OUTLINE



CHAPTER 5

# Anxiety Disorders

Before I left my office to meet Barbara Wilder for the first time, the clinic receptionist, Marie, pulled me aside in the hallway to warn me about the situation in the waiting room. Marie explained that Barbara's friend, who had come along for support, offered the reassuring words that Barbara was fine and that she commonly had these kinds of "attacks." Even with her warning, the scene would leave a lasting mark in my memory—in a distant corner of the otherwise empty waiting room, Barbara was writhing on the floor in what appeared to be a convulsion. Her friend knelt next to her, offering soothing words that had a powerful impact on helping Barbara regain control of herself.

As I walked across the waiting room, I sorted through a number of options about how I would enter this very dramatic situation. I momentarily wondered if I should return to my office and wait until Barbara had calmed down, but I felt it might appear as though I was intimidated by Barbara's behavior. Instead, I reached out my hands to Barbara and, in a reassuring voice, introduced myself and helped her rise from the floor and take a seat in a nearby chair. For a moment, Barbara continued to gasp for breath but gradually recovered as she sat between her friend and me. She seemed like a frightened child whose fears were contained by the presence of caregivers sitting beside her. I sat there for 5 minutes and offered calming words in an effort to offer her further comfort. Barbara then looked into my eyes and said, "I'm really sorry for all this drama. I hope you'll understand that this condition is beyond my control." I told Barbara that I realized this and that I also recognized how disturbing and frightening such reactions could be. I asked her to come with me to my office. At first, she asked if her friend could join us but quickly reconsidered and stated, "Actually, I think I should try to do this on my own."

As Barbara walked alongside me, my occasional glances caused me to wonder about whether I had correctly recalled her age. How could this woman be only 22 years old? The way she carried her body and shuffled her feet, along with the look of worry on her face, caused me to think that she must be at least in her midthirties. I wondered whether she was suffering from a medical problem, such as arthritis, that caused her to walk and move her body with such rigidity. The more we talked, the more I realized that her bodily tension was telling the story of inner turmoil rather than physical impairment. Barbara began her story by telling me how the preceding 6 months had been "pure hell." It all began one evening when she was waiting in a crowded airport lounge to fly home to visit her parents, her first visit since starting her new job. She suddenly felt incredibly dizzy, and the words on the page of her paperback novel began to dance in front of her eyes. She felt a roaring sound in her ears and a sudden stabbing pain in her chest. Her heart pounded wildly, and she broke out into a cold sweat. Her hands trembled uncontrollably. Just that day, Barbara had heard about the sudden death of a young woman due to a rare heart condition. Struggling to overcome the choking sensation in her throat, she was convinced that she was about to die.

In what seemed to Barbara to be an absolute miracle, the woman next to her saw what was happening and summoned paramedics. Neither they nor the physicians who examined Barbara could find anything physically wrong. The doctor told Barbara that she was probably exhausted and that the airport lounge must have been too stuffy. She spent the night at the hospital and was released the next morning.

Barbara had to cancel her visit to her parents, but her alarm about the incident gradually subsided. Two weeks later, though, the same thing happened again. She was shopping at the mall for a present for her roommate, who was to be married in a few days. Once again, a medical exam showed no physical abnormalities. Barbara began to suspect that the physicians were hiding something from her about the seriousness of her condition. Over the next several months, Barbara went from physician to physician, searching in vain for someone who could diagnose her illness and put her on a proper course of therapy. All they did, though, was advise her to get some rest. One physician prescribed a mild tranquilizer, but it offered no relief from her attacks, which became even more intense, occurring once every 2 weeks.

Little by little, Barbara found herself staying away from situations in which she would be trapped if she were to have an attack. She quit her job, because she was terrified that she would have an attack in the elevator while riding up to her office on the 26th floor. Eventually, Barbara became virtually a total recluse. She could not even walk out of her front door without feeling an overwhelming sense of dread. The only time she left the house was when her former roommate, who was now married, took her to the grocery store or for a walk. At this friend's suggestion, Barbara sought help at the mental health clinic. This young woman appeared to others, for much of her early years, to be an individual who functioned quite well. They did not realize, however, that within Barbara's hidden emotional life she was tremendously insecure and felt intensely dependent on others. When confronted with the challenging life transitions of her first job, she became caught up in overwhelming anxiety.

**Sarah Tobin, PhD**

Everyone becomes anxious from time to time—an examination, a sporting match, a meeting with an important person, and concern over a new relationship can all create feelings of apprehension. Often a person's anxieties are about the future, whether long-term concerns about a career or more immediate worries about a Saturday night date. Think about your own experiences involving anxiety. Perhaps you were so nervous while taking an examination that your mind went blank, or you were so "wound up" while playing in a close basketball game that you missed an easy shot. The anxiety of giving an oral presentation in class may have left you tongue-tied and embarrassed. As upsetting as any of these experiences may be, none would be considered abnormal functioning. It is even possible that such experiences had beneficial aspects. You may have developed ways to calm yourself, which you then found useful in other circumstances, or your anxiety may have energized you to overcome obstacles and perform more effectively. Thus, in moderation, anxiety may serve some positive functions.

Although the terms fear and anxiety are commonly used interchangeably, psychologists make a distinction between them in a clinical context. **Fear** refers to an innate, almost biologically based alarm response to a dangerous or life-threatening situation. People who suffer from the disorders covered in this chapter experience "false alarms," in which harmless stimuli or situations are regarded as dangerous (Street & Barlow, 1994). **Anxiety,** by contrast, is more future-oriented and global, referring to the state in which an individual is inordinately apprehensive, tense, and uneasy about the prospect of something terrible happening. Anxiety has both cognitive and affective components. When you are anxious, you have a feeling that something terrible will happen and that you are powerless to change it. You start to focus on your inner concerns, while becoming hypervigilant, or overly watchful, regarding the possibility of danger or threat.

Sometimes anxiety can be so overwhelming that people feel unable to cope with the ordinary demands of life.

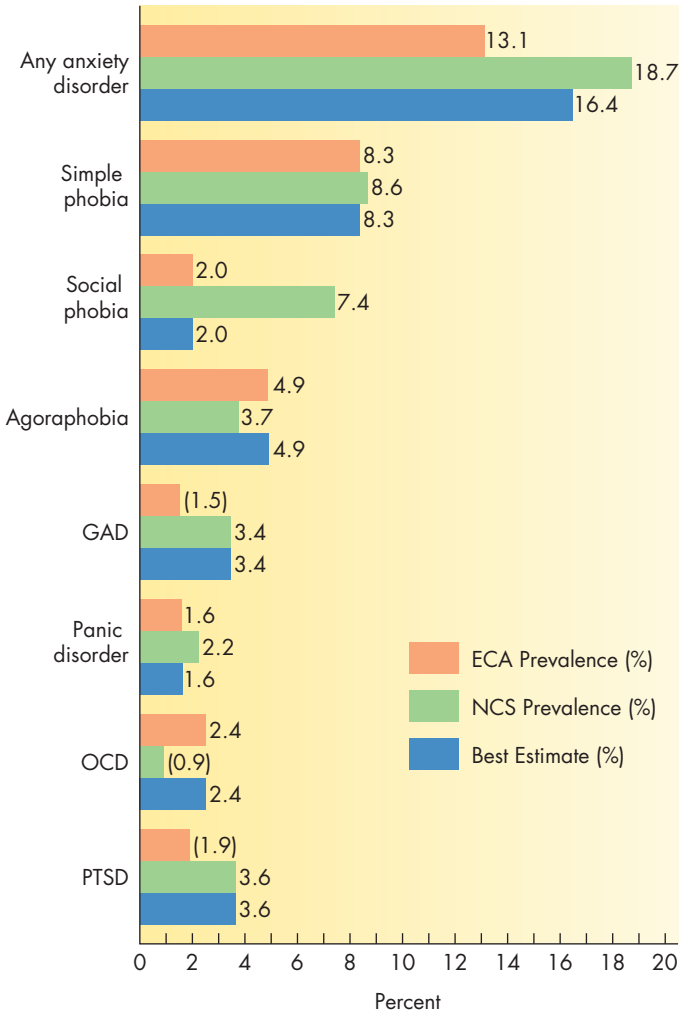



**FIGURE 5.1 Best-estimate 1-year prevalence rates based on ECA and NCS, for persons 18 to 54 years old**
Figures for best estimates were based on a conservative procedure that took into account statistical considerations. Numbers in parentheses indicate the prevalence of the disorder without comorbidity.
Source: U.S. Department of Health and Human Services, 1999.

Anxiety becomes a source of clinical concern when it reaches such an intense level that it interferes with the ability to function in daily life, as a person enters a maladaptive state characterized by extreme physical and psychological reactions. These intense, irrational, and incapacitating experiences are the basis of the anxiety disorders, which affect as many as 19 percent of Americans every year (U.S. Department of Health and Human Services, 1999) (see Figure 5.1).

## The Nature of Anxiety Disorders

People with **anxiety disorders** are incapacitated by chronic and intense feelings of anxiety, feelings so strong that they are unable to function on a day-to-day basis. Their anxiety is unpleasant and

**Diagnostic Features of Panic Attack**

A panic attack is a period of intense fear or discomfort, during which a person experiences four or more of the following symptoms, which develop abruptly and reach a peak within 10 minutes:

- Palpitations, pounding heart, or accelerated heart rate
- Sweating
- Trembling or shaking
- Sensations of shortness of breath or smothering
- Feeling of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Feelings of dizziness, unsteadiness, lightheadedness, or faintness
- Feelings of unreality (derealization) or a sensation of being detached from oneself (depersonalization)
- Fear of losing control or going crazy
- Fear of dying
- Sensation of tingling or numbness
- Chills or hot flushes

makes it difficult for them to enjoy many ordinary situations, but, in addition, they try to avoid situations that cause them to feel anxious. As a result, they may miss opportunities to enjoy themselves or to act in their own best interest. For example, people who are afraid to fly in airplanes face job problems if their work requires air travel. You may have heard of John Madden, the sportscaster who travels around the country by bus because he experiences severe panic attacks in airplanes. The lives of people whose anxiety prevents them from even the more ordinary task of leaving the house are even more disrupted. It is perhaps because of the disabling nature of anxiety and related disorders that prescription drugs for anxiety are among the most widely used in the United States.

## Panic Disorder

People with **panic disorder** experience **panic attacks,** periods of intense fear and physical discomfort, in which they feel overwhelmed and terrified by a range of bodily sensations that causes them to feel they are losing control. These attacks have a sudden onset and usually reach a peak within a 10-minute period. The sensations the person experiencing a panic attack feels include shortness of breath or the feeling of being smothered, hyperventilation, dizziness or unsteadiness, choking, heart palpitations, trembling, sweating, stomach distress, feelings of unreality, sensations of numbness or tingling, hot flashes or chills, chest discomfort, and fear of dying, "going crazy," or losing control. While this is happening, the individual has a sense of impending doom and feels an overwhelming urge to escape. If you have ever had any of the symptoms of a panic attack, even to a small degree, you can imagine how upsetting it must be to someone who experiences a full-blown episode.

For panic disorder to be diagnosed in an individual, at least some of the person's panic attacks must arise "out of the blue," meaning that there is no situational cue or trigger. Such an attack is called an **unexpected (uncued) panic attack.** An individual may also experience a panic attack in anticipation of confronting a particular situation or immediately following exposure to a specific stimulus or cue in the environment. For example, every time Jonathan hears an ambulance siren, he begins to experience the symptoms of a panic attack. This is an example of a **situationally bound (or cued) panic attack.** In cases in which the person has a tendency to have a panic attack in the situation but does not have one every time, the episode is referred to as a **situationally predisposed panic attack.** For example, Samantha may occasionally have a panic attack when she is riding in a subway car, but she does not have a panic attack on every occasion that she rides the subway.

When evaluating the situation of a client who experiences panic attacks, the clinician must consider the possibility that the client has a medical condition that causes the symptoms. Physical disorders, such as hypoglycemia, hyperthyroidism, insulin-secreting tumors, and cardiovascular or respiratory diseases, can cause panic-like symptoms. Some drugs can also cause reactions that mimic panic attacks. People who are intoxicated with cocaine, amphetamines, or even caffeine may appear to be experiencing a panic attack, when, in fact, they are having a toxic reaction to the substances in their bodies.

### Characteristics of Panic Disorder

The diagnosis of panic disorder is made when panic attacks occur on a recurrent basis or when a month has elapsed since the first panic attack but the individual has continued to feel apprehensive and worried about the possibility of recurring attacks. A fairly high percentage of Americans, as many as 15 percent, have experienced one or more panic attacks. However, the diagnosis of panic disorder is fairly uncommon, with estimates of lifetime prevalence rates ranging from 1.4 percent to 2.9 percent both in the United States and in other countries around the world (Weissman et al., 1997).

Though panic disorder is relatively uncommon in the general population, it is common in clinical settings. In fact, panic disorder is diagnosed in approximately 10 percent of people who are referred for mental health consultation, and the percentage is even more dramatic in general medical settings. For example, 60 percent of the patients seen in cardiology clinics meet the criteria for panic disorder, primarily because people with

bodily symptoms associated with heart problems experience physical symptoms that can be terrifying due to their fatal potential (American Psychiatric Association, 2000).

Most cases of panic disorder develop in people who are around the age of 20, with a second, smaller group of cases arising among people in their midthirties. Although some children and adolescents experience symptoms of panic attacks, the disorder is relatively rare among this age group. Adolescents who do experience panic attacks are at a much greater risk of developing psychological disorders than individuals without panic attacks. These disorders range from mood disorders, other anxiety disorders, substance use disorders, and, in the most extreme cases, psychotic conditions (Goodwin, Fergusson, & Horwood, 2004). Like other anxiety disorders, panic disorder is less likely to arise in later adulthood (Scogin, Floyd, & Forde, 2000). Women are approximately twice as likely to be diagnosed with this disorder (Eaton, Kessler, Wittchen, & Magee, 1994).

Panic disorder, if left untreated, has a variable course. For some individuals, panic attacks occur only periodically, sometimes with months or years between episodes. Then, suddenly and without warning, an attack strikes. More typically, however, the disorder creates continuous problems for many years. People who suffer from these symptoms are faced with the daily uncertainty that they may experience a panic attack when they are not in a position to find someone who can help them. It is the unpredictability of the symptoms that is particularly distressing to these individuals. Researchers have found that people who are able to predict that a panic attack will occur, based on specific cues in the environment, experience less distress (Craske, Glover, & DeCola, 1995).

A person with agoraphobia becomes overwhelmed and panicky in situations that feel unsafe, such as crowds.

**Diagnostic Features of Agoraphobia**

- People with this condition experience anxiety about being in places or situations from which escape might be difficult or embarrassing, or in which they may not be able to get help should they have panic symptoms or a panic attack. Common agoraphobic fears involve such situations as being outside the home alone, being in a crowd or standing in line, being on a bridge, and traveling in a bus, train, or car.
- People with this condition avoid the feared situations, or they endure them with marked distress or anxiety about having a panic attack or panic symptoms, or they insist that a companion be present in the event that they panic.

Over time, people with panic disorder learn to avoid places where they fear they may be trapped, such as elevators, crowded stores, or movie theaters. However, such avoidance can lead to the development of a related condition, **agoraphobia,** which is intense anxiety about being trapped, stranded, or embarrassed in a situation without help if a panic attack were to occur. Although panic disorder is usually linked with agoraphobia, it is possible for people to experience agoraphobia without panic disorder, or panic disorder without agoraphobia. These conditions vary in their severity and impact. People with agoraphobia commonly find the condition severely disruptive, while many whose diagnosis is panic disorder without agoraphobia are able to function adequately in their daily lives (Goisman et al., 1994). By contrast, the lifetime prevalence of agoraphobia without panic disorder is surprisingly high, with estimates of 5 percent of the adult population and twice as many women as men suffering from the condition at some point in life (Kessler et al., 1994). Women are also more likely to have symptoms of panic disorder with agoraphobia, while men are more likely to have uncomplicated panic disorder. Furthermore, compared with men, women are more likely to suffer recurring symptoms of panic disorder over time (Yonkers et al., 1998).

Common fears of people with agoraphobia involve such situations as being home alone, in a crowd, on a bridge, or in a moving vehicle. Public transportation is the most frequently cited location of a first panic attack (Shulman et al., 1994). Because people with agoraphobia become so fearful of panic attacks, they develop idiosyncratic personal styles and behaviors in order to avoid these situations. If forced to be in the dreaded situation, they experience intense distress about the possibility that they will experience a panic attack or panic-like symptoms. For example, they may refuse to leave the house unless they are accompanied by someone who knows about their disorder and will be ready to help if needed. They go to extremes to avoid being in a crowd or going to an unfamiliar place. Even when they are not experiencing feelings of immediate danger, people with agoraphobia constantly worry about unexpectedly being put into what they perceive as risky situations. It is common for people

Mini Case

### PANIC DISORDER WITH AGORAPHOBIA

Frieda is a 28-year-old former postal worker who sought treatment because of recurrent panic attacks, which have led her to become fearful of driving. She has become so frightened of the prospect of having an attack on the job that she has asked for a medical leave. Although initially she would leave the house when accompanied by her mother, she now is unable to go out under any circumstances, and her family is concerned that she will become a total recluse.

**Diagnostic Features**

This diagnosis is assigned to people who experience panic attacks not due to the physiological effects of substances or to a medical condition, and who do not have the symptoms of agoraphobia. They experience both of the following:

- Recurrent, unexpected panic attacks
- At least one of the attacks has been followed by at least one month during which they experience one of the following: persistent concern about having more attacks, worry about the implications of the attack or its consequences (e.g., fear that they will lose control, have a heart attack, or "go crazy"), significant change in behavior related to the attacks.

with agoraphobia to seek out "safety cues," such as a "safe person," who, the individual believes, can be of help in case of a panic attack. Other safety cues might be medication, a pet, or the home itself (Street & Barlow, 1994).

## Theories and Treatment of Panic Disorder and Agoraphobia

In trying to understand the causes of panic disorder and agoraphobia, researchers have tended to discuss both phenomena together, although some give more emphasis to one than to the other. The available theories suggest that both disorders have psychological and physiological components, but it is unclear whether psychological factors cause physiological changes, or vice versa. In the following paragraphs, we will focus on both biological and psychological perspectives, because these are regarded as most relevant to the understanding and treatment of the conditions of panic disorder and agoraphobia.

In considering biological contributors to the development of panic disorder, researchers have been struck by the fact that biological relatives of individuals with panic disorder are 8 times more likely to develop this condition; furthermore, people who develop panic disorder before the age of 20 are 20 times more likely than others to have first-degree relatives with the condition (American Psychiatric Association, 2000).

One set of biological theories focuses on abnormalities in the levels of particular neurotransmitters. According to one view, people with panic disorder have an excess of norepinephrine in the brain (Hoehn, Braune, Scheibe, & Albus, 1997). Norepinephrine, a neurotransmitter, is activated when the individual is placed under stress or in a dangerous situation. When a drug that increases norepinephrine activity is administered to people with a history of panic disorder, they are more likely than people without the disorder to experience a panic attack. Another theory involving neurotransmitters proposes that people with this disorder suffer from a defect in gamma-aminobutyric acid (GABA), a neurotransmitter with inhibitory effects on neurons. Supporting this theory is evidence of diminished response of GABA receptors in the cortex of individuals with panic disorder (Goddard et al., 2004). According to this theory, the anxiety that people with panic disorder experience is due to underactivity of the GABA neurotransmitter system. Neurons in the subcortical parts of the brain involved in panic attacks become more active with less GABA to inhibit them.

Researchers have also focused on a system in the brain that signals when there is insufficient air available to breathe. According to **anxiety sensitivity theory,** people with panic disorder tend to interpret cognitive and somatic manifestations of stress and anxiety in a catastrophic manner. They are thought to have a hypersensitive "suffocation" mechanism, so that they feel as though they cannot breathe, even though others would feel nothing unusual in that situation. This false alarm mechanism causes the individual to hyperventilate, and the individual is thrown into a panic state. Irregularities in the respiratory system may make these people particularly vulnerable to these sensations of suffocation and choking (Caldirola et al., 2004).

In research testing anxiety sensitivity theory, individuals with panic disorder were subjected to a condition in which they breathed into an instrument that forced them to rebreathe their own air over a 5-minute period. Over the duration of the period, levels of carbon dioxide gradually increased, a condition that could trigger suffocation fear. Both anxiety sensitivity and suffocation fear predicted anxious responding to this condition, but suffocation fear was more strongly related to the feelings of panic that respondents experienced. The findings suggested that both physical and psychological factors are important in understanding the causes of panic disorder (Rassovsky, Kushner, Schwarze, & Wangensteen, 2000). It is possible that there is a genetic component to the phenomenon of anticipatory anxiety; in other words, children may inherit a predisposition in which they overreact to the threat that they may be deprived of oxygen (Pine et al., 2005). The unpredictability of an aversive event may be particularly critical in triggering a panic attack in highly anxious individuals (Lejuez, Eifert, Zvolensky, & Richards, 2000).

As is suggested by the previous discussion of the misinterpretation of bodily cues among people with panic disorder, any physiological disturbances that account for this disorder interact with psychological processes. One approach that focuses on psychological factors regards **conditioned fear reactions** as contributing to the development of panic attacks. This means the individual associates certain bodily sensations with memories of the last panic attack, causing a full-blown panic attack to develop even before measurable biological changes have occurred. Over


The Gamma Knife, which is used in radiosurgery, contains 201 small cobalt sources of gamma rays that aim radiation to a common focal point for the treatment of various neuropsychiatric conditions, including obsessive-compulsive disorder. These procedures stem from the work of Swedish neurosurgeon Lars Leksell, who developed stereotactic devices in the 1950s to guide the gamma rays, and from the work of Swedish physicist Borje Larsson, who built the first Gamma Knife in 1968. Courtesy Kenneth Oh, MD.

time, the individual begins to anticipate the panic attack before it happens, leading to the avoidance behavior seen in agoraphobia.

In a cognitive-behavioral model of anxiety disorders, psychologist David Barlow and his co-workers proposed that anxiety becomes an unmanageable problem for an individual through the development of a vicious cycle. The cycle begins with the individual's experiencing the sensation of highly negative feelings (such as unpleasant bodily sensations in a panic attack), which in turn causes the person to feel that what is happening is unpredictable and uncontrollable. As these feelings increase in intensity, they draw the individual's attention like a magnet. The individual is now left awash in these unpleasant sensations and cannot do anything else except think about them. Faulty cognitions and the misperception of cues, both within the person's body and in the environment, further contribute to the sensation of anxiety, as in the case of phobias. Cognitive factors also play a role, as the individual develops distorted beliefs, which add to the anxious apprehension of a panic attack occurring in an uncontrollable manner in the future (Bouton, Mineka, & Barlow, 2001).

Given that biological factors play at least some role in causing panic disorder, many clinicians recommend treatment with medications. The most effective antianxiety medications are **benzodiazepines.** These medications bind to receptor sites of GABA neurons, which then become activated by this stimulation, leading to the inhibition of the brain sites involved in panic attacks. Some commonly prescribed benzodiazepines are chlordiazepoxide (Librium), diazepam (Valium), chlorazepate (Tranxene), and alprazolam (Xanax). To be effective in treating panic disorders, these medications must be taken for at least 6 months, and possibly as long as a year. Because these medications often lose their therapeutic efficacy and lead to physiological or psychological dependence, clinicians have sought alternatives, including antidepressants and serotonin reuptake inhibitors, such as fluoxetine (Prozac) and fluvoxamine (Luvox). Sertraline (Zoloft) may also be beneficial with individuals who have chronic and recurrent symptoms (Pollack et al., 2000).

As useful as medications are in alleviating the symptoms of panic, they are regarded as insufficient in the treatment of panic disorder. Experts are now most inclined to recommend that, when medication is prescribed, a psychotherapeutic intervention should also be incorporated into the treatment.

**Relaxation training** is one behavioral technique used in the treatment of panic disorder and agoraphobia. In this approach, the client learns to systematically alternate tensing and relaxing muscles all over the body, usually starting at the forehead and working downward to the feet. After training, the client should be able to relax the entire body when confronting a feared situation.

Hyperventilation, a common symptom in panic attacks, is sometimes treated with a form of counterconditioning. In this approach, the client hyperventilates intentionally and then begins slow breathing, a response that is incompatible with hyperventilation. Following this training, the client can begin the slow breathing at the first signs of hyperventilation. Thus,

the client learns that it is possible to exert voluntary control over hyperventilation.

Although relaxation training and counterconditioning have some appeal, experts now recognize that more comprehensive interventions involving cognitive techniques are necessary. The focus in recent years has been on treatments geared to giving the individual a sense of being able to control the attacks. Experts generally recommend *in vivo* exposure when treating individuals with panic disorder, especially for those suffering with agoraphobia. The assumption is that treatment is most effective when clients can confront the dreaded situation. When this intervention was initially developed in the 1970s, intensive exposure was recommended. However, more recently, experts have suggested the use of graduated exposure, a procedure in which clients gradually expose themselves to increasingly greater anxiety-provoking situations. For example, Martha finds visits to large shopping malls to be emotionally overwhelming. Martha's therapist would recommend that her exposure to stressful environments begin with a small shop in which she feels safe and relatively anxiety free. Step by step, Martha would progress to environments that are higher on her list of anxiety-provoking settings.

Barlow and his colleagues developed the most comprehensive model for treating clients with panic disorder with agoraphobia. **Panic control therapy (PCT)** consists of cognitive restructuring, the development of an awareness of bodily cues associated with panic attacks, and breathing retraining (Barlow, Craske, Cerny, & Klosko, 1989). Studies of this model have demonstrated that clients treated with PCT show marked improvement, at levels comparable to the improvement shown by clients treated with antianxiety medication. Interestingly, however, later assessments of these clients showed that a greater percentage of those treated with PCT remained symptom free (Klosko, Barlow, Tassinari, & Cerny, 1990). In another comparison of cognitive therapy with other forms of treatment (relaxation and antidepressant medication) and control conditions, cognitive therapy was reported to be particularly beneficial for clients suffering from panic, anxiety, and associated avoidance, both at the end of the treatment and at follow-up (Street & Barlow, 1994). The model proposed by Barlow has stimulated a growing body of research, both in his clinic and elsewhere throughout the world, with dramatic data supporting the efficacy of cognitive-behavioral treatments for panic disorder (Barlow, Esler, & Vitali, 1998).

Although panic disorder and agoraphobia are not viewed as socioculturally caused, clinicians treating clients with these conditions recognize the importance of including in the treatment partners and others intimately involved in the person's life. For example, a professional might recommend the addition of marital communications and problem-solving training to standard exposure-based couples treatment (Street & Barlow, 1994).

In MindMAP Segment 5.1, Annie talks about her fear of having a panic attack in a public setting and being totally out of control.

Agoraphobia arises when people fear that they will have a panic attack, and hence they avoid public places where they will be unable to escape or receive assistance.

## Specific Phobias

Everyone has fears about or unpleasant responses to certain objects, situations, or creatures. Perhaps you shrink away from the sight of a spider, rodent, or snake. Or maybe looking down from a high place causes you to tremble and feel nauseated. Standing in a crowded hallway may lead you to feel uncomfortable, even a bit edgy, and you seek an open space. Such responses of discomfort or dislike, called **aversions,** are common and are not much cause for concern. However, if a person's response to one of these experiences is far out of proportion to the danger or threat posed by the stimulus, the person is considered to have a phobia. A **specific phobia** is an irrational and unabating fear of a particular object, activity, or situation that provokes an immediate anxiety response, causes significant disruption in functioning, and results in avoidance behavior. Specific phobias are relatively common, with prevalence rates in community samples ranging from 4 to 8.8 percent (American Psychiatric Association, 2000).

### Characteristics of Specific Phobias

You have probably heard the word *phobia* many times, perhaps in a humorous context, such as when someone jokes about having a phobic reaction to computers. For people with genuine phobias, however, their condition is not a humorous matter. Rather, they live with an intense level of anxiety about the prospect of encountering the object of their dread, and they often go to great lengths to avoid contact with it. In circumstances in which they must come face-to-face with the phobic stimulus, their anxiety level intensifies as they come closer to the stimulus,

Crossing this suspension bridge with acrophobia (fear of heights) makes this person feel panicky.

or as the possibility of escaping the feared situation decreases. For example, in the case of a man with a fear of airplanes, his anxiety increases as he drives to the airport and boards the plane, and it peaks after takeoff, when he realizes that he cannot exit the plane. When phobic individuals confront the object of their fear, or anticipate that they will, they become intensely anxious, occasionally to such an extent that they experience a full-blown panic attack. They are overwhelmed by the prospect of such encounters and often imagine the dire consequences that would result. For example, the prospect of seeing someone else bleeding terrifies Maria. There is no real danger that anything would happen to her if she saw someone else's blood, but her fear of this situation (hematophobia) causes her to avoid any circumstance in which she fears she might see blood, such as watching certain movies. Her anxiety is so intense that, if she inadvertently faces this situation, as when her child cuts his hand, she feels faint, panicky, and breathless. Phobias fall into several categories, with the most commonly reported phobias being those pertaining to animals, the natural environment, and blood or injury.

You may be wondering whether it is appropriate to refer to a feared situation as a phobia if it is avoidable and causes no significant anxiety for an individual. In fact, such a circumstance would not meet the criteria for this condition. For example, an urban woman who is terrified by the prospect of encountering a snake (ephidiophobia) can be fairly confident that she will be able to avoid such encounters if she stays away from the countryside. Therefore, she would rarely have cause for concern about this matter, and her condition would not be clinically significant.

**Mini Case**

## SPECIFIC PHOBIA

Herbert is a 32-year-old lawyer seeking treatment for his irrational fear of thunderstorms. He has had this phobia since the age of 4, and throughout life he has developed various strategies for coping with his fear. Whenever possible, he avoids going outside when a storm is forecast. Not only will he stay within a building, but he will ensure that he is in a room with no windows and no electrical appliances. As his job has grown in responsibility, Herbert has found that he can no longer afford to take time off because of his fear, which he knows is irrational.

### Diagnostic Features

- This diagnosis is assigned to people who experience marked and persistent fear that is excessive or unreasonable, and that is brought on by the presence or anticipation of a specific object or situation (e.g., flying, heights, animals, injections, the sight of blood).
- When they encounter the phobic stimulus, they experience immediate anxiety, possibly in the form of a panic attack.
- They recognize that the fear is excessive or unreasonable.
- They avoid the situation or endure it with intense anxiety or distress.
- The condition causes distress or disruption in normal routines and functioning, activities, or relationships.

Intense irrational fears are quite common in the general population, yet only those conditions that cause considerable distress or impairment would meet the diagnostic criteria for specific phobia. Lifetime prevalence rates are estimated between 7.2 and 11.3 percent (American Psychiatric Association, 2000).

Some phobias—such as animal phobias, blood-injury phobias, claustrophobia, and dental phobias—can be traced back to childhood. In fact, in one study of children between the ages of 4 and 12, a sizable proportion (17.6 percent) met the full diagnostic criteria for specific phobia (Muris & Merckelbach, 2000). Children do experience certain fears, such as fear of the dark, of strangers, of death, and of imaginary creatures; however, most of these dissipate on their own (Emmelkamp, 1982). Other phobias, such as choking phobia, may arise in response to a traumatic episode of choking on food (McNally, 1994). Females are more likely than males to have specific phobias and to develop phobic symptoms earlier (age 10 for females and age 14 for males) (Dick et al., 1994).

Specific phobias sometimes arise in conjunction with another psychological disorder. For example, almost two thirds of people who have panic disorder with agoraphobia also suffer from a specific phobia, such as situational phobia, dental phobia, blood injection-injury phobia, natural environment phobia, and death-related phobia (fear of funerals, dead bodies, and cemetaries). Many of these phobias preceded the development of panic disorder with agoraphobia by many years, except for

death-related phobias, which appear closer in time to the onset of panic disorder.

## Theories and Treatment of Specific Phobias

As you have just seen, there are many types of specific phobias, ranging from the common to the relatively obscure. However, the fact that they are grouped together suggests that there is a common theme or element that underlies their cause and potentially their treatment. As is true for panic disorder, the primary explanations of specific phobias rely on biological and psychological perspectives. Nevertheless, as is also true for panic disorder, the existence of a specific phobia in an individual can have a significant impact on those who are close to that person. Consequently, treatment sometimes involves partners and family members.

The primary biological perspective on specific phobias involves the notion that humans are essentially preprogrammed to fear certain situations or stimuli that could threaten our survival (Lang, Davis, & Ohman, 2000). According to this view, there is an evolutionary advantage to the fear of death, disaster, or injury. This "biological preparedness" theory is based on the assumption that there might be a biological "wiring" that causes people to react with fear to threatening situations (Seligman, 1971). Such a biological propensity might explain how people can so rapidly acquire irrational fears that are so resistant to extinction. Adding support to the hypothesis that biology plays a determining role in the development of specific phobias is research that has been conducted with male twins. Using personal interviews, Kendler and his colleagues (2001) assessed 1,198 male-male twin pairs and reported genetic contributions ranging from 25 to 37 percent in the etiology of phobias and the irrational fears associated with phobias. Furthermore, it has been found that family members seem to share similar phobias; for example, first-degree biological relatives of people with animal phobias share this kind of phobia, although not necessarily to the same kind of animal. Similarly, individuals with blood-injury phobias or those with situational phobias are likely to have biological relatives who share similar specific phobias (American Psychiatric Association, 2000).

Speculation about the psychological causes of phobias goes back at least as far as the time of Freud. Although Freud did not initially consider phobias to be psychologically based, his later writings reflect his notion of phobias as psychological symptoms that defend the ego against anxiety. Around the time that Freud was writing on the topic, behavioral psychologists, such as Watson, were demonstrating in the laboratory that animals and humans alike could acquire phobic behavior through conditioning, which led to the conclusion that phobias resulted from maladaptive learning. Current conceptualizations add to this behavioral model the notion that the individual's thoughts also play a role in acquiring and maintaining specific phobias. Many people with phobias report that they had an aversive experience during childhood that has remained with them, or whose parents, and even grandparents, displayed phobic behavior when confronted with the feared object (Fredrikson, Annas, & Wik, 1997; Merkelbach & Muris, 1997).

Cognitive-behavioral theorists (Beck, Emery, & Greenberg, 1985) view anxiety disorders, such as specific phobias, as rooted in and maintained by the client's cognitive styles. According to this view, phobic individuals have overactive "alarm systems" to danger, and they perceive things as dangerous because they misinterpret stimuli. Their perceptions are based on faulty inferences and overgeneralizations. Consider the case of Roberto, a 30-year-old man who experiences a fear of dying that is triggered by unexpected physical sensations. He interprets the physical sensations as a sign of a physical disease and becomes anxious; in this way, a chain reaction is set up. Roberto then generalizes in such a way that everything looks dangerous. His attention becomes "stuck" on potentially dangerous stimuli, leaving him with less ability to think rationally. Roberto begins to think that he is losing his mind, and this makes matters worse.

Some people have feelings or beliefs about a stimulus that set the stage for developing a phobia. For example, the perception of an object or a situation as uncontrollable, unpredictable, dangerous, or disgusting is correlated with feelings of vulnerability. These attributions might explain the common phobia of spiders, an insect about which people have many misconceptions and apprehensions (Armfield & Mattiske, 1996). In another common phobia, that of blood-injury-injection, disgust and fear of contamination play a prominent role (Sawchuk et al., 2000). People with phobias also tend to overestimate the likelihood of a dangerous outcome after exposure to the feared stimulus (de Jong & Merckelbach, 2000). As you can see, in addition to being associated with prior aversive experiences, specific phobias can also arise from a person's thoughts and perceptions, which heighten the individual's feelings of vulnerability.

Behavioral therapy is highly effective because symptoms are relatively easy to identify and the stimuli are limited to specific situations or objects. Systematic desensitization, described in Chapter 4, rests on the premise that an individual can best overcome maladaptive anxiety by approaching feared stimuli gradually, while in a relaxed state. A therapist might decide, though, that systematic desensitization is either too time consuming, impractical, or unnecessary. Consider the case of Florence, a medical student who sees a therapist in desperation one week before she starts an anatomy course. She has fainted on past occasions when watching videotapes of surgical procedures and is sure that she will make a fool of herself in anatomy class. One week is not enough time to go through the systematic desensitization procedure. Furthermore, Florence's anxiety is not so severe as to be terrifying. Her therapist, therefore, decides to use a behavioral technique called **flooding,** in which the client is

MindMAP Segment 5.2: Systematic Desensitization

Behavioral treatment of a person with claustrophobia sometimes involves live exposure to the feared situation.

totally immersed in the sensation of anxiety, rather than being more gradually acclimated to the feared situation. Florence's therapist chooses a variant of flooding called **imaginal flooding,** in which Florence listens to someone read several vivid descriptions of the dissection of human cadavers. Florence is told to imagine exactly what these scenes look like. Exposure to the threatening stimulus while in a safe context will condition her to confront the target of her phobia without feeling unduly anxious.

Both of the behavioral techniques described so far use imagery in conditioning the client to feel less anxious toward the phobic stimulus. An alternative to imagery, and one that is generally more effective (Craske & Rowe, 1997), is actually exposing the client to the feared object or situation until the client no longer feels anxious. Obviously, this *in vivo* method requires that the therapist have ready access to the phobic stimulus. Florence's therapist could just as easily show her a surgical videotape as encourage her to imagine the sight of blood. However, if the client fears flying in an airplane, it would be impractical for the therapist to embark on *in vivo* treatment by accompanying the client on an airplane ride (although cases of such treatment are occasionally reported). Increasingly, clinicians are taking advantage of new technologies, such as computer simulation (Gilroy et al., 2000) and virtual reality (Anderson, Rothbaum, & Hodges, 2001) to provide the experience of immersion.

*In vivo* flooding is probably the most stressful of any of the treatments described. An alternative is a graded *in vivo* method, involving a graduated exposure to increasingly anxiety-provoking stimuli. In the **graduated exposure** method, clients initially confront situations that cause only minor anxiety and then gradually progress toward those that cause greater anxiety (Street & Barlow, 1994). Often the therapist tries to be encouraging and to model the desired nonanxious response. In treating a client named Tan, who has a fear of enclosed spaces, the therapist could go with him into smaller and smaller rooms. Seeing his therapist showing no signs of fear could lead Tan to model the therapist's response. The therapist could also offer praise, to further reinforce the new response that Tan is learning. As illustrated in Table 5.1, behavioral treatments vary according to the nature of the client's exposure to the phobic stimulus (live or imagined) and the degree of intensity with which the stimulus is confronted (immediate full exposure or exposure in graduated steps).

Positive reinforcement is implicit in all behavioral techniques. The therapist becomes both a guide and a source of support and praise for the client's successes. The therapist may also find it useful to incorporate some techniques from the cognitive perspective into the behavioral treatment, because maladaptive thoughts are often part of the client's difficulties. Cognitive-behavioral treatment focuses on helping the client learn more adaptive ways of thinking about previously threatening situations and objects.

Cognitive restructuring, described in Chapter 4, can help the client view the feared situation more rationally by challenging his or her irrational beliefs about the feared stimulus. For example, a therapist may show Victor, who has an elevator phobia, that the "disastrous" consequences he believes will result from riding in an elevator are unrealistic and exaggerated. Victor can also learn the technique of "talking to himself" while in this situation, telling himself that his fears are ridiculous, that nothing bad will really happen, and that he will soon reach his destination.

In **thought stopping,** the individual learns to stop anxiety-provoking thoughts. In therapy, the client is supposed to alert the therapist when the anxiety-provoking thought is present; at that point, the therapist yells, "Stop!" Outside therapy, the client mentally verbalizes a similar shout each time the anxiety-provoking thought comes to mind.

Through stress inoculation, the client can learn coping self-statements (Meichenbaum, 1985), another cognitive-behavioral method. The client prepares a list of statements to use when confronting the feared situation, which provides reassurance that he or she can adequately manage the situation. Examples of such statements are "I can cope with this," "It is irrational for me to feel so scared," "I've gotten through difficult situations before, so I can get through this one," and "Don't think about my fear."

**TABLE 5.1 Methods of Exposure Used in Behavioral Therapy of Phobias**

| | *Graduated Exposure* | *Immediate Full Exposure* |
|---|---|---|
| Imagery | Systematic | Imaginal flooding, desensitization |
| Live | Graded *in vivo* | *In vivo* flooding |

These statements increase the individual's sense that he or she can conquer the situation.

Bolstering the client's sense of self-efficacy is a related therapy component (Bandura, 1986) that helps the client feel more confident about being able to manage the phobic stimulus. For example, Florence, whose blood-injury phobia was described earlier, could learn through self-efficacy training to see herself as successfully handling her fears. She may observe or imagine observing someone else treating patients who are bleeding, using vicarious reinforcement to change her beliefs about her own ability to come close to a bleeding person. As Florence herself is put into actual situations with increased exposure to blood or injury, she can practice telling herself that she has the capability to cope with the situation, until she no longer experiences anxiety.

## Social Phobia

Many people become nervous or jittery before speaking in front of a group, appearing in a musical performance, or participating in an athletic contest or a game. People with **social phobia,** however, feel tremendous anxiety not only in these situations but also in virtually all situations in which others might be observing them.

**Mini Case**

**SOCIAL PHOBIA**

Ted is a 19-year-old college student who reports that he is terrified at the prospect of speaking in class. His anxiety about this matter is so intense that he has enrolled in very large lecture classes, where he sits in the back of the room, slouching in his chair to make himself as invisible as possible. On occasion, one of his professors randomly calls on students to answer certain questions. When this occurs, Ted begins to sweat and tremble. Sometimes he rushes from the classroom and frantically runs back to the dormitory for a few hours and tries to calm himself down.

**Diagnostic Features**

- People with this diagnosis experience marked or persistent fear of social or performance situations in which they will encounter unfamiliar people or the scrutiny of others. They fear that they will appear anxious or act in embarrassing or humiliating ways.
- When they encounter the feared situation, they experience anxiety, possibly in the form of a panic attack.
- They recognize that the fear is excessive or unreasonable.
- The condition causes distress or disruption in normal routines and functioning, activities, or relationships.

### Characteristics of Social Phobia

The primary characteristic of social phobia is an irrational and intense fear that one's behavior in a public situation will be mocked or criticized by others. People with this disorder recognize that their fears are unreasonable, yet they cannot stop themselves from worrying that others are scrutinizing them. Although people with social phobia go to extremes to avoid such public situations, there are situations in which they have no choice; when this happens, they become crippled with anxiety.

People who have social phobia have many fears about such situations as speaking in public. They are afraid they will do or say something embarrassing, that their minds will go "blank," that they will be unable to continue speaking, will say foolish things or not make any sense, or will show signs of anxiety, such as trembling or shaking (Stein, Walker, & Forde, 1996). Even if their fears are not confirmed and their performance goes smoothly, people with social phobia doubt their ability to do well in these situations and fear that others will expect more of them in the future as a result (Wallace & Alden, 1997).

It may be understandable to think of becoming overwhelmed with fear regarding a public performance, but people with social phobia can have these experiences in seemingly innocuous situations, such as while eating in a restaurant. The simple act of picking up a fork or swallowing food can be seen as an insurmountable task for people with this disorder, who fear that others will laugh at how they hold their fork or swallow their food. They dread the possibility that they will blush, sweat, drop something, choke on their food, or vomit. These fears evaporate when the individual is alone or unobserved, because it is the public aspect of the situation that causes the individual to experience anxiety. In addition to their fears about appearing foolish or clumsy, people with social phobia have low self-esteem and underestimate their actual talents and areas of competence (Uhde, Tancer, Black, & Brown, 1991). They also tend to be perfectionistic and believe that others expect perfect performance of them (Bieling & Alden, 1997). They may ruminate for as long as a week, thinking repeatedly about how they could have acted differently in what they felt was an embarrassing social event (Abbott & Rapee, 2004).

Social phobia can have effects similar to agoraphobia in that fears about public embarrassment may prevent the individual from leaving the house. However, the two disorders differ in that the anxiety that people with social phobia experience is specific to certain situations, whereas agoraphobia tends to be more generalized.

Although social phobia occurs in both children and adults, there are differences in the experience of the disorder. First, children are not necessarily aware that their fear is unreasonable. Secondly, children do not have the freedom that adults do to avoid anxiety-provoking situations, such as having to speak publicly in school. Because they have no escape, they may express their anxiety in indirect ways, such as poor school performance or refusal to interact with other children. Unfortunately, many who suffer with social phobia during childhood and adolescence will experience the symptoms of this disorder in adulthood (Pine et al., 1998). In one 29-year follow-up study, children who showed symptoms similar to social phobia (school phobia,

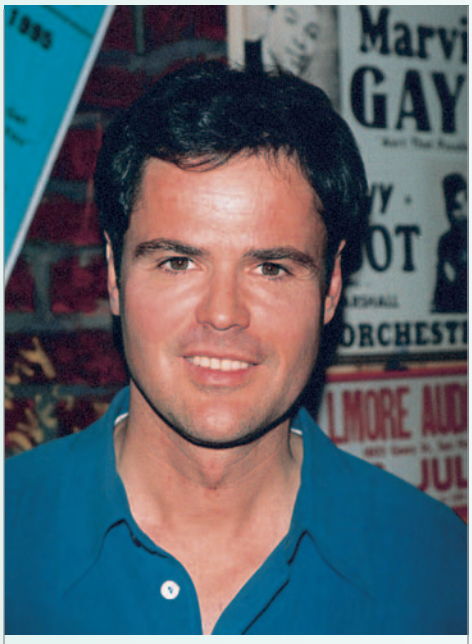
## REAL STORIES

### DONNY OSMOND: SOCIAL PHOBIA

At the beginning of this chapter you read about Barbara Wilder, a woman suffering with intense symptoms of anxiety. Barbara Wilder is like so many people who find themselves incapacitated by terrifying emotional and physical symptoms. Some of these individuals are remarkably successful people whose careers revolve around public appearances but who are tormented by anxiety symptoms so intense that they meet the diagnostic criteria of an anxiety disorder. The popular singer-actor Donny Osmond is one such celebrity who has spoken openly about his difficulties with social phobia.

Osmond's success in the entertainment industry began at a very early age. With Donny as a child singing sensation during the 1960s and 1970s, his family singing group sold millions of albums. Donny grew wildly popular, received huge amounts of fan mail, and had to be protected by bodyguards whose job it was to fend off shrieking fans.

Donny has been active in the entertainment business for more than three decades, although he has had his share of ups and downs. His greatest claim to fame was the successful television variety show that he and his sister Marie hosted during the 1970s. On *The Donny and Marie Show,* these two attractive and appealing stars sang, danced, acted, and interviewed other celebrities. More recently, Donny landed the lead role in Andrew Lloyd Webber's Broadway musical *Joseph and the Amazing Technicolor Dreamcoat.*



Donny Osmond

During the mid-1990s, Donny began feeling an anxiety that was unlike anything he had ever experienced before. At first, the disturbing feelings of tension and apprehension affected him only prior to going on stage for a performance. In time, however, he began feeling overwhelmed by the disruptive anxiety while at home. The symptoms of social phobia that had overtaken Osmond's life are described in his autobiography, *Life Is Just What You Make It:*

> Unless you've experienced a panic attack yourself, you might find it hard to understand what it feels like, but bear with me as I try to explain. Once the fear of embarrassing myself grabbed me, I couldn't get loose. It was as if a bizarre and terrifying unreality had replaced everything that was familiar and safe. I felt powerless to think or reason my way out of the panic. It had a whole, strange, hallucinatory quality to it; for example, I could see myself up as if I were flying above it all, but I couldn't get back "inside" myself and take control. In the grip of my wildest fears, I was paralyzed, certain that if I made one wrong move, I would literally die. Even more terrifying, I'd have felt relieved to die. . . .
>
> Something was definitely wrong, and at first I clung to a "reasonable explanation": the schedule, the commuting back and forth, the fact that I was living so much of my life away from Debbie and the boys, my responsibility to a successful show. But deep inside, I knew that none of it made sense. I'd performed under every adverse condition imaginable. I'd carried a good deal of responsibility since I was a child. Why couldn't I do it now? I wasn't on tour. I knew the show backwards and forwards. The audience was back; they accepted me just fine. So why was everything suddenly so terribly wrong? . . .
>
> The anxiety waxed and waned. Some nights I went on and everything was fine. I confided in Debbie, of course, over the phone, and in Jill Willis, who was there in Minneapolis. They could see that I needed help, but what? I was nervous, but after thirty years of going on stage, how could that be possible?

Osmond's recognition of his problem led him finally to seek help. For other people with his condition, his sharing of his story also provided insight into the nature of this potentially disabling disorder.

Source: From Donny Osmond in *Life Is Just What You Make It* (1999). Reprinted by permission of Hyperion Books.

separation anxiety, and school refusal) were more likely as adults to live with their parents, less likely to have children of their own, and more likely to have psychiatric symptoms (Flakierska-Praquin, Lindstrom, & Gillberg, 1997). For some people, the disorder arises gradually during childhood and adolescence within personalities that are shy and inhibited. For other people, social phobia arises suddenly, perhaps as the result of a humiliating public experience, such as a disastrous piano recital or embarrassing incident of public speaking. The stage is then set for the person to experience subsequent feelings of vulnerability in similar situations. For many people with this disorder, the anxiety creates significant impairment in everyday life (Lang & Stein, 2001; Yonkers, Dyck, & Keller, 2001) for many years. Social phobia has a lifetime prevalence estimated at 3 percent of the general population for severe symptoms and a range of 8.5 to 13.3 percent for nonsevere symptoms. The lifetime prevalence of the disorder is somewhat higher in females than in males (Kessler et al., 1994; Robins & Regier, 1991; Weissman et al., 1996).

Social phobia may appear in a generalized or a specific form, depending on whether the phobia occurs in *any* public situation or whether it is associated with one specific type of situation. Individuals with generalized social phobia dread all interactions with others, not just situations in which they must perform or be observed. Individuals with the more specific type of social phobia have fears only in certain situations, such as public speaking (Kessler, Stein, & Berglund, 1998). In both forms of social phobia, the individual's occupational and social functioning are impaired by the disorder. For example, people with musical talent might steer away from careers as musicians because of the anxiety their social phobia engenders. However, the more generalized form of social phobia imposes many limitations, as individuals with this condition avoid careers with the potential for public exposure. They also are limited in their ability to enjoy many kinds of social relationships and social roles. Individuals with this severe form of social phobia are also more likely to have coexisting conditions—notably, depression, agoraphobia, alcohol abuse, and suicidal thinking and attempts (Lecrubier & Weiller, 1997).

## Theories and Treatment of Social Phobia

Although social fears and anxieties have always existed, social phobia was not understood as a separate category of the anxiety disorders until relatively recently. More and more attention is being paid to this disorder, as increasing numbers of clients seek professional help for the symptoms of this condition that interferes with the quality of life (Weissman et al., 1996).

Risk factors in childhood are suggested by investigations of childhood adversities and their relationship to the subsequent development of social phobia. Family difficulties, such as lack of close relationships with parents, conflict between parents, and frequent family moves were identified in one large Canadian study. Also identified as risk factors are involvement with the juvenile and child welfare systems, physical and sexual abuse in childhood, violent behavior, school difficulties, and running away from home (Chartier, Walker, & Stein, 2001; Mason et al., 2004). Genetic contributions to social phobia are suggested by findings that the parents of children with this disorder are more likely to be diagnosed with major depression (Biederman et al., 2001).

Recent interest in the topic of social phobia is leading to a greater understanding of the disorder as a biopsychosocial phenomenon. Biological theories focus on abnormalities in neurotransmitters such as serotonin (Furmark et al., 2004) and norepinephrine. In the case of norepinephrine, researchers are beginning to identify genetic markers linking social phobia with this neurotransmitter (Gelernter, Page, Stein, & Woods, 2004). Some researchers have found evidence of left-hemisphere dysfunction in people with social phobia. This finding is important in light of the role of verbal processes in social interactions. Perhaps this dysfunction contributes to the stress that people with social phobia feel in interpersonal situations (Bruder et al., 2004).

Psychological perspectives on social phobia revolve around understanding the thought processes of people with the disorder. As already noted, individuals with this disorder have a variety of maladaptive thoughts about their abilities to perform, and these thoughts can cause them to become distracted from the task at hand. Think about a time when you were called on to perform in public, such as hitting a baseball, delivering a speech, or giving a solo musical performance. Perhaps your hands shook and your heart pounded as you prepared to go into the spotlight. You may have imagined hearing the laughter or criticism of others if you made a mistake. Once you started performing the action, though, chances are that you forgot about these distractions and concentrated on doing the best job you possibly could. According to cognitively oriented explanations of social phobia, people with this disorder are unable to take the step of shifting their attention away from anticipated criticism and onto their performance. They fear making a mistake while performing or speaking, and, because their concentration is impaired, they are likely to make that dreaded mistake. Their fears acquire a solid basis in experience each time this happens, and these people soon avoid similar situations. Even if the individual manages to keep from making a mistake, the unpleasantness of the situation is so intense that it creates a desire to avoid repetition.

Information on sociocultural variations in social phobia is slowly beginning to emerge as this phenomenon gains more attention. For example, Taijin Kyofusho (TKS) is a form of social anxiety found in Japan, in which individuals are concerned about offending others through their appearance or behavior. In a study comparing Japanese and American college students on scores on scales derived from both the *DSM-IV* definition of social phobia and the definition of TKS, there was a high degree of overlap, with half the people in the sample receiving high scores on one scale also receiving high scores on the other (Kleinknecht et al., 1997). Such findings suggest that there are similarities in the expression of this disorder across cultures. Epidemiological studies also suggest that the disorder has similar patterns of prevalence and comorbidity in other countries (Lecrubier & Weiller, 1997; Weissman et al., 1996).

People with generalized anxiety disorder have many worries and physical symptoms that prevent them from enjoying life.

Treating people with social phobia involves helping them learn more appropriate responses to the situations they fear. Behavioral and cognitive-behavioral techniques, such as those used to treat people with specific phobias, are particularly helpful in reaching this goal (Heimberg, 2001). Social phobics need to develop new ways of thinking about their interactions with others. Combining such techniques as cognitive restructuring and *in vivo* exposure can have impressive results (Clark & Agras, 1991; Heimberg & Barlow, 1988). Another treatment approach involves social skills training to help social phobics learn methods for coping with interpersonal stress, so that they can feel more confident and comfortable in their interactions (Ost, Jerremalm, & Johansson, 1984).

A more traditional biological approach examines alterations in neurotransmitter levels, including pathways in the brain involving GABA, serotonin, dopamine, and norepinephrine (Li, Chokka, & Tibbo, 2001). Medications including SSRIs, such as sertraline (Zoloft) (Van Ameringen et al., 2001) and paroxetine (Paxil), are regarded as effective psychopharmocological treatment (Schneier, 2001), as are benzodiazepines, particularly when combined with cognitive-behavioral therapy (Fedoroff & Taylor, 2001).

## Generalized Anxiety Disorder

Sometimes anxiety is not associated with a particular object, situation, or event but seems to be a constant feature of a person's day-to-day existence. The diagnosis of **generalized anxiety disorder** applies to this category of anxiety-related experiences.

### Characteristics of Generalized Anxiety Disorder

People with generalized anxiety disorder struggle with uncontrollable anxiety much of the time. Efforts to control their worry are usually unsuccessful, and they are afflicted with a number of symptoms, both physical and psychological, which interfere with social, occupational, and general life functioning. They are prone to feeling restless and keyed up much of the time and find it difficult to concentrate, sometimes feeling so tense that their mind goes blank. At night, they find it difficult to fall or stay asleep; during the day, they are likely to feel fatigued, irritable, and tense. As you will learn later in this text, many of the symptoms of this disorder are also associated with other Axis I disorders. For example, the physiological effects of some substances and the psychological components of mood disorder or a psychotic disorder may cause symptoms similar to those of generalized anxiety disorder.

The bodily reactions, feelings, and thoughts associated with generalized anxiety disorder often have no direct connection with a discernible issue in the person's life. If the individual does verbalize specific fears or concerns, these are usually unrealistic and extend to several domains. For example, Ben may worry that his college-age son, who is in good health, will develop a life-threatening disease, and he may worry about going bankrupt, even though his business is thriving. Both sets of worries are without grounds, yet Ben finds himself consumed with anxiety and distracted from his daily responsibilities.

The worries that people with generalized anxiety disorder experience can linger for years. In fact, these individuals often state that at no time in their lives have they *not* felt tense and anxious. Other people tend to see them as "worrywarts."

Generalized anxiety disorder is more common in women. In the general population, the sex ratio is approximately two-thirds female; in clinical settings, 55 to 60 percent of clients diagnosed with this condition are women (American Psychiatric Association, 2000). There are other interesting factors that are associated with higher rates of this disorder, such as having a history of previous marriage, being a homemaker without outside employment, and living in the Northeast section of the United States. As with all studies of the relationship between variables, it is important to keep in mind that these are correlations but do not explain the causes of the disorder. Most people with generalized anxiety disorder also have at least one other disorder, particularly a depressive disorder (Pini et al., 1997).

Generalized anxiety disorder is the most prevalent anxiety disorder in older adults, with a lifetime prevalence of 6 percent (Snyder et al., 2000). Often, this disorder co-occurs with depression, making it more difficult to diagnose in this population

(Hopko et al., 2000). Most cases begin in early life, but stressful events in later adulthood can lead to the appearance of symptoms. For effective diagnosis and treatment, clinicians must take symptoms seriously and not dismiss older adults' reports of worry as natural phemomena associated with the aging process (Scogin et al., 2000).

When the disorder appears in children, the anxieties and fears they express often relate to their performance in school or athletic activities. They worry incessantly that they will not do well in schoolwork or sports, even in situations in which their performance is not evaluated. Some children may worry more about potentially tragic matters, such as the possibility that there will be a nuclear war or an unlikely natural disaster that will affect them or their parents.

### Theories and Treatment of Generalized Anxiety Disorder

Despite the fact that so many people suffer from this disorder, generalized anxiety disorder has not been extensively researched, and there are relatively few explanations for how it develops. From a biological perspective, it is suggested that people with this disorder have a biological abnormality similar to that proposed to account for other anxiety disorders involving abnormalities of GABA, serotonergic, and noradrenergic systems (Nutt, 2001). Support for the notion that there is a biological component to generalized anxiety disorder is the finding of an overlap in genetic vulnerability with the personality trait of neuroticism. In other words, people who are prone to developing this disorder have inherited an underlying neurotic personality style (Hettema, Prescott, & Kendler, 2004).

From a cognitive-behavioral perspective, generalized anxiety is seen as resulting from cognitive distortions that arise in the process of worrying (Aikins & Craske, 2001). People with generalized anxiety disorder also appear to become easily distressed and worried by the minor nuisances and small disruptions of life. If something goes wrong in their day-to-day existence, such as car trouble, an argument with a co-worker, or a home repair problem, they magnify the extent of the problem and become unduly apprehensive about the outcome. Their attention shifts from the problem itself to their own worries; as a result, their concern becomes magnified. As a result of their constant worrying, they are less efficient in their daily tasks and, consequently, develop more to worry about as more goes wrong for them. For whatever reason, once the anxiety is initiated, it begins to spiral out of control. Particularly damaging is the individual's lack of confidence in his or her ability to control or manage anxious feelings and reactions, as well as a lack of confidence in the ability to manage daily tasks effectively.

Finally, it is important to recognize the role of sociocultural factors in generalized anxiety disorder. Life stresses can significantly increase the basis for a person's tendency to experience chronic anxiety.

When people with generalized anxiety disorder turn for professional help, many are likely to seek out medical care. Astute physicians recognize the importance of differentiating this condition from a medical problem and usually suggest psychotropic medications or refer the patient to a mental health professional. Although benzodiazepines and newer antianxiety drugs such as buspirone (Buspar) have been used to treat the symptoms of anxiety associated with this disorder, they are being replaced by SSRIs, including paroxetine (Paxil) (Pollack et al., 2001), sertraline (Zoloft) (Allgulander et al., 2004), and the mixed reuptake inhibitor venlafaxine (Effexor) (Fricchione, 2004). Antidepressants may be used to help individuals taper off from antianxiety drugs after long-term use (Rickels et al., 2000) or to treat the symptoms of depression often associated with the disorder (Davidson, 2001).

An alternative to medication is cognitive-behavioral therapy (Borkovec & Ruscio, 2001), in which clients learn how to recognize anxious thoughts, to seek more rational alternatives to worrying, and to take action to test out these alternatives. The emphasis is on breaking the cycle of negative thoughts and worries. Once this cycle is broken, the individual can develop a sense of control over the worrying behavior and become more proficient at managing and reducing anxious thoughts. Over the long run, the benefits of therapy may outweigh those of psychopharmacological interventions (Falsetti & Davis, 2001). It is a well-established principle that active treatments are better than nondirective approaches. In particular, cognitive-behavioral therapy that combines relaxation exercises and cognitive therapy seems to help clients bring their worry under control.

## Obsessive-Compulsive Disorder

If you have ever had a thought that you could not seem to force out of your consciousness, you have some insight into the experience of an **obsession**—a persistent and intrusive idea, thought, impulse, or image. People with obsessions recognize the fact that these cognitions arise within their own disturbed thought processes. They desperately try to ignore or suppress these intrusive thoughts, and in some cases they try to neutralize them by taking an action or thinking about something else. To get a sense of obsessive thought, think of a time when you had an argument with someone important in your life, which you relived in your thoughts for hours, even days, afterward. Even as you tried to attend to other matters, you found your mind returning time and again to the argument. Perhaps you tried desperately to erase these thoughts by engaging in an activity that might distract you. Multiply this experience dozens of times in intensity, such that most of every day is filled with similar experiences, and you will have a sense of the experience of clinical obsession.

Many people with obsessions also struggle with compulsions. A **compulsion** is a repetitive and seemingly purposeful behavior performed in response to uncontrollable urges or according to a ritualistic or stereotyped set of rules. Unlike obsessions, which cause anxiety, compulsions are carried out in an effort to reduce anxiety or distress. The disorder known as **obsessive-compulsive disorder (OCD)** involves both components of recurrent obsessions and compulsions that interfere significantly with an individual's daily life.

Mini Case

### GENERALIZED ANXIETY DISORDER

Gina is a 32-year-old single mother of two children seeking professional help for her long-standing feelings of anxiety. Despite the fact that her life is relatively stable in terms of financial and interpersonal matters, she worries most of the time that she will develop financial problems, that her children will become ill, and that the political situation in the country will make life for her and her children more difficult. Although she tries to dismiss these concerns as excessive, she finds it virtually impossible to control her worrying. Most of the time, she feels uncomfortable and tense, and sometimes her tension becomes so extreme that she begins to tremble and sweat. She finds it difficult to sleep at night. During the day she is restless, keyed up, and tense. She has consulted a variety of medical specialists, each of whom has been unable to diagnose a physical problem.

**Diagnostic Features**

- This diagnosis is assigned to people who experience excessive anxiety and worry occurring more days than not for at least 6 months, pertaining to a number of events or activities, such as work or school.
- Their anxiety, worry, or related physical symptoms cause significant distress or impairment.
- They find it difficult to control their worry.
- Their anxiety and worry are associated with at least three of the following:
  - Restlessness
  - Being easily fatigued
  - Concentration difficulty
  - Irritability
  - Muscle tension
  - Sleep disturbance

## Characteristics of Obsessive-Compulsive Disorder

The obsessions and compulsions that characterize OCD greatly interfere with life and trap the individual in a cycle of distressing, anxiety-provoking thought and behavior. The symptoms of OCD are time-consuming, irrational, and distracting, and the individual may desperately wish to stop them. You can imagine how distressing it is for people whose thoughts are filled with concerns about contamination (e.g., germs), doubts (e.g., leaving the gas on), or aggression (e.g., fear of harming another person).

The most common compulsions involve the repetition of a specific behavior, such as washing and cleaning, counting, putting items in order, checking, or requesting assurance. Another compulsion that has caught the attention of experts in this area involves hoarding (Steketee & Frost, 2003), in which an individual stores useless items such as outdated newspapers, mail, shopping bags, and empty food containers. When other people urge them to discard any of the items, they respond with concern that the item may be needed later for some reason. Of particular concern to public health officials are those individuals who compulsively hoard live animals in their homes, such as cats, dogs, farm animals, wild animals, or birds. Dozens, or even as many as 100 animals, are sometimes kept in the most unhygienic of conditions by these individuals.

In the movie *As Good as It Gets,* Jack Nicholson plays a man with obsessive-compulsive disorder. Even expressing affection to a pet is complicated by his need to wear protective gloves.

**TABLE 5.2 Examples of Obsessions and Compulsions**

| *Obsessions* | *Compulsions* |
|---|---|
| A student has the urge to shout obscenities in a quiet classroom while listening to a lecture. | She feels driven to screw and unscrew the cap of a ballpoint pen exactly five times each time she thinks of an obscene word. |
| A woman cannot get the thought out of her mind that she might accidentally leave her gas stove turned on, causing her house to explode. | Each day before leaving for work, she feels the irresistible urge to check the stove exactly 10 times. |
| A 9-year-old boy worries incessantly that something terrible might happen to his mother while his family is sleeping. | On his way to bed each night, he insists that he must climb the stairs according to a fixed sequence of three steps up, followed by two steps down, in order to ward off danger. |
| A young woman is constantly terrified by the image that cars might careen onto the sidewalk and run her down. | She feels that she must walk as far from the street pavement as possible, and she always wears red clothes when in town, so that she will be immediately visible. |
| A man is tormented by the concern that he might inadvertently contaminate food as he cooks dinner for his family each night. | On a daily basis, he sterilizes all cooking utensils in boiling water, scours every pot and pan before placing food in it, and wears rubber gloves while handling food. |

As you have probably figured out, a compulsion often goes hand-in-hand with an associated obsession. The man obsessed with a concern that he has left a pot on the stove is compelled to return repeatedly to the kitchen to make sure the stove is turned off. Compulsions may also take the form of mental rituals, such as counting up to the number 15 every time an unwanted thought intrudes. Or perhaps a person conjures up a particular image in response to obsessive fears (Steketee, 1994).

In general, there appear to be four major dimensions to the symptoms of OCD: obsessions associated with checking compulsions, the need to have symmetry and to put things in order, obsessions about cleanliness associated with compulsions to wash, and hoarding-related behaviors (Mataix-Cols, do Rosario-Campos, & Leckman, 2005). Table 5.2 lists examples of common obsessions and compulsions experienced by people with this disorder.

In Chapter 10, you will read about a condition with a similarly sounding name, obsessive-compulsive personality disorder. The person with obsessive-compulsive personality disorder is a rigid and inflexible worrier who does not engage in the extremely disturbed kinds of thinking and behaving that characterize people with obsessive-compulsive disorder. For example, a man with an obsessive-compulsive personality disorder may have a very rigid classification system for all of his books and become very upset if anyone puts a book back in the wrong place. By contrast, the person with obsessive-compulsive disorder may have a compulsion to check the order of the books on the shelf many times a day to ensure that they have not somehow been moved. If anything interferes with his checking of the books, he feels a great deal of distress. As you can see, there is some relationship between these two disorders, but there are also some important differences. Only about one third of all people with OCD also have obsessive-compulsive personality disorder (Diaferia et al., 1997).

Epidemiologists have documented that obsessive-compulsive disorder has a lifetime prevalence rate of 2 percent, a figure derived from various places around the world (Sasson et al., 1997). Some researchers argue for caution in accepting this figure, however, because when conservative screening instruments are used, the prevalence estimate drops to less than 1 percent (Stein, Forde, Anderson, & Walker, 1997). Compounding the problem of estimating prevalence is the fact that, in the Epidemiological Catchment Area study, most of the people who met the diagnostic criteria for OCD when first tested no longer fit the diagnosis when they were retested 1 year later (Nelson & Rice, 1997). Males are likely to develop OCD between the ages of 6 and 15; females tend to develop the condition between 20 and 29 years of age (American Psychiatric Association, 2000).

OCD usually first appears in childhood and adolescence. However, it is interesting to note that not all children who develop compulsive rituals retain them; many lose them by adolescence (Zohar & Bruno, 1997). Many of the children who do develop OCD show a unique pattern of characteristics—they are more likely to be male, to have a family history of OCD, to lack insight into their symptoms, and to suffer from other conditions, such as attention-deficit/hyperactivity disorder (Geller et al., 1998).

## Theories and Treatment of Obsessive-Compulsive Disorder

OCD is increasingly being understood as a genetic disorder (Jonnal, Gardner, Prescott, & Kendler, 2000; Pato, Schindler, & Pato, 2001), reflecting abnormalities in the basal ganglia, subcortical areas of brain involved in the control of motor movements. Specifically, systems involving glutamate, dopamine,

In MindMAP Segment 5.3, Leslie discusses a number of behaviors in which she engages on a regular basis. Performing simple actions, such as filing an important paper, can induce a spiral of compulsive behaviors. These behaviors, which can be highly ritualized, can occupy an entire day.

The compulsive behaviors found in people with OCD are usually inordinately time-consuming and distressing.

serotonin, and acetylcholine may be involved, affecting the functioning of the prefrontal cortex (Carlsson, 2001). Thus, the brain circuitry connecting the subcortical and cortical regions of the brain specific to inhibition of behavior seems to function abnormally in this disorder (Saxena & Rauch, 2000).

People with OCD are seen as having thoughts and actions that they literally cannot inhibit, as though the brain structures involved in this process are, in essence, "working overtime" to try to control them (Rosenberg, Dick, O'Hearn, & Sweeney, 1997). Consistent with their PET scans, people with OCD have heightened levels of activity in the brain motor control centers of the basal ganglia and frontal lobes (Leocani et al., 2001; Mataix-Cols et al., 2004).

Other disorders involving abnormal serotonin levels are also thought to be related to obsessive-compulsive disorder along a continuum or spectrum (Stein, 2000). This spectrum includes a wide range of disorders involving dissociation, somatization, hypochondriasis, eating disorders, pathological gambling, borderline personality disorder, and disorders that involve uncontrollable impulses, such as hair pulling, face picking, compulsive shopping, and gambling (Bellodi et al., 2001; Christensen, Mackenzie, & Mitchell, 1991). There may also be a relationship between OCD and Tourette's syndrome (discussed in detail in Chapter 11), in which an individual exhibits a pattern of abnormal motor symptoms, such as uncontrollable twitches, vocalizations, and facial grimaces. When these disorders overlap, the symptom picture tends to be much more severe than is found when just one of the conditions is diagnosed (Coffey et al., 1998). However, anxiety is a feature that is unique to obsessive-compulsive disorder, even among people who have Tourette-like symptoms (Cath et al., 2001).

As important as biological notions are to the understanding and treatment of OCD, they do not tell the entire story, and the behavioral perspective adds an important dimension. Behaviorally oriented theorists have long focused on the possibility that the symptoms of OCD become established through a process of conditioning, in which their behaviors become associated with the momentary relief of anxiety (Foa, Steketee, & Ozarow, 1985).

The cognitive-behavioral perspective focuses on maladaptive thought patterns as contributing to the development and maintenance of OCD symptoms (Steketee, 1994). Individuals with OCD may be primed to be overreactive to anxiety-producing events in their environment (Kumari et al., 2001). It is assumed that these clients are disturbed by thoughts related to the need to be perfect, the belief that they are responsible for harm to others, and concerns over the possibility of danger (Jones & Menzies, 1997; Salkovsis et al., 2000; Shafran, 1997). They struggle with disturbing images related to these thoughts and try to suppress or counteract them through engaging in compulsive rituals. The more they try to suppress these thoughts, the greater their discomfort and inability to stop them (Salkovskis et al., 1997).

**Treatment** The most promising interventions for people with obsessive-compulsive disorder are rooted in biological and psychological approaches, which are commonly combined in an integrative treatment (Jenike, 2004). Advances in psychopharmacology during the past three decades have been especially important. In the mid-1970s, it was discovered that an antidepressant medication, clomipramine (Anafranil), had the unanticipated effect of reducing obsessions in depressed people. This led investigators to wonder whether clomipramine would be an effective treatment for nondepressed people suffering from obsessive-compulsive disorder. Extensive experimental tests of this medication yielded very encouraging results, and researchers began to hypothesize that at least for some people, obsessive-compulsive disorder might have biological rather than psychological origins. Researchers noted that serotonin activity was reduced in people who responded favorably to clomipramine. From this they inferred that serotonin probably played a central role in causing the symptoms of this debilitating disorder (Rapaport, 1990). Individuals with these disorders are responsive to a category of medications that make larger amounts of serotonin available within the brain.

So far, treatment with clomipramine or other serotonin reuptake inhibiting medications, such as fluoxetine (Prozac) or sertraline (Zoloft), has proven to be the most effective biological treatment available for obsessive-compulsive disorder (Foa et al., 2005). The excitement generated by success stories with these medications has led to the development of newer medications, which have shown promising results for people who do not respond to clomipramine or fluoxetine. In particular, fluvoxamine (Luvox), which has milder side effects than other medications,

**TABLE 5.3 Sample Items from the Yale-Brown Obsessive-Compulsive Symptom Checklist**

| *Scale* | *Sample Items* |
|---|---|
| Aggressive obsessions | Fear might harm self<br>Fear of blurting out obscenities<br>Fear will be responsible for something else terrible happening (e.g., fire, burglary) |
| Contamination obsessions | Concerns or disgust with bodily waste or secretions (e.g., urine, feces, saliva)<br>Bothered by sticky substances or residues |
| Sexual obsessions | Forbidden or perverse sexual thoughts, images, or impulses<br>Sexual behavior toward others (aggressive) |
| Hoarding/saving obsessions | Distinguish from hobbies and concern with objects of monetary or sentimental value |
| Religious obsessions | Concerned with sacrilege and blasphemy<br>Excess concern with right/wrong, morality |
| Obsession with need for symmetry or exactness | Accompanied by magical thinking (e.g., concerned that another will have an accident unless things are in the right place) |
| Miscellaneous obsessions | Fear of saying certain things<br>Lucky/unlucky numbers<br>Colors with special significance<br>Superstitious fears |
| Somatic obsessions | Concern with illness or disease<br>Excessive concern with body part or aspect of appearance (e.g., dysmorphophobia) |
| Cleaning/washing compulsions | Excessive or ritualized hand-washing<br>Excessive or ritualized showering, bathing, toothbrushing, grooming, or toilet routine |
| Checking compulsions | Checking locks, stove, appliances, etc.<br>Checking that nothing terrible did not/will not harm self<br>Checking that did not make mistake completing a task |
| Repeating rituals | Rereading or rewriting<br>Need to repeat routine activities (e.g., in/out door, up/down from chair) |
| Counting compulsions | (Check for presence) |
| Ordering/arranging compulsions | (Check for presence) |
| Hoarding/collecting compulsions | Distinguish from hobbies and concern with objects of monetary or sentimental value (e.g. carefully reads junk mail, sorts through garbage) |
| Miscellaneous compulsions | Excessive list making<br>Need to tell, ask, or confess<br>Need to touch, tap, or rub<br>Rituals involving blinking or staring |

Source: From W. K. Goodman, L. H. Price, S. A. Rasmussen, C. Mazure, P. Delgado, G. R. Heninger, and D. S. Charney (1989a), "The Yale-Brown Obsessive-Compulsive Scale II. Validity" in *Archives of General Psychiatry,* 46, pp. 1012–1016. Reprinted with permission of Wayne Goodman.

works in similar fashion to allow more serotonin to be available at receptor sites in the brain (Laird, 1995). People who do not respond to these medications may benefit from risperidone (Risperdal) (McDougle et al., 2000).

Many clinicians recommend psychological interventions instead of, or in addition to, medication (Foster & Eisler, 2001). For example, thought stopping is recommended to help some clients reduce obsessional thinking, as is exposure to situations that provoke compulsive rituals or obsessions. Response prevention may also be used, in which the clinician instructs the client to stop performing compulsive behaviors, either totally or in graded steps (Salkovskis & Westbrook, 1989). Several experts advocate treatment that contains both exposure to the feared obsessions and prevention of the rituals that accompany the obsessions (Franklin et al., 2000). Steketee (1998) explains that exposure helps reduce the obsessive anxiety, while the prevention

**Mini Case**

### OBSESSIVE-COMPULSIVE DISORDER

Mark is a 16-year-old high-school student referred for treatment by his teacher, who became disturbed by Mark's irrational concern about the danger posed by an electrical outlet at the front of the classroom. Mark pleaded daily with the teacher to have the outlet disconnected to prevent someone from accidentally getting electrocuted while walking by it. The teacher told Mark that his concerns were unfounded, but he remained so distressed that he felt driven, when entering and leaving the classroom, to shine a flashlight into the outlet to make sure that a loose wire was not exposed. During classtime, he could think of nothing else but the outlet.

**Diagnostic Features**

- People with this disorder suffer from either obsessions or compulsions, which the person recognizes at some point as excessive or unreasonable. These obsessions or compulsions cause marked distress, consume more than an hour a day, or significantly interfere with normal routine, functioning, or social activities or relationships.
  - Obsessions are defined by the following four features:
    - Recurrent and persistent thoughts, impulses, or images that sufferers recognize as intrusive and inappropriate and that cause marked anxiety or distress
    - Not simply excessive worries about real-life problems
    - Attempts to ignore or suppress these thoughts, impulses, or images or to replace them with another thought or action
    - Recognition that these are products of his or her own mind (rather than the delusional belief that they are thoughts being inserted into the mind)
  - Compulsions are defined by the following two features:
    - Repetitive behaviors (e.g., hand-washing, checking, putting items in order) or mental acts (e.g., counting, silent repetition of words) that the person feels driven to perform in response to an obsession or according to rigid rules
    - The behaviors or mental acts are intended to prevent or reduce distress or to prevent a dreaded event or situation, but they are clearly excessive or not connected in a realistic way with what they are intended to neutralize or prevent

of responses controls a person's rituals. For example, Steketee describes her treatment of a woman who compulsively checked faucets and the buttons on her child's clothing, as she was obsessed with the notion that certain numbers and activities were connected with the devil. Steketee helped the client identify her obsessive ideas and accompanying rituals; that information was used to construct a hierarchy of increasingly obsessive situations and associated rituals. Specific situations—such as fastening children's clothing snaps or having angry thoughts about the children or even reading about devils and demons—were selected for exposure. Each step of the way, the client agreed not to use any ritual, such as checking or repeating, that would have previously relieved her anxiety. In an effort to confront her tremendous difficulty with words associated with the devil, she engaged in some interesting forms of exposure; namely, she began to serve devil's food cake and deviled eggs, as well as to write the words *devil* and *satan* in her appointment book. Although there was not a rapid or miraculous cure, over time this woman reported that she felt 80 to 90 percent improved, compared with when she had first come for treatment.

Unfortunately, for some people, neither pharmacological nor psychotherapeutic interventions offer any relief. In extreme cases involving people with debilitating symptoms, the radical intervention of psychosurgery may be used. Cingulotomy involves the precise lesioning of the cingulate bundle, an area of the brain that researchers have implicated in the development of anxiety and compulsive behavior. Small holes, less than 2 centimeters in diameter, are drilled into the skull, and electrodes are carefully positioned in each cingulate bundle. Correct positioning is sometimes verified with magnetic resonance imaging. Electric current is then passed through the electrodes to create lesions between 1 and 2 centimeters in diameter, which ideally results in a reduction in obsessions and compulsions. Some individuals for whom daily life is torturous consider this a viable option. Although reports of efficacy offer some hope, ethical factors and technical limitations have made it impossible to conduct control studies to establish with certainty the effectiveness of these neurosurgical interventions (Rauch & Jenike, 1998).

## Acute Stress Disorder and Post-Traumatic Stress Disorder

A **traumatic experience** is a disastrous or an extremely painful event that has severe psychological and physiological effects. Traumatizing events include such personal tragedies as being involved in a serious accident, being the victim of violence, or experiencing a life-threatening calamity. At the other end of the spectrum are life-threatening events that affect large numbers of people, such as fires, earthquakes, riots, and war.

Each traumatic event takes its toll in human suffering, as the survivors cope with the loss of close ones who were victims of the disaster, with the loss of property when homes are destroyed, or with the sense of personal violation after being assaulted or raped. Survivors must cope with the painful memories of the traumatic event, which often involve vivid images of seeing other people killed or seeing their own lives nearly ended.

Some people develop an **acute stress disorder** soon after a traumatic event. In this condition, the individual develops intense fear, helplessness, or horror. Dissociative symptoms may appear, such as feeling numb, unreal, or detached, and amnesia about the

event may develop. These individuals continue to reexperience the event in images, thoughts, dreams, and flashback episodes. They go to extremes to avoid anything that reminds them of the horrific event, whether it is a place, a person, an activity, or even a thought, feeling, or conversation, because these may evoke intense distress or a sense of reliving the trauma. Intensely anxious much of the time, they are likely to find it difficult to sleep or concentrate. They often become irritable and hypervigilant, perhaps easily startled by a minor noise or disruption.

Despite the extreme nature of the symptoms of acute stress disorder, most people are able to return to relatively normal functioning within days or weeks. Others, however, do not. They go on to develop **post-traumatic stress disorder (PTSD),** a diagnosis that is appropriate when the symptoms persist for more than a month.

## Characteristics of Post-Traumatic Stress Disorder

In the aftermath of an acute stress disorder, the symptoms of PTSD may start to take hold and take on a chronic and unremitting course. Reminders of the trauma, either in the person's own thoughts or in the environment, evoke intense levels of psychological or physiological distress. Even the anniversary of the event may stir up intense psychological and physical disturbance. These symptoms are so painful that people who suffer from PTSD intentionally go to great lengths to avoid anything that may remind them of the trauma. For example, a woman avoids driving by the site where her house burned to the ground several years ago, because she knows that even a fleeting reminder of the trauma will result in great psychological distress, nightmares, and physical symptoms of anxiety and dread.

Post-traumatic stress disorder is a relatively common diagnosis, with a lifetime prevalence rate of approximately 8 percent of the U.S. population. Of course, the rate is dramatically higher among at-risk individuals—for example, groups of people who have been exposed to specific traumatic incidents such as floods, tornadoes, hurricanes, combat, or ethnic violence (American Psychiatric Association, 2000).

Many people with this disorder seem to "shut down" in a sort of numbness, which causes them to be generally unresponsive in most situations. For example, a woman finds that she is unable to feel or express the love for her husband that was so evident prior to the trauma. A traumatized man loses interest in the activities that had been pleasurable for so much of his life. For an extended period of time, these individuals feel an increased level of arousal that is evident in sleep difficulty,

**Mini Case**

### ACUTE STRESS DISORDER

Brendan is a 19-year-old college freshman who was well-liked, psychologically healthy, and quite successful in life until 2 weeks ago when he experienced a traumatic event that seemed to change every aspect of his functioning. The life-changing event involved a devastating dormitory fire from which Brendan barely escaped. In fact, his roommate perished from smoke inhalation. Since the fire Brendan has been tormented by graphic images of waking to see his room filled with smoke, as flames encompassed the overstuffed chair in which his roommate had fallen asleep while smoking a cigarette. Tears come to his eyes as he recalls the experience of grabbing his roommate's leg and dragging the unconscious body out of the room only to realize that he was pulling a corpse. Feeling helpless and terrified, he screamed cries of horror, while suddenly becoming drenched by a sprinkler system that became activated several minutes too late. Brendan spent the days following the tragedy in the university health center where he was treated for smoke inhalation and several psychological symptoms. He described himself as feeling in a daze, as if in a dream state that was more like a nightmare. Despite the efforts of family and friends to connect emotionally with him, Brendan was emotionally unresponsive and seemingly numb. In fact, he found it difficult to talk with people because his thoughts were filled with intrusive images of the fire. After being discharged from the health service, he was unable to go anywhere near the dorm building for fear that he would "really lose it," and ultimately decided to withdraw from school because he felt too anxious and distressed.

### Diagnostic Features

- This disorder, which occurs within a month of a traumatic event, causes clinically significant distress or impairment that lasts between 2 days and 4 weeks. The diagnosis is assigned to people who experience significant distress or impairment associated with exposure to a traumatic event in which
  - They experienced, witnessed, or confronted event(s) involving actual or threatened death or serious injury, or a physical threat to themselves or others.
  - They responded with intense fear, helplessness, or horror.
- Either during or after the event, the individual has three or more of the following dissociative symptoms:
  - Sense of detachment, numbing, or lack of emotional responsiveness
  - Reduced feeling of awareness of surroundings, as if in a daze
  - Feelings of unreality (derealization)
  - Sensation of being detached from oneself (depersonalization)
  - Inability to recall an important aspect of the trauma (dissociative amnesia)
- The traumatic event is reexperienced through recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience, or the person feels intense distress when exposed to reminders of the event.
- The individual avoids stimuli that evoke recollections of the trauma.
- The individual experiences symptoms of anxiety or increased arousal, such as difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, and restlessness.

Following the September 11, 2001, disaster at the World Trade Center, many people developed symptoms of post-traumatic stress disorder.

anger outbursts, concentration problems, an exaggerated startle response, or general hypervigilance.

The symptoms of PTSD seem to fall into two related clusters. The first, called "intrusions and avoidance," includes intrusive thoughts, recurrent dreams, flashbacks, hyperactivity to cues of the trauma, and the avoidance of thoughts or reminders. The second cluster, "hyperarousal and numbing," includes symptoms that involve detachment, a loss of interest in everyday activities, sleep disturbance, irritability, and a sense of a foreshortened future. Thus, intrusive thoughts give rise to the avoidance of disturbing reminders, and hyperarousal leads to a numbing response (Taylor et al., 1998).

Sometimes it is not until days or months following the trauma that intruding thoughts first emerge. Some people find that the traumatic event repeatedly intrudes into consciousness in the form of a flashback, a recurrence of a powerful feeling or perceptual experience from the past, sometimes involving graphic and terrifying illusions and hallucinations. Nightmares and unwanted thoughts about the event may plague the individual during this phase, along with physical symptoms, such as a racing heartbeat or heavy sweating. Consider a young man, Gary, who was in a car accident that killed his friend. Gary had recurrent images of the scene of the fatal crash. When riding in cars, he overreacted to every approaching car, repeatedly bracing himself for another imagined crash. He thought he could hear the voice of his deceased friend crying, "Watch out!" For weeks following the accident, he repeatedly "saw" his friend's face when he tried to sleep. He could not get out of his mind the thought that he should have done something to prevent his friend's death.

In the 1980s, when the diagnosis of PTSD was added to the *DSM,* the media drew attention to the psychological aftereffects of combat experienced by Vietnam War veterans. The Vietnam War was the most publicized, but certainly not the only, war to produce psychological casualties. Reports of psychological dysfunction following exposure to combat emerged after the Civil War (Hyams, Wignall, & Roswell, 1996). Following World War I and World War II, there were numerous reports of psychological impairment described with such terms as "shell shock," "traumatic neurosis," "combat stress," and "combat fatigue." Concentration camp survivors were also reported to suffer long-term psychological effects, including the "survivor syndrome" of chronic depression, anxiety, and difficulties in interpersonal relationships.

Television reports brought the Vietnam War, and the horrors of combat, into American living rooms each night, perhaps leading to greater concern on the part of the public and professionals about the lasting effects of war on those involved. Many studies about the post-traumatic effects of the war were initiated, several of which continue decades after the end of the conflict. The statistics emerging from these studies are not always consistent, however, with estimates of the incidence of PTSD among Vietnam veterans ranging from 19 to 30 percent of those exposed to low levels of combat, and 25 to 70 percent of those exposed to high levels. Although the customary image of the Vietnam veteran is a male, there were also many women involved in the conflict, many of whom have also suffered from PTSD (Zatzick et al., 1997).

Because of all that was learned from the Vietnam War era about PTSD, major efforts were made from the outset of the Afghanistan and Iraq wars on the part of the Department of Defense and the U.S. Veterans Administration to assess the impact of combat and to develop interventions that are aimed at reducing long-lasting psychological disturbance (Friedman, 2004).

Our understanding of PTSD became more sophisticated in the wake of the tragic events associated with terrorism and the natural disasters of the past decade. Very soon after events such as the 9/11 attacks, researchers were studying the extent and nature of PTSD symptoms in survivors and aid workers. Approximately one year later, 11 percent of New Yorkers were reported to have probable PTSD, compared with 2.7 percent of people living in the metropolitan Washington area (Schlenger et al., 2002). Soon after the event, mental health workers began to

In MindMAP Segment 5.4, Carl talks about the problems he faced after returning home from his tours of duty in Vietnam.


Especially profound in the experience of PTSD are symptoms that wreak havoc in the life of the traumatized individual.

intervene with survivors in an effort to reduce the debilitating effects of exposure to widespread trauma. The 2004 tsunami in Southeast Asia, one of the most devastating natural disasters in recorded history, resulted in the development of very serious psychological problems. Again, though, learning from previous disasters, relief workers were trained in methods of helping people cope with the psychological toll of devastation.

## Theories and Treatment

**Biological Perspectives** Although by definition PTSD has its origins in life experiences, researchers have increasingly been turning up evidence linking its symptoms to biological abnormalities. Researchers have formulated the theory that, once a traumatic experience has occurred, parts of the individual's nervous system become primed or hypersensitive to possible danger in the future. Subcortical pathways in the central nervous system, as well as structures in the sympathetic nervous system, are permanently on "alert" for signs of impending harm; people who develop PTSD following exposure to trauma are more likely to have had a predisposition in the form of exaggerated "startle" responses (eyeblinks and skin conductance) (Guthrie & Bryant, 2005). Altered neurotransmitter functioning would play a role in this scenario. For some individuals with PTSD, alterations seem to occur in the norepinephrine pathways, while in others abnormalities in the serotonin pathways are more likely (Southwick et al., 1997). Dopamine, particularly in neurons in the prefrontal area that are sensitive to stress, may also be involved in the symptoms of PTSD (Horger & Roth, 1996).

It seems that even the structure of the brain can change as a result of trauma; for example, researchers have noted that these changes in the hippocampus may result from hyperarousal of the amygdala, a limbic system structure that mediates emotional responses (Villarreal & King, 2001). Finally, genetic predisposition may also play a role in the development of PTSD. In one study of more than 4,000 twin pairs who fought in Vietnam, genetic factors seemed to play an important role in their susceptibility to the development of reexperiencing, avoidance, and arousal symptoms (True et al., 1993). Evidence has also emerged that people with first-degree relatives with a history of depression have an increased vulnerability to developing PTSD in response to traumatic life events (American Psychiatric Association, 2000).

**Psychological Perspectives** It is clear that psychological factors play a central role in the development of PTSD. Theorists have discussed and studied human responses to trauma for many decades. Freud described symptoms such as those in the disorder currently labeled PTSD as representing a flooding of the ego's defenses, with uncontrollable anxiety originating from the intense and threatening experiences. The experiences themselves may be traumatic enough to cause this reaction, or they may trigger painful memories of earlier unresolved unconscious conflicts and may cause anxiety to overflow as a result of an inability to keep these memories repressed. For example, the experience of killing another person in battle may stimulate the emergence of previously repressed aggressive impulses. Anxiety over the expression of these impulses could trigger the stress reaction.

According to classical behavioral approaches, it is assumed that the person with PTSD has acquired a conditioned fear to the stimuli that were present at the time of the trauma. Because of a learned association, the individual experiences anxiety when these or similar stimuli are present, even in the absence of the traumatizing experience. Presumably, such reactions lead to avoidance. To escape, at least in fantasy, from the traumatic event becomes reinforcing for the individual, and this reinforcement then strengthens the withdrawal reaction seen in PTSD victims.

Cognitive-behavioral theorists (Foa, Steketee, & Rothbaum, 1989) have incorporated the concept of how people's beliefs about a traumatic event influence how they cope with it. Thoughts that are likely to have a detrimental effect, and can ultimately lead to PTSD, include excessive self-blame for events that are beyond personal control, as well as guilt over the outcome of these events (Kubany, 1994; Ramsay, Gorst-Unsworth, & Turner, 1993). The individual's unsuccessful attempts to reduce the stress experienced in the aftermath of the event can also increase the risk for PTSD. Some of these problematic coping methods include avoidance of problems for long periods of time, blaming and lashing out at other people, adopting a cynical and pessimistic view of life, catastrophizing or exaggerating the extent of current difficulties, isolating oneself socially, and abusing drugs and alcohol (Hobfall et al., 1991).

Clearly, not everyone exposed to traumatic experiences, combat-related or otherwise, suffers from PTSD. What are the factors that increase the likelihood that a particular individual


Years after the Vietnam War ended and their physical wounds healed, many veterans are still tormented by the emotional scars of combat and grief.

will become one of the victims of trauma-related symptoms? One has to do with the nature of the traumatic experience itself. A general principle that emerges from a variety of studies on trauma victims is that there is a direct relationship between the severity of the trauma and the individual's risk of developing PTSD later (Davidson & Foa, 1991). Of particular significance is the experience of bodily injury. In one study, injured soldiers were more likely to develop PTSD than their noninjured comrades who participated in the same combat (Koren et al., 2005). In another study involving victims of terrorist bombings, PTSD was much more likely to arise in those with severe initial injuries (Lamberg, 2004; Verger et al., 2004). Rape is another experience that can lead to PTSD. In comparing women who were victims of physical assault or injury with women who were victims of rape, researchers found that the rape victims were much more likely to develop PTSD as well as other serious psychological problems. The sexual nature of rape added a dimension that increased their vulnerability (Faravelli, Giugni, Salvatori, & Ricca, 2004).

Individuals vary in their propensity to suffer from PTSD. One factor that mediates the relationship between the extent of trauma and PTSD symptoms is the individual's state of mind while the trauma is occurring. People who experience a period of dissociation during the traumatic episode are more likely to be the ones who will develop PTSD after the trauma has ended (Koopman, Classen, & Spiegel, 1994; Marmar et al., 1994; Shalev, Peri, Canetti, & Schreiber, 1996).

A sense of optimism can help mediate the response to trauma. In a study of rescuers working at the site of an airplane crash, researchers found that those with optimistic personality traits were more likely to seek social support, which in turn reduced their experience of stress. Optimism further contributed to reduced stress by leading to more effective use of problem-focused coping (Dougall et al., 2001).

**Sociocultural Perspectives** As mentioned, the devastating wars in the second half of the twentieth century—most notably, the conflict in Vietnam—brought many cases of PTSD to the attention of clinicians and researchers, and they provided important opportunities to understand some sociocultural contributions to the development of this disorder. Investigators were particularly attuned to the fact that, for many Vietnam soldiers, symptoms did not emerge until they returned home. In explaining this phenomenon, researchers point out that the Vietnam War was not politically popular. Instead of receiving a hero's welcome on their return home, many soldiers felt that their efforts were neither valued nor respected. This lack of social support, rather than the combat experience itself, may have contributed to the development of the disorder (Sparr & Pankratz, 1983).

Two decades later, approximately 8 percent of those returning from Operation Desert Storm developed PTSD symptoms (Stretch et al., 1996). As with the veterans of the Vietnam War, lack of support on their return from action seemed to play a role in the Gulf War veterans' development of PTSD symptoms (Viola, Hicks, & Porter, 1993). The stigma of seeking mental health services for combat-related psychological problems is yet another obstacle that stands in the way of recovering from stress-related conditions. In one study of combat operations in Iraq and Afghanistan, concern about stigma was greatest among those most in need of help from mental health services (Hoge et al., 2004).

Other sociocultural factors, such as education, income level, and social status, provide additional pieces to the puzzle of PTSD. In assessing the role of sociocultural factors in the determination of PTSD, investigators have been particularly interested in the ways that disadvantaged economic settings may set the stage for increased vulnerability. It has been established that people who live in certain sociocultural contexts are more likely to be victimized (Ensink, Robertson, Zissis, & Leger, 1997). Living in high-crime

Mini Case

## POST-TRAUMATIC STRESS DISORDER

For the past 25 years, Steve has suffered from flashbacks, in which he relives the horrors of his 9 months of active duty in Vietnam. These flashbacks occur unexpectedly in the middle of the day, and Steve is thrown back into the emotional reality of his war experiences. These flashbacks, and the nightmares he often suffers from, have become a constant source of torment. Steve has found that alcohol provides the only escape from these visions and from the distress he feels. Often, Steve ruminates about how he should have done more to prevent the deaths of his fellow soldiers, and he feels that his friends, rather than he, should have survived.

### Diagnostic Features

- This disorder, which causes clinically significant distress or impairment, is assigned to people who have been exposed to a traumatic event in which
  - They experienced, witnessed, or confronted an event involving actual or threatened death or serious injury, or a physical threat to themselves or others.
  - They responded with intense fear, helplessness, or horror.
- For at least 1 month, there is a persistent reexperiencing of the traumatic event in one or more of the following ways:
  - Recurrent and intrusive distressing recollections of the event
  - Recurrent distressing dreams of the event
  - Acting or feeling as if the event were recurring (e.g., a reliving of the experience, illusions, hallucinations, dissociative flashbacks)
  - Intense distress at exposure to internal or external cues that symbolize or resemble an aspect of the event
  - Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the event
- For at least 1 month, there is avoidance of stimuli associated with the trauma and a numbing of general responsiveness, as indicated by at least three of the following:
  - Efforts to avoid thoughts, feelings, or conversations associated with the trauma
  - Efforts to avoid activities, places, or people that evoke recollections of the trauma
  - Inability to recall an important aspect of the trauma
  - Markedly diminished interest or participation in significant activities
  - Feelings of detachment or estrangement from others
  - Restricted range of affect (e.g., inability to experience loving feelings)
  - Sense of foreshortened future (e.g., pessimism about career, family, and life)
- For at least 1 month, there are persistent symptoms of increased arousal, as indicated by at least two of the following:
  - Difficulty falling or staying asleep
  - Irritability or outbursts of anger
  - Concentration difficulty
  - Hypervigilance
  - Exaggerated startle response

urban neighborhoods increases the likelihood of exposure to traumatizing events and makes it difficult for individuals to receive services, particularly for low-income women (Bassuk et al., 2001). Living in impoverished locales in developing countries, the inadequacy of support and mental health services in the event of a disaster can aggravate the psychological responses of large numbers of people (Lima, Pai, Santacruz, & Lozano, 1991).

Cultural factors are also evident in the ways that people from various ethnic groups respond to traumatic events, such as disasters or devastation (de Silva, 1993b). In some groups, tremendous stigma is associated with the idea of seeking professional psychological help, regardless of the severity of the distress. Lacking sufficient emotional support, in the family and in one's social group, can aggravate the experience of PTSD symptoms for some.

**Treatment** Within the biological perspective, clinical investigators have reported the successful treatment of PTSD symptoms with a variety of medications, with the choice relying primarily on the client's particular symptoms. For example, clients with symptoms involving hyperexcitability and startle reactions may benefit from antianxiety medications, such as benzodiazepines. Those contending with irritability, aggression, impulsiveness, or flashbacks may find anticonvulsants, such as carbamazepine or valproic acid, helpful. Antidepressants, such as selective serotonin reuptake inhibitors and monoamine-oxidase inhibitors, are often therapeutic

The psychological impact of the fighting in the war in Iraq will not truly be known for years.

Hurricane Katrina, the most devastating natural disaster in American history, ravaged several southern states in 2005, traumatizing thousands of people who will contend with the emotional aftereffects of this trauma for years to come.

in treating the symptoms of numbing, intrusion, and social withdrawal (Londborg et al., 2001; Seedat et al., 2001).

Even though medications can provide some symptom relief, it would be naive to think that medication alone is sufficient for ameliorating the distressing psychological and interpersonal problems that burden those with PTSD. Consequently, clinicians recommend ongoing psychotherapy, not only to deal with emotional issues but also to monitor the individual's reactions to medical treatments (Davidson, Stein, Shalev, & Yehuda, 2004). The most effective psychological treatments for PTSD involve a combination of "covering" and "uncovering" techniques. "Covering" techniques, such as supportive therapy and stress management, help the client seal over the pain of the trauma. They may also help the client reduce stress more effectively and, in the process, eliminate some of the secondary problems that the symptoms cause. For example, PTSD victims who isolate themselves from friends and family are cutting themselves off from social support, which is an important therapeutic agent. By learning alternate coping methods, clients can become better able to seek out this kind of support.

"Uncovering" techniques, which involve a reliving of the trauma, include the behavioral treatments of imaginal flooding and systematic desensitization. Exposing the person with PTSD to cues that bring back memories of the event in a graded fashion, or in a situation in which the individual is taught simultaneously to relax, can eventually break the conditioned anxiety reaction. Other treatments, such as psychodrama, can also be useful in bringing to conscious awareness, under a controlled setting, repressed memories of the traumatic event.

In an analysis of the results of 26 studies on the treatment of PTSD, researchers compared the efficacy of the major forms of psychotherapy on more than 1,500 patients. They concluded that the majority of patients treated with psychotherapy for PTSD recover or improve, although many patients continue to have substantial residual symptoms that persist long after treatment (Bradley et al., 2005). Clearly, although treatment can be effective, continued follow-up is necessary to help these clients maintain their treatment gains over the long term.

PTSD victims can also learn to reduce stress by approaching their situations more rationally and by breaking down their problems into manageable units. They can work toward achieving a better balance between self-blame and avoidance. Individuals who feel excessively guilty for their role in the traumatic incident can learn to see that their responsibility was not as great as imagined. Conversely, those who feel they have no control over what happens to them and, therefore, avoid confronting problems can learn to feel a greater sense of mastery over the course of their lives (Hobfall et al., 1991).

Donald Meichenbaum (1998) describes a six-step cognitive-behavioral therapy plan that incorporates strategies he has found beneficial for clients suffering from PTSD:

1. Establish a good working relationship with clients, characterized by nurturance and compassion.
2. Encourage clients to view their symptoms in a more positive light; for example, numbing can be viewed as a way of slowing the pace in order to deal with intense levels of distress.
3. Help clients translate global problem descriptions into specific, problem-solving terms.
4. Take behavioral steps, such as confronting the feared situation, in thoughts and in real settings.
5. Confront barriers in the form of feelings (e.g., fears, guilt, depression) and distorted beliefs (e.g., negative self-views) that get in the way of implementing change and mustering hope.
6. Help clients anticipate possible lapses (e.g., a recurrence of flashbacks, bouts of anxiety or depression).

## Anxiety Disorders: The Biopsychosocial Perspective

As you can see, anxiety disorders cover a broad spectrum of problems, ranging from very specific, seemingly idiosyncratic responses to diffuse and undifferentiated feelings of dread. These disorders involve an intriguing intertwining of biological, psychological, and sociocultural phenomena. Fortunately, relatively straightforward behaviorally based treatments are available that can successfully alleviate the symptoms of anxiety for many people who suffer from these disorders. Furthermore, a number of other strategies involving cognitive, insight-oriented, and psychopharmacological interventions can enhance the effectiveness of behavioral techniques. Knowledge gained from research on the causes and treatment of anxiety disorders can also have some practical benefits for managing lesser difficulties.

# RETURN TO THE CASE

## Barbara's History

As Barbara shared her life history with me, the flow of her speech frequently was interrupted by sobs and pleas that I be patient with her. As Barbara's story unfolded, I came to understand how the emotional scars left by growing up in a dysfunctional family plagued her throughout childhood and adolescence.

Barbara was raised almost exclusively by her mother. Her father spent very little time at home, because he worked as a sales representative for a company that had branch offices spread across a three-state area. When he was home, he was almost always inebriated. Barbara's mother was very protective of her, restricting almost all social and after-school activities. Barbara remembers feeling somewhat resentful of her mother's strong control over her, but she justified her mother's behavior, because "after all, she couldn't count on my father to help her, and, besides, I was a pretty difficult kid and she didn't want me getting into trouble."

Barbara's father was known to have out-of-town affairs with women, and everyone regarded him as a failure in his job. However, no one discussed these problems openly. Barbara remembers being frightened of her father because, when he was drinking, he became furious over even her slightest failure to respond instantly to his instructions. Usually, he gave unclear or contradictory instructions, so she could not predict when he would yell at her and when he would be satisfied with her response. When she tried to apologize, he criticized her even more. Barbara learned that the best way to deal with him was to stay out of his way.

Barbara explained to me that it was not only her father who struggled with psychological impairment. Her mother had, for most of her adult years, an intense fear of leaving the house alone, and she experienced deep depression related to her unhappy marriage. Going back a generation, Barbara's grandmother was considered by most people to be peculiar. She insisted on living the life of a recluse and acted toward her husband in ways that others considered domineering, bordering on sadistic. Barbara's maternal grandfather put up with the abuse, never complaining, always appearing to others as a quiet, accommodating "gentleman." It was quite a shock to the whole community when, at the age of 62, he asphyxiated himself and left a note filled with rage about his "miserable marriage."

In her senior year of high school, Barbara began to write away to a number of colleges for applications. It never occurred to her that her parents would object to her going to college, as long as she realized that she would have to support herself. Since Barbara's grades were excellent, she felt quite certain that she would earn some kind of financial aid. One day, her mother stopped Barbara as she was leaving the house to mail a stack of envelopes and asked Barbara what she was doing. When Barbara explained, her mother burst into tears. She told Barbara that it was time for them to have a talk. They sat down in the kitchen, and Barbara's mother poured forth an amazing "confession." Ever since Barbara was a child, it had been very important for her mother to have Barbara with her at home. That was why she found it so hard to let Barbara go out with her friends and do things after school. She said that Barbara's father had been so impossible that she was unhappy almost all the time. She couldn't even leave the house to run a simple errand unless she had Barbara with her. She begged Barbara not to go away to school, saying that she could not bear the thought of her leaving. Barbara was stunned. She did not realize how much she meant to her mother. There was no way she could even consider going away to school under these circumstances. Barbara threw away all her letters and applied to the community college located 10 miles away from home.

After college, Barbara took a job in an insurance company, where she became a top-notch typist and receptionist. When her boss was transferred to another city, he told Barbara that he wanted her to move also. She could enroll in the university and take courses there to complete her bachelor's degree, all at company expense. According to her boss, Barbara had a lot of potential to advance in a career if she had the proper training. Concerned about leaving her mother, Barbara asked her what she should do. Barbara's mother assured her that she would "manage somehow." Barbara made the move, and all seemed to be going well. She felt particularly lucky to have found a roommate with whom she shared many common interests, ideas, and feelings. They soon became inseparable. Unfortunately, however, things did not remain so serene for Barbara; the ghosts of unresolved conflicts and pain reappeared and took the form of her current emotional crisis.

## Assessment

Although I had some reasonable hypotheses about the nature of Barbara's disorder, important gaps needed to be filled in. Of particular concern was the possibility that Barbara might be suffering from a medical problem. It is not uncommon for people with certain medical problems, such as hypoglycemia, hyperthyroidism, or insulin-secreting tumors, to have symptoms that are strikingly similar to those found in anxiety disorders. However, the physician who conducted the physical examination found no physiological basis for Barbara's problems. Drugs and alcohol were ruled out as well. Barbara had never abused drugs, and she only occasionally

## RETURN TO THE CASE
*(continued)*

drank alcohol in desperate attempts to calm herself down.

Because of the prominent features of anxiety in Barbara's presentation, I recommended that she meet with one of my colleagues, Dr. Michelle Herter, for a comprehensive behavioral assessment. Dr. Herter's assessment protocol consisted of three segments: (1) a symptom-focused interview, (2) the administration of a questionnaire, and (3) Barbara's collection of self-monitoring data.

In her interview, Dr. Herter collected extensive information about the frequency, intensity, and duration of Barbara's bodily and cognitive reactions to her periods of panic. She also discussed with Barbara the quality of her relationships, particularly those with her immediate family members. In her report, Dr. Herter described Barbara as a "well-dressed and attractive young woman who looked self-conscious and nervous throughout the interview." She felt that nothing about Barbara suggested intellectual impairment or a personality disorder, but she did discuss Barbara's prominent style of dependency, passive acquiescence to other people's demands, and discomfort in situations involving interpersonal conflict.

Barbara completed the Body Sensations Questionnaire and Agoraphobia Cognitions Questionnaire (Chambless & Goldstein, 1982), which provided compelling data about the nature of her overpowering fear of having disturbing bodily sensations, such as rapid heartbeat and feelings of dizziness. Furthermore, Barbara's responses suggested that she genuinely feared that she was losing her mind.

For the self-monitoring portion of the assessment, Barbara kept a Panic Attack Record (Barlow et al., 1994), on which she documented the time, duration, and intensity of each panic attack. She indicated who was with her at the time, as well as the specific symptoms she experienced. The assessment picture that emerged from these sources of data was that of a woman who was overcome by intense and incapacitating episodes of panic that occurred primarily in situations involving conflict or minor stress, especially when she was alone.

### Diagnosis

The most striking feature of Barbara's presenting problems was the occurrence of panic attacks. After experiencing several of these on a frequent basis, Barbara could not leave her apartment because of her fears of having an attack in public. After ruling out the possibility of a physically based disorder on the basis of the medical workup, I felt confident in the diagnosis of an anxiety disorder involving panic attacks and agoraphobia. I focused my attention on Barbara's symptoms during the episodes she described to me and to Dr. Herter, which included experiences of dizziness, speeded-up heart rate, uncontrollable trembling, sweating, choking sensations, chest discomfort, and fear of dying. I was secure in the belief that these episodes constituted panic attacks, because they involved sudden, unexpected periods of intense fear. Compounding the distress for Barbara was the fact that symptoms of agoraphobia accompanied these panic attacks.

| | |
|---|---|
| Axis I: | Panic Disorder with Agoraphobia |
| Axis II: | Rule out Personality Disorder. Not otherwise specified |
| Axis III: | No physical disorders or conditions |
| Axis IV: | Problems with primary support group (family tensions) Occupational problems (job transitions) |
| Axis V: | Current Global Assessment of Functioning: 37 Highest Global Assessment of Functioning (past year): 83 |

### Case Formulation

As I pondered what factors might have contributed to Barbara's developing such a troubling and incapacitating disorder, I considered her genetic history as well as her family system. In evaluating genetic contributions, my thoughts were drawn to the problems that both her mother and her grandmother experienced. Their problems seemed similar to Barbara's, leading me to hypothesize that Barbara had inherited a biological propensity to develop panic attacks.

In reviewing information about Barbara's family, I noted her stories of being so distraught about her father's frequent absences, and her resentment toward her overcontrolling mother, who could not protect her from the tyrannical ways of her unreliable and unpredictable father. The family did not air conflicts, and Barbara learned that the best way to get along with people was to do what they wanted or to stay out of their way. At a time when Barbara should have been allowed to begin her independent life, her mother made it virtually impossible for her to do so. When Barbara finally did leave her mother, she experienced considerable guilt when she realized how much her mother depended on her.

As her life went on, Barbara came to realize more and more that she could not please everyone. Perhaps her first panic attack grew out of this unresolvable conflict. Indeed, all of Barbara's early panic attacks were connected with some kind of emotional conflict in her life. The second attack occurred when Barbara was about to experience separation from the roommate to whom she had become so attached. Other panic attacks occurred when Barbara was going to her office, as thoughts of leaving her mother filled her mind. Although the panic attacks started in situations that had a link to an emotional conflict, they eventually generalized to all places outside Barbara's apartment. Barbara came

## RETURN TO THE CASE
*(continued)*

to fear not the situations themselves but the attacks, which caused her to experience an excruciating degree of pain, embarrassment, and terror.

### Treatment Plan

As I wrote up my treatment recommendations for Barbara, I realized that she would benefit most from an intervention that tapped behavioral and cognitive-behavioral techniques. Although I was familiar with these techniques, I felt that Barbara's needs would best be served by a clinician who specialized in interventions for people with anxiety disorders. Michelle Herter had offered her services, should such a recommendation seem appropriate, and I chose to accept her offer. I explained to Barbara that Dr. Herter was a leading expert in the kind of treatment she needed. Barbara made it clear that she was committed to obtaining the very best treatment available, even though she expressed disappointment that I would not be her therapist.

I called Dr. Herter and we reviewed the impressions of Barbara that each of us had derived. As we spoke about this case, Dr. Herter put forth a treatment approach not commonly used by most other clinicians. She thought it would be a good idea to begin the therapy in Barbara's home, a nonthreatening context in which she could begin establishing a trusting alliance with Barbara. In time, Dr. Herter would introduce *in vivo* techniques and graded exposure training, in which she would guide Barbara step-by-step through situations that more closely approximated those that had terrified her in the past. At the same time, Dr. Herter planned to work with her in restructuring her beliefs about her inability to control her panic attacks. Dr. Herter told me that, as time went on, she might also incorporate assertiveness training.

### Outcome of the Case

I concurred with Dr. Herter's initial optimism about the likelihood that Barbara would show fairly quick improvement once treatment was begun. Barbara responded very positively to Dr. Herter's willingness to provide home-based therapy. During the first 3 weeks, which included six sessions, Dr. Herter took a comprehensive history of the problem and developed a relationship with Barbara that facilitated the initiation of behavioral techniques during the second phase. In the beginning of the second phase, Dr. Herter taught Barbara techniques she could use to change the way she thought about panic-arousing situations. For example, Barbara was to imagine herself conquering her fear and feeling a sense of increased self-esteem following her success. She became able to envision herself as competent in situations that previously had seemed so threatening. In the third phase, Dr. Herter accompanied Barbara outside her apartment to a nearby convenience store. Step by step, in the weeks that followed, Dr. Herter introduced situations that were increasingly more threatening, culminating in Barbara's successful trip to a crowded shopping mall unaccompanied by her therapist.

Along with conquering her fears of leaving home, Barbara also began to gain some insight into the connection between interpersonal conflicts and her panic attacks. Several weeks into treatment, Barbara reported that her mother was telephoning her more and more frequently. Barbara's mother had developed terrible headaches that made her incapable of doing anything for hours at a time. Although she did not ask directly, Barbara felt very strongly that her mother was hinting for Barbara to move back home. Barbara missed a session, something that was very unusual for her. Dr. Herter became concerned that Barbara was experiencing a relapse. A call to Barbara confirmed this. Barbara had experienced another panic attack during the week and was unable to leave her apartment. The cognitive techniques she had practiced so faithfully had failed to work. Barbara had wanted to call Dr. Herter but felt too ashamed. After discussing this situation, Barbara was able to understand how this particular panic attack had been provoked by interpersonal conflict; this insight proved useful in motivating Barbara to resume and follow through with her treatment program.

In time, Barbara's mother began making fewer demands on her, and Barbara was able to recover the gains she had made in individual therapy prior to the most recent panic attack. Barbara and Dr. Herter continued to meet for another 6 months, during which time Barbara's progress was cemented. Soon after Barbara terminated with Dr. Herter, she sent me a note to thank me for the referral. In the note, she boasted about her success in overcoming the problem that had been so threatening and devastating for her. She explained how she had developed new ways of solving her problems, whether they pertained to possible panic attacks or to the difficulties she was likely to encounter in her relationship with her mother.

**Sarah Tobin, PhD**

## SUMMARY

- Anxiety disorders are characterized by the experience of physiological arousal, apprehension or feelings of dread, hypervigilance, avoidance, and sometimes a specific fear or phobia.
- Panic disorder is characterized by frequent and recurrent panic attacks—intense sensations of fear and physical discomfort. This disorder is often found in association with agoraphobia, the fear of being trapped or unable to escape if a panic attack occurs. Biological and cognitive-behavioral perspectives have been particularly useful for understanding and treating this disorder. Some experts explain panic disorder as an acquired "fear of fear," in which the individual becomes hypersensitive to early signs of a panic attack, and the fear of a full-blown attack leads the individual to become unduly apprehensive and avoidant of another attack. Treatment based on the cognitive-behavioral perspective involves such methods as relaxation training and *in vivo* or imaginal flooding as a way of breaking the negative cycle initiated by the individual's fear of having a panic attack. Medications can also help alleviate symptoms, with the most commonly prescribed being antianxiety and antidepressant medications.
- Specific phobias are irrational fears of particular objects or situations. Cognitive behaviorists assert that previous learning experiences and a cycle of negative, maladaptive thoughts cause specific phobias. Treatments recommended by the behavioral and cognitive-behavioral approaches include flooding, systematic desensitization, imagery, *in vivo* exposure, and participant modeling, as well as procedures aimed at changing the individual's maladaptive thoughts, such as cognitive restructuring, coping self-statements, thought stopping, and increases in self-efficacy. Treatment based on the biological perspective involves medication.
- A social phobia is a fear of being observed by others acting in a way that will be humiliating or embarrassing. Cognitive-behavioral approaches to social phobia regard the disorder as due to an unrealistic fear of criticism, which causes people with the disorder to lose the ability to concentrate on their performance, instead shifting their attention to how anxious they feel, which then causes them to make mistakes and, therefore, to become more fearful. Behavioral methods that provide *in vivo* exposure, along with cognitive restructuring and social skills training, seem to be the most effective in helping people with social phobia. Medication is the treatment recommended within the biological perspective for severe cases of this disorder.
- People who are diagnosed as having generalized anxiety disorder have a number of unrealistic worries that spread to various spheres of life. The cognitive-behavioral approach to generalized anxiety disorder emphasizes the unrealistic nature of these worries and regards the disorder as a vicious cycle that feeds on itself. Cognitive-behavioral treatment approaches recommend breaking the negative cycle of worry by teaching individuals techniques that allow them to feel they control the worrying. Biological treatment emphasizes the use of medication.
- In obsessive-compulsive disorder, individuals develop obsessions, or thoughts they cannot rid themselves of, and compulsions, which are irresistible, repetitive behaviors. A cognitive-behavioral understanding of obsessive-compulsive disorder regards the symptoms as the product of a learned association between anxiety and the thoughts or acts, which temporarily can produce relief from anxiety. A growing body of evidence supports a biological explanation of the disorder, with the most current research suggesting that it is associated with an excess of serotonin. Treatment with medications, such as clomipramine, seems to be effective, although cognitive-behavioral methods involving exposure and thought stopping are quite effective as well.
- In post-traumatic stress disorder, the individual is unable to recover from the anxiety associated with a traumatic life event, such as tragedy or disaster, an accident, or participation in combat. The aftereffects of the traumatic event include flashbacks, nightmares, and intrusive thoughts that alternate with the individual's attempts to deny that the event ever took place. Some people experience a briefer but very troubling response to a traumatic event; this condition, called acute stress disorder, lasts from 2 days to 4 weeks and involves the kinds of symptoms that people with PTSD experience over a much longer period of time. Cognitive-behavioral approaches regard the disorder as the result of negative and maladaptive thoughts about one's role in causing the traumatic events to happen, feelings of ineffectiveness and isolation from others, and a pessimistic outlook on life as a result of the experience. Treatment may involve teaching people with PTSD new coping skills, so that they can more effectively manage stress and reestablish social ties with others who can provide ongoing support. A combination of "covering" techniques, such as supportive therapy and stress management, and "uncovering" techniques such as imaginal flooding and desensitization, is usually helpful.

## KEY TERMS

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