness, below-average intelligence, and history of child maltreatment. *Family risk factors* include severe marital discord, overcrowding or large family size, paternal criminality, maternal mental disorder, and admission to foster care. *Community* or *social risk factors* include violence, poverty, community disorganization, inadequate schools, and racism, sexism, and discrimination (Curtis et al., 2013). We also covered many other risk factors in Chapter 2 when discussing biological, psychodynamic, humanistic, cognitive-behavioral, and sociocultural models of mental disorder. Understanding these many risk factors is important for developing effective treatments and preventing mental disorders before they start. This is also true for protective factors, which are discussed next.

Protective Factors

We must identify risk factors to determine who is vulnerable to mental disorder, but we must also identify **protective factors** associated with *lower risk* of mental disorder. Protective factors are the flip side of risk factors. Poor social support is a risk factor for depression, therefore strong social support can be thought of as a protective factor. Those with strong social support from friends and family are *less likely* to develop depression than those with poor social support. Perhaps you have been thanked by a friend for being caring and supportive during a difficult period in her life. Your support, and the support of others, may have protected her from becoming severely depressed.

TABLE 3.1

Summary of Risk Factors for Mental Disorders

Risk factor	Findings
Age	The highest rates of mental disorders are in adolescence and early adulthood.
Education	Individuals who do not complete high school are significantly more likely to be diagnosed with a mental disorder, especially substance use disorders, than those who complete or go beyond high school.
Employment	Individuals who are unemployed are more likely to develop psychological problems than those who are employed.
Gender	Men are at greater risk for antisocial personality disorder and substance use disorders. Women are at greater risk for anxiety-related and depressive disorders. Women are more likely than men to be diagnosed with more than one mental disorder at any point in time.
Marital status	Marital disruption (divorce or separation) is associated with mental disorders in general and with anxiety-related, mood, and substance use disorders in particular.
Race and ethnicity	Research has demonstrated mixed results in general, with some specific differences.

Monkey Business/Fotolia LLC

One epidemiological study found European Americans to have higher lifetime prevalence rates for anxiety-related, mood, and substance use disorders than African Americans and Latinos. Some specific ethnic differences like these are evident, but we cannot yet conclude that race and ethnicity are general risk factors for mental disorder.

Research on protective factors has not been as extensive as that for risk factors, but **Table 3.2** provides some examples. Like risk factors, protective factors can be biological, psychological, or social and can operate at individual, family, or community levels. Happily married people have the lowest lifetime and 1-year prevalence rates of mental disorder. Social support or contact with friends and others, and level of satisfaction with these social contacts, are important protective factors as well (Holt-Lunstad & Uchino, 2015). Personality and psychological factors such as self-efficacy, problem-solving skills, hopefulness, and a focus on positive events also protect people against mental disorder (Johnson & Wood, 2016; Layous, Chancellor, & Lyubomirsky, 2014).

Resilience

Recall from Chapter 2 that some people function well even in terrible circumstances, such as poverty and maltreatment. Some people adapt well in these circumstances because of **resilience**, or the ability to withstand and rise above extreme adversity (Fletcher & Sarkar, 2013). Resilient people can adapt and prosper despite odds against them. Psychologists have become increasingly interested in studying factors associated with resilience, especially among children at risk for negative outcomes due to unfavorable environments such as war, domestic violence, or poverty (see **Figure 3.7**).

Resilience was originally studied among children of parents with schizophrenia (Chapter 12). A child with a biological parent with schizophrenia is at genetic and environmental risk for schizophrenia, but many children with these risk factors do not develop the disorder and actually adapt quite well (Hameed & Lewis, 2016). These children are exposed to several risk factors for schizophrenia, but they can still thrive.

The study of resilience has since expanded to include traumatic events or adverse environmental or social situations. Many people developed symptoms of posttraumatic stress disorder following the 9/11 terrorist attacks. They became anxious, depressed, lost sleep, and had great difficulty concentrating. These symptoms were very distressing and caused many people to wonder if their mental health would ever improve. But not everyone exposed to these tragic events developed posttraumatic stress disorder. What characterized people who adapted well despite exposure to such tragic events? What were their *resiliency factors*?

Key resiliency factors among children include good social and academic competence and effectiveness in work and play situations. Key resiliency factors among minority populations

TABLE 3.2

Protective Factors Against Mental Disorders and Problems

Individual	Positive temperament
	Above-average intelligence
	Social competence
	Spirituality or religion
Family	Smaller family structure
	Supportive relationships with parents
	Good sibling relationships
	Adequate monitoring and rule-setting by parents
Community or social	Commitment to schools
	Availability of health and social services
	Social cohesion

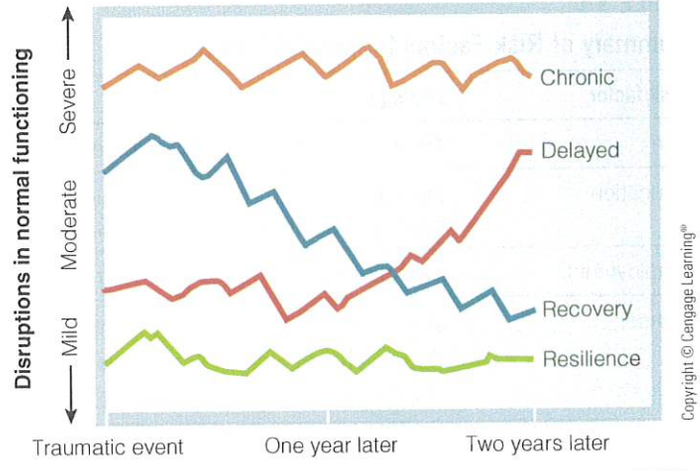


FIGURE 3.7 TYPICAL PATTERNS OF DISRUPTION IN NORMAL FUNCTIONING ACROSS TIME AFTER A TRAUMATIC EVENT. *Adapted from G.A. Bonanno, American Psychologist, 59, Fig. 1, p. 21. Copyright © 2004 by the American Psychological Association. Used with permission.*

include supportive families and communities as well as spirituality and religion. Spirituality and religion are also linked to greater life satisfaction and well-being (Lewis & Rudolph, 2014; Van Cappellen, Toth-Gauthier, Saroglou, & Fredrickson, 2015). African Americans report higher levels of religiosity than other racial or ethnic groups, and religiosity seems to protect against higher rates of psychological problems. But how does religiosity or spirituality provide an advantage? Perhaps people with strong religiosity or spirituality adhere to healthier lifestyles (such as not smoking or drinking alcohol), provide and receive higher levels of social support (such as a church community), or promote positive, optimistic beliefs related to faith (Lavretsky, 2014).

Resiliency factors are associated with good outcome, but whether they *cause* good outcome remains unclear. Still, strong attachments or bonds with family members and the community, as well as good problem-solving and coping skills, seem to buffer people against adverse circumstances. Studies of resilience and competence also help mental health professionals in several practical ways. These studies guide the development of interventions to prevent or eliminate risk factors, build resources, enhance relationships, and improve self-efficacy and self-regulation (Khanlou & Wray, 2014; Macedo et al., 2014).

Colorblind/Photodisc/Jupiter Images

Spirituality and religion may serve as a protective factor against psychological problems.

Interim Summary

- A risk factor is an individual or environmental characteristic that precedes a mental disorder and is correlated with that disorder.
- Men are at greater risk for substance use, antisocial personality, sexual, and developmental disorders; women are at greater risk for anxiety-related and depressive disorders.
- Mental disorder appears more prevalent among younger than older adults.
- The extent to which race and ethnicity are risk factors for mental disorder has been difficult to establish, but some specific differences have been reported.
- Lower educational and socioeconomic levels, as well as divorce or separation from a partner, are general risk factors for mental disorder.
- Other risk factors include individual, family, and community or social factors.
- Protective factors are associated with lower rates of mental disorder.
- Resilience refers to the ability to withstand and rise above extreme adversity and may protect people from developing mental disorder.
- Resiliency and protective factors vary across age, gender, race, and ethnicity.

Review Questions

1. What is the difference between risk factors and protective factors?
2. What are major risk factors for mental disorders?
3. What features do protective factors and resiliency factors have in common?
4. Why is it important to identify risk, protective, and resiliency factors?

Prevention

Our discussion of risk factors and protective factors such as resilience leads naturally to a focus on one of the main themes of this textbook—prevention. **Prevention** refers to thwarting the development of later problems and may be more efficient and effective than individual treatment after a mental disorder occurs. Those engaging in prevention often use risk and protective factors to identify people who need more help before major problems develop. Prevention is therefore a guiding principle of many public health programs.

Many prevention programs aim to reduce risk and increase protective factors regarding mental disorder. Child maltreatment, such as that Jana experienced, is a key risk factor for several mental disorders. Many prevention programs therefore try to reduce the prevalence of childhood maltreatment. Prevention programs may also aim to *enhance protective factors.* Protective factors for children include good social and academic competence and growing up in a positive home environment. Prevention programs could thus be designed to help kids make friends and do well in school and educate parents about proper child-rearing methods. Prevention programs often focus on children and families who are "at risk" for certain disorders based on these kinds of characteristics.

3.3

Focus on

Violence

Prevention of Femicide

Femicide, the murder of women, is a leading cause of premature death among females. Intimate partner homicide overall accounts for 13.5 percent of homicides worldwide (Stockl et al., 2013). American women are killed by intimate partners more frequently than any other type of perpetrator, and physical maltreatment of the woman by the man often precedes the homicide. Identifying risk factors for femicide in abusive relationships may thus help us understand what leads from physical maltreatment to homicide. This is a foundation for prevention efforts.

Campbell and colleagues have studied many factors associated with femicide. Several factors appear to distinguish femicide perpetrators from abusive men, including unemployment, excessive drug use, and access to guns. Other factors include a stepchild biologically related to the victim but not the perpetrator, previous separation from the perpetrator after cohabitation, and leaving a physically abusive partner for another partner. Protective factors include previous arrests of the perpetrator for domestic violence and never living together. These results may help health professionals intervene and perhaps prevent femicide in women in an abusive relationship by assessing a perpetrator's access to guns, encouraging women to contact police and use domestic violence resources, and advising women to avoid the perpetrator when leaving the relationship (Messing, Campbell, Wilson, Brown, & Patchell, 2015; Sabri, Campbell, & Dabby, 2015).

Table 3.3 presents various techniques to prevent child maltreatment in children in high-risk families. This particular program emphasizes different aspects of parenting and caring for a child that may serve to "protect" against maltreatment. The program provides basic education and training in positive parenting, problem-solving skills, and anger management. The hope is that a successful program such as this one will lead to less maltreatment.

Prevention on a Continuum

The basis of *prevention* is to build mental health and limit the scope of problems, including mental health problems, before they occur or worsen. Individuals do benefit from prevention and treatment programs along a continuum of intervention for mental disorders (Nathan & Gorman, 2015). This continuum is represented in the following way: *prevention* occurs before a disorder develops, *treatment* occurs after a disorder develops (or as a disorder is developing), and *maintenance* occurs long after a disorder has developed for people whose symptoms require ongoing attention (see **Figure 3.8**).

Three Types of Prevention

Mental health professionals have adopted three major approaches to prevention. These approaches were introduced in Chapter 1 and are discussed in more detail next.

Primary and Universal Prevention

The purest form of prevention is **primary prevention**, where an intervention is given to people with no signs of a disorder (Bloom & Gullotta, 2014). Primary prevention practices are administered to prevent *new cases* of a disorder. This type of prevention is a radical departure from traditional ways of addressing mental disorder in which interventions are given *after* significant problems develop. **Universal prevention** is similar to primary prevention in that large groups of people not affected by a particular problem are targeted to reduce new cases of a disorder (Figure 3.8). Advertisements to educate the public about the dangers of excessive alcohol and other drug use are an example. Universal prevention interventions target everyone, however, so they can be costly.

Other examples of primary or universal prevention are also available. Newborn children are regularly screened for phenylketonuria (PKU), a disorder that can result in intellectual disability (Chapter 13). Children with PKU can be placed on a special diet that prevents intellectual disability from occurring. Other examples of primary prevention include mandatory car seats for preschoolers to prevent accident fatalities and parenting classes to prevent child maltreatment (Table 3.3). Primary prevention also includes programs to reduce job discrimination, enhance school curricula, improve housing, and help children in single-parent homes. Some primary prevention programs work fairly well, such as school-based programs for bullying (Evans, Fraser, & Cotter, 2014). Other primary prevention programs work less well, however, such as for sexual violence perpetration (DeGue et al., 2014).

Secondary and Selective Prevention

Secondary prevention refers to addressing problems while they are manageable and before they are more resistant to treatment (Aneshensel et al., 2013). Secondary prevention is designed to "nip a problem in the bud" before it progresses to a full-blown disorder. Secondary prevention programs promote the early identification of mental health problems as well as treatment at an early stage so mental disorders do not develop.

A secondary prevention approach suggests that many people will be screened for early signs of mental health problems.

TABLE 3.3

A Sample Plan for Preventing Child Maltreatment in High Risk Families

Basic problem-solving training	Learn to recognize and define typical life problems
Positive parenting: enjoying the child	• Gain education on the child's development and how to enjoy the child's unfolding abilities • See the world through the child's eyes • Learn activities for parent and child together: child-led play and mutual reinforcement
Parenting skills	Learn general skills such as how to: • *Define behaviors and goals* • *Recognize developmentally appropriate goals* • *Identify antecedents and consequences* • *Identify rewards* • *Identify a reasonable level of control*
	Learn request skills such as how to: • *Make requests to ensure compliance (alpha commands)* • *Make reasonable requests*
	Learn how to reduce the frequency of undesirable behaviors: • *Ignore* • *Reward the absence of negative behaviors* • *Implement time-out* • *Get past the "testing the limits" phase*
	Learn how to increase desirable behaviors: • *Use praise* • *Use explicit rewards: appropriate rewards, token economy*
Extending parenting	Learn about child safety, especially the following: • *Discipline and maltreatment—how discipline can slip into maltreatment, outcomes of maltreatment* • *Responsibility for selecting safe care agents* • *Other kinds of injury, "child proofing"* • *Supervision* • *Child as precious to parent: work to protect*
Anger management	Learn how to see oneself through the child's eyes: • *Recall one's own parents and parental anger* • *Characterize how being the focus of anger feels*
	Learn to control your own emotions: • *See your anger as a feeling, a color, or a state*
	Learn behavioral treatments: • *Power to alter your state* • *Relaxation* • *Becoming aware of anger triggers* • *Safety valves* • *Self-esteem*
	Learn to see successful parenting as anger reducing

Adapted from "Integrating Child Injury and Abuse-Neglect Research: Common Histories, Etiologies, and Solutions" by L. Peterson and D. Brown, 1994, Psychological Bulletin, 116, 293-315. Copyright © 1994 by the American Psychological Association. Reprinted with permission.

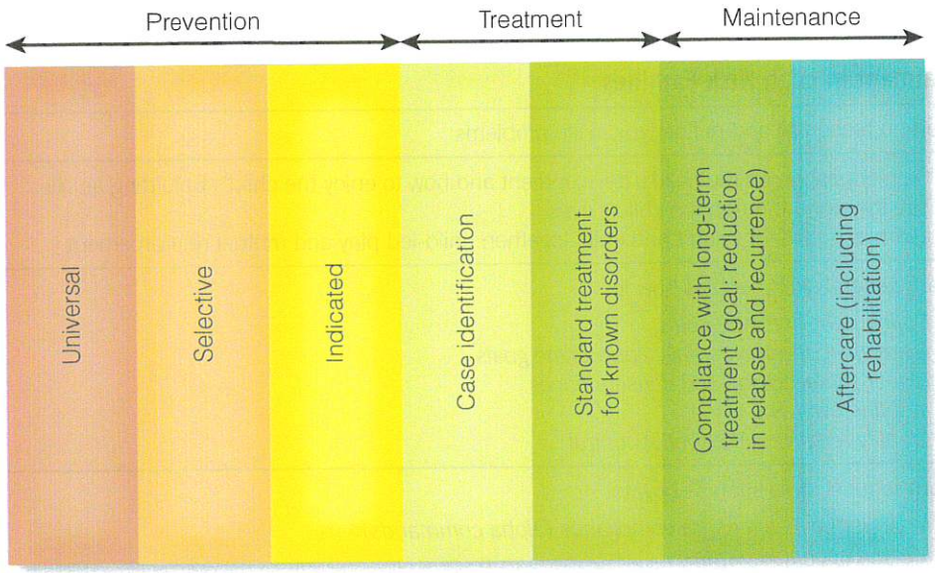


FIGURE 3.8 PREVENTION EXISTS ON A CONTINUUM OF INTERVENTION FOR MENTAL HEALTH PROBLEMS. *Source: Adapted from Institute of Medicine,* Summary: Reducing risks for mental disorders: Frontiers for preventive intervention research, *Fig. 2.1, p. 8. Washington, DC: National Academy Press.*

These people are not necessarily seeking help and may not even appear to be at risk. Such screening may be conducted by community-service personnel such as psychologists, physicians, teachers, clergy, police, court officials, social workers, or others. May 1 of each year is set aside as National Anxiety Disorders Screening Day, which helps provide quick assessment for those who may be struggling with initial panic or other anxiety symptoms. Early identification of problems is followed, of course, by appropriate referrals for treatment.

Selective prevention is similar to secondary prevention in that people at risk for a particular problem are targeted (Figure 3.8). Selective prevention practices target individuals or subgroups of the population who are more likely than the general population to develop a particular mental disorder. Targeted individuals are identified on the basis of biological, psychological, or social risk factors associated with the onset of a disorder. A program to find and help youth genetically predisposed to schizophrenia would be an example of selective prevention. Selective prevention has been recommended especially for high-risk problems such as depression and suicide (Okereke, 2015).

Tertiary and Indicated Prevention

Tertiary prevention refers to reducing the duration and additional negative effects of a mental disorder *after onset*. Tertiary prevention differs from primary and secondary prevention in that new cases of mental disorder are not reduced. Instead, the goal is to stabilize symptoms, provide rehabilitation, prevent relapse, improve a person's quality of life, and lessen effects of an *existing* mental disorder (Fernandez, Gold, Hirsch, & Miller, 2015). Tertiary prevention programs often focus on (1) educating peers and family members to reduce stigmatization, (2) providing job training to increase competence, and (3) teaching independent living skills to help someone be more self-reliant. A person recovering from an episode of schizophrenia might need help in these areas to avoid rehospitalization.

A key goal of tertiary prevention is to prevent additional problems from occurring. Tertiary prevention programs are not much different from traditional treatment of individuals with mental disorders. The focus remains, however, on preventing *other* problems; thus, tertiary prevention does share something in common with primary and secondary prevention. The goal of each prevention form is to reduce problems associated with mental disorder on a community- or population-wide basis.

Indicated prevention targets individuals (not groups) who are at very high risk for developing extensive problems in the future (Figure 3.8). These "high-risk" individuals are identified as having many risk factors and few protective factors for a certain mental disorder. Unlike tertiary prevention, indicated prevention focuses on people who have not yet developed a full-blown mental disorder.

Prevention Programs for Mental Disorders

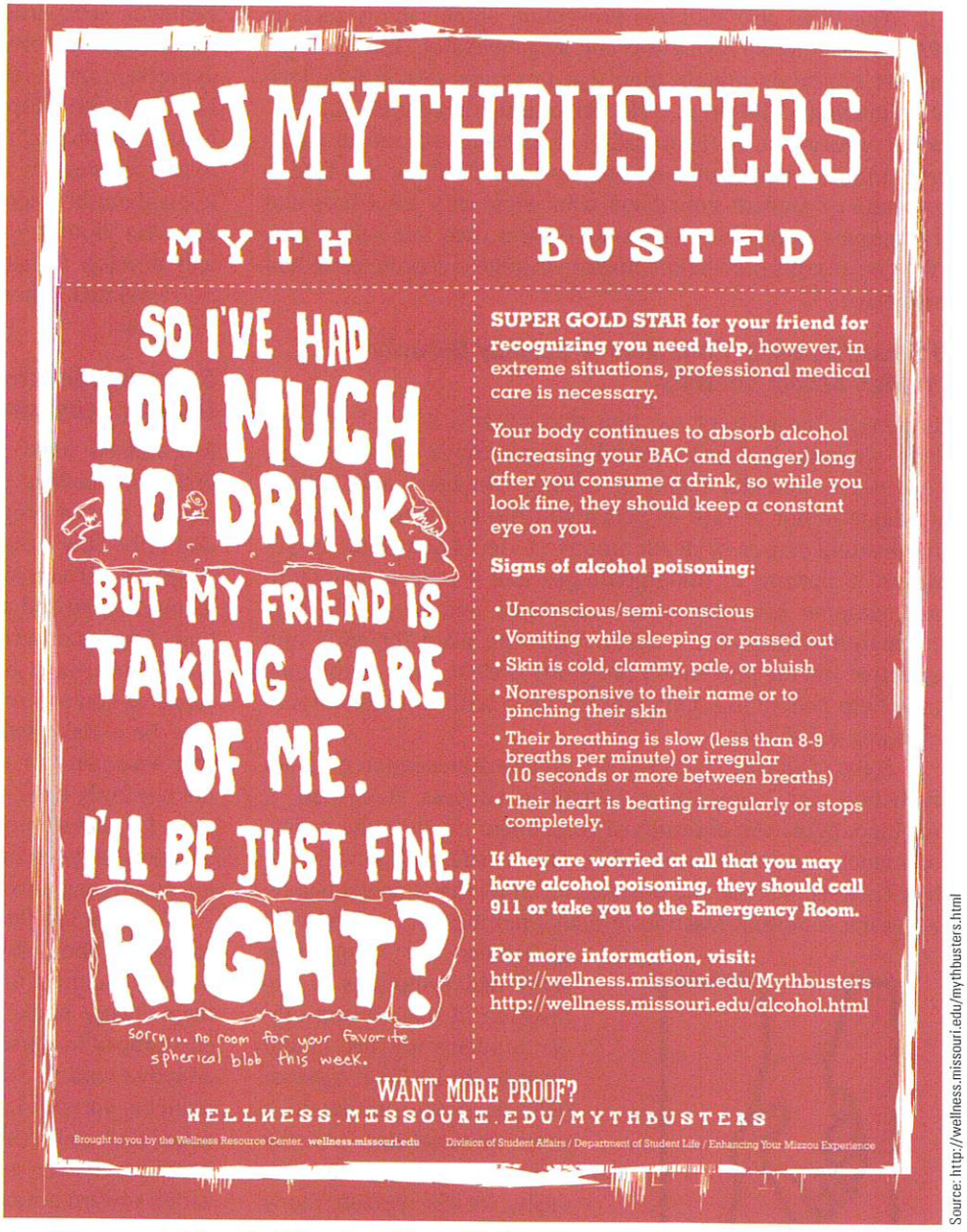
Prevention programs have been quite successful or promising in areas such as school adjustment, learning and health problems, injuries from accidents, pregnancy, and child maltreatment. Areas of limited success include prevention of complex problems such as excessive substance use and delinquency in adolescents (Gullotta & Bloom, 2014). A key advantage of prevention is that enormous resources can be saved that otherwise would go toward future treatment, hospitalization, and/or incarceration of people with mental disorder (van Zoonen et al., 2014). Specific examples of prevention programs to address problems commonly experienced by young adults are presented next.

Primary/Universal Prevention of Alcohol Use Disorders on College Campuses

DeShawn's problems at college come as little surprise given that excessive alcohol use is widespread on college campuses today. DeShawn often engaged in what is known as *binge drinking*, which means consuming five or more drinks on one occasion for men and four or more drinks on one occasion for women. Binge drinking is associated with poorer academic performance, risk for violence or physical injury, risky sexual behavior, and health problems, among other things. About 39.1 percent of college students aged 18 to 22 years engaged in binge drinking in the past month (White & Hingson, 2014). Because binge drinking among college students is a major problem, efforts to prevent it are a top priority.

Many college campuses have prevention programs to curb excessive or binge drinking. These programs can be thought of as *primary* or *universal* prevention programs because all students, not just those at risk for alcohol use disorder, are exposed to these efforts. These programs include general education during freshman orientation, special events during the academic year such as "Alcohol Awareness Week," and peer education programs in which students themselves support their peers' healthy attitudes and lifestyle choices regarding alcohol use (Scott-Sheldon, Carey, Elliott, Garey, & Carey, 2014).

The *Wellness Resource Center (WRC)* at the University of Missouri sponsors a prevention program targeting excessive alcohol use. Major components of the program include promoting responsible decision making and providing accurate information about how much alcohol is consumed by college students (called *social norming*). Peers provide much of the information about drinking and its related problems to fellow students. The WRC's responsible decision-making program is administered by trained peer educators who visit residence halls, fraternity and sorority houses, classrooms, and junior high and high schools to speak about alcohol and other drug issues and making healthy lifestyle choices about eating, exercising, and smoking.



Source: http://wellness.missouri.edu/mythbusters.html

This screenshot from the University of Missouri Wellness Resource Center illustrates attempts to educate students about the facts regarding college drinking.

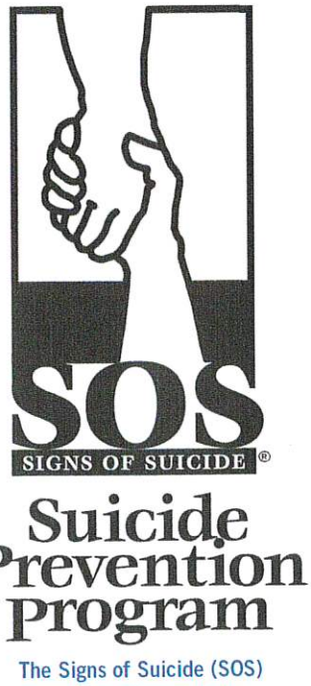
For example, one peer presentation introduces participants to the Virtual Bar, an interactive computer program that demonstrates the effect of alcohol on the body. Participants decide whether the character sips, drinks, or slams a range of alcoholic drinks to see how this affects blood alcohol content (BAC). In addition, participants learn to consider time, alcohol content, gender, and weight when making decisions about alcohol use. Another presentation focuses on the increasingly popular tradition of having 21 drinks on one's 21st birthday. The program emphasizes the danger of such a practice (alcohol poisoning and death), and promotes safe, responsible drinking. Finally, START (Student Alcohol Responsibility Training) is an online training program that educates participants in planning and hosting a fun and safe party. Topics covered include general party safety, alcohol consumption by guests, preventing MIPs (minors in possession), and legal responsibilities. *Social norming* is an important component of many substance use prevention programs. This approach is based on the assumption that students often overestimate how much other students drink and that students drink in amounts they perceive others to drink. Programs like the WRC correct this misperception by educating students about the actual amount of alcohol their peers drink. Survey data reveal that Missouri students believed 60 percent of their peers drink three times a week or more, but actual data from students themselves reveal that only 33 percent do so. The WRC corrects students' norms for drinking by placing weekly ads in the student newspaper, distributing written materials across campus, giving away bookmarks, and placing mouse pads with this information in student computer labs.

The WRC also sponsors prevention organizations such as PARTY (Promoting Awareness and Responsibility Through You), a peer education organization that promotes responsible decision making; GAMMA (Greeks Advocating the Mature Management of Alcohol), an organization of fraternity/sorority students who promote responsible alcohol use; and CHEERS, a statewide program of student volunteers who work with local bars and restaurants to provide designated drivers with free soft drinks. You can see this prevention program is quite comprehensive and extensive.

Primary/Universal Prevention of Suicidal Behavior in High School Students

Earlier in the chapter we saw that Jana, a 22-year-old college student, had been suicidal many times over the past few years. Suicidal behavior among teenagers and college students is not as rare as you might think. Suicide is one of the leading causes of death among 15- to 24-year-olds. In addition, 6 percent of undergraduates and 4 percent of graduate students have seriously considered suicide in the past 12 months (King et al., 2015). Thus the need for early and effective suicide prevention programs is clear. These programs may help people like Jana who struggle with thoughts of suicide and self-harm.

Signs of Suicide (SOS) is a school-based prevention program with two main components (Schilling, Lawless, Buchanan, & Aseltine, 2014). An educational component involves the review of a video and a discussion guide. These materials highlight the link between suicide and depression, show that suicidal behavior is not a normal reaction to emotional distress, and provide guidelines for recognizing signs and symptoms of depression in oneself and others. Students are also taught what to do (ACT) if signs of depression are present in a peer: *acknowledge* (A) the signs and take them seriously, let the person know you *care* (C), and *tell* (T) a responsible adult about the situation. The video has interviews of people who have been touched by suicide and provides ways of reacting if a peer has signs of depression or suicide. The second component involves a self-screening: Individuals evaluate themselves for signs of depression and suicidal thoughts and are prompted to seek help if necessary.



Courtesy of Screenings for Mental Health, Inc.

The Signs of Suicide (SOS) prevention program helps prevent suicide attempts and increase knowledge about depression.

The SOS program appears to be successful at helping to prevent suicidal behavior. SOS participants show fewer suicide attempts, greater knowledge of depression, and more adaptive attitudes about depression and suicide than nonparticipants. This program has also been adapted for graduating seniors who are college-bound, emphasizing how to access resources on campus and in the community. A program like SOS might have helped Jana learn about her signs of depression and distress, realize suicidal behavior is not a good way to cope with depression or stress, and develop a plan for getting social support when she felt overwhelmed. These skills may have reduced Jana's suicidal behaviors.

Secondary/Selective Prevention of Eating Disorder Symptoms

Researchers have also evaluated secondary prevention programs for college students. Stice and colleagues (2012) conducted such a program to prevent eating disorder symptoms and unhealthy weight gain in female college students. *Healthy Weight* is a selective prevention program that focuses on healthy dietary intake and appropriate physical activity in women with body image concerns. Body image refers to beliefs about one's appearance, how one feels about his or her body, and one's sense of control over one's body. Concerns about body image may be a risk factor for eating disorders (Chapter 8). Recall that secondary or selective prevention targets people who do not currently have a certain mental disorder but who may be at risk for developing additional symptoms of the disorder. Students targeted by the researchers thus appeared to be at risk for developing an eating disorder.

Healthy Weight is a four-session program that begins with education about how participants can make small but lasting healthy changes to diet and physical activity to ensure that their energy intake and output are balanced. Participants are encouraged to pursue a healthy ideal, not a thin ideal, by using adaptive choices such as starting meals with high-fiber foods, reducing portion sizes, and not having unhealthy foods at home. Scheduled and creative exercise routines are discussed as well. Participants keep eating and exercise diaries to maintain motivation toward a healthy body weight. They are also encouraged to discuss possible future obstacles in this regard and develop ways of overcoming barriers to healthy behavior change.

Most students (67 percent) attended all four sessions (4 hours total) of the *Healthy Weight* program. Compared with controls, students in the *Healthy Weight* intervention displayed fewer eating disorder symptoms, increased exercise, less dieting, and less body dissatisfaction. Intermittent dieting is often considered a risk factor for eating disorders, so the program helped reduce behaviors that may have led to a full-blown diagnosis. Intervention effects were strongest for students who had more eating disorder symptoms and who felt more pressure to be thin. The results suggested that a brief group intervention can be a powerful preventative strategy for such a devastating disorder. Prevention programs can thus successfully "buffer" young people from developing psychological problems. We present many examples of primary, secondary, and tertiary prevention of mental disorders throughout this textbook.

3.4

Focus on

Law and Ethics

Constructs Related to Insanity

Recall from Chapter 2 that *insanity* is a legal term that refers to mental incapacity at the time of a crime. The concept of insanity has been shaped by some key historical standards. One standard is the **M'Naghten rule**, which refers to the idea that a criminal defendant is not guilty by reason of insanity if, at the time of the crime, he did not know the nature or quality of his actions or did not know the difference between right and wrong. The M'Naghten rule means that defendants must have the cognitive ability to know right from wrong. If a defendant did not know the difference, such as someone experiencing a psychotic episode (Chapter 12) or someone with severe intellectual disability (Chapter 13), then this could be the basis for an insanity defense.

Another important historical standard is the **irresistible impulse** or *control* rule. In this situation, one could argue for an insanity defense if a person had a mental disorder that did not allow him to control his actions during a crime. A person may have known the difference between right and wrong but still could not exercise behavioral control. In addition, the **Durham rule** refers to the idea that a person may not be responsible for a criminal act if the act was due to a "mental disease or defect." Both of these standards, however, have been criticized as being too broad (Kolla & Brodie, 2012).

The *American Law Institute* (ALI) attempted to address this concern by blending the M'Naghten and irresistible impulse concepts. The ALI recommended that a person could use an insanity defense if a mental disorder prevented him from knowing right from wrong or prevented him from being able to control his actions. The *American Psychiatric Association* (APA) later recommended paring the ALI definition to include only the first part (i.e., to the M'Naghten rule). Many states and the federal government use the APA distinction today, although some states have eliminated the insanity defense altogether.

Interim Summary

- Prevention refers to thwarting the development of later problems and guides many mental health programs.
- Prevention can be viewed along a continuum with treatment and maintenance.
- Primary prevention refers to providing intervention to people with no signs of a particular disorder.
- Universal prevention targets large groups of people without a particular problem to reduce new cases of a disorder.
- Secondary prevention refers to addressing manageable problems before they become more resistant to treatment.
- Selective prevention targets people at risk for a particular problem.
- Tertiary prevention refers to reducing the duration and negative effects of a mental disorder after its onset.
- Indicated prevention targets individuals at very high risk for developing extensive problems in the future.
- Many prevention programs target children, adolescents, and young adults.

Review Questions

1. What is prevention? What prevention programs are on your college campus?
2. How might prevention be viewed along a continuum? What are advantages in doing so?
3. Describe a primary, secondary, and tertiary prevention program for alcohol use disorder in college students. Who would these programs target?
4. What are important features of prevention for mental disorders in college students?

3.1 / Kim Dude and the Wellness Resource Center

Kim Dude

I began my student affairs career in residential life where my role was to encourage students to be successful by helping them make healthy, safe, and responsible decisions in all aspects of their lives. I wrote a grant to the U.S. Department of Education to create an alcohol and drug abuse office and became the Director of ADAPT (Alcohol and Drug Abuse Prevention Team). The mission of ADAPT later expanded, and it became the Wellness Resource Center (WRC).

The students and staff of the Wellness Resource Center realize that one single approach or one single event is not sufficient in helping college students make responsible decisions concerning alcohol or other aspects of their health. Four theoretical models guide the WRC's prevention efforts: (1) responsible decision making, (2) social norming, (3) harm reduction, and (4) environmental management. It takes a comprehensive yearlong effort to have an impact on student behavior.

The responsible decision-making approach is used through peer educator presentations and major campus-wide events such as Alcohol Responsibility Month, Safe Spring Break, Safe Holiday Break, and Wellness Month. The WRC challenges students to make informed, responsible decisions regarding all aspects of their health, and presents between 150 and 200 outreach programs per year.

The WRC implements a social norms approach. Social norms theory suggests that students' misperceptions and overestimations of their peers' alcohol and drug use increase problem behaviors and decrease healthy behaviors because students are acting in accordance with what they think is "normal." Our research on University of Missouri students indicates a significant difference between student perceptions and the reality of peer alcohol and other drug use. By correcting misperceptions of the norm, the WRC has decreased problem behavior and seen an increase in healthy behavior. The WRC's social norming efforts are comprehensive and incorporate not only an extensive marketing campaign but also educational outreach programs and training.

A harm reduction approach accepts that students sometimes make risky choices and that it is important to create safety nets to keep them from hurting themselves or someone else. The WRC created and supports Project CHEERS, a designated-driver program in which more than 50 bars in Columbia give free soda to designated drivers. Additionally, the WRC provides an educational intervention called BASICS (Brief Alcohol Screening Intervention for College Students) for students caught in violation of the alcohol and drug policies of the university and/or for students who are concerned about their use. The program is composed of a 2-hour interactive workshop and a 1-hour individual follow-up session led by two PhD-level counseling psychology graduate students.

The WRC also takes an environmental management approach by actively working to influence the campus and community

Final Comments

The diathesis-stress model is a useful way of thinking about various influences on mental disorders. Diatheses (predispositions) and stressors can be thought of as risk factors for mental disorders. Most mental disorders begin in adolescence or early adulthood when the burden of mental disorder is high. This highlights the need for early prevention efforts to address risk factors and thwart disorder development. Prevention programs are more efficient and cost-effective in the long run than traditional treatment because enormous costs related to disability and tertiary care can be lessened. We discuss effective treatments but also contemporary and personal approaches for preventing various psychological problems throughout this textbook. Examples include suggestions for reducing anxiety and sadness (Chapters 5 and 7), enhancing prenatal care to prevent intellectual disability (Chapter 13), and improving memory to limit cognitive decline (Chapter 14). We turn our attention in Chapter 4 to methods used by mental health professionals to assess, diagnose, classify, and study mental disorders. This discussion will further provide the foundation for understanding the mental disorders we discuss in Chapters 5 through 14.

personal narrative

environment through the campus and community coalition called the Access to Alcohol Action Team. The Columbia Tobacco Prevention Initiative works with all three high schools in Columbia as well as Columbia College and Stephens College on the tobacco control issues. The WRC has also created two statewide coalitions called Missouri Partners In Prevention and Partners In Environmental Change, composed of the 13 state colleges and universities in Missouri. Both PIP and PIEC provide technical assistance, training, and programmatic support for the campus, and are funded by the Missouri Division of Alcohol and Drug Abuse.

My professional journey has been filled with many challenges. Our society glamorizes the misuse and abuse of alcohol through the media, movies, television, music, magazines, and even campus traditions. We have faced a long list of obstacles including the lack of power to make significant change, strong campus organizations that revolve around alcohol, territory issues with other professionals, and the opinions that student alcohol abuse is simply a rite of passage. Additionally, because the WRC is more than 80 percent grant funded, securing and maintaining funding has been one of the biggest obstacles we have faced.

Another great challenge is trying to change the environment. The WRC cannot do this alone. As the saying states, "It takes a village to raise a child." Everyone in the community needs to be part of the solution: parents, law enforcement, community leaders, educators, business owners, etc. I was taught that if you are not part of the solution, you are part of the problem. We all need to be part of the solution and help change laws, policies, and practices so that we have an environment that supports and encourages good decision making.

I am proud to say that the WRC has been successful over the years despite its obstacles and has been recognized as one of the top prevention programs in the country. So much of our survival and our success is the result of a positive attitude and the desire to never give up. I want to share a story that I love. A woman was walking down a street in a large city past a construction site. She came across three construction workers and asked them each a simple question. "Excuse me sir, what are you doing?" The first man said he was laying bricks, the second man said he was building a wall, and the third man stated proudly that he was building a great cathedral. All three men were doing the same task and yet each viewed it differently. Ultimately, we are all playing a part in building a great cathedral. Some days we may feel like we are just laying bricks, but we are part of a much bigger picture. We are taking part in the great task of building a community that encourages and supports good decision making by all. My philosophy in life is embodied in this quote from Leon Joseph Cardinal Suenens: "Happy are those who dream dreams and are ready to pay the price to make them come true."

Kim Dude was recognized by the U.S. Department of Education's Network: Addressing Collegiate Alcohol and Other Drug Issues as the recipient of the Outstanding Contribution to the Field award in 2003. Kim has also been honored by the Phoenix Programs in Columbia, Missouri, with the Buck Buchanan Lifetime Service Award for her prevention efforts.

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Key Terms

diathesis 52
etiology 54
epidemiology 54
epidemiologists 54
incidence 54
prevalence 54
lifetime prevalence 54
comorbidity 56
cohort effects 57
risk factor 59
protective factors 61
resilience 62
prevention 63
primary prevention 64
universal prevention 64
secondary prevention 64
selective prevention 66
tertiary prevention 66
indicated prevention 66