

TABLE 4.8 Maladaptive Cognitive Schemas Associated with Specific Anxiety Disorders

DISORDER	MALADAPTIVE COGNITIVE SCHEMAS	TYPICAL NEGATIVE AUTOMATIC THOUGHTS
Generalized anxiety disorder	<ul style="list-style-type: none"> • Overestimates dangerousness of situations • Doubts coping abilities 	<ul style="list-style-type: none"> • “I forgot to lock the window—I’ll certainly be robbed.” • “If my boyfriend breaks up with me, I’ll fall apart.”
Panic disorder	<ul style="list-style-type: none"> • Acute “fear of fear”—fearing that benign bodily sensations herald a panic attack 	<ul style="list-style-type: none"> • “My heart is beating quickly. Oh no! I’m about to have a panic attack!”
Specific phobia	<ul style="list-style-type: none"> • Overestimates dangerousness of feared object or situation • Overestimates likelihood of negative outcomes in relation to feared object or situation 	<ul style="list-style-type: none"> • “All dogs are vicious.” • “If I am in a high place, I will certainly fall.”
Social phobia	<ul style="list-style-type: none"> • Fears performance failure • Fears negative evaluation • Self-focuses attention 	<ul style="list-style-type: none"> • “My mind will go blank if someone asks me a question.” • “I can tell that he already hates me.” • “Everyone can see that I’m sweating.”
Agoraphobia	<ul style="list-style-type: none"> • Generalizes anxiety associated with having a panic attack to all external situations 	<ul style="list-style-type: none"> • “If I go to the mall, I’ll have a panic attack.”
Obsessive-compulsive disorder	<ul style="list-style-type: none"> • Exaggerates risk appraisals • Holds maladaptive beliefs about the unacceptability of certain types of thoughts 	<ul style="list-style-type: none"> • “If I handle money, I might contract AIDS.” • “Only a horrible person would have thoughts about hurting a child.”
Posttraumatic and acute stress disorders	<ul style="list-style-type: none"> • Exaggerates risk appraisals • Over-generalizes emotional response 	<ul style="list-style-type: none"> • “I can’t keep myself safe.” • “If I feel scared, I must be in danger.”

Adapted from Caballo, 1998; Leahy, 1997; and Wells, 1997

Cognitive Interventions

Cognitive interventions for anxiety disorders are generally goal-oriented and highly structured; cognitive therapists take an active, directive stance toward the client and his or her problems (Beck, Emery, & Greenberg, 2005). Early sessions are spent formulating goals and introducing the client to the idea that anxious feelings arise from

TABLE 4.9 Common Cognitive Distortions

Dichotomous reasoning ■ Seeing things in terms of two mutually exclusive categories with no “shades of gray” in between. Example: believing that one is *either* a success *or* a failure and that anything short of a perfect performance is a total failure.

Over-generalization ■ Seeing a specific event as being characteristic of life in general rather than as one event among many. Example: concluding that an inconsiderate response from one’s spouse shows that she doesn’t care despite her having showed consideration on other occasions.

Selective abstraction ■ Focusing on one aspect of a complex situation and ignoring other relevant aspects of the situation. Example: focusing on the one negative comment in a performance evaluation received at work and overlooking a number of positive comments.

Disqualifying the positive ■ Discounting positive experiences that would conflict with the individual’s negative views by declaring that they “don’t count.” Example: disbelieving positive feedback from friends and colleagues and thinking “They’re only saying that to be nice.”

Mind reading ■ Assuming that others are reacting negatively without evidence that this is the case. Example: thinking “I just *know* he thought I was an idiot!” despite the other person’s polite behavior.

Fortune-telling ■ Reacting as though one’s negative expectations about future events are established facts. Example: thinking “He’ll leave me, I just know it!” and acting as though this is definitely true.

Catastrophizing ■ Treating negative events that might occur as intolerable catastrophes rather than being seen in perspective. Example: thinking “Oh my God, what if I faint?” without considering that, while fainting may be unpleasant or embarrassing, it is not terribly dangerous.

Minimization ■ Treating positive characteristics or experiences as insignificant. Example: thinking, “Sure I’m good at my job, but so what?”

Emotional reasoning ■ Assuming that emotional reactions necessarily reflect the truth. Example: deciding that because one feels hopeless, the situation must really be hopeless.

“Should” statements ■ Using *should* and *have-to* statements. Example: thinking “I *shouldn’t* feel aggravated. She’s my mother, I *have-to* listen to her.”

Labeling ■ Attaching a global label to oneself rather than referring to specific events or actions. Example: thinking “I’m a failure!” rather than “Boy, I really blew that one!”

Personalization ■ Assuming that one is the cause of a particular external event when, in fact, other factors are responsible. Example: taking a supervisor’s lack of friendliness personally rather than realizing that the supervisor is upset about something else.

Information from Freeman et al., 1990, p. 5.

problematic thoughts and maladaptive thought processes. Next, the therapist usually helps the client to:

- Identify negative automatic thoughts and the cognitive schemas that underlie such thoughts
- Evaluate the evidence for and against the negative automatic thoughts and schemas
- Identify cognitive distortions (dichotomous thinking, mind reading, minimization, etc.) that cause the client to interpret information in anxiety-provoking ways.

Consider the following conversation between a cognitive therapist (T) and a patient (P) suffering from a social phobia:

- T: When you say that you might act foolish, what do you mean by that?
- P: People will think I'm foolish.
- T: What will happen to make people think that?
- P: I will do something and draw attention to myself.
- T: What will you do?
- P: I will get my words wrong and I won't know what to say.
- T: So your negative thought is that you will get your words wrong and people will think that you're foolish?
- P: Yes, I don't want people to think that.
- T: Do you have evidence that this will happen?
- P: It's happened before when I've been anxious in situations. I don't know what to say and my mind goes blank.
- T: It's true that your mind goes blank sometimes, but what makes you think that people see you as foolish?
- P: Well, I don't know for sure.
- T: How would people react to you if they thought you were foolish?
- P: I suppose they wouldn't talk to me and they would ridicule me.
- T: Is there any evidence that people do that to you?
- P: No. Some people might, but people usually don't do that.
- T: So it sounds as if there might be some counter-evidence, some evidence that people don't think you're foolish?
- P: Yes, I suppose there is when you look at it like that.
- T: What is the evidence that people don't think you're foolish?
- P: I have a couple of good friends and I get on well with people at work.
- T: What do you mean by getting on well with people at work?
- P: Some people ask my advice about jobs they are working on.
- T: Is that evidence that they think you are foolish?
- P: No, quite the opposite.

(From Wells, 1997, pp. 69–70)

Once clients have been taught to identify and challenge their own negative automatic thoughts, they are instructed to continue to do so on their own, using homework sheets like the one shown in Table 4.10.

A number of studies have found cognitive interventions to be effective in the treatment of anxiety disorders (e.g., Clark et al., 2003; Ehlers et al., 2005). Some outcome studies of treatment for GAD, OCD, social phobia, specific phobia, and panic disorder suggest that cognitive interventions are most effective when used in combination with



Using reason to conquer anxiety

In cognitive interventions for anxiety, clients are helped to evaluate the evidence for and against negative automatic thoughts and anxiety-provoking schemas. Therapists and fellow members of a therapy group can help anxious individuals to identify and challenge cognitive distortions.

Bob Daemrich/The Image Works

TABLE 4.10 Homework for Challenging Negative Automatic Thoughts

Situation	Initial level of anxiety; rate on scale of 0–100	Negative automatic thought	Alternative thought	Subsequent level of anxiety
Touched the doorknob in a public restroom	75—felt panicked, started sweating	“I’ve touched horrible germs; I’m going to contract meningitis.”	“There probably aren’t meningitis germs on the doorknob. My immune system is healthy and capable of fighting off disease.”	40—heart rate nearing normal, more relaxed

behavioral techniques such as *relaxation training* and *exposure and response prevention* techniques. Other studies, however, suggest that combined cognitive-behavioral treatments are not necessarily more effective than cognitive techniques alone (Nathan & Gorman, 2002).

BRIEF SUMMARY

- Behavioral explanations of anxiety disorders are based on the principles of classical conditioning, operant conditioning, and modeling.
- According to the theory of prepared conditioning, common phobias may have an evolutionary basis. Humans may have a genetic predisposition to fear potentially dangerous animals and situations because our ancestors who had such fears are more likely to have survived and contributed to the gene pool.
- Modern behavioral theories of anxiety rely on the **principle of multiple causality** by incorporating variables that precede, accompany, and follow anxiety-provoking experiences in order to account for the fact that not everyone who experiences the pairing of a CS and an aversive UCS goes on to develop an anxiety disorder.
- Behavioral interventions attempt to extinguish abnormal anxiety by providing exposure to the feared object or situation encouraging relaxation, and preventing avoidance. Exposure may involve *in vivo* desensitization (actual exposure to the feared object or situation) or covert desensitization (imagined exposure), be modeled (watching therapists expose themselves to the feared object or situation), or it may occur in a massive dose, as in flooding.
- According to the cognitive perspective, anxiety disorders result from negatively distorted thinking. People with anxiety disorders tend to misinterpret events in three important ways: they fixate on perceived dangers and threats, they overestimate the severity of the perceived danger or threat, and they drastically underestimate their ability to cope with the dangers and threats they perceive.
- Cognitive interventions for anxiety involve two key components: (1) the identification of dysfunctional cognitive schemas and negative automatic thoughts and (2) the use of a collaborative logical approach (between therapist and client) to evaluate and challenge anxiety-producing assumptions, beliefs, and thoughts.



Multiple causality

Critical Thinking Question

The cognitive model proposes that thoughts determine feelings. How might this be true for Arthur, the man described at the beginning of the chapter? What other theoretical components help explain Arthur’s anxiety?

Psychodynamic Components

Freud proposed two theories about the causes of anxiety. Early in his career, Freud was struck by the coexistence of anxiety symptoms and sexual abstinence or frustration among his clients. He developed a theory that the energy of repressed sexual urges transforms into anxiety (Freud, 1895). Later on, he decided that this first theory had it backward—that anxiety is actually the *cause* of **repression**, not the *result* of it. Specifically, Freud’s second theory argued that anxiety is the ego’s reaction to perceived dangers (from the id, the superego, or reality), very much in keeping with the common-sense view of anxiety as a form of fear. For example, anxiety can be an indication that unacceptable impulses are on the verge of being expressed, and the anxiety is a “signal” to initiate defense mechanisms such as repressing these impulses (Freud, 1926). Later psychodynamic theorists expanded on Freud’s view of the internal and external dangers that can cause extreme anxiety. Their ideas generally focus on traumatic childhood situations, such as losses or empathic failures in important relationships, abuse, and overstimulation (Greenberg & Mitchell, 1983; Kohut, 1977; Winnicott, 1965). Psychodynamic theorists also propose specific explanations for different types of anxiety symptoms based on the defense mechanisms associated with them. We will illustrate this approach by focusing on two anxiety disorders—phobias and obsessive-compulsive disorder (OCD).

Phobias

Freud proposed that phobias result when the defense mechanism of **displacement** causes perceptions of danger to shift from a threatening situation onto a neutral object in an effort to reduce anxiety. Freud’s approach to phobias was outlined in his famous case study, “Little Hans” (1909). Interestingly, Freud never worked directly with this 5-year-old boy, but he communicated regularly with Hans’s father who acted as the therapist to his own son. Little Hans developed a severe phobia of horses after seeing an accident involving a horse. (Needless to say, having a horse phobia in Vienna in 1909 caused a great deal of trouble since horses were everywhere!) Based on reports from Hans’s father, Freud speculated that Little Hans’s fear of horses was a displacement of a fear of his father. The background for Freud’s hypothesis was this: the horse phobia developed around the time that Hans was struggling with wishes to have an exclusive loving relationship with his mother. (Freud called this scenario, which he believed was a universal developmental stage occurring around ages 4 to 6, the **Oedipus complex**, after the Greek myth in which Oedipus kills his father and marries his mother.) Freud believed that Hans, thinking like a 5-year-old, began to fear that his father would be angered by his desire to monopolize his mother’s affections. But to be scared of his father, who was big and powerful and whom he loved and needed, caused Hans even more anxiety. A defense mechanism, *displacement*, “solved” this problem. Rather than being afraid of his father, Hans’s fear was displaced to horses. Freud theorized that horses became the focus of the displaced fear because Hans often played “horsey” with his father, and because he associated horses’ muzzles with his father’s moustache.

Subsequent psychodynamic theorists have also emphasized the role of the defense mechanism called **projection** in phobias. In *projection*, an internal feeling that seems dangerous or unacceptable is attributed to someone or something else (Chapter 2). For example, Hans was also very uncomfortable about his competitive anger toward his father. To reduce this discomfort, Hans projected his hostile feelings onto horses, perceiving horses to be dangerous and aggressive (he feared they would bite him). Then, by avoiding horses (his horse phobia), Hans could also “solve” the problem of his anger toward his father.

This theory highlights the *continuum between normal and abnormal behavior*. Hans was experiencing a more extreme version of the same process that often causes

Repression A defense mechanism consisting of the forgetting of painful or unacceptable mental content.

Displacement A defense mechanism in which feelings about someone or something are unconsciously shifted to someone or something else.

Oedipus complex A phase during normal development when children desire an exclusive loving relationship with the parent of the opposite sex.

Projection A defense mechanism in which an individual attributes his or her own unacceptable emotions to someone or something else.



Normal-abnormal continuum

young children to become temporarily afraid of angry robbers or mean ghosts just after they have had an angry tantrum. The much loved children's book *Where the Wild Things Are* by Maurice Sendak, in which a child imagines and then tames angry monsters after receiving a scolding and having a tantrum, beautifully illustrates the processes of displacing fears and projecting angry feelings. In summary, the psychodynamic explanation of phobias emphasizes that phobias result when feelings are shifted from one situation or person to another through the defense mechanisms of *displacement* and *projection*.

Obsessive-Compulsive Disorder

Isolation of affect A defense mechanism in which thoughts occur without associated feelings.

Undoing A defense mechanism in which one action or thought is used to “cancel out” another action or thought.

Freud argued that obsessive-compulsive symptoms are based on the defense mechanisms called **isolation of affect** and **undoing** when they are used to manage anxiety-provoking thoughts and impulses. Through *isolation of affect*, unwanted thoughts and impulses are treated as if they were not connected to one's actual feelings and past experiences, but are simply disturbing intrusions. *Undoing*, the magical use of ritualized action to “undo” a troublesome thought or impulse, relates to the compulsions of OCD. For example, a person is employing the defense mechanism of *undoing* when he compulsively cleans his desk each afternoon, thinking that this will “undo” or cancel out his unacceptable angry thoughts about his boss.

Another of Freud's case studies, the “Rat Man” (1909), helped Freud formulate his theory of OCD-like symptoms. The Rat Man came to Freud for help with disturbing thoughts (that his fiancée and father were being tortured by rats), and the compulsive rituals (such as having to neatly arrange rocks on the roadside) he used to magically counteract these thoughts. Freud discovered that the Rat Man was unconsciously angry at his fiancée and his father, and that his anxiety about his anger led to the use of the defense mechanisms of *isolation of affect* and *undoing*. The *isolation of affect* transformed the unacceptable anger into thoughts of torture that the Rat Man could disavow, though his thoughts still caused enough anxiety to also require *undoing* rituals.

Other Sources of Anxiety

In addition to focusing on the role of defense mechanisms in the specific forms of anxiety described above, psychodynamic theorists believe that high levels of anxiety often result from disrupted or inadequate early parent-child relationships. Parents have the important job of helping their children learn how to manage normal, but sometimes disturbing, wishes and feelings. If parents are too harsh in response to id-based childhood behaviors, their child may grow to feel anxious about some of his or her own natural feelings. If parents protect and gratify a child too much, the child may not develop adequate defense mechanisms for dealing with id impulses (A. Freud, 1936).

For example, imagine a 5-year-old child who is always hungry a half-hour before dinnertime. If his parents tend to get very angry with him for whining about being hungry, he may grow up to feel quite uneasy with his wishes for satisfaction. He may begin to repress such wishes before they reach consciousness. If repressed too forcefully, he may lose awareness of his wants and desires and feel anxious whenever they are unconsciously aroused. At the other extreme, a parent may respond immediately to the child's request for food (or for anything else) to the point that the child fails to develop good skills for dealing with frustration, delayed gratification, or disappointment. As an adult, such a person may feel ill-equipped to manage his or her own powerful impulses and become quite anxious when faced with the frustration or disappointment of his or her desires.

Psychodynamic Interventions

Since psychodynamic therapists focus on pathological anxiety that arises from unconscious emotional conflicts, they tend to use basic psychodynamic techniques to address most anxiety disorders (Abend, 1996). Clients in psychodynamic therapy are encouraged to speak as freely as possible and to attend, with the therapist, to uncovering the roots of their anxieties. This includes exploring how the underlying emotional conflicts emerge in the form of *resistance* (for example, topics the client feels reluctant to explore) and *transference* (feelings from past relationships that are transferred into present relationships, including the relationship with the therapist) during the therapy process. The goal of psychodynamic interventions is to help clients understand the roots of their symptoms, gain greater self-acceptance, develop better solutions to emotional conflicts, and decrease needs for problematic defense mechanisms. Consider the following description by a psychoanalyst of a case involving a phobia:

CASE ILLUSTRATION

A divorced woman in her early thirties, a successful junior executive in a multinational corporate enterprise, sought treatment because a flying phobia threatened to limit her career advancement. . . . Despite many difficulties in immersing herself freely in the treatment, the patient's persistent and conscientious work gradually permitted a progressive unfolding of the many levels of meaning of her phobia, accompanied by relief to the point of full recovery. . . .

The first level of understanding to emerge was that the patient used her anxiety before and during flights as a way of tormenting and punishing herself unmercifully. This punishment came to be seen as related to her career ambitions, which she imagined would necessarily involve intense and deadly competition, especially with men. As this configuration became clearer, the patient became able to report a more precise description of her anxiety about flying. She was terrified that in the course of a flight her discomfort would grow so intense that she would lose control of herself and become hysterical. Such an outburst would be intensely humiliating to her, especially if it were to occur in the company of a male coworker. Eventually she was able to elaborate her view that such a hysterical loss of control as she imagined, and dreaded, would characterize her as a weak, contemptible female, destroying the image of the competent, firm, rational, and composed person (qualities she attributed to men) that she wished to present to the world. This disgrace would be a fit punishment for her ruthlessly defeating the males she competed with, which she imagined humiliated them terribly. In time it also became clear how these conflicts resonated with issues in her childhood relationship to her father, a successful businessman.

(Abend, 1996, pp. 407–408)

As you can see, the psychodynamic approach assumes that once the meaning of the anxiety symptoms can be articulated and understood, the symptoms will diminish. Empirical support for the effectiveness of psychodynamic interventions for anxiety is growing. Some researchers suggest that other theoretical approaches offer quicker and more consistently positive results, but numerous case reports and a handful of studies support the effectiveness of psychodynamic interventions (Crits-Cristoph et al., 1996; Durham et al., 1994). Indeed, a recent study comparing relaxation training to psychodynamic psychotherapy for the treatment of panic disorder found that after 12 weeks only 39% of the clients who received relaxation training reported significant improvement as compared to 73% of the clients receiving psychodynamic psychotherapy (Milrod et al., 2007).

Maladaptive emotional scheme A humanistic term for patterns of thought and feeling that emerge around salient emotional experiences (usually in childhood) and are activated in similar situations during adulthood.

Humanistic and Existential Components

The humanistic perspective views anxiety, like all other emotions, as a useful source of feedback about the status of an individual's situation. In other words, anxiety is not seen as problematic per se; it can be an adaptive signal that something in one's life is not quite right. However, anxiety can also be unhelpful, especially when it is associated with a **maladaptive emotional scheme**. Returning to the explanation of the humanistic perspective provided in Chapter 2, parents who fail to provide their children with *unconditional positive regard* promote the development of *maladaptive emotional schemes*. For example, a person whose early efforts at closeness met with parental rejection might develop a *maladaptive emotional scheme* in which wishes for closeness becomes associated with fears of rejection. As an adult, the person might become panicked when faced with even the slightest possibility of being rebuffed (Greenberg, Korman, & Paivio, 2002).

The existential perspective views anxiety as useful when it is accepted and examined and destructive when avoided or ignored. In fact, the existential perspective assumes that most psychological symptoms arise from efforts to keep existential anxiety at bay (Walsh & McElwain, 2002). As you'll recall from Chapter 2, existential anxiety is generally thought to arise from the awareness that we are solely responsible for making meaning in our lives and from the fact that unwanted outcomes (death included) are inevitable. The existential perspective proposes that emotional suffering is often relieved when individuals face (and even embrace) their fears and the discomfort they provoke.

Humanistic and Existential Interventions

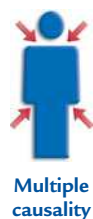
Humanistic interventions are based, first and foremost, on the development of a strong therapeutic alliance that allows for the recognition and exploration of painful emotional experiences. By being empathically attuned, humanistic clinicians can help their clients focus on here-and-now emotional experiences and the thoughts and beliefs that accompany these feelings (Greenberg, Korman, & Pavio, 2002). For example, a humanistic clinician might help a client recognize that his wishes for closeness trigger anxious fears of rejection and humiliation based on his early childhood experiences. The supportive therapeutic relationship would be used to develop a more adaptive emotional response to past experiences, such as sadness about early events and a belief in one's fundamental worth (Greenberg & Paivio, 1997).

Existential psychotherapy does not aim for specific behavioral or symptomatic changes, but focuses instead on fostering the client's curiosity and insight about his or her existence (May & Yalom, 1995). The therapeutic relationship is used to promote personal understanding, an appreciation for unnecessary self-limitations, and the courage to tolerate fears and explore new ways of being (Walsh & McElwain, 2002). Research on humanistic psychotherapies indicates that they are more effective than no treatment and as effective as other types of psychotherapy; empirical validation of existential approaches to psychotherapy remains scarce (Elliot, 2002).

The Multiple Causality of Anxiety Disorders

As you can tell from our review of the different theoretical perspectives on anxiety, the principle of **multiple causality** is highly relevant to anxiety disorders. Because the experience of anxiety involves emotional, behavioral, cognitive, and physical components, various perspectives can be combined in the explanation and treatment of anxiety disorders.

Cognitive and behavioral approaches can be integrated to explain and treat some anxiety disorders. For example, maladaptive cognitions ("I'm certain I'll have a panic attack if I leave the house!") are often reinforced by maladaptive behaviors (experiencing a reduction in anxiety by staying home). Although we presented the cognitive



Multiple causality

and behavioral components separately for the sake of clarity, the two approaches are almost always combined in the contemporary treatment of anxiety disorders. For instance, interventions for OCD often combine the correction of cognitive distortions that underlie obsessions with behavioral techniques that address the accompanying compulsions (*exposure and response prevention*). David Barlow and his colleagues (Barlow et al., 2000) have developed an extensive cognitive-behavioral technique for treating panic attacks that draws upon training in relaxation, planned exposure to anxiety-provoking situations, and cognitive interventions. This program has been found to be at least as effective as antidepressant medications in the treatment of panic, and to produce longer-lasting benefits.

Other theoretical perspectives can also be combined in explaining or treating anxiety disorders. Imagine, for example, a person who was frequently mistreated and humiliated by his family throughout his childhood and as an adult exhibits the symptoms of social phobia. Psychotherapy aimed at working through his childhood experiences and addressing maladaptive cognitions and behaviors might help, but he may feel so anxious in social situations that he cannot consider the possibility of discussing personal difficulties with a stranger (such as a therapist). In this case, it might be appropriate to use an antianxiety medication to reduce the man's anxiety so that he can engage in a psychotherapy. In everyday clinical practice, a variety of interventions are often combined in this fashion to treat anxiety disorders.

The various theoretical models of anxiety not only complement each other, but they often overlap. For example, despite their differences, the psychodynamic, behavioral, and cognitive perspectives all share the common belief that clients must face their fears in order to overcome them. Even some approaches that seem to be at odds with each other share common origins. John Watson's behavioral view of phobias was originally sparked by his interest in psychodynamic explanations of how fears could be shifted or displaced from one object to another, as is often the case with phobias (Rilling, 2000).

The Connection Between Mind and Body in Anxiety Disorders

In addition to noting the complementarity and overlap among the various theoretical perspectives, it is important to highlight how profoundly the psychological and biological realms influence each other in anxiety disorders. For example, there is considerable evidence that emotionally traumatic experiences can alter the functioning of components of the nervous system. The **HPA** (hypothalamic-pituitary-adrenal) **axis** responds to stressful experiences by releasing stress hormones such as adrenaline and cortisol into the bloodstream (see Figure 4.6). These stress hormones elevate emotional arousal and help prepare animals to fight or flee. Ideally, the response of the *HPA axis* is commensurate with the level of threat, and, when the threat ends, the *HPA axis*



Mind-body connection

HPA axis A brain system involving the hypothalamus, pituitary gland, and adrenal cortex that regulates the release of stress hormones into the bloodstream.

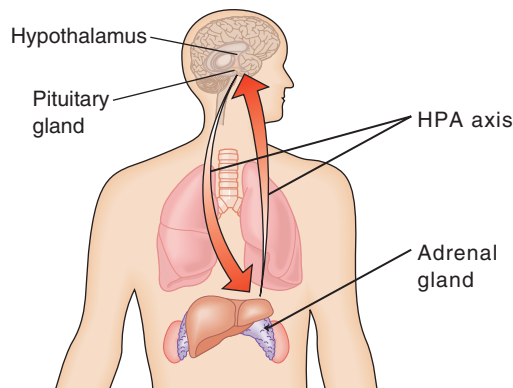


Figure 4.6 The HPA axis The HPA (hypothalamic-pituitary-adrenal) axis is believed to play a key role in the transformation of psychological stress into a physiological response. Emotional experiences, as processed by the hypothalamus, activate the pituitary gland, which activates the adrenal gland, causing it to secrete adrenocortical hormones, such as adrenaline and cortisol. The release of adrenaline and cortisol causes subjective feelings of arousal and anxiety.

returns to its proper resting state. But some researchers suggest that sustained stress during critical periods of development may permanently damage the cells regulating the functioning of the *HPA axis*. One study compared *HPA axis* activity in women with and without histories of childhood abuse by measuring stress hormone levels while the research participants engaged in a mildly stressful activity (such as speaking in front of a group). Women who had been abused as children released more than six times as many stress hormones as women who had not been abused (Heim et al., 2000). In other words, extremely stressful events such as early childhood traumas may predispose an individual to lifelong hyperactivity of the *HPA axis* and subsequent chronic anxiety (Bremner & Vermetten, 2001). This finding provides a powerful example of the core concept of the *connection between mind and body* insofar as emotional experiences have the potential to shape the structure and functioning of systems within the body.

Similarly, some studies (e.g., Vythilingam et al., 2002) have shown that PTSD can be associated with a reduction in the volume of the right hippocampus affecting both verbal memory and performance on neuropsychological tests. However, this finding has not been consistently replicated in other research studies (e.g., Jatzko et al., 2006). In addition, when people with PTSD experience flashbacks, the part of the brain responsible for using language to communicate past experiences (known as Broca's area) appears to be "turned off" (van der Kolk, 2006). Based on these findings, researchers believe that the brain stores memories of traumatic events differently than most other memories. This may partially account for the fact that traumatic memories are often reexperienced as flashbacks rather than simply remembered. With the advent of brain imaging techniques such as positron emission tomography (PET), researchers have been able to show that psychotherapies affect and change brain functioning. For example, studies have found that successful behavioral therapies for OCD can lead to reduced activity levels in the right caudate nucleus (Baxter et al., 1992; Nakatani et al., 2003). These changes are similar to those seen in OCD clients successfully treated with Prozac.

Finally, rapidly growing evidence demonstrates that activities that enhance physical well-being also reduce anxiety and increase resilience to stress. Relaxation techniques, physical exercise, meditation, and yoga all show promise as methods for treating anxiety (Jain, 2003; Kirkwood et al., 2005; Ost & Breitholtz, 2000; Salmon, 2001; Tacon et al., 2003).

BRIEF SUMMARY

- Freud developed two different explanatory models for anxiety. Originally, he proposed that anxiety is produced by the energy of repressed sexual impulses. Later, he concluded that anxiety is the ego's reaction to perceived internal or external dangers. Modern psychodynamic theorists also propose that high levels of anxiety often result from disrupted or inadequate early parent-child relationships. Psychodynamic treatment interventions focus on improved mastery of anxiety-causing psychological conflicts.
- The humanistic perspective suggests that anxiety arises from *maladaptive emotional schemes* established in response to painful emotional experiences. Humanistic psychotherapy aims to help their clients focus on here-and-now emotional experiences and the thoughts and beliefs that accompany these feelings in order to restructure *maladaptive emotional schemes*.
- The existential perspective views anxiety as useful when it is accepted and examined and destructive when avoided or ignored. Existential psychotherapy aims to promote personal understanding, an appreciation for unnecessary self-limitations, and the courage to tolerate fears and explore new ways of being.

- The various theoretical approaches to anxiety often overlap or complement each other, highlighting the principle of *multiple causality*. Cognitive and behavioral techniques are often combined in interventions for anxiety disorders, and antianxiety medications are often used in combination with psychotherapies. In addition, changes in brain structure and function resulting from traumatic emotional experiences and from psychotherapy illustrate the *connection between mind and body* in anxiety disorders.

Critical Thinking Question

How does the *principle of multiple causality* help us to explain Arthur's and Greg's anxiety disorders?



CASE Vignettes

Treatment

Arthur • Panic Disorder

Arthur, the 22-year-old student suffering from anxiety “spells,” followed up on his physician’s referral to a psychologist. In his first meeting with the psychologist, Arthur made it clear that he was doubtful that his physical symptoms had a psychological basis. The therapist noted Arthur’s skepticism and offered him some information about the kinds of physical symptoms that often accompany panic attacks. Arthur was surprised to hear the therapist describe many of the symptoms he had experienced, and relieved to learn that something could be done to reduce his distress. By the end of the first session, Arthur agreed to try a cognitive-behavioral program for his panic attacks.

Over the next several sessions, the psychologist taught Arthur relaxation techniques, and Arthur practiced the techniques at home several times a week. Before long, Arthur was able to get his body into a deep state of relaxation in only a few minutes. Two weeks after he had started therapy Arthur felt like he was going to have a panic attack while standing in line at the grocery store. He immediately started to concentrate on his breathing and to tense and relax his muscles. His anxiety passed without ever developing into a full-blown panic attack. Arthur and his psychologist created a hierarchy of anxiety-provoking situations (such as studying for a final exam, or being caught in a large crowd of people), and Arthur practiced controlling his anxiety by using relaxation while he placed himself in increasingly difficult situations.

Next, Arthur and his psychologist worked on uncovering the thoughts that accompanied Arthur’s panic attacks. Arthur kept a record of all the things that went through his mind when he felt like he was about to have a panic attack. Among his thoughts were the statements that he was sure he was going to die, and that this would be especially tragic since things in his life were going so well. Arthur and his psychologist evaluated his fearful

thoughts that he would die and challenged them with the facts that Arthur was healthy and had already survived numerous panic attacks.

Within a few months of starting therapy, Arthur’s panic attacks were well under control. Arthur’s psychologist took this opportunity to point out how much success Arthur had had in understanding how his mind worked and suggested that Arthur might now want to explore what caused the panic attacks to begin when they did. Arthur agreed that he was curious about what had brought on his troubles, and decided to continue therapy, but with a new focus on gaining insight into the roots of his anxiety.

Arthur began speaking to his psychologist about how much pressure he felt from his family to succeed academically. Even though he welcomed his family’s constant support, he hated feeling like it was his job to be the family “success story.” He talked about being jealous of his classmates who came from families where everyone had gone to college, and about how he worried that his family would make a scene at his graduation because it was such a big deal for them. Arthur also recognized that his continuing success would leave him feeling more and more distant from his family. He worried that his potential earning power would lead him to develop tastes that they didn’t approve of or understand. At the same time, he worried that it would be obvious to his employers and new colleagues that his background was very different from theirs. Arthur and his psychologist both noticed how much calmer he became as he allowed himself to explore these feelings. Arthur told the therapist that he had felt like a “bad person” for resenting his loving family, and that it was a relief to realize that he could continue to have an appreciation for his family even if he did feel angry and disappointed with them at times.

CASE DISCUSSION • Panic Disorder

Arthur's symptoms closely correspond with the DSM-IV-TR definition of panic attacks, but he never developed the behavioral changes based on a fear of future attacks that can sometimes be part of the DSM-IV-TR criteria for panic disorder. Fortunately, he also never developed agoraphobia in reaction to his attacks. Arthur initially doubted that psychotherapy could be helpful to him. As a result, the psychologist began with *psychoeducation*—

meaning that he informed Arthur that his physical symptoms could result from an anxiety disorder. This helped Arthur to accept a psychological treatment, one that focused at first on controlling his panic attacks, not exploring their meaning. The therapy then proceeded to a psychodynamic exploration of how previously “unacceptable” thoughts had contributed to the onset of Arthur's anxiety.

Greg • Obsessive-Compulsive Disorder (OCD)

Greg, the 35-year-old paralegal, and his wife happened to see a news program on OCD. Afterward, Greg's wife suggested that he seek treatment, and he agreed with her suggestion. A social worker met with Greg and his wife, and heard from both of them about how Greg's “habits” had been causing problems at home. The social worker concurred that Greg likely suffered from OCD and referred Greg to a psychiatrist who prescribed Prozac. Greg was initially reluctant to consider medication for his problem, but his wife insisted that he try it “for the family.” Greg was reassured by the social worker that it would probably help Greg to feel more in control of his worries about keeping the house clean.

Within a few weeks, Greg and his family noticed that he was much more “laid back” about keeping order around the house. Even though Greg still liked things to be neat, he did not become upset when his son left his coat on a chair or when dishes sat in the sink. Greg's social worker recommended that Greg also consider beginning an *exposure and response prevention* therapy. She assisted Greg in gradually increasing his exposure to anxiety-producing situations, like dirt and messiness, without responding with cleaning and checking rituals. One year later, on a lower dose of Prozac and having occasional therapy sessions, Greg was described by his wife as “90% better.”

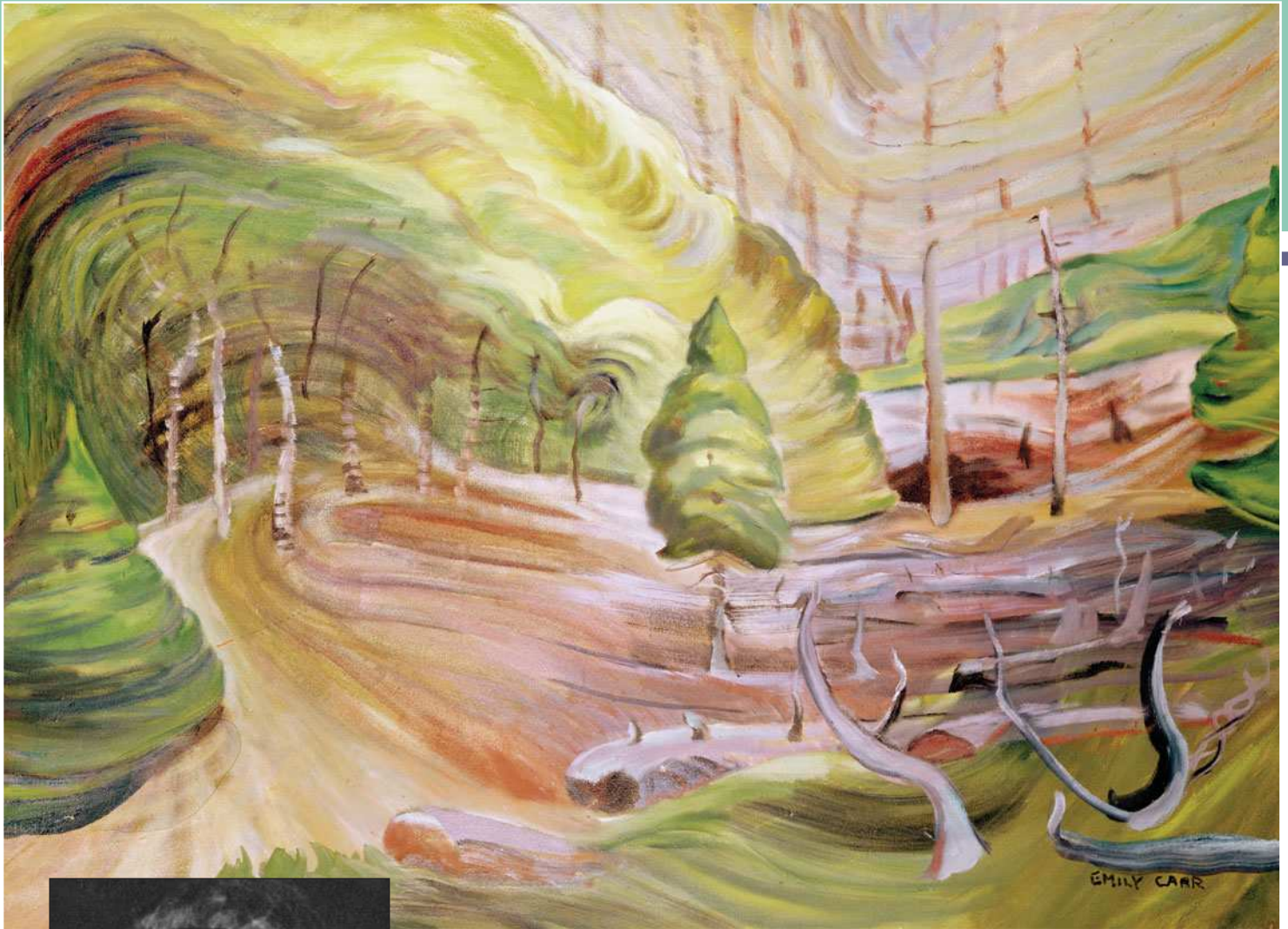
CASE DISCUSSION • Obsessive-Compulsive Disorder

Initially, Prozac, which increases the availability of serotonin in the nervous system, was used to help bring Greg's obsessive-compulsive symptoms under control. Greg's social worker also suggested some cognitive-behavioral techniques to help Greg make further progress. Through *exposure and response prevention*, Greg was helped to tolerate situations that had previously

made him extremely anxious and to resist his impulse to clean or to badger the offending family member. Over time, the cognitive-behavioral interventions helped Greg to adapt to normal levels of disarray, and he was able to reduce his dose of Prozac while maintaining his improvement.

Chapter Summary

- Pathological anxiety is defined as anxiety that occurs in an inappropriate *context* or is toward the extreme end of the *continuum between normal and abnormal* anxiety.
- The DSM-IV-TR identifies six different anxiety disorders: generalized anxiety disorder, panic disorder, phobias, obsessive-compulsive disorder, posttraumatic stress disorder, and acute stress disorder.
- The DSM-IV-TR anxiety disorder diagnoses have important *advantages and limitations*. While the reliability and validity of the DSM-IV-TR anxiety diagnoses are relatively high, the DSM-IV-TR anxiety disorders are also highly comorbid, meaning that clients often meet criteria for more than one diagnosis.
- Demographic factors, such as age, gender, and social class, affect the prevalence and manifestation of anxiety disorders.
- Various cultures and historical periods define and classify anxiety problems differently, highlighting the core concept of *cultural and historical relativism*.
- All of the major theoretical perspectives in abnormal psychology offer concepts relevant to the explanation and treatment of anxiety disorders. Furthermore, the different theoretical perspectives on anxiety often interact, overlap, or complement each other, highlighting the *principle of multiple causality*.
- Changes in brain structure and function resulting from traumatic emotional experiences and from psychotherapy are two illustrations of the *connection between mind and body* in anxiety disorders.



British Columbia Archives

Emily Carr,
Surge of Spring,
Private Collection.
Photo Christie's
Images/The Bridgeman
Art Library International

In the years since her death, Emily Carr (1871-1945) has been recognized as one of Canada's most important painters. Carr's innovative post-Impressionist style brought a vibrant energy to her paintings of the trees and landscapes of British Columbia. Known for her independent spirit, cantankerous personality, and disregard for the restrictive Victorian values of the time, Carr also experienced periodic episodes of severe depression.

Mood and the Mood Disorders

CASE Vignettes

Tamara, age 37, asked her family physician for the name of a good psychologist three months after her husband abruptly moved out of their house and announced that he was planning to file for divorce. Tamara was devastated by the news at the time and felt so sad and hopeless that even death seemed a preferable alternative. As time went on, Tamara felt less sad and more angry about her soon-to-be-ex-husband's behavior. Though she no longer felt suicidal, she found it impossible to feel good or even "okay." She continued to go to work and spend time with friends but always had the sense she was just going through the motions of her life. Her two children, ages 7 and 10, were equally shocked and upset by the separation. Tamara knew that her children were suffering, but felt powerless to help them given how badly she was feeling herself. She decided to seek help when her worries about her children became more than she could bear.

Most of Tamara's first meeting with the psychologist was spent explaining her divorce proceedings and her concerns about her children. Although Tamara described the poignant situation of her husband leaving abruptly, the psychologist noted that Tamara seemed to be almost completely devoid of feelings. Tamara did become teary when explaining her concerns about her children, but described herself as only feeling "empty."

In the second session Tamara described the time since her husband left. She explained that she had felt intensely sad, occasionally suicidal, and had found it difficult to feel excited or happy about anything. When asked about eating and sleeping, Tamara explained that she went through a period when she woke up at 3:00 each morning and was unable to go back to sleep, but that had ended after a few weeks. She had, however, lost 20 pounds since her husband left and had yet to regain her appetite.

Mark, age 33, was taken by his wife to the hospital emergency room late one night after he climbed onto the roof of the family house, declared himself "the happiest man in the world," and refused to come down for hours. The doctors at the E.R. gave Mark medications to help calm him and arranged for Mark to have a full psychiatric evaluation. A few days later, Mark and his wife met with a psychiatrist. They reported that he often experienced periods when he was extremely excited, talked very quickly, and slept very little. Mark was accustomed to his strange moods, but his wife admitted to the psychiatrist that she had been worrying about their finances since Mark started using credit cards to buy expensive and unnecessary electronic equipment when he was in an excited mood. Six months prior, Mark had come home with two digital video players, three large screen televisions, and a \$5000 sound system with the plan of transforming the family basement into the "ultimate entertainment center." Mark stayed in the basement for several days setting up his new system but then suddenly abandoned the project. Mark's wife also explained that he experienced periods when he was extremely "mellow and sad"—even to the point of not getting out of bed for days at a time. Mark recalled feeling periodically depressed since he was in college, but he told the psychiatrist that his "down times" seemed to be lasting longer and feeling more intense as he got older. Mark's wife added that she felt like there were "three Marks: excited Mark, sad Mark, and regular Mark."

CASE VIGNETTES

Defining Mood and Mood Disorders

- The Importance of Context in Defining Mood Disorders
- The Continuum Between Normal and Abnormal Mood

Classifying Mood Disorders

- Historical Relativism in Classifying Mood Disorders
- The DSM-IV-TR Categories
- Classification in Demographic Context

Explaining and Treating Mood Disorders

- Biological Components
- Cognitive Components
- Behavioral Components
- Psychodynamic Components
- Sociocultural and Family Systems Components
- Multiple Causality of Mood Disorders

CASE VIGNETTES

Treatment

Depression State of abnormally low mood, with emotional, cognitive, motivational, and/or physical features.

Mania State of abnormally high mood, with emotional, cognitive, motivational, and/or physical features.



Mood Moods range from elated to depressed and include cognitive, motivational, and physical components in addition to feeling states.

(Top) Jeff Greenberg/PhotoEdit
(Bottom) © Alan Oddie/PhotoEdit

DEFINING MOOD AND MOOD DISORDERS

Fluctuations in *mood* are part of everyday life. Everyone goes through periods of being unusually happy or somewhat sad, and each individual has a mood baseline from which he or she typically operates. Some people are generally in a good mood and only feel “down” in the face of a major negative life event, such as the death of a loved one, while other people tend to feel a little gloomy much of the time and need significantly good news to put a spring in their step. Whether or not we tune into our own feelings and those of the people around us, mood and its normal variations permeate every aspect of daily life. In fact, psychologists define mood as much more than just an *emotional* (feeling) state. They regard mood as a state that also includes *cognitive* (thinking), *motivational* (behavioral), and even *physical* (bodily) aspects. In other words, mood not only influences how we feel, but also how we think, act, sleep, eat, and live.

Although most people experience normal ups and downs in their mood (Kobau et al., 2004), moods can become pathologically low (**depression**) or pathologically high (**mania**). (Later in this chapter we will explain how mood can be *pathologically* high, which may seem like an odd idea.) The fact that everyone knows what it is like to feel “up” or “down” makes understanding mood disorders easier in some ways, but harder in others.

Because we are all familiar with mood fluctuation, the mood disorders make more intuitive sense than disorders such as schizophrenia (Chapter 12) that are outside the realm of experience for most people. On the other hand, our familiarity with mood changes raises some difficult questions. What is the difference between a brief case of the blues and a clinical depression, or between feeling “up” and being manic? The answers to these questions lie in two of the core concepts in abnormal psychology: the *importance of context* in defining and understanding abnormality and the *continuum between normal and abnormal behavior*.

The Importance of Context in Defining Mood Disorders

Variations in mood often occur in response to life events. Winning the lottery or acing an exam usually puts a person in a very good mood, while being fired from a job or dumped by a girlfriend typically causes feelings of sadness. Within the context of such events, mood variation is expectable and normal, and the *absence* of joy or sadness may be more abnormal than their presence. Even intense changes in mood are considered normal in certain contexts; the death of a family member often evokes intense grief, but we would hardly consider such a reaction to be a sign of a mental disorder. In contrast, *pathological* changes in mood sometimes seem to occur “out of the blue,” without a significant event that might explain the onset or intensity of euphoria or sadness.

This is not to say that mood changes are only pathological when no precipitating factor can be found. Indeed, even grieving can become pathological when it crosses certain thresholds of duration or intensity. But, in general, pathological mood states can be defined as emotional extremes that do not seem appropriate to the person’s *context* or circumstances.

The Continuum Between Normal and Abnormal Mood

As we just noted, mood disorders also differ from normal mood variations in terms of their *duration* and their *intensity*. Whereas we would expect someone to be very sad for several months after the death of a spouse, parent, or child, we would be surprised if mourning continued uninterrupted for years. Similarly, even a minor case of the blues warrants concern if it is present for an extended period of time. As for intensity, depression and mania do not always last very long, but they can be so intense that they seriously interfere with functioning and may even be life-threatening. For example, peo-



The importance of context



Normal-abnormal continuum

ple who are severely depressed often have trouble working, maintaining relationships, caring for their own hygiene, or feeling that life is worth living.

Of course, the line between “normal” and “abnormal” mood will always be somewhat blurry and arbitrary. For example, we cannot say with certainty that it is “normal” to take to bed for two days after a bad breakup, but not for four. One useful way to think about the difference between normal and pathological moods is to compare mood to physical health. Healthy people still get sick, but their bodies are capable of fighting off many infections, and their illnesses usually do not develop into serious conditions. Similarly, it is normal to feel sad occasionally, but some people do not recover easily from periods of sadness and instead spiral into depression. In sum, pathological mood states are also defined by being toward the extreme ends of the mood *continuum*.

Critical Thinking Question

Would you say that it is *context* or *continuum* issues, or both, that define Mark’s moods, described at the beginning of the chapter, as abnormal?

CLASSIFYING MOOD DISORDERS

Fluctuations in mood occur in many forms of psychopathology where mood disturbance is not the central feature. For example, people with *personality disorders* (Chapter 11), *eating disorders* (Chapter 8), *anxiety disorders* (Chapter 4), *sexual disorders* (Chapter 10), *schizophrenia* (Chapter 12), or *substance use disorders* (Chapter 9) often become depressed. This chapter, however, will focus on the classification, explanation, and treatment of disorders in which significant disruption in mood is the *central* symptom—the group of disorders currently classified in the DSM-IV-TR as the mood disorders.

Historical Relativism in Classifying Mood Disorders

The evolution of the DSM-IV-TR classification of mood disorders is worth noting because it highlights the core concept of *historical relativism*. The concept of pathological alterations of mood is hardly new; some of the earliest references to depression as a mental disorder come from Sumerian and Egyptian documents dating back to 2600 B.C.E. (Stefanis & Stefanis, 1999). Biblical descriptions of depression also abound. King David, overwhelmed with guilt for having committed adultery, explains, “I am troubled; I am bowed down greatly; I go mourning all the day long . . . I am feeble and sore broken. . . . My heart panteeth, my strength faileth me: as for the light of mine eyes, it also is gone from me” (*Psalms* 38:6,8,10). The Greek physician Hippocrates (460–357 b.c.e.) attributed **melancholia** (an old term for depression) to an imbalance of the four bodily fluids or *humours*—in particular to the presence of too much *black bile* (Chapter 2). In a book from the Middle Ages titled *Anatomy of Melancholy* (1621) Robert Burton, an English scholar, writer, and clergyman, provides an historical summary and description of mood disturbances along with an extensive list of the possible causes of depression: the position of Saturn, melancholy parents, intense love, a ruddy complexion, and so on.

At the end of the nineteenth century, Emil Kraepelin (the father of modern psychiatry) made a significant advance in the classification of mood disorders by separating *bipolar disorder* (then known as *manic-depression*) from *schizophrenia* (Chapter 12); these disorders had previously been lumped together since both can involve hallucinations and delusions. Another major step forward in the classification of mood disorders came in 1957 when Karl Leonhard, a German psychiatrist, argued that **unipolar** mood disorders, in which people experience only abnormally low moods, and **bipolar** mood disorders, in which people experience *both* abnormally low *and* high moods, were two distinct syndromes. As you will see in the upcoming description of the DSM-IV-TR mood disorder categories, the



Cultural and historical relativism

Melancholia An early historical term for depression.

Unipolar disorders Mood disorders in which an individual experiences only abnormally low moods.

Bipolar disorders Mood disorders in which an individual experiences both abnormally low and high moods.

differentiation of unipolar and bipolar mood disorders has been retained as an important diagnostic distinction. Even the name of this category of disorders has changed over time. Early editions of the DSM used the term *affective disorders* for the category now known as mood disorders (*affect* is still sometimes used as a synonym for mood or emotion).

BRIEF SUMMARY

- Moods include emotional, cognitive, motivational, and even physical components.
- Fluctuations in mood are normal and expectable reactions to life events.
- Mood disorders are characterized by moods of extreme intensity or duration that are debilitating and often seem “out of context.”
- Classification systems for mood disorders have changed significantly over time, highlighting the core concept of *historical relativism*.
- The separation of bipolar mood disorders from schizophrenia (by Emil Kraepelin) and the recognition of unipolar and bipolar mood disorders as distinct syndromes (by Karl Leonhard) are two significant milestones in the history of classifying mood disorders.



Critical Thinking Question

Scientists in every historical period view depression through currently available paradigms for understanding mental distress. Hippocrates explained depression in terms of an imbalance in the bodily humours. Burton’s explanation involved a misalignment of the planets. Do we have any good reason to believe that our “modern” views of depression won’t seem equally ridiculous to abnormal psychology students in the year 2200?

Mood episodes Periods of abnormal mood that are the building blocks of the DSM-IV-TR mood disorders.

Major depressive episode A two-week or longer period of depressed mood along with several other significant depressive symptoms.

The DSM-IV-TR Categories

The DSM-IV-TR recognizes five main mood disorders: *major depressive disorder*; *dysthymic disorder* (sometimes referred to as “minor depression”); *bipolar I disorder*; *bipolar II disorder*; and *cyclothymic disorder*. These disorders are based on various combinations of **mood episodes**, which are the “building blocks” of mood disorders. The DSM-IV-TR lists three different mood episodes: *major depressive episode*, *manic episode*, and *hypomanic episode* (Table 5.1).

Mood Episodes

We’ll begin our description of the DSM-IV-TR mood *disorders* by presenting the mood *episodes* from which they are built. Once you are familiar with the DSM-IV-TR mood episodes, we will turn our attention to how they occur, repeat, or combine to create full-blown mood disorders.

Major Depressive Episode People who are in the midst of a **major depressive episode** are overwhelmed by feelings of sadness or emptiness. A major depressive episode also typically disrupts thinking, activity, energy levels, and sleep—in short, most aspects of

TABLE 5.1 The Three Primary DSM-IV-TR Mood Episodes

Major depressive episode	■ Severe depression lasting at least two weeks, including several emotional, cognitive, motivational, or physical symptoms.
Manic episode	■ Abnormally elevated, expansive, or irritable mood that lasts at least one week and impairs social and occupational functioning.
Hypomanic episode	■ A less severe version of a manic episode, lasting four days or more, that does not impair functioning.

Adapted from APA, 2000.

TABLE 5.2 Diagnostic Criteria for Major Depressive Episode

- A minimum of five of the following symptoms must be present for at least two weeks. Depressed mood or loss of interest or pleasure must be one of them.
- Depressed mood most of the day, nearly every day.
 - Diminished interest or pleasure in all or almost all activities nearly every day.
 - Significant weight loss or weight gain.
 - Insomnia or hypersomnia (excessive sleeping) nearly every day.
 - Restlessness or lethargy nearly every day.
 - Frequent fatigue or loss of energy.
 - Feelings of worthlessness or inappropriate guilt.
 - Difficulty thinking, concentrating, or making decisions.
 - Recurrent thoughts of death or suicide, planning for suicide, or suicide attempt.

Adapted from DSM-IV-TR (APA, 2000).

life (Table 5.2). Sylvia Plath, a writer who ultimately committed suicide, provided this description of a depressive episode in her autobiographical novel, *The Bell Jar*.

I was still wearing Betsy’s white blouse and dirndl skirt. They drooped a bit now, as I hadn’t washed them in my three weeks at home. The sweaty cotton gave off a sour but friendly smell.
I hadn’t washed my hair for three weeks, either.
I hadn’t slept for seven nights.
My mother told me that I must have slept, it was impossible not to sleep in all that time, but if I slept, it was with my eyes wide open, for I had followed the green, luminous course of the second hand and the minute hand and the hour hand of the bedside clock through their circles and semicircles, every night for seven nights, without missing a second, or a minute, or even an hour.
The reason I hadn’t washed my clothes or my hair was because it seemed so silly.
I saw the days of the year stretching ahead like a series of bright, white boxes, and separating one box from another was sleep, like a black shade. Only for me, the long perspective of shades that set off one box from the next had suddenly snapped up, and I could see day after day after day glaring ahead of me like a white, broad, infinitely desolate avenue.
It seemed silly to wash one day when I would only have to wash again the next.
It made me tired just to think of it.
I wanted to do everything once and for all and be through with it.
(Plath, 1966, pp. 142–143)

Plath’s description highlights several emotional, cognitive, motivational, and physical symptoms of severe depression. Emotionally, Plath describes feeling completely empty—experiencing neither pleasure nor pain. In contrast, other people who experience a major depressive episode feel extremely sad and may cry for days, often without being able to pinpoint the source of their emotional pain.

Cognitive distortions are also prominent in depression. For example, Plath cannot see the point of doing anything, even things as simple as washing her hair or changing her clothes. Such dramatic loss of perspective can also include an inability to concentrate, make plans, or imagine the future. Andrew Solomon (1998), a writer who, like Plath, has struggled with many depressive episodes, explains: “When you are depressed, the past and future are absorbed entirely by the present, as in the world of a 3-year-old. You can neither remember feeling better nor imagine that you will feel better. Being upset, even profoundly



Sylvia Plath (1932–1963) is recognized as one of the great poets of the 20th century despite her untimely death by suicide at the age of 30.

©AP/Wide World Photos

upset, is a temporal experience, whereas depression is atemporal. Depression means that you have no point of view.” People who experience extreme or frequent depressive episodes may come to the conclusion that they are worthless, a burden on their loved ones, and that their depression will never end (Plath’s “broad, infinitely desolate avenue”).

Depression also interferes with motivation. People who are depressed often have difficulty getting out of bed in the morning, going to work, spending time with friends, or attending to the duties of daily life. Plath describes feeling tired just *thinking* about washing her hair. Unfortunately, such loss of motivation often exacerbates the cognitive distortions common in depression. When unable to motivate themselves to do even simple things, people who are depressed are prone to feeling guilty and worthless and may quickly lose sight of the fact that their diminished motivation is a symptom of depression, not a reflection of personal inadequacy.

Depressive episodes often affect aspects of physical functioning such as sleeping, eating, and energy level. Some people who are depressed develop insomnia (like Plath), whereas others sleep all the time (hypersomnia). Weight loss from lack of appetite is common, but so are constant eating and accompanying weight gain. People who are depressed may also feel extremely lethargic and fatigued, or be tormented by an irritating restlessness.

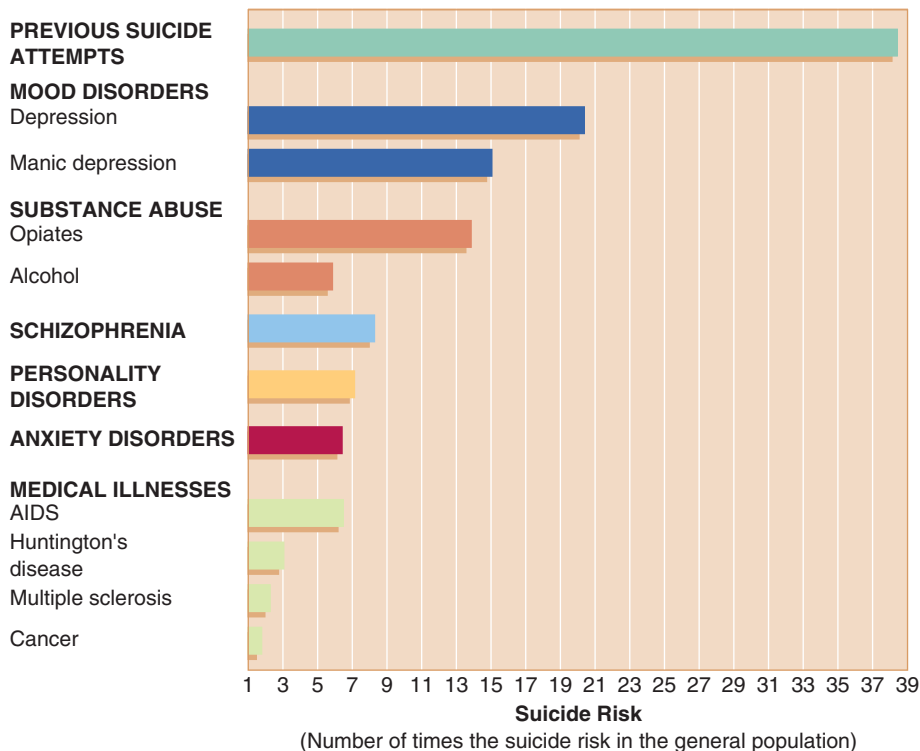
Major depressive symptoms often build up slowly before reaching the levels of intensity described by Sylvia Plath and in Box 5.1. The DSM-IV-TR criteria define a major depressive episode as lasting for at least two weeks, but in most cases an untreated major depressive episode persists for at least six months. As many as 5 to 10% of people who meet diagnostic criteria for a major depressive episode continue to do so for two years or more (APA, 2000).

Suicide

One of the most important and serious symptoms of depression, and of mood disorders generally, is *suicidality*. The emotional pain and feelings of hopelessness associated with a major depressive episode can be enough to make people feel that death would be preferable to their suffering (see Box 5.1). Though not all individuals who attempt suicide are depressed, mood disorders, including bipolar disorders, are an enormous risk factor for suicide. As you can see in Figure 5.1, the risk of suicide is greatly increased in individuals with mood dis-

Figure 5.1 Suicide risk in selected psychiatric and medical conditions This graph shows the increased risk for suicide associated with various psychiatric and medical conditions. As you can see, the greatest risk for suicide is a history of previous suicide attempts—such individuals are almost 39 times more likely than the general population to commit suicide. Among the psychiatric and medical disorders, mood disorders are by far the biggest risk factors for suicide.

(Adapted from Jamison, 1999b, p. 101)



BOX 5.1 Suicide: The Loss of Hope

Kay Redfield Jamison, a psychologist and leading expert in the area of mood disorders, suffers from bipolar disorder and has written extensively about the personal and scientific aspects of depression, mania, and suicide. In *Night Falls Fast: Understanding Suicide* Dr. Jamison describes the final days of a suicidal woman:

On October 29, 1995, twenty-year-old Dawn Renee Befano, a talented Maryland freelance journalist killed herself. She left behind twenty-two journals which are now in unpublished manuscript form. Excerpts from the journal written in the weeks leading up to her death show how unbearable her world had become, how her sense of her options had constricted them to nonexistence, and how an agonizing, suffusing hopelessness pervaded all reaches of her mind:

October 9th

I will not last another month feeling as I do now. I do not question that my eyes are brown, and I do not question my fate: I will die a suicide within the next month if relief does not come relatively quick. I am growing more and more tired, more and more desperate. I am dying. I know I am dying, and I know it will be by my own hand. . . .

I am so bone-tired and everyone around me is tired of my illness.

October 10th

Outside the world is crisp and blue, refreshing fall weather, beautiful weather. I feel like hell, trapped in a black free-fall. The contrast between the two makes both seem more extreme.

In a strange way, however, I feel at peace, resigned to my fate. If I do not feel better by the end of November, I have decided to choose death over madness. I know, one way or another, that this will all be over with by the end of next month. This will all be over and done with. . . .

I feel everything and all is pain. I do not want to live, but I must stick it out until my deadline.

October 23rd

I want to die. Today I feel even more vulnerable than usual. The pain is all-consuming, overwhelming. Last night I wanted to drown myself in the lake after everyone in the house had gone to sleep, but I managed to sleep through the impulse. When I awoke, the urgency had vanished. This morning, the urgency is back. I live in hell, day in and day out. I am not getting any better. "Better" is alien to me, I cannot get there. I am a hopeless case. I have lost my angel. I have lost my mind. The days are too long, too heavy; my bones are crushing under the weight of these days.

October 28th

I will not go back into the hospital. I will simply take a walk into the water.

The pain has become excruciating, constant and endless. It exists beyond time, beyond reality, beyond endurance. Tonight I would take an overdose, but I don't want to be sick, I just want to be dead.

The next morning Dawn woke early. She sat at the kitchen table, ate cold cereal, and worked on the crossword puzzle from the newspaper. After a short while, she left the kitchen and was not seen alive again.

The bed in her room was made neatly, according to her mother. There was "a stack of thirteen library books on the floor, and the contents of her backpack, including keys, cash, and her driver's license, stowed in a large envelope. Her great-grandmother's crystal rosary beads were spread out on the bed." Her body was found months later, floating in a lake.

Adapted from Jamison, 1999b, pp. 94–97.

orders, and it is also high in people suffering from other disorders such as schizophrenia (Chapter 12) and substance use disorders (Chapter 9).

In the effort to understand and hopefully prevent suicide, researchers use a variety of methods, including interviews with individuals who have survived suicide attempts and "psychological autopsies" on those who have not, to collect information on attempted and completed suicides. Some facts about *attempted* and *completed* suicide, along with some common myths about suicide, are described below (adapted from Kerkhof, 2000).

Facts about *attempted* suicide:

- During the 1960s and 1970s in the United States, there was a sharp rise in rates of attempted suicide, followed by a stabilization of these rates during the 1980s and another increase during the 1990s. Currently, there are several million suicide attempts per year in the United States, resulting in well over 30,000 deaths.
- Women are at least 1.5 times more likely to attempt suicide than men, with the highest rates of attempted suicide occurring among women between the ages of 15 and 24 (Langlois & Morrison, 2002).



Virginia Woolf Woolf, the great English writer, committed suicide in 1941 at the age of 59. She probably suffered from what would today be diagnosed as schizoaffective disorder, a combination of a mood disorder and schizophrenia (Chapter 12). Woolf was portrayed by Nicole Kidman in the film *The Hours* (2002) based on the novel by Michael Cunningham.

(Top) ©AP/Wide World Photos
(Bottom) Photofest

- People who are single or divorced are more likely to attempt suicide than people who are married.
- Among both majority and minority ethnic groups, lower levels of education, unemployment, poverty, and history of psychiatric treatment are all associated with increased rates of attempted suicide (Joe et al., 2006). Individuals with chronic illnesses, members of certain professions (including doctors, dentists, law enforcement personnel, and migrant farmworkers), and gay and lesbian adolescents are also at higher risk for suicidal ideation and attempted suicide (e.g., Hovey & Magana, 2003).
- People who are seriously depressed, abusing substances, suffering from a personality disorder (Chapter 11), living in unstable conditions, have criminal records, and/or have a history of traumatic life events are at increased risk for making *repeated* suicide attempts.

Facts about *completed* suicide:

- Worldwide, the highest rate of completed suicide is in people over 75 years of age (Harwood & Jacoby, 2000).
- In the United States and Canada, males are four to five times more likely to commit suicide than females. While women attempt suicide far more often than men, men are more likely to succeed in killing themselves because they typically use more lethal methods than women (Langlois & Morrison, 2002; Peters, Kochanek, & Murphy, 1998).
- In the United States, suicide rates among Caucasians are generally about twice as high as rates among African Americans (Garlow, Purselle, & Heninger, 2005; Peters et al., 1998). However, lifetime prevalence of suicide attempts among African Americans and Caribbean Americans has recently been estimated at 4.1%, with Caribbean men at highest risk among these groups (Joe et al., 2006). Native Americans have an extremely high prevalence of suicide that is well above the national average (EchoHawk, 2006; NCIPC, 1999).
- Although the risk of suicide generally increases with age, suicide is the third leading cause of death among adolescents, following accidents and homicides (Diekstra, Kienhorst, & de Wilde, 1995). Rates of suicide among adolescents in the United States have risen dramatically in recent years.

Myths about suicide:

- *Suicidal thoughts or attempts are always a sign of severe mental illness.* Occasional thoughts about suicide are very common among the general population, and suicide attempts can occur for reasons unrelated to mental illness.
- *There are typically no warning signs of suicide attempts.* In fact, most individuals who attempt suicide have communicated their intentions to others. Accordingly, all suicidal remarks should be taken very seriously, even if they do not appear to indicate an imminent attempt.
- *Talking with a suicidal individual about his or her feelings will increase the likelihood of an attempt.* On the contrary, therapists know that talking with clients about suicidal feelings decreases clients' sense of isolation and hopelessness. Suicide can often be prevented, and suicide hotlines and prevention centers play an important role in this effort. However, working with suicidal clients requires special professional training, and friends and relatives of suicidal individuals should refer them to professionals for help.
- *"Manipulative" suicide attempts or gestures are not dangerous.* Many people have accidentally killed themselves in what were intended to be nonlethal suicide attempts. *All suicidal behavior should be considered very serious, and it is always an indication of a need for a professional mental health evaluation.*

Manic Episode In many ways, mania is the opposite of depression. People experiencing a **manic episode** are sped up, bursting with energy, and tireless in their motivation (Table 5.3). They are often convinced of their own superiority, talk constantly, and switch rapidly from one topic to another. Much can be accomplished during a manic episode: artists, writers, and musicians with bipolar disorder often complete major pieces of work in marathon sessions fueled by mania. Kay Redfield Jamison described her experience of a manic episode in *An Unquiet Mind: A Memoir of Moods and Madness*:

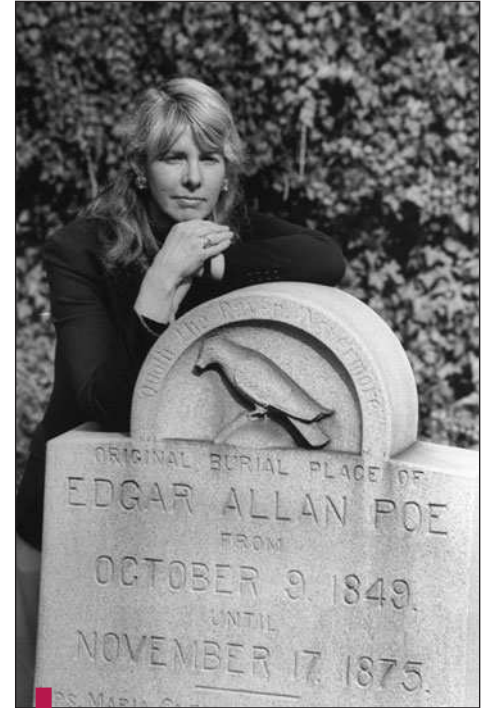
My memories of the garden party were that I had had a fabulous, bubbly, seductive, assured time. My psychiatrist [who happened to be at the party], however, in talking with me about it much later, recollected it very differently. I was, he said, dressed in a remarkably provocative way, totally unlike the conservative manner in which he had seen me dressed over the preceding year. I had on much more makeup than usual and seemed, to him, to be frenetic and far too talkative. . . . I, on the other hand, had thought I was splendid. . . .

My mind was beginning to have to scramble a bit to keep up with itself, as ideas were coming so fast that they intersected one another at every conceivable angle. . . . My enthusiasms were going into overdrive as well although there was often some underlying thread of logic in what I was doing. . . . I found an exceedingly modern apartment in Santa Monica, although I hated modern architecture; I bought modern Finnish furniture, although I loved warm and old-fashioned things. Everything I acquired was cool, modern, angular; and, I suppose, strangely soothing and relatively uninvasive of my increasingly chaotic mind.

(Jamison, 1995, pp. 71–74)

Mania, like depression, involves emotional, cognitive, motivational, and physical symptoms. *Grandiosity*, an inflated sense of self-esteem, is a hallmark of mania and causes people to feel highly special, infallible, or, in Jamison’s words, “fabulous.” While experiencing a manic episode, one man jumped into his bright red sports car, put the radio at full-blast, rolled the windows down, and drove up and down the main street of his small town at 100 miles per hour. When he was pulled over by police, he argued that he could do as he pleased because he was “the greatest thing to happen to this town in years!” During manic episodes some people sleep for only a couple of hours each night, if at all, and yet feel full of energy, hypersexual, and invincible.

Manic episode A one-week or longer period of manic symptoms causing impairment in functioning.



The psychologist Kay Redfield Jamison, pictured here at the grave of Edgar Allan Poe, is an expert on mood disorders who has written about her own manic and depressive episodes.

Robert Sherbow/Time Life Pictures/Getty Images
News and Sport Services

TABLE 5.3 Diagnostic Criteria for Manic Episode

A distinct period of abnormally or persistently elevated, expansive, or irritable mood, lasting at least a week and including at least three of the following symptoms listed below. During a manic episode, social or occupational functioning becomes impaired, and/or psychotic features are present.

- Inflated self-esteem or grandiosity.
- Decreased need for sleep.
- Excessive talking and/or pressured speech.
- Racing thoughts.
- Extreme distractibility.
- Increase in goal-directed activity (for example, highly productive at work or school, increased social and/or sexual activity).
- Excessive pursuit of pleasurable but foolish activities (such as buying sprees, sexual promiscuity, worthless investments).

Adapted from DSM-IV-TR (APA, 2000).



Hypomania Robin Williams, shown here in a still from the movie *Patch Adams*, is well-known for his fast-moving, hyperactive, witty comedy that resembles a hypomanic state.

©Photofest

People who are manic often experience *racing thoughts* and a rapid *flight of ideas* from topic to topic.

While energy is at a peak during a manic episode, judgment usually goes out the window. Manic episodes may cause people to spend recklessly, hatch crazy plans, have impulsive sexual relations, or abuse substances. Mood may progress from excited to short-tempered and irritable. At their most extreme, manic episodes can evolve into psychotic states in which people lose touch with reality and may develop *delusions* (fixed, false beliefs) or *hallucinations* (abnormal sensory experiences). Kay Redfield Jamison describes the following hallucination:

One evening I stood in the middle of my living room and looked out at a blood-red sunset spreading out over the horizon of the Pacific. Suddenly I felt a strange sense of light at the back of my eyes and almost immediately saw a huge black centrifuge inside my head. . . .

Then, horrifyingly, the image that previously had been inside my head now was completely outside of it. I was paralyzed by fright. The spinning of the centrifuge and the clanking of the glass tube against the metal became louder and louder, and then the machine splintered into a thousand pieces. Blood was everywhere. It spattered against the windowpanes, against the walls and paintings, and soaked down into the carpets. I looked out toward the ocean and saw that the blood on the window had merged into the sunset. I couldn't tell where one ended and the other began. I screamed at the top of my lungs.

(Jamison, 1995, pp. 79–80)

Manic episodes often come on quite quickly, building up over a few days or less. They may last for several weeks but are usually briefer than major depressive episodes. Manic episodes often end quite abruptly, and about half of the time they occur immediately after or immediately before a major depressive episode (APA, 2000).

Hypomanic episode A less extreme version of a manic episode that is not severe enough to significantly interfere with functioning.

Hypomanic Episode **Hypomania** is much like mania, only less severe (hence “hypo-,” a prefix derived from the Greek word for “under”). People who are hypomanic engage in behaviors similar to those characterizing a manic state, but their elevated, expansive, or irritable mood never reaches a level that interferes with their functioning (see Table 5.4). Hypomanic episodes are often experienced as pleasurable periods in which self-confidence, sociability, and productivity are heightened. Why, then, is hypomania considered pathological? Keep in mind that hypomania is *not* a diagnostic category, just a mood episode. It is included in the DSM-IV-TR only for the purpose of diagnosing bipolar mood disorders in which hypomanic episodes alternate with different forms of depression.

TABLE 5.4 Diagnostic Criteria for Hypomanic Episode

A distinct period of persistently elevated, expansive, or irritable mood, lasting at least four days, that is clearly different from one's usual nondepressed mood.

- Presence of at least three of the symptoms of mania described in Table 5.3.
- The episode is not severe enough to cause marked impairment in social or occupational functioning.

Adapted from the DSM-IV-TR (APA, 2000).

TABLE 5.5 The DSM-IV-TR Mood Disorders

Major depressive disorder	■ The occurrence of one or more major depressive episodes (lifetime prevalence: approximately 17% of the U.S. population).
Dysthymic disorder	■ Depression that is less severe but more chronic than a major depressive episode, lasting at least two years in adults or one year in children and adolescents (lifetime prevalence: approximately 6%).
Bipolar I disorder	■ Combination of manic and major depressive episodes (lifetime prevalence: approximately 1%).
Bipolar II disorder	■ Combination of hypomanic and major depressive episodes (lifetime prevalence: approximately 0.5%).
Cyclothymic disorder	■ Combination of hypomanic and depressive mood swings that are less severe than in Bipolar I and II disorders but occur chronically for at least two years (lifetime prevalence: up to 1%).

The DSM-IV-TR Mood Disorders

Now that we have described the DSM-IV-TR mood episodes, we can turn to the DSM-IV-TR mood *disorders*, which are based on various combinations of the mood episodes.

The five DSM-IV-TR mood disorders, outlined in Table 5.5, have distinct patterns as you can see in Figure 5.2. For most people, mood centers around “normal” with minor fluctuations up and down. In contrast, the mood disorders are characterized by more extreme fluctuations in mood such as those shown above. As you examine the figure, keep in mind that no two cases of mood disorders follow the exact same course, and few follow the exact patterns shown. The figure simply shows prototypes of each mood disorder to assist in distinguishing among them.

Major Depressive Disorder People who have one or more major depressive episodes, and no history of a manic or hypomanic episode, meet the DSM-IV-TR criteria for **major depressive disorder**. (See Box 5.2 for a description of the DSM-IV-TR subtypes of major depressive disorder.) Not everyone who experiences one major depressive episode will go on to experience another, but the more major depressive episodes a person experiences, the more likely he or she is to continue to have episodes.

Major depressive disorder The occurrence of one or more major depressive episodes.

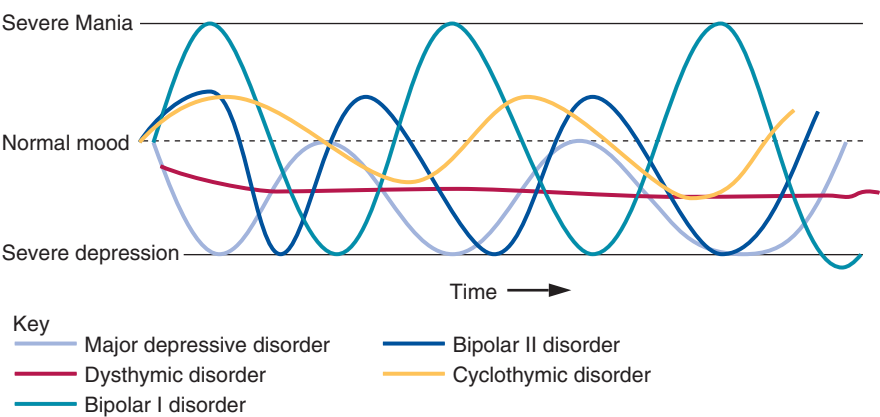


Figure 5.2 Different patterns of mood fluctuation in various mood disorders

Box 5.2 | The Many Faces of Depression

SUBTYPES OF MAJOR DEPRESSIVE DISORDER

The DSM-IV-TR (APA, 2000) describes several subtypes of major depressive disorder. These so-called *specifiers* can be appended to a mood disorder diagnosis in order to further describe the symptoms of an individual who meets the basic diagnostic criteria for major depressive disorder. We include these specifiers here to highlight the many forms that depression can take.

Catatonic Features

In some cases, depression is characterized by profound changes in motoric activity. Catatonic mood states involve either physical immobility (sometimes referred to as *catatonic stupor*) or the opposite—extreme physical agitation. Catatonia that takes the form of physical immobility may be so severe that the person resists all efforts to be moved. People suffering from catatonic excitement may develop strange, stereotyped movements or mannerisms (such as hand-flapping), make repeated grimacing expressions with their faces, or mimic the words and physical actions of those around them.

Melancholic Features

Depressive episodes that are characterized by melancholic features involve a profound loss of the ability to experience pleasure. Although some people who are depressed enjoy a temporary lift in their mood when something good happens, people suffering from depression with melancholic features seem to feel no pleasure at all. In addition, depression with melancholic features is characterized by a deepening of depression in the morning, early morning awakening (usually at least two hours earlier than normal), significant lethargy or physical agitation, loss of appetite and weight loss, and excessive and inappropriate guilt.

Atypical Features

Depression with atypical features is characterized by an improvement in mood in response to positive events and two or more of the following: increased appetite or weight gain, excessive sleeping, a heavy, leaden feeling in the arms or legs, and a hypersensitivity to believing that one has been or will be rejected by others.

Postpartum Onset

Depression with postpartum onset is defined as major depression that occurs in women within four weeks of giving birth (remember the case of Charlotte Perkins Gilman in Chapter 1?). It is significantly more severe than the “baby blues” that many women feel from about three to seven days after having a baby. Women suffering from postpartum depression may experience panic attacks, spontaneous crying, difficulty concentrating, and physical agitation, and may even feel suicidal. In very severe cases of postpartum depression, women lose touch with reality and experience delusions

or hallucinations that usually pertain to the baby, such as believing that the baby is possessed by the devil, or imagining that they are being given instructions to hurt or kill the baby. Though psychotic features sometimes occur in depressions that do not involve the recent birth of a child, they are most common among postpartum women, occurring after as many as 1 in 500 deliveries.

Seasonal Pattern

In about 10% of cases of Major Depression, depressive symptoms regularly recur and remit at certain times of the year, with the most common pattern involving recurrences during the winter months. This pattern is often referred to as seasonal affective disorder (SAD). Winter onset of depressive symptoms seems to be related to circadian human physiological rhythms, including the increased activity of the hormone *melatonin*, which is secreted during darkness and decreases energy and activity levels. Interestingly, *phototherapy* (extra exposure to artificial bright white light) helps most clients who experience a seasonal pattern of depressive symptoms (Lam et al., 2000; Rohan, 2004). Morning exposure to a special bright light box (10,000 lux is the usual recommended brightness) is considered most helpful, although some controversies remain regarding the optimal brightness, timing, and length of treatment (Harvard Mental Health Letter, 2004).



Andrea Yates In 2002, Yates was found guilty of murdering her children in the midst of a psychotic postpartum depression and sentenced to life in prison. In 2006, Yates' conviction was overturned and she was found not guilty by reason of insanity (see Box 12.5) and committed to a psychiatric hospital.

©AP/Wide World Photos

(Information from DSM-IV-TR, APA, 2000)

CASE ILLUSTRATION

Sam experienced his first bout of depression during his junior year of college. The school year started off well, but then Sam received two pieces of bad news in a short period of time. He received a “C” in one of his classes, and a routine medical checkup yielded evidence that Sam might have skin cancer. While waiting for results of a tissue biopsy, Sam fell into a deep depression. He stopped attending class or going to the dining hall to eat. He spent all day in his dorm room sleeping and watching television reruns with the curtains drawn. Although Sam asked his friends to let him know what was due in class, he could not find the motivation to write papers or prepare for exams. After one week, Sam got the news that he did not have cancer, but he remained depressed for another month. The following school year Sam became quite depressed again as he tried to prepare job applications. He spent nine days in his room before one of his friends insisted that he visit the campus infirmary to get help.

One year after being diagnosed with depression, about 40% of people continue to meet the full diagnostic criteria for a major depressive episode, 20% continue to meet some of the criteria, and the remaining 40% are no longer depressed. The intensity of the first major depressive episode tends to predict how long the depression will last (APA, 2000). Like Sam, many people experience their first major depressive episode in the wake of a major stressor (such as the death of a family member or a serious medical illness). However, subsequent major depressive episodes are less likely to be precipitated by significant life stressors.

Dysthymic Disorder If major depression is like breaking an ankle, **dysthymic** (dis-THIGH-mick) **disorder** is like having a bad sprain that refuses to heal. While the symptoms are less severe than in major depression, dysthymia persists over long periods of time (Table 5.6).

Dysthymic disorder Two years or more of consistently depressed mood and other symptoms that are not severe enough to meet criteria for a major depressive episode.

CASE ILLUSTRATION

When Mr. Wilson took a job with a company that offered excellent health insurance, his wife encouraged him to take advantage of their benefits by seeing a psychologist about his long-standing malaise. Agreeing that he had been feeling somewhat sad and listless for quite a while, Mr. Wilson took his wife’s advice. In his first meeting with the therapist, Mr. Wilson explained that he had felt pessimistic for as long as he could remember—with the exception of a brief period of time during adolescence he did not recall ever feeling joyful and excited. He was almost always tired and could bring himself to do little but sit on the couch and watch television when he got home from work in the evening. Though he was very fond of his wife and two children, Mr. Wilson often felt like he was missing out on many of the simple pleasures that it seemed his life should offer.

Like many people who experience dysthymia, Mr. Wilson was able to function in his day-to-day life, but he generally felt sad, tired, and distracted. People who suffer

TABLE 5.6 Diagnostic Criteria for Dysthymic Disorder

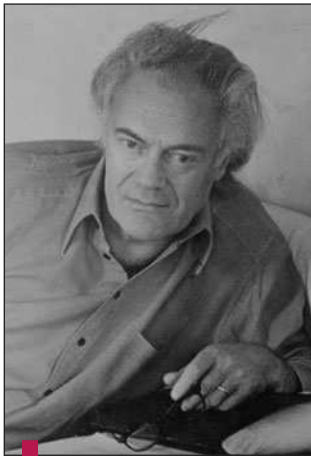
- Depressed mood for most of the day, most days for at least two years.
- Presence, while depressed, of at least two of the following:
 - Poor appetite or over-eating
 - Insomnia or hypersomnia
 - Low energy or fatigue
 - Low self-esteem
 - Poor concentration or difficulty making decisions
 - Feelings of hopelessness

Adapted from the DSM-IV-TR (APA, 2000).

Bipolar I disorder Combination of major depressive episodes and manic episodes.

Bipolar II disorder Combination of major depressive episodes and hypomanic episodes.

Cyclothymic disorder Two years or more of consistent mood swings between hypomanic highs and dysthymic lows.



Robert Lowell Lowell, a Pulitzer Prize-winning poet, suffered from bipolar I disorder, formerly called manic-depression.
©Corbis-Bettmann

from dysthymic disorder tend to feel inadequate, withdrawn, and ineffective. In some cases, dysthymia may periodically worsen and become a major depressive episode, a situation known as “double depression” in which both the diagnosis of dysthymic disorder and major depressive disorder simultaneously apply.

Bipolar I Disorder and Bipolar II Disorder In **bipolar I disorder** (formerly called *manic depression*), normal mood is interrupted by manic and major depressive episodes, or, occasionally, by what are referred to as *mixed episodes* in which both manic and major depressive symptoms are present. On average, people who develop bipolar I disorder go through about four mood cycles (mania and depression) during the first 10 years that they are affected. However, without treatment this pattern often intensifies and mood cycles occur more frequently (APA, 2000). There is considerable variation in the rate of mood cycling and the length of time between episodes. Some people, known as *rapid cyclers*, have as many as four or more mood episodes in the course of a year, whereas other individuals with bipolar I disorder may be free of symptoms for many years. The course of the disorder also varies within individuals; sometimes a rapid cluster of mood cycles can be followed by a long period in which no symptoms are present.

CASE ILLUSTRATION

Rebecca’s troubles with her mood became apparent during college when she would go through periods of having boundless energy and staying awake all night for several nights in a row. At first, she would spend the night in her room participating in Internet chat rooms or ordering expensive merchandise from online catalogs. Before long, she would spend several consecutive nights in bars drinking far more than normal, and going home with guys she had just met. She would tell her roommates all about her adventures, speaking so quickly and continuously that no one else could talk. Her roommates grew worried about the effect that her all-night carousing was having on her schoolwork and her reputation, but when they confronted her with their concerns she became enraged and accused them of being jealous of her “sky-rocketing popularity.” Shortly after a period of staying up all night for three days in a row, Rebecca fell into a deep depression. Her roommates were shocked when they returned to the room one day to find Rebecca unconscious from having overdosed on Tylenol.

Between manic and depressive states, most people with bipolar I disorder return to their typical level of functioning. However, as many as 20 to 30% of people with bipolar I continue to experience some level of mood disturbance when they are neither fully manic nor depressed (APA, 2000). For such individuals, what often appears to be the end of depression is really just the beginning of mania or vice versa. Robert Lowell (1917–1977), the American poet who suffered from bipolar I disorder, is famous for remarking “If we see light at the end of the tunnel, it’s the light of the oncoming train”. As noted, untreated bipolar I disorder usually gets worse over time. Mood starts to cycle more rapidly, both mania and depression can become more intense, and treatment using medications becomes less effective (see Table 5.7).

Bipolar II disorder is similar to bipolar I disorder except that hypomanic episodes occur instead of full manic episodes. The distinction between these two disorders was clarified in the 1980s and was included for the first time in the DSM-IV, published in 1994. Approximately 85% of people with bipolar II return to normal mood states between episodes of depression or hypomania (versus 70 to 80% with bipolar I). As time goes on, between 5 and 15% of people with bipolar II develop full manic episodes, and thus their diagnosis is changed to bipolar I (APA, 2000).

Cyclothymic Disorder **Cyclothymic** (SIGH-klo-thigh-mick) **disorder**, in contrast to bipolar I and II disorders, involves less severe, but more constant, mood swings that

TABLE 5.7 How Mood Episodes Form Mood Disorders

Mood Disorder	Mood Episode			
	Major Depressive Episode	Manic Episode	Hypomanic Episode	Dysthymia ¹
Major depressive disorder	1 or more			
Dysthymic disorder				for at least 2 years
Bipolar I disorder	1 or more	1 or more		
Bipolar II disorder	1 or more		1 or more	
Cyclothymia			recurrent	recurrent

¹ Dysthymia is not considered a mood episode in the DSM-IV-TR.

continue over a period of two years or more. In cyclothymia, mood alternates between hypomanic highs and dysthymic lows. Like bipolar I and II, cyclothymia has the potential to worsen over time; between 15 and 50% of people with cyclothymia go on to develop bipolar I or II (APA, 2000).

CASE ILLUSTRATION

Phil had always been emotionally intense, but his parents became concerned about his moodiness when, even as an adolescent, he seemed to have more severe “ups and downs” than any of his friends. As an adult, Phil’s friends noticed that he would go through phases when he was revved up, bursting with energy, and enormously fun to be with. These emotional highs were usually followed by periods when he would be sluggish, cranky, and full of self-recrimination about all of the “stupid” things he had done when full of energy. Phil was generally able to function adequately and meet his responsibilities, but his mood swings seemed to keep him from reaching his full potential in his career.

BRIEF SUMMARY

- The DSM-IV-TR recognizes five main mood disorders: major depressive disorder, dysthymic disorder, bipolar disorder I, bipolar disorder II, and cyclothymic disorder.
- The DSM-IV-TR mood disorders are based on various combinations of the three types of mood episodes: major depressive episodes, manic episodes, and hypomanic episodes.
- Major depressive disorder involves one or more major depressive episodes.
- Dysthymic disorder involves less severe, but more chronic, depressive symptoms than major depressive disorder.
- Bipolar I disorder involves the recurrence of manic and major depressive episodes.
- Bipolar II disorder involves the recurrence of hypomanic and major depressive episodes.
- Cyclothymic disorder involves a chronic pattern of alternating hypomania and dysthymia.

Classification in Demographic Context

Depression is so prevalent that it is sometimes referred to as the “common cold” of mental illnesses (though this analogy should not be taken to imply that depression is not a serious condition). As many as one-quarter of all women and one-eighth of all men in the United States will meet the diagnostic criteria for major depressive disorder

at some point during their lifetimes—truly alarming statistics (APA, 2000). Keep in mind that these figures do not even include people who suffer from dysthymic, bipolar I, bipolar II, and cyclothymic disorders. Unfortunately, even with the decreasing stigma and increasing awareness of mood disorders today, most of these people do not receive optimal, or even adequate, treatment. Very often, depression goes unnoticed, untreated, or undertreated in primary care settings, although efforts are underway to improve screening and treatment of mood disorders in these settings (Adli et al., 2006; Solberg et al., 2005).

Given the high prevalence rates of mood disorders, it should come as no surprise that they affect all demographic groups, albeit in different ways. Let's take a look at these differences, which again highlight the core concept of the importance of *context* in understanding abnormality. Here, and throughout the rest of this chapter, the unipolar mood disorders (major depressive disorder and dysthymic disorder) will be referred to collectively as “depression” and the bipolar disorders (bipolar I, bipolar II, and cyclothymia) will be referred to collectively as “bipolar disorders,” unless otherwise noted.

Age

The symptoms typically associated with depression differ dramatically based on age. Major depressive disorder, as defined by the DSM-IV-TR, emphasizes the symptoms usually seen in depressed people who are between the ages of approximately 20 and 60. Children, adolescents, and older adults can all become depressed, but they tend to exhibit depression in somewhat different ways. As a result, depression is often underdiagnosed or misdiagnosed in these groups.

Bipolar disorders typically do not develop until adolescence or later (Almeida, 2004), but depression can occur at any age, even during infancy. In a classic study of infants between the ages of 6 and 8 months who were separated from their mothers, Rene Spitz (1965) observed that the babies initially became despondent and withdrawn, and then, after two or three months, developed frozen facial expressions, lost weight, stopped sleeping, and developed myriad illnesses and infections. Amazingly, Spitz found that 30% of these institutionalized infants died by the end of their first year despite the fact that they received adequate nutritional and medical care. In less severe cases, infants who become depressed (usually due to maternal deprivation) withdraw, become listless, and may refuse to eat.

Between the ages of 1 and 5, depression may take the form of the loss or delay of developmental achievements; children may stop feeding themselves, fail to become potty-trained, and so on. Young children who are depressed may lose their appetites, become excessively sleepy, develop nightmares, or be clingy or apathetic. Unlike normal preschoolers, depressed children aren't playful and often look sad. School-aged children who are depressed share many symptoms in common with depressed adults (such as sadness, self-criticism, and loss of motivation), but they may also complain of stomachaches and headaches, be more negative and aggressive with their peers, and be disruptive at school (Wenar & Kerig, 2000).

Depressed adolescents often have trouble at school—their grades typically drop, and they may skip school or stop going altogether. Often the behavior of a depressed teenager is like that of a scared porcupine: he or she becomes very prickly and seems to want to be left alone. To this end, depressed teenagers are often irritable, argumentative, and sometimes aggressive. They may withdraw from friends, pay little attention to their looks, and be overly sensitive. Unfortunately, adolescent depression often involves dangerous behaviors such as drug and alcohol abuse, sexual promiscuity, or extreme risk taking (Wenar & Kerig, 2000). Some evidence suggests that the juvenile-onset depression is associated with more traumatic childhood environments

than adult-onset depression, and that they may have somewhat different etiologies (Jaffee et al., 2002).

Like depression among children and adolescents, depression in older adults can have a unique profile. In addition to the typical symptoms of depression, older individuals may be crabby, muddled, and distracted, or they may have many physical complaints. Severe depression among older adults may include delusional concerns about becoming impoverished or severely ill and can involve confusion and stupor that may be mistaken for an organic delirium or dementia (Chapter 14). Of course, the real stresses of older age—physical, financial, and social—can all contribute to depression, as can many of the medications used to treat medical conditions of the elderly (Karel et al., 2002). Depression is especially dangerous in later life, as shown by high suicide rates among older men and by poor health maintenance in depressed elderly clients. The burden on the relatives and caregivers of depressed older adults is also a public health concern. One study estimated the value of the unpaid time of relatives caring for older depressed family members at \$9 billion per year in the United States (Langa et al., 2004).

Research indicates that depression is the most common psychiatric disorder among older adults, although, on the whole, older people are generally less depressed than younger people (Chiu et al., 1999). The finding that depression occurs less often among the older individuals than the young seems counterintuitive given the various losses and indignities associated with aging, but some possible explanations have been proposed. This finding may reflect the fact that people who suffer from depression have a relatively high mortality rate and thus may not live to old age. Another possibility is that the particular group (or *cohort*) of older people in these studies endured significant hardships during their lifetimes (for example, the Great Depression and World War II), which may have “inoculated” them against depression in later life.

Gender

One of the most consistent and striking findings in the field of abnormal psychology is that females, beginning by about age 12, are twice as likely to be diagnosed with depression as males (Angold et al., 2002; Nolen-Hoeksema & Girgus, 1995; Wade, Cairney, & Pevalin, 2002). Some arguments have been offered that these findings are illusory (for example, women might be more likely to admit to symptoms or seek help than men, or men might manifest depression differently than women), but none has held up under the microscope of empirical investigation (Nolen-Hoeksema, 1990). Rather, research suggests that the difference is real, and that biological, sociocultural, and psychological factors are largely responsible for it. Among the biological factors that may contribute to higher rates of depression in women are genetic differences, premenstrual and hormonal factors, and the effects of pregnancy and childbirth (Kendler et al., 2002). (Box 5.2 provides more detail on postpartum depression, and you may remember the case of Charlotte Perkins Gilman from Chapter 1.)

The sociocultural factors that contribute to the high rates of depression among females center on what is known as *role stress*. Women who pursue traditional female roles, such as full-time mother and homemaker, are at increased risk for depression because these roles are demanding, but traditionally undervalued, in American culture (Stoppard, 2000). Even women who have careers are usually responsible for the majority of housekeeping and child-care responsibilities, meaning that they are expected to fill several roles simultaneously. Research shows that this leads to increased rates of depression, especially when work and home demands come into conflict with each other (Napholz, 1995). Working women tend to be less depressed when their husbands help with the housework. Interestingly, husbands who help around the home do not report more depression than men who don't. Discrimination may also contribute to high rates of depression among women. Women who work tend to be paid less and are given



Depression in adolescents

Depressed teens may be obviously sad, or depression may be expressed in other forms such as apathy, irritability, or risk-taking behaviors.

© Oscar Burriel/Science Photo Library/Photo Researchers, Inc.



Depression and gender

The prevalence of depressive disorders appears to be much higher for women than for men. One theory about this finding is that gender role stresses experienced by women contribute to depression.

© Michael Newman/PhotoEdit

harsher evaluations than men in the same positions who do work of equal quality (Belle & Doucet, 2003; Nolen-Hoeksema, 1990).

A variety of psychological factors may also contribute to the high rates of depression among girls and women. From infancy on, boys are generally socialized to take risks and explore the outside world, while girls are encouraged to stay closer to home and to their mothers. These early lessons in social behavior are thought to contribute to a pattern in which women tend to *internalize* psychological distress, especially in the form of rumination and self-criticism (Nolen-Hoeksema, 2003; Wolfe & Russianoff, 1997), while men are more likely to *externalize* psychological distress through behaviors such as substance abuse and aggression. (Indeed, while women are disproportionately represented among the ranks of the depressed, prison populations are overwhelmingly male.) Furthermore, women are also far more likely to be subject to certain types of victimization than men. Sexual harassment, rape, spousal abuse, and childhood sexual abuse occur disproportionately among females, and all of these forms of victimization have been associated with heightened vulnerability to depression (Brems, 1995).

Unlike depression, bipolar I disorder seems to occur equally among men and women. However, bipolar II disorder may be more common among women, and women are at increased risk for developing all varieties of mood episodes (depressive episodes, mania, or hypomania) immediately after giving birth (APA, 2000).

Culture

Studies of the different racial groups in the United States have found that, over their lifetimes, African Americans are significantly less likely than whites to become depressed, while the rate of depression for Latinos falls about midway between these two groups (Riolo et al., 2005; Weissman et al., 1991). However, it also appears to be true that psychiatric disorders in general are more often neglected by health-care providers when they occur in blacks compared to whites (Kunen, 2005).

International studies provide conflicting evidence about whether people of different nationalities are more or less likely to be depressed, but significant disparities may exist. For example, some studies have found lifetime prevalence rates for depression as low as 3.3% for people living in Seoul, South Korea; these are far lower than rates in the United States (Kessler et al., 1994; Lee et al., 1990). Although rates of bipolar illness appear to be quite consistent across cultures, there is some evidence that members of American minority populations with bipolar disorders are at heightened risk for being misdiagnosed with schizophrenia by clinicians (APA, 2000).

It is well established that the experience and expression of depression are *culturally relative*. Americans, for example, tend to communicate feelings of depression in terms of emotional symptoms—feeling sad, “down in the dumps,” or irritable—while members of many Asian cultures may experience primarily physical symptoms, such as being weak or tired, when depressed. (These differences may partially account for the above-mentioned disparity in reported rates of depression between Koreans and Americans.) Latino and Mediterranean individuals often describe depression in terms of “nerves” or frequent headaches, while some Middle Eastern and Native American populations speak of being heartbroken or having a problem in the heart (APA, 2000).

Class

Rates of depression positively correlate with poverty, low levels of education, and unemployment or inadequate employment. Studies of people living in poor neighborhoods find that depression is associated with having limited economic resources and is further exacerbated by the stress of living in neighborhoods where the social order has deteriorated (Ross, 2000). A major British study of depression found that being poor was a highly significant factor in determining who was depressed and that poverty was also highly pre-



Cultural and historical relativism



Depression and economic stress

Research has shown that rates of depression are higher among those living in poverty and the unemployed, like these people waiting at an unemployment office in Boston.

© Rob Crandall/The Image Works

dictive of depression lasting six months or longer (Ostler et al., 2001). Researchers interested in the effects of unemployment on mood compared depression in a group of factory workers who were laid off to workers at a similar factory who kept their jobs. The unemployed factory workers were not only more depressed than the employed comparison group, but their depressions became increasingly severe the longer their unemployment lasted (Hamalainen et al., 2005). While social class does not appear to be correlated with bipolar disorders, repeated manic and depressive episodes have consistently been found to interfere with work productivity and thereby to decrease the socioeconomic status of affected individuals.

BRIEF SUMMARY

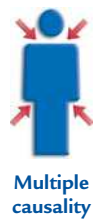
- Infants, children, adolescents, adults, and the elderly can all suffer from depression, but tend to experience and express their symptoms in different ways.
- After age 12, females are twice as likely to be depressed as males, partly due to sociocultural factors such as role stress, patterns of feminine socialization, and the fact that females are disproportionately subject to certain kinds of victimization.
- The prevalence of depression varies across cultures. In addition, the subjective experience of depression varies across cultures, highlighting the core concept of *cultural relativism*.
- Poverty, lack of education, and unemployment or inadequate employment are all positively correlated with depression.

EXPLAINING AND TREATING MOOD DISORDERS

All of the major theoretical perspectives in abnormal psychology have contributed to our understanding of mood disorders and their treatment. We'll review the explanatory concepts and treatment interventions associated with each perspective and then highlight areas in which they overlap or complement each other, in keeping with the principle of *multiple causality*. As before, the term *depression* will be used to refer to both major depressive disorder and dysthymic disorder, and the term *bipolar* will be used to refer to bipolar I, bipolar II, and cyclothymic disorders. We'll begin our exploration of the explanations and treatments of mood disorders by considering their biological components, since recent major breakthroughs in the understanding of the biology of mood disorders have brought the biological perspective on mood disorders into prominence.

Biological Components

Biological contributions to depression include genetic, neurochemical, and hormonal factors. Evidence from all three of the major genetic research strategies—family, adoption, and twin studies—demonstrates that a vulnerability to some forms of depression can be inherited. For example, family studies have found that both the first and second-degree relatives of people who are depressed are significantly more likely to suffer from major depressive disorder than the relatives of nondepressed controls (Harrington et al., 1997). Adoption studies have found that the biological relatives of depressed adoptees are much more likely to commit suicide than the relatives of adoptees who are not depressed (Baldessarini & Hennen, 2004; Wender et al., 1986). Twin studies also support the hypothesis that depressive disorders have a genetic component; some research indicates that this is particularly true of severe, recurrent depressions (e.g., McGuffin et al., 1996). For example, in one study the concordance rate for identical (or *monozygotic*) twins with three or more episodes of major depression was 59%, while the



Monoamines A class of neurotransmitters involved in mood disorders, including norepinephrine, dopamine, and serotonin.

Monoamine hypothesis The hypothesis that depression is partially caused by insufficient neurotransmission of monoamines.

Cortisol A hormone released by the pituitary gland in response to stress.

concordance rate for identical twins with less than three major depressive episodes was 33% (Bertelsen, Harvald, & Hauge, 1977).

One specific genetic vulnerability to depression may involve the short form of the 5-HTT gene, sometimes referred to as the “mood gene.” In a recent study of individuals with histories of exposure to severe stress, those with one or two short forms of this gene were much more likely to become depressed than those with two long forms of the gene (Caspi et al., 2003). These findings provide an excellent illustration of the diathesis-stress model and the principle of *multiple causality*, since they indicate that a combination of life stress and genetic vulnerability are necessary to produce depression.

Genetic factors may predispose a person to depression by affecting brain structures and functions involved in mood regulation. Recent research on brain functions in depression has focused on a certain class of neurotransmitters known as **monoamines**, especially *norepinephrine*, *dopamine*, and *serotonin*. Like all neurotransmitters, the monoamines act as chemical messengers that pass information among neurons in the brain. Electrochemical impulses stimulate neurons to release neurotransmitters into the *synaptic cleft* (the space between neurons) where they can be absorbed by the membranes of adjacent neurons and stimulate further electrochemical responses. Leftover neurotransmitters that are not absorbed by an adjacent neuron are either reabsorbed into the neuron that released them or broken down by enzymes in the synaptic cleft (see Chapter 2 and Chapter 5 Visual Essay).

The **monoamine hypothesis** argues that depression is related to insufficient transmission of monoamines between neurons. Evidence supporting this hypothesis comes from the fact that medications that increase the availability of monoamines can relieve depression, whereas medications that interfere with the functioning of monoamines or monoamine receptors can cause depression (Hughes et al., 2004; Thase & Howland, 1995). The monoamine hypothesis seems simple enough, but the complete story is quite a bit more complicated, and the hypothesis has been the focus of ongoing debate (e.g., Lacasse & Leo, 2005; Valenstein, 1998). For example, medications that relieve depression usually must be taken for several weeks before they have a beneficial effect, even though they almost immediately increase the availability of monoamines at the synaptic cleft. As a result, researchers now speculate that it is not just the amount of neurotransmitter in the synaptic cleft that is important, but also the number of receptor sites available in the adjacent neurons. Higher concentrations of monoamines in the synaptic cleft (such as when stimulated by medication) may lead to the growth of more receptor sites in adjacent neurons through which monoamines can be absorbed—a process that may take several weeks. While the complex interactions between such brain functions (neurotransmission) and brain structure (neuron receptors) are not yet well understood, researchers increasingly appreciate that brain structures are highly *plastic*, meaning that they can change over time.

The *endocrine*, or hormonal, system in the body may also play an important role in some forms of depression. For a long time, clinicians have known that endocrine disorders such as hypothyroidism, hyperthyroidism, and Cushing’s disease can cause depression. Research into the relationship between hormones and depression points to the role of the *HPA* (*hypothalamic-pituitary-adrenocortical*) axis (see Figure 4.6), which responds to stress by releasing **cortisol** into the bloodstream. A significant percentage of people who are severely depressed have high blood levels of cortisol, indicating the possibility of both high levels of life stress and failure of the HPA axis to properly suppress or inhibit cortisol release (Young et al., 2003). (See Chapter 3 for a discussion of the Dexamethasone Suppression Test, which some researchers had hoped could become a biological test for depression based on cortisol suppression.) Some researchers suggest that sustained stress during critical periods of development may damage the cells regulating feedback within the HPA axis. In other words, ongoing childhood stressors



Mind-body connection

such as emotional neglect or an unstable home environment may lead to permanent dysregulation of the HPA axis and, possibly, predisposition to subsequent depression (Insel, 1991; Vermetten & Bremner, 2002). This hypothesis provides a good example of the core concept of the *connection between mind and body* insofar as the emotional impact of early life events has the potential to shape the structures and functions of the developing brain. This is also one of the ways in which biological and psychological perspectives on mood disorders may be integrated in accordance with the principle of *multiple causality*.

Bipolar disorders, especially bipolar I and II, have a significant genetic component: Various twin studies have found concordance rates ranging from 43 to 87% for identical (or *monozygotic*) twins as compared to 6 to 39% for nonidentical (or *dizygotic*) twins (Kieseppa et al., 2004). Adoption and family studies of bipolar disorder have further confirmed the heritability of a predisposition to bipolar disorders (Harrington et al., 1997; Tsuang & Faraone, 1990). Researchers continue to search for the precise genes involved in bipolar disorders and for indications of precisely how particular genes relate to the emotional and behavioral manifestations of the disorders (see Box 5.3).

Research on the biological mechanisms of bipolar disorders has also focused on neurotransmission. Studies have shown that the monoamines (norepinephrine, dopamine, and serotonin) seem to increase during mania and decrease during depression, but no conclusive evidence exists as to whether these changes in neurotransmitter levels are a *cause*, or an *effect*, of the mood swings (Anand & Charney, 2000). In addition, the *switch mechanism*—the process that triggers the switch from one mood state to another—is not well understood. In all likelihood, several neurotransmitter systems interact to bring about these abnormal alterations in mood.

Abnormal brain *structures* have also been found in connection with mood disorders, although it is often difficult to exclude the possibility that the changes could have been caused by medications in those clients who have received treatment before they were studied. Structural brain abnormalities in unipolar depression appear to be concentrated in the prefrontal cortex, basal ganglia, cerebellum, and hippocampus (based on brain imaging studies, which use computed tomography [CT] and magnetic resonance imaging [MRI] to study the living brain), and bipolar disorders seem to be linked to anomalies in the amygdala, prefrontal cortex, and cerebellum (see Figure 2.6) (Soares & Innis, 2000). In addition, some studies have found that people suffering from bipolar disorders have defects in the sodium ion channels of neural membranes that may cause neurons to be over- or undersensitive to firing, resulting in mood swings (El Malakh & Wyatt, 1995).

Biological Interventions

Biological interventions for unipolar depression have developed steadily over the last 50 years. At present, three major classes of medications are used to treat depression: **tricyclics**, **monoamine oxidase inhibitors (MAOIs)**, and **selective serotonin reuptake inhibitors (SSRIs)**. Although each class of drugs is chemically unique, they all work by increasing levels of certain neurotransmitters (especially serotonin and norepinephrine) within the synaptic cleft. The tricyclics and MAOIs are often described as “first-generation” antidepressants because they have been in use since the 1950s, whereas the SSRIs and their close relatives are considered “second-generation” antidepressants because they were introduced in the 1980s. These second-generation antidepressants such as fluoxetine—commonly known by its brand name, Prozac—have become the most common biological intervention for depression.

The tricyclic antidepressants take their names from their three-ring chemical structure. They exert their antidepressant effect by blocking the *reuptake* of monoamines back into the neuron from which they were released, thus increasing the likelihood that

Tricyclics A “first-generation” class of antidepressant medications which increases the availability of both serotonin and norepinephrine.

MAO inhibitors (monoamine oxidase inhibitors) A “first-generation” antidepressant; they inhibit the enzymes that oxidize monoamines thus enhancing neurotransmission.

SSRIs (selective serotonin reuptake inhibitors) A “second-generation” class of antidepressant medications that block the reuptake of serotonin from the synapse; used in the treatment of depression and other disorders.

Box 5.3 Empirical Investigations

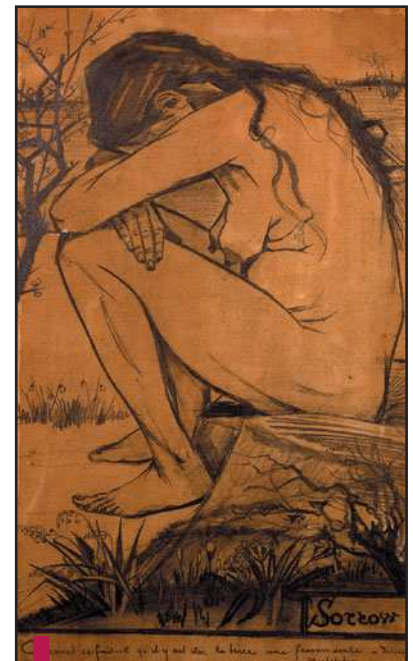
ARE MOOD DISORDERS AND CREATIVITY LINKED?

FOCUS ON RESEARCH

The apparent commonality of depression, mania, and sometimes suicide, among creatively talented people has led to questions about whether there is such a thing as an “artistic temperament” (Nowakowska et al., 2005). Writers and poets such as Ernest Hemingway, Emily Dickinson, Sylvia Plath, Anne Sexton, and Lord Tennyson, and painters such as Vincent Van Gogh, Mark Rothko, and Jackson Pollock are nearly as well known for their extreme moods as they are for their outstanding creative achievements. The question of whether there is, in fact, an association between mood disturbance and creativity has recently been held up to the light of scientific research and has yielded some interesting results.

In a large study of 1005 individuals whose biographies were reviewed in the *New York Times Book Review*, Arnold Ludwig of the University of Kentucky (1992) compared the psychological histories of artists and writers with those of individuals in other professions such as business, science, and public service. He found significantly higher rates of mania, suicide, and involuntary hospitalizations among the artists and writers as compared to members of other professions. In a particularly clever study of the possibility that heightened creativity and mood disturbance might share a genetic basis, Ruth Richards and her colleagues at McLean Hospital (1988) compared levels of creativity among: (1) people suffering from bipolar disorders, (2) the first-degree relatives of the bipolar participants, and (3) a control group of participants who were neither bipolar nor closely related to someone who was. The members of the first two groups (those with bipolar disorder and their relatives) were significantly more creative than the control group. Furthermore, the first-degree relatives of people suffering from bipolar disorders were *more* creative than their bipolar relatives! This second finding—that the relatives of the bipolar participants were the most creative of all—has an important implication. In addition to supporting the idea that some of the same genes that predispose a person to bipolar illness might also contribute to creativ-

ity, it indicates that these “creativity genes” may be more successfully expressed in individuals who do *not* also have mood disorders. Similarly, most artists and writers who experience extreme moods increase their productivity and vastly improve the quality of their lives when properly treated for their mood disorders (Hershman & Lieb, 1998). Is there anything about mood disorders themselves, though, that might promote creativity? Kay Redfield Jamison (1999a; 2005), a well-known expert on the subject, notes that mania can be characterized by highly creative thinking as well as by increased productivity. She also notes that “when artists and writers who have mood disorders are asked what they think is the most important aspect of what happens to them, they will often say that it’s the range and the intensity of their emotional experiences” (1999a, p. 73). However, many researchers point out that the extreme suffering and personal and professional disruptions caused by depression and mania hardly constitute a “blessing.” As we noted, when mood disorders are treated, creativity usually remains and the artist is often better able to make use of his or her talent.



“Sorrow,” drawing by Vincent Van Gogh Van Gogh’s drawing captures the anguish of depression.

Walsall Art Gallery/Bridgeman Art Library/London



Mood disorders and creativity Emily Dickinson, Ernest Hemingway, and Jackson Pollock are three examples of the apparent link between mood disorders and creative talent.

(Left) © Topham/The Image Works (Center) Corbis (Right) © Rudolph Burckhardt/Corbis Sygma/Corbis

monoamines will be absorbed by adjacent neurons (see Chapter 5 Visual Essay). The tricyclic antidepressants have been found to be effective in relieving depression in the majority of clients who take them, but they also have some unpleasant, common side effects including dry mouth, constipation, urinary retention, blurred vision, sedation, and weight gain. In addition, it can take up to several weeks to determine if tricyclics are producing a beneficial effect (Berman et al., 2004).

The monoamine oxidase inhibitors (MAOIs) do what their name implies: they inhibit the enzymes that oxidize (or break down) monoamines. This raises the monoamine level in the synaptic cleft and increases the chances that monoamines will be passed between neurons. The MAOIs have been found to be effective in alleviating depressive disorders, particularly those with atypical features (see Box 5.2), but they do have some significant drawbacks. First, like the tricyclics, the MAOIs must be taken for several weeks in order to determine whether they are effective for an individual client. Second, MAOIs generally have more side effects than tricyclics, including disrupting the body's ability to metabolize *tyramine*, an amino acid found in many common foods such as aged cheese, red wine, beer, and chocolate. People who ingest tyramine while taking MAOIs do so at the risk of having a severe, possibly life-threatening, hypertensive crisis (Berman et al., 2004). In addition, both tricyclics and MAOIs can be fatal in overdose—a difficult problem when treating people who may be suicidal.

During the 1960s and 1970s, the tricyclics and MAOIs were the first-line biological interventions for depression. But given the unpleasant physical side effects and potential dangers of these medications, many physicians only prescribed antidepressants to clients who were very seriously depressed. As we noted, a potentially lethal antidepressant presents a significant clinical dilemma: because the tricyclics and MAOIs take several weeks to work, writing a prescription for these medications can seem like handing a loaded gun to someone who might be feeling suicidal. This clinical dilemma accounts, in large part, for the enormous popularity of the newer “second-generation” antidepressants (SSRIs and related drugs), which have roughly the same clinical effectiveness as the older medications but have fewer side effects and are less lethal in overdose, making them much safer to prescribe.

The SSRIs work by inhibiting the reuptake of serotonin after it has been released into the synaptic cleft, thereby leaving more serotonin available for absorption by nearby neurons. Compared to the tricyclics and MAOIs, the SSRIs tend to have less severe side effects, although they can cause restlessness, upset stomach, and sexual dysfunctions. Despite the advantages of the SSRIs and other related second-generation antidepressants, all three classes of antidepressants continue to be prescribed since different people respond differently to the same medications.

During the 1980s and 1990s, the SSRIs gained rapid popularity within the United States, owing, in part, to aggressive marketing by their manufacturers in the multibillion antidepressant market and glowing testimonials from some clients. Pharmaceutical companies pay for almost 90% of medication research studies, and the results of these studies tend to show better responses to the medications than similar studies not sponsored by the companies (Harvard Mental Health Letter, 2006). Some studies (e.g., Einarson et al., 1999) suggest that the second-generation antidepressants may have been overhyped and are at best only marginally more effective than tricyclics, MAOIs, or even placebos. Indeed, researchers have shown that the effectiveness of all antidepressants may be mainly due to placebo effects (Kirsh et al., 2002; Kirsh & Saperstein, 1998), and studies are beginning to shed light on some of the neurological mechanisms involved in placebo responses (Leuchter et al., 2002; Mayberg, Silva, Brannan, et al., 2000). Given these factors, many experts question the wisdom of liberally prescribing SSRIs, especially since SSRIs are increasingly being prescribed by general practitioners and family physicians without a comprehensive psychological or psychiatric evaluation.



Antidepressant medication

“Second-generation” antidepressants, like those shown here, have been hailed as a breakthrough in treating mood disorders. Studies show that these newer antidepressants are not significantly more effective than older medications but they usually have fewer side effects.

© Bill Aron/PhotEdit

Antidepressant Medications and their Mechanisms of Action

Overview

Antidepressants produce their effect by increasing the availability of monoamines, particularly norepinephrine and serotonin, in the synaptic cleft. The synaptic cleft is the space between the sending neuron (presynaptic neuron) and the receiving neuron (postsynaptic neuron). When the level of monoamines is increased in the synaptic cleft, receptor sites on the postsynaptic neuron detect the monoamines, and the increased monoamine transmission seems to be related to a subsequent reduction in depressive symptoms.

Mechanism of Action: Tricyclic Antidepressants

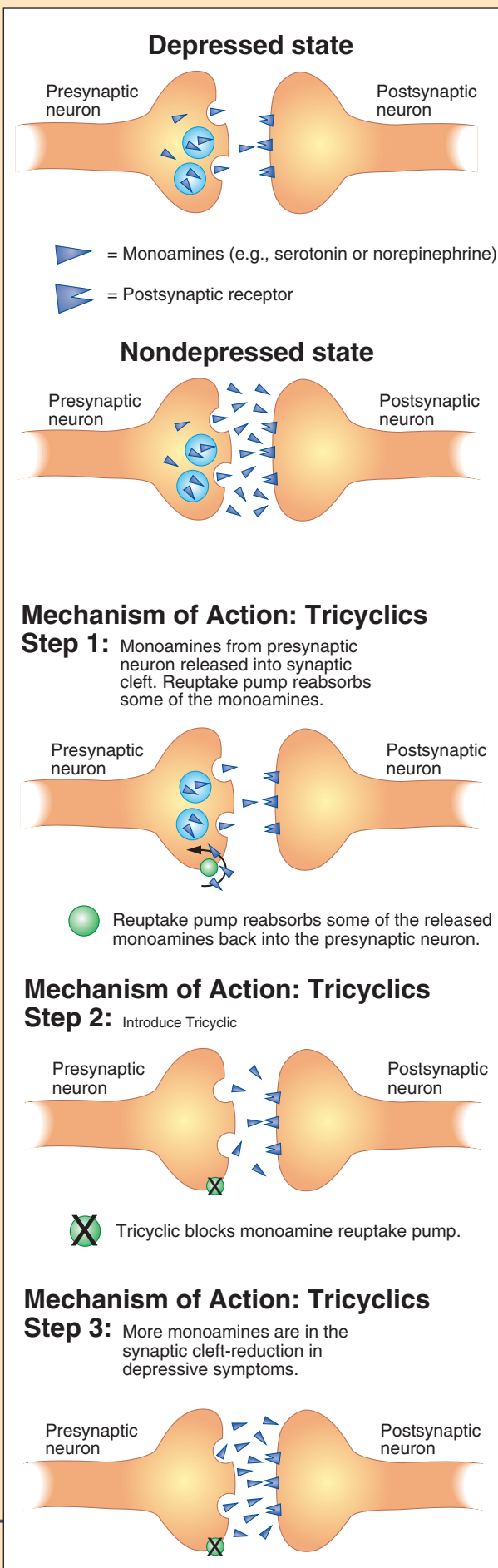
After monoamines are released by the presynaptic neurons into the synaptic cleft, a reuptake pump on the presynaptic neuron's membrane reabsorbs some of the monoamines back into the neurons. This reabsorption may be associated with depression as not enough monoamines are available to the postsynaptic neurons. Tricyclic antidepressants block the reuptake pump on the presynaptic neuron in order to increase the availability of monoamines in the synaptic cleft. Unfortunately, because tricyclics also block receptors that are implicated in other bodily functions, side effects such as dry mouth, constipation, urinary retention, blurred vision, sedation, and weight gain are common with these medications.

Mechanism of Action: MAO Inhibitors (MAOIs)

MAO is an enzyme that breaks down monoamines in the presynaptic neuron. This process can be associated with depression if there are not enough monoamines being released into the synaptic cleft. MAOIs are a class of antidepressants that inhibit MAO from breaking down monoamines, thereby increasing the amount of monoamines in the synaptic cleft. When MAO is inhibited, however, it also cannot break down tyramine, an amino acid found in many common foods, such as aged cheese, red wine, beer, and chocolate. People who take MAOIs are instructed not to eat these products to protect against having a life-threatening, hypertensive crisis (i.e., dangerous elevations in blood pressure).

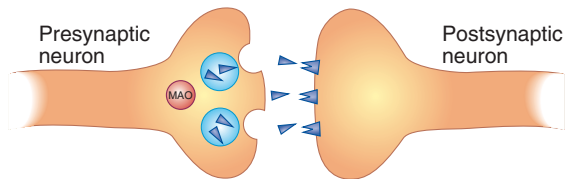
Mechanism of Action: SSRIs (Selective Serotonin Reuptake Inhibitors)

Unlike tricyclics which block the reuptake of multiple monoamines, SSRIs focus on blocking the reuptake of serotonin. Because SSRIs selectively target serotonin, they cause fewer side effects than tricyclics. SSRIs inhibit the serotonin reuptake pumps located in different parts of the presynaptic neuron. This leads to an increase in serotonin in the extracellular fluid surrounding the dendrites of the presynaptic neuron, in addition to an increase in serotonin at the synaptic cleft.



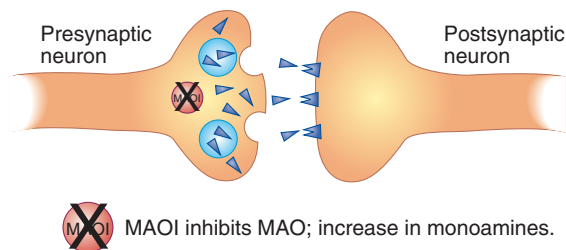
Mechanism of Action: MAOIs

Step 1: MAO is an enzyme that breaks down monoamines.



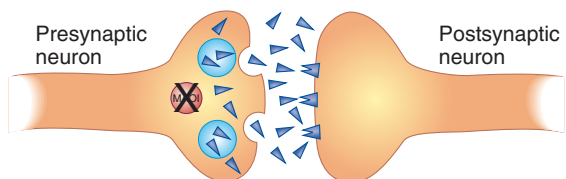
Mechanism of Action: MAOIs

Step 2: Introduce MAOI



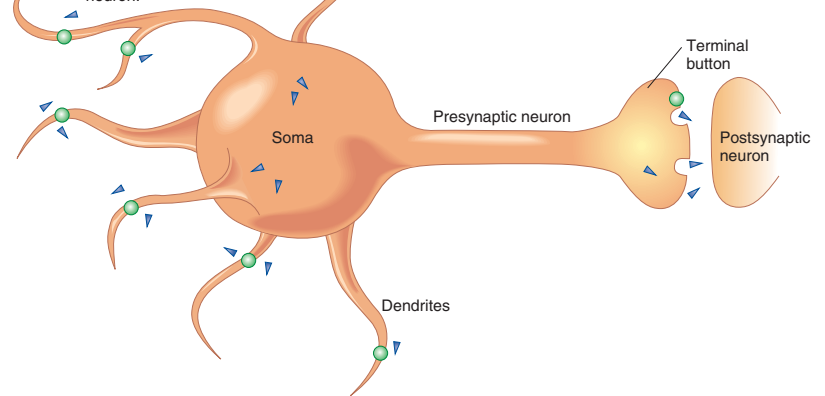
Mechanism of Action: MAOIs

Step 3: More monoamines in synapse
-reduction in depressive
symptoms.



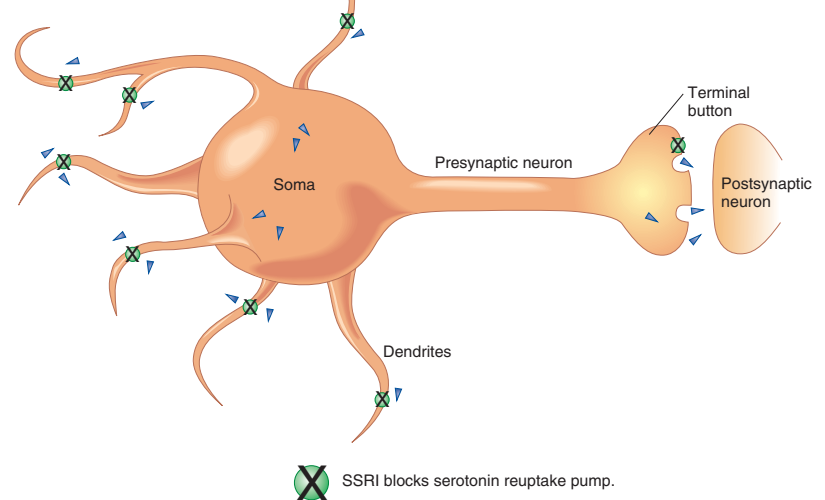
Mechanism of Action: SSRIs

Step 1: Serotonin reuptake pumps on the dendrites and terminal button of the presynaptic neuron reabsorbs serotonin back into presynaptic neuron.



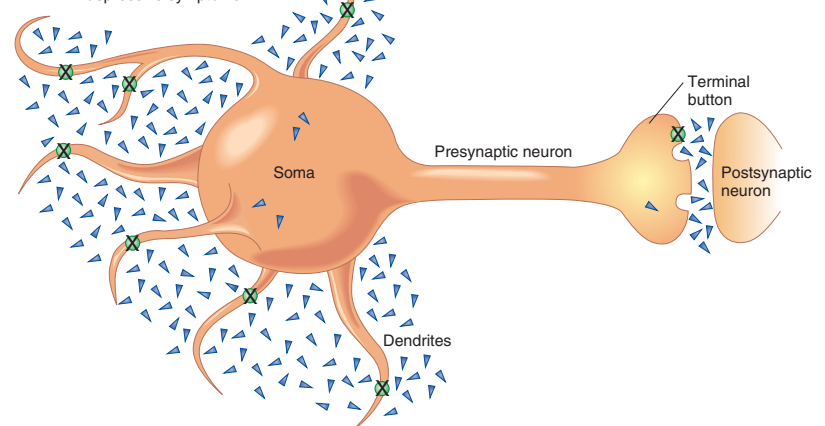
Mechanism of Action: SSRIs

Step 2: Introduce SSRI



Mechanism of Action: SSRIs

Step 3: More serotonin in extracellular fluid leads to reduction in depressive symptoms.



ECT (electroconvulsive therapy) A biological intervention for severe depression involving sending electric current through the skull to produce seizures.

Lithium A naturally occurring salt that is the main mood stabilizing medication for bipolar disorders.



Electroconvulsive therapy (ECT)

ECT is an effective, but controversial, treatment for severe depression. Recent improvements in ECT techniques have improved ECT's safety.

©James Wilson/Woodfin Camp & Associates

An important recent controversy has surrounded the question of whether SSRIs can actually increase suicidality, particularly among children and adolescents. After initially rejecting these concerns when reports of a connection first surfaced, the Food and Drug Administration (FDA) responded to public pressure and new evidence by issuing “Black Box” warnings for these medications—the most serious action short of banning their use. The research literature on this subject shows conflicting results (e.g., Gibbons et al., 2005; Healy, 2003; Isacson et al., 2005), but the trend does suggest a significant increased risk of suicidal thinking that is due to antidepressant treatment rather than to the underlying depression alone (Fergusson et al., 2005; Healy, 2003). This risk needs to be balanced against the risk of not treating or undertreating depression, which is extremely high (Brent, 2005). Passions have run high around this controversy, but all sides are hopeful that the debate will lead to more judicious prescribing of these medications and more careful monitoring of clients who receive them.

Electroconvulsive therapy (ECT) is another form of biological intervention for depression. First discovered in the 1930s, ECT involves sending an electrical current through the skull to trigger an electrical storm (or *seizure*) in the brain that lasts for a few minutes. For reasons that are not fully understood, several sessions of ECT spaced over a number of weeks are a highly effective treatment for severe depression (Pagnin et al., 2004; Rey & Walter, 1997). As you might expect from this description of ECT, it has been a controversial treatment, and many people associate “shock therapy” with images such as the horrible punishment of the character Randall Patrick McMurphy in the film *One Flew Over the Cuckoo's Nest* (see Box 1.2). Actually, the practice of ECT has changed considerably from the 1950s and 1960s when it was widely and somewhat dangerously prescribed. Today, patients are placed under general anesthesia and are given muscle relaxants so that the motoric effects of the seizure are barely visible. In addition, the intensity of the electrical shock (approximately 100 volts) is carefully controlled and in some cases can be applied to just one hemisphere of the brain with equally good results. Nonetheless, ECT still has potentially troublesome side effects, the most common being amnesia for events and learning that occurred shortly before (*retrograde amnesia*) or after (*anterograde amnesia*) the ECT treatments. Over time, memory usually returns to normal, although some clients experience lasting memory problems (Calev et al., 1991; O'Conner et al., 2003).

Despite its relative safety and efficacy, ECT is not widely prescribed today, largely because many people are frightened by the idea of undergoing shock treatment and because of the availability of medications that are effective for most clients. ECT is now reserved mainly for people who are severely depressed (and often acutely suicidal) and either cannot take antidepressant medications or have not been helped by them.

For bipolar disorders, **lithium**, a naturally occurring mineral salt, was until recently the main medical treatment. The discovery of lithium's potency as a *mood stabilizer* was made by an Australian physician in 1949, but it was not used widely outside of Australia until the 1960s. Given the absence of other effective treatments for bipolar disorders, lithium was hailed as a miracle drug once it became widely known. However, lithium by itself is not the optimal treatment for most bipolar clients, and currently it is often prescribed in combination with certain anticonvulsant (such as carbamazepine, valproate, lamotrigine, or gabapentin), calcium channel blocking (such as verapamil), or second-generation antipsychotic medications (see Chapter 12), which can all enhance lithium's mood-stabilizing effects (Belmaker, 2004; Jones et al., 2006). Antidepressants can also be helpful for the depressive phases, but they have to be used carefully because they can sometimes precipitate a manic episode in bipolar clients (Thase, 2005).

Although lithium is an important part of the treatment regimen for many people with bipolar mood disorders, it has several significant limitations and drawbacks. First, the difference between effective and toxic blood levels of lithium is rather small (see Table 5.8). People who take too little lithium may not improve, but too much lithium

TABLE 5.8 Lithium Toxicity

- Effective dose (blood level of 0.5–0.7 mEq/L)
- Below 0.5—no therapeutic effect
- About 1.0—mild toxic effect
- Above 2.0—severe and potentially fatal toxic effects

can cause severe nausea, kidney dysfunction, and other serious side effects. Even at a proper therapeutic dose, lithium can have several unpleasant side effects such as loss of appetite, mild diarrhea, increased urination, excessive thirst, and hand tremors.

Second, lithium (and supplemental medications) must be taken continually in order to be effective. Nearly half of all people who stop taking lithium when their mood stabilizes experience a manic or depressive episode within months of discontinuing its use (Maj, 1999; Young & Newham, 2006).

Unfortunately, manic and depressive episodes seem to get worse the more often they occur. Thus, the best outcomes in bipolar I disorder involve an early diagnosis followed by consistent treatment. In reality, many people with bipolar illnesses are not diagnosed until they have suffered for several years (often after several misdiagnoses), and once correctly diagnosed they may be ambivalent about taking an unpleasant medication, especially during periods when they are feeling well. Psychotherapy can be an especially important adjunct to medication treatments in bipolar disorders partly because the therapist can help support clients' compliance with their medication regimen (see Table 5.9).

TABLE 5.9 Obstacles to Adherence with Medication Treatment for Bipolar Disorders

Noncompliance with medication is a common problem for clients being treated for bipolar disorders. Among the common obstacles to medication adherence are the following factors:

INTRAPERSONAL VARIABLES	TREATMENT VARIABLES	SOCIAL SYSTEM VARIABLES	INTERPERSONAL VARIABLES	COGNITIVE VARIABLES
<ul style="list-style-type: none"> • Remission in symptoms causes client to see no need for further treatment. • Client runs out of medication/did not refill prescription. • Client denies he or she has a chronic illness/stigma associated with bipolar disorders. • Forgetfulness. 	<ul style="list-style-type: none"> • Side effects of medication. • Medication schedule does not conform to client's personal schedule. • Client assigned a new doctor who changes treatment plans. 	<ul style="list-style-type: none"> • Psychosocial stressors. • Competing medical advice. • Discouragement from family and friends. • Publicized stories of others' bad experiences with medications. 	<ul style="list-style-type: none"> • Poor rapport with the therapist and/or psychiatrist. • Busy, uncomfortable, or otherwise unpleasant clinic environment. 	<ul style="list-style-type: none"> • Client does not like the idea of having to depend on drugs. • Client thinks he or she should be able to handle mood swings on his or her own. • Client misattributes symptoms of bipolar disorder to another source. • Client is suspicious of the doctor's intentions.

Adapted from Basco & Thase, 1998.

BOX 5.4 Experimental, Alternative, and Supplemental Treatments for Mood Disorders

In addition to the standard biological and psychological treatments for mood disorders described in this chapter, researchers have been actively investigating new, alternative, and supplemental treatments. The most interesting and promising of these treatments fall into three categories: electromagnetic treatments, alternative medications, and self-help methods.

Electromagnetic Treatments

We have already discussed electroconvulsive therapy (ECT) and its role in treating severe, treatment-resistant depression. Researchers have recently been investigating another possible electrical treatment for depression called *deep brain stimulation*. This experimental treatment involves the surgical implantation of electrodes in the brain, which are connected to a generator in the patient's chest. Stimulation of specific brain regions in this manner has proven helpful in conditions like Parkinson's disease (Chapter 14), and it has shown some promise in lifting severe, treatment-resistant depressions (Aouizerate et al., 2005; Mayberg et al., 2005). However, this procedure is a highly invasive and still experimental one for treating depression, and it is unlikely to be more than a last resort treatment for the time being (Harvard Mental Health Letter, 2006).

Researchers have also been investigating the use of magnetic fields that can stimulate the brain as a treatment for depression. One technique, *transcranial magnetic stimulation (TMS)*, uses a handheld device placed on the patient's scalp to create a magnetic field that painlessly penetrates about one inch into the brain, stimulating regions that may be underactive owing to depression (O'Conner et al., 2003; Schulze-Rauschenbach et al., 2005). These devices can also be used to generate higher magnetic frequencies that will induce seizures, a procedure called magnetic seizure therapy (MST). Unlike the seizures generated by ECT, magnetically induced seizures are more localized and may eventually be more effective and produce fewer side effects than the global seizures of ECT (Lisanby et al., 2002; Milne, 2004; White et al., 2006). Finally, researchers at

McLean Hospital accidentally discovered that some depressed patients seemed to improve following routine diagnostic brain scans. Further study of this phenomenon has produced some evidence that a form of functional magnetic resonance imaging (fMRI) may have potential as a treatment for depression (Rohan et al., 2004).

Alternative Medications

The list of substances that have been studied for possible antidepressant properties is long and varied, including natural compounds such as Vitamins B9 (folic acid) and B12 (Coppin & Bolander-Gouaille, 2005), Omega-3 fatty acids (Marangell et al., 2003), St. John's Wort, S-Adenosylmethionine (SAMe) (Coppin & Bolander-Gouaille, 2005), and the neuropeptide Substance P (Bondy et al., 2003), along with synthetic compounds such as the commercial drugs Viagra (Seidman et al., 2001) and RU486 (Mifepristone) (Gallagher & Young, 2006), which were initially developed for other purposes. St. John's Wort (the plant *Hypericum perforatum*) has perhaps attracted the most interest due to a European meta-analysis in the late 1990s which concluded that it was as effective as conventional antidepressants. More recent meta-analyses have shown less positive results (e.g., Werneke et al., 2004), but St. John's Wort continues to be widely prescribed in Europe and is increasingly popular in the United States where it is available over the counter.

Self-help Methods

Perhaps the most encouraging news of all is the evidence that aerobic exercise (Dunn et al., 2005) and some forms of meditation (Finucane & Mercer, 2006) can have significant antidepressant effects. Both have the advantages of being free and without worrisome side effects—indeed, both provide side benefits! Although neither exercise nor meditation by themselves are sufficient treatments for clinical depression, they do have potential for improving mood and for supplementing the effects of other treatments.

BRIEF SUMMARY

- Genetic factors play a predisposing role in depression, especially more severe depressions. Bipolar mood disorders also have a well-documented genetic component.
- Research on abnormal brain functions associated with depression has focused on how a class of neurotransmitters known as monoamines (norepinephrine, dopamine, and serotonin) plays a significant role. In addition, hormonal changes can cause depressive symptoms.
- At present, there are three major classes of medications used to treat depression: tricyclics, monoamine oxidase inhibitors (MAOIs), and “second-generation” antidepressants such as the selective serotonin reuptake inhibitors (SSRIs). Each class of drugs is chemically different, but they all work by increasing available monoamine levels within the synaptic cleft.
- Electroconvulsive therapy (ECT) involves the use of an electrical current to induce seizures. Despite its relative efficacy and safety as practiced today, ECT remains controversial and is generally used only when other treatments have not been successful.

- Lithium and other mood-stabilizing drugs are the most effective and widely prescribed treatments for bipolar mood disorders. Lithium stabilizes moods in the majority of clients who receive an adequate dose, but it does have potentially troubling side effects and typically must be taken consistently for long periods of time.

Cognitive Components

The cognitive perspective has become one of the most influential approaches to explaining and treating mood disorders, particularly depression. One of the founders of this perspective, Aaron Beck, noticed that many of his depressed patients shared certain cognitive patterns that seemed to contribute to their depression. Specifically, he noted that they seemed to hold irrationally negative views of *themselves*, their *worlds*, and their *futures* (which he called the **negative cognitive triad**) (Beck, 1967; 1987; 1997). Over the last 40 years, Beck and other cognitive theorists have developed numerous models of the cognitive patterns that contribute to the negative triad and, thus, to depression. Among the most important of these patterns are *negative automatic thoughts*, *cognitive distortions*, and *pessimistic explanations* of negative events. Depression-prone individuals tend to have *negative self-schemas*—they view themselves as incompetent, unlucky, unlikable, and so on. These attitudes are expressed in an ongoing stream of **negative automatic thoughts**. For example, people may have negative automatic thoughts such as “nothing ever works out for me” and “people will always be mean” that form the backdrop of their everyday lives. Negative automatic thoughts are often characterized by certain **cognitive distortions**. According to Beck (1967), several common distortions or logical errors contribute to depression; they are listed and described in Table 5.10.

Another influential cognitive approach to depression is based on the work of Martin Seligman and his colleagues, who have been exploring the relationship between cognition and depression since the 1960s. In a landmark series of studies, Seligman found

Negative cognitive triad Irrationally negative thinking about the self, the world, and the future.

Negative automatic thoughts Negative thoughts generated by negative cognitive schemas.

Cognitive distortions Irrational beliefs and thinking processes.

TABLE 5.10 Common Cognitive Distortions

COGNITIVE DISTORTIONS	DESCRIPTION	SAMPLE SITUATION	EXAMPLE
Arbitrary Inference	Drawing a conclusion based on absent or ambiguous evidence.	Greeting from neighbor, who has just received some bad news of her own, is less friendly than usual.	“Oh great, now my neighbor hates me and I don’t even know why!”
Selective Abstraction	Tendency to focus on negative details to the exclusion of all else.	Student receives a “B+” on a paper with many encouraging comments and a few constructive criticisms.	“I can’t believe I made those mistakes in my paper.”
Overgeneralization	Drawing a general conclusion on the basis of a single incident.	Babysitter cancels at last minute.	“Babysitters don’t like my children . . . we’ll never be able to get another babysitter . . .”
All-or-None Thinking	Thinking in black and white, or absolute terms.	Breakup of a relationship.	“If I’m not married by the time I’m 30, I’ll never get married!”

Based on Beck, 1967

Learned helplessness Cognitive-behavioral theory in which animals give up adaptive responding after prior experience with inescapable punishments.

Pessimistic explanatory (attributional) style The tendency to make internal, global, and stable explanations of negative events.



Learned helplessness Martin Seligman pioneered the study of links between learned helplessness and depression. A woman who is repeatedly subjected to negative, uncontrollable events, like being battered by her partner, may exhibit learned helplessness.

©Bill Aron/PhotoEdit

that prolonged periods of helplessness in the face of misfortune can cause dogs to give up on trying to change unpleasant circumstances that are actually within their control (Seligman & Maier, 1967). Seligman’s experiments involved subjecting dogs to unpleasant electric shocks. Using boxes that were separated into two compartments by a low barrier, one group of dogs was shocked after hearing a short tone. However, if they jumped over the barrier into the other side of the box after the tone sounded, they could avoid the shock. The dogs in this group quickly learned to move back and forth across the barrier when prompted by the tone. In a second group, the dogs also heard a tone, but they received a shock whether or not they jumped across the barrier. Before long, the dogs in the second group laid down and gave up trying to avoid the shocks. Next, the researchers changed the conditions so that all of the dogs were able to avoid the shocks if they jumped over the barrier. The dogs in the first group continued to jump back and forth, while the dogs in the second group continued to passively accept the shocks even when the researchers pulled them back and forth across the barrier to show them that they need not be shocked. This phenomenon, which Seligman called **learned helplessness**, is the basis for a number of contemporary cognitive-behavioral approaches to explaining depression.

In its current form, learned helplessness theory focuses on certain cognitive factors that seem to be the key links between negative, uncontrollable events, which everyone experiences from time to time, and depression. Seligman and his colleagues have proposed that a **pessimistic explanatory (or attributional) style** in response to uncontrollable negative events—such as bad weather that interferes with a vacation—is a crucial risk factor for depression (Alloy, Abramson, & Francis, 1999; Fresco et al., 2006; Peterson & Seligman, 1984). The characteristics of a pessimistic explanatory style are the consistent use of *internal*, *global*, and *stable* attributions (or explanations) concerning negative events. In other words, people who think this way tend to blame *themselves* when negative events occur (internal), feel that the negative event will *generalize* to other areas (global), and believe that the negative situation will be *lasting* (stable). Consider, for example, a minor negative uncontrollable event we have all experienced at one time or another: you’re running late for an appointment because of an unforeseeable traffic jam. Table 5.11 illustrates the contrast between depressive and nondepressive attributions related this event.

Numerous studies have found a positive correlation between pessimistic explanatory style and depression (for example, Peterson & Seligman, 1984). Keep in mind that correlations do not prove causation; the positive correlation could mean that pessimism causes depression, that depression causes pessimism, or that both are caused by a third, unidentified factor. However, *longitudinal* studies have suggested a causal relationship in which pessimistic explanatory style can precede and contribute to depression (this is sometimes referred to as a *cognitive vulnerability* theory) (Abramson, Metalsky, & Alloy, 1989; Beck, 1987). For example, researchers (Alloy, Abramson, & Francis, 1999) at Temple University and the University of Wisconsin studied nondepressed freshmen who were considered to be at high risk (HR) or low risk (LR) for depression based on their responses to measures of explanatory style. The researchers then conducted follow-up assessments every six weeks for two and a half years, and then every four months for three more years. During the first

TABLE 5.11 Explanatory Styles in a Traffic Jam

	NONDEPRESSIVE ATTRIBUTIONS	DEPRESSIVE ATTRIBUTIONS
<i>External vs. internal</i>	“This is out of my control so I might as well relax.”	“I am so stupid for not leaving earlier.”
<i>Specific vs. global</i>	“Oh well, it’s just one appointment.”	“My whole day is going to be rotten!”
<i>Unstable vs. stable</i>	“It can’t be backed up for too much longer.”	“I’m sure this traffic jam will last for hours!”

TABLE 5.12 Depression in High-Risk (Pessimistic Explanatory Style) and Low-Risk Freshmen

SYMPTOMS AT FOLLOW-UP	HIGH-RISK FRESHMEN	LOW-RISK FRESHMEN
Major depressive disorder	17%	1%
Minor depressive disorder	39%	6%
Suicidality	28%	12.6%

Data from Alloy, Abramson, & Francis, 1999.

two and a half years of the study, HR freshmen were significantly more likely to develop major depressive disorders, minor depressive disorders (such as dysthymic disorder), and suicidal thoughts or actions than the LR freshmen (see Table 5.12).

Cognitive Interventions

Three assumptions underlie cognitive interventions for depression: (1) negative thinking contributes to depression; (2) negative thinking can be monitored and changed by directive, logical methods; and (3) such changes in thinking will improve mood and behavior. In general, cognitive therapies for depression are psychoeducational in their approach, meaning that the therapist takes an active role in setting the agenda for each session and acts as a coach who helps the client to master new skills. Sacco and Beck (1995) describe the five steps of a typical cognitive intervention for depression (adapted from Sacco & Beck, 1995):

Step 1: Identify and Monitor Dysfunctional Automatic Thoughts Clients are taught to recognize their negative automatic thoughts. In-session exploration and homework assignments are used to identify and record prominent automatic thoughts.

Step 2: Recognize the Connections among Thoughts, Emotions, and Behaviors Clients are helped to note their emotional and behavioral responses to their negative automatic thoughts, and are reassured that anyone who had such negative thoughts would likely be depressed.

Step 3: Evaluate the Reasonableness of Negative Automatic Thoughts The negative automatic thoughts are evaluated to determine their accuracy. Clients are encouraged to look for evidence for and against their beliefs, to consider alternative explanations for events, and to evaluate the degree to which they make internal, global, and stable attributions about negative events. For example, the woman who attributed a babysitter's cancellation to the "fact" that "babysitters don't like my children" (Table 5.10) would be shown that she made *internal* (the problem is her children), *global* (all babysitters dislike her children), and *stable* (we'll never get another babysitter) attributions about the event. Finally, clients are reminded that even if their pessimism is accurate, things are probably not be as bad as they fear. For example, if babysitters do not, in fact, like this woman's children, is that necessarily a catastrophe? Babysitters don't have the last word on the merits of children; children who mistreat babysitters can be taught to behave differently; and so on.

Step 4: Substitute More Reasonable Interpretations for the Distorted Attributions This step flows directly from the one before it. Clients are usually encouraged to write down rational responses and compare them with their dysfunctional thoughts. For example, the woman who concluded that babysitters don't like her children would be asked to evaluate whether other babysitters seemed to like her children, and what else could explain why the babysitter canceled at the last minute.

Step 5: Identify and Alter Dysfunctional Assumptions In this step, the client and therapist explore the underlying assumptions that promote negative self-schemas

and automatic thoughts. Dysfunctional assumptions are usually fundamental beliefs that the client may not even be aware of holding. Beck (1976) provides several examples of common problematic assumptions:

- To be happy, I must be accepted by all people at all times.
- My value as a person depends on what other people think of me.
- In order to be happy, I have to be successful in whatever I undertake.

Once such assumptions are brought to light, they may be evaluated and challenged in the same fashion as negative automatic thoughts. Cognitive interventions, either on their own or in combination with other approaches, have been shown in numerous studies to be effective in relieving depression.

Cognitive interventions for bipolar disorders use many of the same techniques described above for unipolar disorders, but also include some special features that apply specifically to the challenges of living with depression *and* mania or hypomania. For example, Cory Newman, clinical director of the Center for Cognitive Therapy at the University of Pennsylvania, has developed a cognitive intervention for individuals with bipolar disorders that emphasizes empowering clients so that they do not see themselves as helpless victims of a disease (Newman et al., 2001). Basic cognitive techniques are extended and applied to several specific clinical topics including the management of manic and hypomanic episodes, suicide prevention, how bipolar disorder affects family members, and clients' frequent reluctance to take needed medications. Clients provided with cognitive interventions in addition to medication have shown greater improvement in both symptom severity and overall functioning than clients who were treated with medication alone (Scott, Garland, & Moorhead, 2001).

BRIEF SUMMARY

- People who are depressed tend to take a negative view of themselves, their world, and their future (the negative **cognitive triad**).
- The negative *cognitive triad* is associated with negative automatic thoughts, cognitive distortions, and internal, global, and stable attributions about negative events.
- According to the cognitive-vulnerability theory of depression, pessimistic explanatory styles predispose individuals to depression when they encounter negative life events.
- Cognitive interventions for mood disorders focus on recording and evaluating negative automatic thoughts, challenging cognitive distortions, and modifying pessimistic attributions and assumptions. Such interventions are a helpful component of treatment for both unipolar and bipolar mood disorders.

Critical Thinking Question

Imagine the following negative event: you've planned an outdoor graduation party and the weather is terrible. Can you construct hypothetical pessimistic (internal, global, stable) and nonpessimistic (external, specific, unstable) explanations of this event?

Cognitive triad In cognitive theory, the triad consisting of one's self, one's future, and one's world.

Behavioral Components

B. F. Skinner, one of the founders of behaviorism, proposed many years ago that depression results from the interruption of *reinforcements* (rewards) from the environment (Skinner, 1953). This view has been elaborated and modified over the past five decades. For example, the next generation of behavioral theorists added that increased frequency of *punishments* (negative consequences) or the decreased *effectiveness* of reinforcements also contribute to depression, as expressed by a decrease in adaptive behaviors (Costello, 1972; Ferster, 1966). In other words, a student who has worked hard with good results in

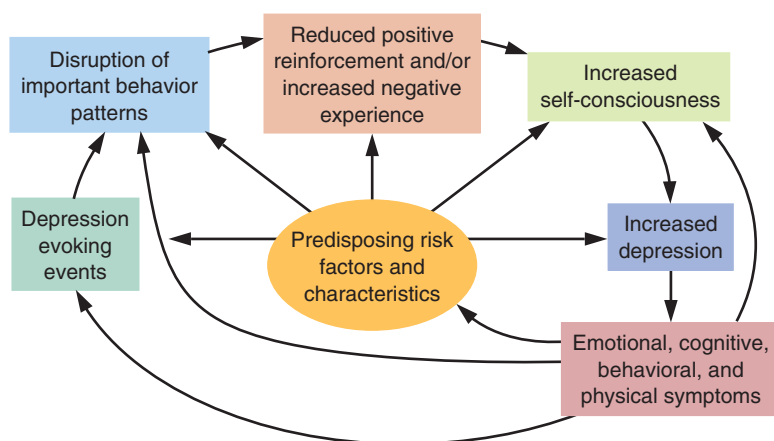


Figure 5.3 An Integrated Cognitive-Behavioral Model of Depression

Lewinsohn and his colleagues have developed a model of depression that combines cognitive and behavioral causes that interact in a “vicious cycle.”

(Adapted from Lewinsohn et al., 1985 and Lewinsohn, Gotlib, & Hautzinger, 1998)

the past may slack off if he starts to receive some negative feedback (such as bad grades) or becomes less encouraged by positive feedback (such as good grades).

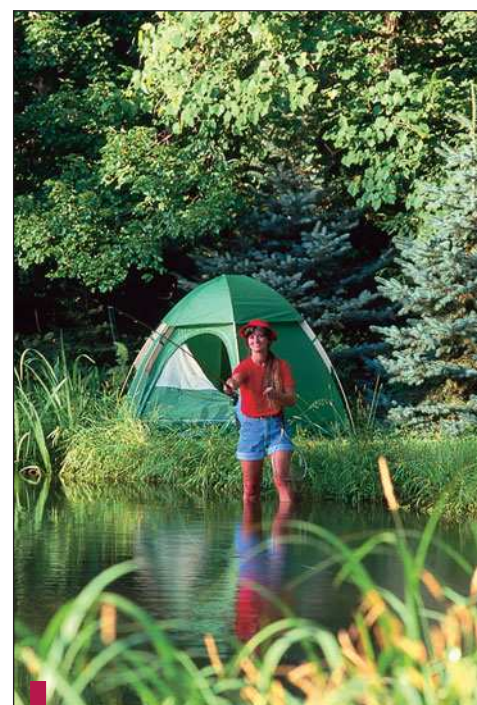
Behavioral researchers have focused on understanding the conditions likely to cause reductions in reinforcement and, accordingly, depression. Lewinsohn identified three such conditions: (1) poor social skills; (2) an environment with low reinforcement potential and high punishment potential; and (3) a diminished capacity to enjoy positive events (reinforcements) or a heightened sensitivity to negative events (punishment) (Lewinsohn, Lobitz, & Wilson, 1973). Thus, a student who is awkward in social situations, has few supportive friends, hangs out with a critical roommate, and shrugs off praise but is hypersensitive to criticism is at high risk for depression.

Many contemporary behavioral approaches to explaining depression integrate cognitive principles in a combined cognitive-behavioral perspective. For example, Lewinsohn and his colleagues view depression as the product of both behavioral and cognitive processes (Lewinsohn, Gotlib, & Hautzinger, 1998). Behavioral and cognitive factors contributing to depression can combine and interact in an unfortunate vicious cycle, as shown in Figure 5.3.

Behavioral Interventions

Behavioral interventions for depression emphasize increasing reinforcements and reducing punishments in the client’s environment. To this end, clients are encouraged to set reachable daily life goals with rewards for meeting them, and therapists offer specific life skill assistance to correct deficits in areas such as social skills or assertiveness (Lewinsohn et al., 1998). Such interventions can help clients to replace depressive passivity with more active behaviors that are reinforced by the pleasure they provide. For example, a housebound depressed client might be encouraged to schedule a pleasurable event, such as having coffee or going to a movie with a friend, for each day of the week. In fact, some research suggests that the effectiveness of cognitive-behavioral therapies is due largely to this *behavioral activation* aspect of the treatments (Hopko et al., 2003; Hopko, Lejuez, & Hopko, 2004; Jacobson et al., 2000).

Lewinsohn and his colleagues developed a structured 12-week behavioral intervention to help clients understand the relationship between daily events and mood, learn techniques for relaxation, become more adept at managing difficult or aversive events, improve time management, and increase their participation in pleasant activities. Interventions like these that help clients schedule their daily lives so as to minimize unpleasant events and maximize pleasurable activities have been found to reduce levels of depression (Lewinsohn et al., 1980). Behavioral interventions are thought to be appropriate mainly for clients suffering from mild to moderate depression.



Behavioral interventions for depression Behavioral interventions for treating depression include scheduling pleasurable, reinforcing activities. Michael P. Gadowski/Photo Researchers, Inc.

Numerous studies have shown that *combined* cognitive-behavioral interventions can be very effective in alleviating depression (Evans et al., 1992; Sanderson & McGinn, 2001). Cognitive-behavioral techniques have also been found to helpfully augment biological interventions for bipolar disorders. According to Bacso and Thase (1998, p. 531), cognitive-behavioral interventions for bipolar disorders have five major goals:

1. To educate patients and their families about the illness, its treatment, and its major complications.
2. To teach patients how to monitor the occurrence, severity, and course of manic and depressive symptoms in order to allow for early intervention should symptoms worsen.
3. To facilitate compliance with prescribed medication regimens by removing the obstacles that interfere with compliance.
4. To provide psychological strategies for coping with the cognitive and behavioral symptoms of mania and depression.
5. To teach skills for coping with common psychosocial problems that are the precipitants or results of depressive and manic episodes.

Cognitive-behavioral adjunctive interventions for clients with bipolar disorders have been shown to enhance the effectiveness of lithium treatment and to reduce the recurrence of manic and depressive symptoms in comparison to clients who are treated with lithium alone (Fava et al., 2001).

BRIEF SUMMARY

- Behavioral theories of depression focus primarily on the relationship between depression and reductions in reinforcement and/or increases in punishments (negative consequences).
- Behavioral interventions for depression emphasize increasing reinforcements and reducing punishments through daily monitoring of activities and mood, setting reachable goals, and using skill-specific training to correct behavioral deficits.
- Combined cognitive-behavioral interventions for depression integrate cognitive restructuring techniques with a focus on reinforcements and skills training.
- Cognitive-behavioral interventions have been found to effectively supplement medication treatment for bipolar disorders.

Psychodynamic Components

Sigmund Freud (1917/1957) and his associate Karl Abraham (1911/1960) proposed some of the earliest psychological theories of depression. Freud's essay on the relationship between childhood experiences, loss, and depression—*Mourning and Melancholia* (1917)—is a classic text that dominated thinking about depression for many years.

In *Mourning and Melancholia*, Freud considers the differences between *mourning* (the normal grief process after the death of a loved one) and *melancholia* (an old term for depression)—states that seem to have many common features. He noted that people who are depressed seem to be reacting to a loss like people who are in mourning, although what they have lost is not always clear. But unlike people in mourning, people who are depressed also tend to take harshly critical views of themselves. Based on these and other observations, Freud concluded that depression has its roots in experiences of loss or disappointment that generate anger at the lost or disappointing person. If, for some reason, this anger cannot be consciously acknowledged, it is turned on the self as self-criticism, resulting in depression. Freud's explanation for this was that the

individual *internalizes* the lost or disappointing “object” (a psychodynamic term for the mental image of another person) by *identifying* (taking on their traits) with them and therefore can indirectly express anger at the other person by criticizing him- or herself.

For example, when a child experiences the physical loss (through death or separation) or emotional loss (through neglect or depression) of a parent, the parent may become the focus of anger and sadness. If consciously feeling anger toward the absent parent is too upsetting, the child may direct anger inward at him- or herself instead, especially the part of the self that is most closely identified with the parent. In adulthood, actual or symbolic losses may then activate similar processes. A disappointment, such as a romantic breakup or the loss of a job, may be symbolically associated with earlier losses, reawakening depressive symptoms from the past. Depressive self-recriminations (such as “I’m worthless”) may be internalized versions of unconscious anger at others.

After developing the structural (id, ego, superego) theory (Chapter 2), Freud began emphasizing the role of the **superego** in the development of depression. As you know, Freud viewed the superego as the part of the mind that morally evaluates the self. It can sometimes be excessively harsh and critical, leading to depressive self-loathing. In the following passage from a book titled *Autobiography of a Face*, Lucy Grealy describes her experience of living with a severe facial deformity after being diagnosed with jaw cancer at age 9. It provides an excellent example of how depression can be caused by superego-induced guilt about “bad” thoughts and feelings.

Superego In Freud’s structural theory, the part of the mind that contains moral judgments and evaluates the self.

I hated Danny in my orchestra class because I had a crush on him and I knew that he would never have a crush on me. Anger scared me most of all, and I repressed every stirring. Every time I felt hatred, or any other “bad” thought I shooed it away with a broom of spiritual truisms. But the more I tried to negate my feelings, the more they crowded in. I not only harbored hatred for Danny even while I had a crush on him, I also hated Katherine, the girl in orchestra he had a crush on. Trying to repress that feeling, I found myself hating Katherine’s cello, of all things, which she played exquisitely well. The cycle eventually ended with me: I hated myself for having even entertained the absurd notion that someone like Danny could like me.

I didn’t begrudge Danny his crush on Katherine. She was pretty and talented, so why shouldn’t he want her? I was never going to have anyone want me in that way, so I mustn’t desire such a thing; in this way I could be grateful to my face for “helping” me to see the error of earthly desire. This complicated gratitude usually lasted for about five minutes before giving way to depression, plain and simple.

(Grealy, 1994, p. 181)

Some psychodynamic theorists and researchers have also elaborated the links between depression and narcissistic personality traits (Dammann & Gerisch, 2005; Fenichel, 1945; Miller, 1979; Stucke, 2003). As you will see in Chapter 11, people with narcissistic traits ward off feelings of inadequacy or unworthiness by trying to be seen as special, praiseworthy, and superior. But when a narcissistic man loses the competition for a promotion at work, or when a narcissistic woman’s beauty fades as she ages, they may be prone to depression as feelings of inadequacy come to the surface. The object relational and self-psychology schools of psychodynamic theory have further elaborated this perspective on depression by focusing on the many ways in which childhood losses, disappointments, excessive frustrations, and other interpersonal stresses can undermine self-esteem and feelings of security, putting individuals at risk for depression. As one psychodynamic theorist describes it:

The combination of emotional or actual abandonment with parental criticism is particularly likely to create depressive dynamics. A patient of mine lost her mother to cancer when she was 11 and was left with a father who repeatedly complained that her unhappiness was aggravating his ulcer and hastening his death. Another client was called a sniveling baby by her mother when she cried because, at age 4, she was being shipped away to overnight camp for several weeks. A depressed man I worked with whose mother was severely depressed and unavailable emotionally during his early years was told he was selfish and insensitive for wanting her time, and that he should be grateful that she was not sending him to an orphanage. In such instances it is easy to see that angry reactions to emotional abuse by the parent would have felt too dangerous to the child who already feared rejection.

. . . Finally, a powerful causative factor in depressive dynamics is significant depression in a parent, especially in a child's earliest years. Biologically inclined theorists have tended to attribute to genetic processes the fact that dysthymic illnesses run in families, but analytically oriented writers have been more cautious. . . . Children are deeply bothered by a parent's depression; they feel guilty for making normal demands, and they come to believe that their needs drain and exhaust others. The earlier their dependence on someone who is deeply depressed, the greater is their emotional privation.

(McWilliams, 1994, pp. 235–236)

Psychodynamic Interventions

Psychodynamic interventions for depression involve therapeutic techniques also used for other disorders; clients are encouraged to speak as freely as possible and to attend, with the therapist's help, to the repetitive patterns and emotional conflicts in the client's life. With depressed clients, clinicians pay special attention to psychodynamic issues such as loss (actual or symbolic), anger directed at the self, and the presence of an overly harsh superego. In addition, they assess the possibility that some of the client's personality traits (for example, narcissistic traits) and/or problematic early life experiences and relationships may have made him or her vulnerable to depression. When clients discover unresolved past losses in the course of a psychodynamic exploration of depression, therapists will try to facilitate normal grieving over these losses. For example, a man who sought therapy because he felt suicidal after the breakup of a brief relationship soon discovered that his sadness ultimately pertained to the death of his father when he was 8 years old. The client's mother had been so devastated by her husband's death that the client had pushed aside his own feelings in order to support his mother. Over the course of the therapy, he began to belatedly grieve the death of his father and found that after doing so he was not so easily devastated by the ups and downs of his current relationships.

In addition to their effectiveness in addressing some depressive problems (Busch, Rudden, & Shapiro, 2004), psychodynamic interventions can also be helpful in the treatment of bipolar disorders (Hilsenroth et al., 2003; Kahn, 1993; Teixeira, 1992). For bipolar disorders, psychodynamic interventions focus on identifying the emotional triggers of mood swings, supporting healthy coping mechanisms, and addressing issues that might interfere with compliance with necessary medication regimens (See Table 5.9).

BRIEF SUMMARY

- Freud drew a parallel between mourning and depression and believed that depression was rooted in early childhood experiences of loss. Over time he amended his theory and emphasized the role of the overly harsh superego as the major agent in the development of depression.
- Recent psychodynamic theorists emphasize that problematic childhood relationships with caregivers are also risk factors for depression.
- Psychodynamic interventions for depression involve a focus on issues of loss, anger directed inward, the role of the superego, problematic childhood experiences and relationships, and, sometimes, predisposing personality traits.

Critical Thinking Question

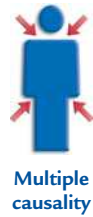
The author William Faulkner once said: “The past isn’t dead. It isn’t even past.” How could his words be said to characterize the psychodynamic perspective on depression?

Sociocultural and Family Systems Components

As noted earlier in the chapter, a variety of demographic factors such as being female, unemployed, or poor are risk factors for depression. The link between these demographic factors and depression may be due to variables such as self-esteem and social support that have been shown to protect against depression (Schroevers, Ranchor, & Sanderman, 2003; Scott, 1988). Specifically, self-esteem and social support may be compromised among members of groups faced with discrimination and socioeconomic disadvantage. Accordingly, sociocultural interventions to reduce depression focus on a number of areas that improve self-esteem and social support: problem-solving training, changing jobs or gaining employment, and developing social and coping skills (Scott, 1992). *Feminist therapy*, for example, focuses on the gender-related stresses and prejudices that may contribute to depression in women.

Family systems approaches to depression can be especially helpful when children or adolescents are depressed or when family relationships are taxed by recurrent or chronic depression in one family member. Children and adolescents who become depressed often do so in reaction to a problem within the broader family system, such as neglect, abuse, or divorce. Therapeutic interventions in such situations involve addressing the family situation that triggered the child’s depression and then addressing the various psychological repercussions of family problems on all family members. In a review of the research on treatments for childhood depression, a team at the Menninger Clinic found that family-focused treatments, especially treatments that address parent-child interactions and parental depression, are particularly effective in treating depressed children (Dujovne, Barnard, & Rapoff, 1995).

Mood disorders, both unipolar and bipolar, take a toll on the families of those afflicted. Following a model developed for the families of people with schizophrenia, a group of clinicians developed an inpatient family intervention (IFI) for the relatives of people suffering from depression or bipolar illness severe enough to require hospitalization (Haas et al., 1988). The IFI employs a brief, psychoeducational intervention to help families understand and accept their relative’s illness, identify life stressors that might trigger relapses in the future, and strategize about how to manage unavoidable family conflicts. The IFI model has been especially useful for families of people with bipolar illness. Highly stressful life events and chronic stress in family relationships have both been found to predict the recurrence of mood episodes in people suffering from bipolar disorders (Miklowitz & Frank, 1999).



Multiple causality

Interpersonal psychotherapy (IPT) An influential current treatment for depression that integrates psychodynamic, cognitive, and behavioral components.

Multiple Causality of Mood Disorders

An influential current treatment for depression that combines several theoretical components nicely illustrates the principle of *multiple causality* in explaining and treating mood disorders. **Interpersonal psychotherapy (IPT)**, developed by Klerman and Weissman (Klerman & Weissman 1992; Weissman, 2000), has been widely and effectively used with clients suffering from mild to moderate depression (Markowitz, 2003). IPT incorporates aspects of object-relational (psychodynamic), behavioral, and cognitive perspectives on depression (Markowitz & Weissman, 1995). The interpersonal approach to depression assumes that there is a circular relationship between mood and relationships. For example, people who experience unfortunate events or high levels of stress may become depressed if they lack supportive, empathic relationships. Once depressed, they likely become less capable of initiating gratifying interpersonal relationships and thus are prone to deepening depression.

IPT is usually conducted as a time-limited, structured approach to treating depression. Clinician and client meet on a weekly basis for 12 to 20 weeks but may continue to meet on a monthly “maintenance” basis for several years. During the initial sessions of therapy, the clinician and client work together to assess the client’s current relationships and identify a specific area of interpersonal problems. The IPT model identifies four major categories of interpersonal problems: losses, role disputes, role transitions, and interpersonal deficits (see Table 5.12).

Regardless of the kinds of interpersonal problem identified in IPT, the therapist helps the client to develop new interpersonal strategies and to understand the connection between his or her attributions concerning interpersonal events and his or her mood. Before treatment ends, the clinician and client assess what the client has accomplished and his or her role in improving mood and changing interpersonal relationships. Points of vulnerability that may trigger relapses are identified and plans may be made for monthly “booster” sessions to maintain therapeutic gains and provide a forum for ongoing work on interpersonal problems. Interestingly, studies (e.g., Martin et al., 2001) have shown that IPT produces measurable changes in cerebral blood flow similar to those produced by antidepressant medications—a striking example of the *connection between mind and body*.

Finally, as we have noted, the combination of biological interventions with psychotherapeutic interventions is rapidly becoming the state of the art in treating severe mood disorders. Studies show that medication, interpersonal, cognitive, and behavioral interven-



Mind-body connection

Relationships and depression

Interpersonal psychotherapy, which combines multiple theoretical components, focuses on the importance of close, supportive relationships in preventing depression and improving mood in those who are depressed.

G. Veggi/Photo Researchers, Inc.



TABLE 5.13 **Interpersonal Problems: Examples of the Four IPT Categories**

Interpersonal Loss ■ Client has been unable to appropriately grieve the death of a significant other and needs assistance with this in order to pursue new supportive relationships.
Interpersonal Role Dispute ■ Client is engaged in a struggle over job responsibilities with a boss and needs help understanding his or her role in the dispute and how to go about changing the relationship.
Interpersonal Role Transition ■ Client has experienced a recent divorce and needs help adjusting to a new interpersonal situation.
Interpersonal Deficit ■ Client has poor social skills and needs encouragement to try out new relationships and behavior patterns.

Information from Klerman et al., 1984.

tions are all about equally effective in alleviating major depression over about a four-month period (Jacobson & Hollon, 1996), but that a combination of medication and psychotherapy may be most effective of all (Frank et al., 1991; Harvard Mental Health Letter, 2004). The decision about which treatment, or combination of treatments, to pursue depends on a variety of factors. In some situations, clients prefer to see if they can overcome depression through psychotherapy before considering medications. In other cases, people who are severely depressed may not be able to make use of psychotherapy until their depression has been partially alleviated with the help of medication. Such individuals may use medications to help manage an acute episode of depression, but pursue psychotherapy as a long-term approach to preventing future episodes. In some cases, as we have seen, psychotherapy is crucial for helping clients adhere to a medication regimen (see Table 5.9 for information on obstacles to medication compliance in bipolar disorder).

BRIEF SUMMARY

- Sociocultural components of depression include low self-esteem and inadequate social support related to gender or socioeconomic factors. Sociocultural interventions aim to improve self-esteem and social support through assistance with problem solving, employment issues, and social and coping skills.
- Family therapy interventions for depression address family dynamics that may contribute to a client’s depression, and deal with the effects of a mood disorder on a client’s family members.
- Interpersonal psychotherapy (IPT) is an integrated treatment that focuses on the circular relationship between mood and interpersonal events, combining object relational (psychodynamic), behavioral, and cognitive components in keeping with the principle of *multiple causality*.

CASE Vignettes
Treatment

Tamara • Major Depressive Disorder

After meeting with Tamara for a few sessions, the psychologist offered two recommendations. She suggested that Tamara begin psychotherapy to address her feelings about the divorce and to obtain additional emotional support. She also suggested that Tamara consider an evaluation for antidepressant medication, since Tamara’s children were needing their mother to be more ef-

fective and available as soon as possible. Tamara was eager to begin therapy but felt reluctant to consider an antidepressant drug. She explained that she often reacted poorly to medications. Tamara and the psychologist agreed that they would monitor her progress and revisit the issue of medication if Tamara’s mood did not improve within a few weeks.

As Tamara began therapy, she found herself becoming increasingly angry about her husband's behavior. She described how humiliated she felt by his abrupt departure, and spent several weeks vacillating between rage and despair as she wondered if he had fallen in love with someone else or if he had just fallen out of love with her. At times, Tamara was full of self-recrimination, making long mental lists of all of her failings as a wife that might have justified her husband's behavior. Tamara's psychologist pointed out how self-critical Tamara was being, and that there was no evidence that she was solely to blame for the divorce.

As time went on, Tamara's emotional expression became richer both inside and outside of therapy. She sobbed as she explained to her psychologist how pathetic she felt since she continued to love someone who had hurt her and her children so much. Tamara also began to talk about having had similar feelings of abandonment and betrayal twice before—when she was 5 years

old and her mother gave birth to twins, and when her parents divorced when Tamara was 16. She remembered having had strong feelings of anger and desperation both times, but had tried very hard, even at 5 years old, to “calm down and be a good girl.” Tamara began to see that these long suppressed feelings had been reawakened by her husband's behavior and were contributing to her depression. After a couple of months, Tamara started to feel more alive and regained her appetite. She felt more connected to her work and more present and effective in her role as a mother. Although Tamara felt much better, she was still not entirely back to her “old self.” She became more open to the idea of trying an antidepressant and consulted with a psychiatrist who recommended an SSRI. Tamara found that the medication did, in fact, help her to feel even better. After nine months on the SSRI, Tamara was feeling well enough that she and her psychiatrist agreed to gradually reduce her dosage. She remained in therapy to complete the emotional work she had begun.

CASE DISCUSSION • Major Depressive Disorder

Tamara benefited from a psychotherapy that drew from a number of theoretical perspectives. Her psychologist used both psychodynamic and cognitive interventions, while also recommending biological treatment. As Tamara became aware of how angry she was about her husband's behavior, she felt less depressed, indicating that her depression arose, in part, from redirecting negative feelings about her husband

back at herself. Tamara's psychologist also tried to correct cognitive distortions, such as Tamara's self-criticisms and tendency to take all the blame for the failure of her marriage. By doing so, the psychologist hoped to keep Tamara from ruminating over painful thoughts that might interfere with her ability to grieve the end of her marriage and move forward emotionally.

Mark • Bipolar I Disorder

Mark's psychiatrist quickly realized that Mark suffered from bipolar I disorder and that immediate treatment would be necessary to bring his manic and depressive mood swings under control. The psychiatrist prescribed a mood stabilizer and scheduled several follow-up appointments to monitor Mark's progress and to gradually increase the dose until it reached a therapeutic blood level. Two months later, Mark was feeling more “even-keeled,” but then suddenly became depressed after learning that his mother had been diagnosed with Alzheimer's disease. Mark was unable to get out of bed for several days in a row, lost 15 pounds in two weeks, and felt emotionally numb. His wife insisted that he meet with his psychiatrist, who promptly prescribed an antidepressant to be taken in addition to the mood stabilizer.

Over the course of the next month Mark started to feel much better and reported to his psychiatrist that he did not feel like he was “riding on an emotional roller-coaster” as he had for most of his life. The psychiatrist suggested that the best thing that Mark could do for himself now would be to begin

psychotherapy to help him adjust to the realities of managing his bipolar disorder. Mark met with a few different therapists until he found someone with whom he felt comfortable. He found that the therapy, in combination with medication, helped him feel that he was more in control of his mood swings, and as a result, of his life.

After about two years of medication and psychotherapy, Mark felt stable and decided that he wanted to stop taking his medications. Against the advice of his therapist and psychiatrist, Mark proceeded with his plan. Within two months Mark experienced a dramatic manic episode in which he spent nearly \$15,000 on plane tickets, hotel reservations, and video equipment for a spontaneous vacation that his family could not afford. Mark's wife insisted that if he did not return to taking his medications she would have to consider filing for divorce. Mark relented, became emotionally stabilized again, and spent several months in therapy assessing the damage his poor decision had done to his marriage and personal finances.

CASE DISCUSSION • Bipolar I Disorder

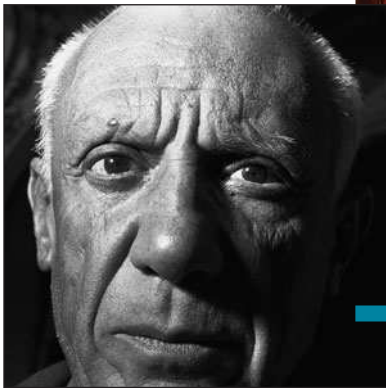
Not all cases of bipolar I disorder are as easily diagnosed as Mark's, but Mark's mood swings had become so severe that a clear pattern of manic and major depressive episodes was obvious to his psychiatrist. Like many people who are treated with medication for bipolar disorders, Mark needed both a mood-stabilizer and an antidepressant in order to control both his manic and depressive episodes. Also, like many clients with bipolar dis-

orders, Mark was tempted to discontinue his medication when he was feeling well, but he relapsed after doing so. Ultimately, Mark's therapist helped him to come to terms with the fact that he needed to take medication in order to have a "normal" life, and therapy gave him a forum where he could think about how to manage his mood swings, which were so dangerous for him and his family.

Chapter Summary

- Moods have emotional, cognitive, motivational, and physical components.
- Variations in mood are normal aspects of living. It is partly the *context* in which moods occur that helps define whether they are abnormal.
- Variations in mood occur on the *continuum between normal and abnormal behavior*. Moods of unusual intensity and duration are more likely to be considered abnormal.
- Classifications of mood disorders are *historically relative*, having changed considerably over time. The DSM-IV-TR currently recognizes five main mood disorders: major depressive disorder, dysthymia, bipolar disorder I, bipolar disorder II, and cyclothymia. The DSM-IV-TR mood disorders consist of various combinations of three mood episodes: major depressive episodes, manic episodes, and hypomanic episodes.
- Demographic context factors such as age, gender, class, and culture influence the expression and prevalence of mood disorders. Depression may involve different symptoms in different age groups, and it is seen disproportionately among females and the poor. Furthermore, the experience and expression of depression is *culturally relative*.
- Biological components of mood disorders include predisposing genetic factors, deficits in the availability of monoamines (norepinephrine, dopamine, and serotonin), and dysregulation in the body's hormonal system. Bipolar mood disorders also have a genetic component. Neurotransmitters and neural anomalies in the amygdala, prefrontal cortex, and cerebellum are involved in bipolar illness, but their roles are not yet well understood.
- Cognitive theorists propose that people become depressed by holding negative views of themselves, their world, and their future, expressed in negative automatic thoughts, cognitive distortions, and pessimistic explanations of negative events.
- Behavioral theories of depression focus primarily on the relationship between depression and reductions in reinforcements and/or increase in aversive consequences (punishments).
- Psychodynamic theorists suggest that depression may be rooted in childhood experiences of loss, anger turned on the self, an overly harsh superego, and personality traits such as narcissism.
- Sociocultural interventions for depression focus on improving self-esteem and social support through assistance with problem solving, employment, and social skills. Family therapy interventions for depression address the family situation that may have contributed to a client's depression as well as addressing the effects of an individual's depression on family members.
- Interpersonal psychotherapy (IPT), an integrated treatment that focuses on the circular relationship between mood and interpersonal events, draws on object relational, behavioral, and cognitive theories of depression. The *principle of multiple causality* in mood disorders is well illustrated by IPT and other multimodal treatments.

Pablo Picasso, *The Weeping Woman*, 1937.
Oil on canvas. Tate Gallery,
London/SUPERSTOCK/ ©2007 Estate of
Pablo Picasso/ Artist Rights Society (ARS),
New York



©Hulton-Deutch Collection/Corbis

Pablo Picasso (1881–1973), a towering figure in the history of art, mastered the techniques of Realism and Impressionism, and was also one of the major figures in the creation of Cubism, an art form that explored simplified, geometrical shapes and shifting points of view. In addition to his reputation for a passionate, sometimes consuming, approach to his work and his relationships, Picasso was also considered to be something of a hypochondriac.

Psychological Stress and Physical Disorders

CASE Vignettes

Robert, age 45, was admired by his colleagues for his ability to close large and complicated real estate deals quickly and efficiently and for his capacity to work with several developers and contractors simultaneously on a variety of different projects. Yet, despite the fact that he was one of the most productive members of his company, he was generally disliked for being short-tempered and impatient. Much of the gossip around Robert's office focused on his latest antics: throwing his cellular phone at an assistant who interrupted him in the middle of a call, loudly berating a waitress for bringing him a medium rare, not well-done, hamburger, openly referring to his own secretary as "the idiot," and insisting on smoking in areas of the office where smoking was forbidden. When he suffered a heart attack while caught in a traffic jam, the consensus at the office water-cooler was that he "had it coming" despite his young age.

David, a 24-year-old construction worker who lives at home with his parents, suffers from a wide variety of physical symptoms for which doctors can find no explanation: chronic pain in his neck, arms, lower back, and lower legs, frequent nausea and constipation, and occasional dizziness. Though David occasionally dated in high school, his physical symptoms have caused him to lose interest in romantic or sexual relationships with women. David finds that, due to his chronic pain, he cannot stand the physical demands of construction work, and he has been unemployed for most of the past three years. While David's mother has been glad to support him while he convalesces, David's father doubts the legitimacy of his son's symptoms and has begun to resent his son's ongoing unemployment and dependence.

This chapter explores the various ways that psychological stress interacts with physical health. We'll begin with an exploration of the field of **psychophysiology**—the study of actual physical illnesses caused or exacerbated by psychological stress. Then we'll turn our attention to the **somatoform disorders**, in which psychological stress causes physical symptoms or distress about physical features but no actual medical disorder is present. Our discussions of psychophysiology and the somatoform disorders will provide a detailed look at the core concept of the *connection between mind and body*.

PSYCHOPHYSIOLOGY: DEFINING PSYCHOLOGICAL STRESS

The concept of stress is familiar to most people. In all likelihood you have felt "stressed" during final exams, encouraged a good friend not to be "too stressed out," and can list several experiences or events that are "stressful." Although stress is a familiar concept, the term has many uses and means different things to different people. Not surprisingly,

CASE VIGNETTES

Psychophysiology: Defining Psychological Stress

- Cognitive Appraisal of Stress

Categorizing Stressors

- Life Events
- Chronic Stress
- Daily Hassles
- Catastrophic Events

Explaining Stress and Health: Psychophysiological Disorders

- Psychological Stress and Unhealthy Behaviors
- Psychological Stress and Adverse Physiological Reactions
- Psychological Stress, Personality Traits, and Health

Reducing Stress and Treating Psychophysiological Disorders

- Relaxation and Meditation
- Exercise
- Biofeedback
- Cognitive Retraining
- Social Support

Defining the Somatoform Disorders

Classifying the Somatoform Disorders

- The DSM-IV-TR Categories
- The Advantages and Limitations of the DSM-IV-TR Somatoform Diagnoses
- Cultural and Historical Relativism in Defining and Classifying Somatoform Disorders
- Classification in Demographic Context

Explaining and Treating the Somatoform Disorders

- Psychodynamic Components
- Cognitive-Behavioral Components
- Sociocultural Components
- Biological Components
- The Connection Between Mind and Body in Somatoform Disorders

CASE VIGNETTES Treatment

Psychophysiology The study of physical disorders caused or exacerbated by stress or emotional factors.

Somatoform disorders Disorders in which physical symptoms are caused by psychological factors.



Tough day at the office Some jobs are more stressful than others: here, Indian bomb squad officers investigate an abandoned bag found near a passenger bus.
©AP/Wide World Photos

Cognitive appraisal An individual's perception of a potentially stressful event which weighs the event's potential threat against resources available for managing the event.

psychologists have attempted to define stress in order to facilitate communication about the topic and to advance empirical research on stress and related phenomena.

Stress is sometimes conceptualized as a *reaction* to physically and psychologically taxing events (Selye, 1993), but a more sophisticated definition views stress as a complex *interaction* between people and their environments (Lazarus, 1999). In other words, what feels stressful to one person might feel boring, pleasant, or even thrilling to someone else; some people enjoy the excitement of jumping off the high dive; others *greatly* prefer to watch the divers from the pool deck. Furthermore, an individual's perception of stressful events might change over time and will likely depend on other events occurring at or around the same time. Discovering, as you head out for a leisurely jog, that your parked car has a flat tire won't be nearly as stressful as making the same discovery when you are about to drive your car to an important meeting.

Cognitive Appraisal of Stress

Stress researchers have found that the degree to which an event is experienced as stressful depends on an individual's subjective perception, or **cognitive appraisal**, of the event (Lazarus, 1999). Cognitive appraisals (which can occur rapidly and unconsciously) of potentially stressful events generally focus on two factors: (1) whether the event poses a threat to immediate or long-term well-being and (2) whether adequate resources (personal, emotional, social, financial, etc.) are available for managing the threat (Lazarus & Folkman, 1984). Getting a costly speeding ticket (a potential threat to one's financial well-being) is not nearly as stressful if you have lots of money in the bank (resources to address the threat), just as breaking your leg (a potential threat to one's physical and occupational well-being) is not nearly so stressful if you have good medical care and an accommodating boss (resources to address the threat).

Stress experts have identified several specific conditions that influence whether or not an event will be appraised as stressful. The most stressful events are those that are felt to be negative, uncontrollable, ambiguous, unpredictable, and/or require significant adaptation (DiMatteo & Martin, 2002; Dougall & Baum, 2001). Consider, for example, a common, potentially stressful situation: going to an interview for a strongly desired job.

- *Felt to be negative*—If you've had very unpleasant job interviews in the past or have been told by friends that interviews with the company you're interested in are often "brutal," the interview process will likely be perceived as a negative experience and therefore be more stressful.
- *Uncontrollability*—Perhaps you've heard from friends or colleagues that people who felt they had great interviews with the company you're interested in were rarely offered jobs. The experience of being interviewed will likely be more stressful if you want the job but know that having a good interview may have little to do with being hired.
- *Ambiguity*—If the interviewer asks clear questions and provides lots of positive feedback about how your skills fit with the company's needs, the interview will probably feel less stressful than if the interviewer asks vague questions and provides little feedback.
- *Unpredictability*—Imagine that the company you are interested in tells applicants in advance which questions they will be asked during the interview. Having time to prepare answers in advance is usually less stressful than walking into an interview not knowing what to expect.
- *Requiring significant adaptation*—If the interview process is lengthy and demanding, the amount of adaptation required will likely increase your sense that the process is stressful.

BRIEF SUMMARY

- Stress is sometimes conceptualized as a reaction to physically and psychologically taxing events, but a more sophisticated definition views stress as an interaction between people and their environments.
- Cognitive appraisals of potentially stressful events generally focus on two factors: (1) whether the event poses a threat to immediate or long-term well-being and (2) whether adequate resources (personal, emotional, social, financial, etc.) are available for managing the threat.
- Stress experts have identified several specific conditions that influence whether or not an event will be appraised as stressful; the most stressful events are those that are felt to be negative, uncontrollable, ambiguous, unpredictable, and/or requiring of significant adaptation.

Critical Thinking Question

Imagine that your plane flight home from vacation has just been canceled. How many *context* variables can you think of that would influence whether, and to what degree, such an event would be stressful?



The importance of context

CATEGORIZING STRESSORS

Stressful events, or **stressors**, range from the annoyance of misplacing one's house keys to the trauma of being assaulted. Stress experts have grouped stressors into the following general categories: *life events*, *chronic stress*, *daily hassles*, and *catastrophic events*.

Life Events

In the late 1960s, researchers began to conceptualize stress as a function of the impact of significant life changes and hypothesized that the more life change an event required (whether positive or negative), the more stressful the event would be. To test this hypothesis, researchers developed a list of 43 positive and negative **life events** and asked 394 individuals to rate how much adjustment, or life change, each event would require (Holmes & Rahe, 1967). Based on the participants' responses, the researchers developed a mean "stress score" on a scale from 0 to 100 for each type of life event. These stress scores were then used to develop the **Social Readjustment Rating Scale** (SRRS), a commonly used

Stressors Stressful events, ranging from minor annoyances to traumatic experiences.

Life events Life changes, both positive and negative, that require adaptation.

Social Readjustment Rating Scale A scale used to rate stress by quantifying the amount of adaptation required by a variety of life events.



Defining stress Happy events, such as the birth of a child, or the move to a new home, can be stressful because they require significant adaptation and life changes.

(Left) Hattie Young/Photo Researchers, Inc.

(Right) Michael Newman/PhotoEdit

TABLE 6.1 The Holmes-Rahe Social Readjustment Rating Scale

LIFE EVENT		STRESS VALUE
1.	Death of a spouse	100
2.	Divorce	73
3.	Marital separation	65
4.	Jail term	63
5.	Death of a close family member	63
6.	Personal injury or illness	53
7.	Marriage	50
8.	Fired at work	47
9.	Marital reconciliation	45
10.	Retirement	45
11.	Change in health of family member	44
12.	Pregnancy	40
13.	Sexual difficulties	39
14.	Gained a new family member	39
15.	Business readjustment	39
16.	Change in financial status	38
17.	Death of a close friend	37
18.	Change to a different line of work	36
19.	Change in number of arguments with spouse	35
20.	Mortgage or loan of more than \$100,000	31
21.	Foreclosure of mortgages or loan	30
22.	Change in responsibilities at work	29
23.	Son or daughter left home	29
24.	Trouble with in-laws	29
25.	Outstanding personal achievement	28
26.	Spouse began or stopped work	26
27.	Began or ended school	26
28.	Change in living conditions	25
29.	Revision of personal habits	24
30.	Trouble with boss	23
31.	Change in work hours or conditions	20
32.	Change in residence	20
33.	Change in schools	20
34.	Change in recreation	19
35.	Change in church activities	19
36.	Change in social activities	18
37.	Mortgage or loan of less than \$100,000	17
38.	Change in sleeping habits	16
39.	Change in number of family get-togethers	15
40.	Change in eating habits	15
41.	Vacation	13
42.	Christmas	12
43.	Minor law violations	11

Adapted from Holmes & Rahe, 1967

stress measure (Table 6.1). An individual's total stress score on the SRRS is the sum of the assigned values for stressful life events experienced within the past year. Although SRRS scores have been correlated with various health problems including sudden hair loss (York et al., 1998) and pregnancy complications (Kalil et al., 1995), the SRRS does not account for the fact that everyone experiences stressful events differently; a highly stressful event

for one person might be a minor distraction to someone else. However, the SRRS made a major contribution to the study of stress by pointing out that even *positive* life events, like marriage (#7 on the scale), outstanding personal achievement (#25), and vacations (#41) can be quite stressful because they usually demand significant life changes.

Chronic Stress

In addition to experiencing acute stress from major life events, many people experience **chronic stress** due to the basic circumstances of their everyday lives. For example, being fired from one's job is a significantly stressful life event that ranks just below getting married on the SRRS. But consider the situation of a person employed by a large company that has been drastically reducing its workforce through layoffs. Even though the employee may continue to keep her job, she will spend a lot of time worrying that she is *about* to be laid off, and she will be surrounded by other employees who share her same concerns—certainly a chronically stressful experience even if she keeps her job.

Research into chronic stress has connected ongoing stress with psychological and physical symptoms. For example, a study of community-wide stressors found that people living in low-quality neighborhoods reported worse physical health and greater psychological distress than a control sample living in better neighborhoods (Steptoe & Feldman, 2001). This was true even when factors like socioeconomic status and social support were controlled for statistically. Other studies on chronic stress and physical outcomes have yielded similar results. For example, the chronic stress of caring for a spouse suffering from dementia (such as that brought on by Alzheimer's disease or Parkinson's disease) is associated with elevated cortisol levels (a physical sign of stress) and compromised immune functioning, whereas chronic work stress and marital discord lead to higher mortality rates in men at risk for coronary heart disease (Bauer et al., 2000; Matthews & Gump, 2002). In a study of the combined effects of chronic stress on children, researchers examined the relationships among the environmental stressor of household density (the number of people living in a single household), cardiovascular reactivity as measured by elevated heart rate and blood pressure, and school absences due to illness in 81 nine- to twelve year- old boys (Johnston-Brooks et al., 1998). Interestingly, greater household density correlated with higher levels of cardiovascular reactivity (a physical sign of stress described in detail later in the chapter), which, in turn, was associated with a greater number of school days missed due to illness.

Daily Hassles

Since the early 1980s, researchers have investigated how minor life events or **daily hassles**, such as being caught in a traffic jam or worrying about one's appearance, contribute to stress and its emotional and physical effects (Serido, Almeida, & Wethington, 2004). For example, a study of the effects of daily hassles, or "microstressors," such as having a fight with a friend, found that hassles were more accurate predictors of headache frequency and intensity in people who were headache-prone than were measures of major life events (Fernandez & Sheffield, 1996). There is also some evidence that daily hassles mediate the relationship between major life events and physical or emotional symptoms. For example, a **prospective** study of 144 undergraduates found that major life events measured at the beginning of the study were more likely to result in emotional difficulty at follow-up when daily hassles were also present (Johnson & Sherman, 1997). Not surprisingly, major life events, such as the death of a spouse, inevitably trigger a cascade of daily hassles: increased responsibility for household chores, changes in financial resources and their management, increased obligations to family and friends, and so on. Furthermore, researchers have learned that daily hassles, like most stressors, are largely subjective; what feels like a hassle to one person may



The daily grind Living in a crowded urban environment can, all by itself, contribute to chronic stress and its damaging effects.

©AP/Wide World Photos

Chronic stress Ongoing stress related to difficult everyday life circumstances such as poverty or long-term family strife.

Daily hassles Minor stresses of everyday life.

Prospective Research based on data that is collected as the events being studied are occurring, rather than recalling them retrospectively.



Spread thin "Daily hassles," like those involved with caring for small children while working, play a role in the negative emotional and health outcomes related to stress.

Steven Rubin/The Image Works



Enduring disaster Victims of the December 26, 2004 tsunami huddle together as they endure the stench of rotting bodies. In one of the deadliest catastrophes in modern history, the Asian tsunami devastated coastal regions surrounding the Indian ocean and killed tens of thousands of people.
©AP/Wide World Photos

Catastrophes Extreme and unusual negative events that invariably cause significant stress.

Trauma An emotionally overwhelming experience in which there is a possibility of death or serious injury to oneself or a loved one.

Posttraumatic stress disorder Persistent, debilitating anxiety symptoms occurring in the wake of a traumatic experience.

fall below the stress threshold of someone else. To this end, investigators have turned their attention from counting “objective” daily hassles to measuring the degree to which daily hassles are *felt* to be psychologically stressful (Crowther et al., 2001).

Catastrophic Events

Catastrophes are extreme and unusual events that invariably cause significant stress. These events come in many forms and may be experienced by an entire community or by an isolated individual. Natural disasters such as hurricanes, earthquakes, and floods, or human-made disasters such as war, genocide, torture, or rape are all considered to be events of catastrophic proportions. Much of what we know about the effects of catastrophic events comes from research on **trauma**, a term referring to threatening experiences that are psychologically overwhelming. Several factors influence the degree to which a catastrophe is experienced as traumatic (Shalev et al., 1996; Ullman & Filipas, 2001):

- The *duration* of the catastrophic event: one experience of torture versus repeated torture over a period of several months.
- The *severity* of the catastrophe: losing one’s home in a hurricane versus losing one’s home *and* experiencing major physical injuries.
- The *proximity* of the catastrophic event: having relatives who are Holocaust survivors versus being a Holocaust survivor.
- The degree of *psychological difficulty* experienced by an individual *prior* to the catastrophic event: an assault experienced by a man who is emotionally stable and healthy versus an assault on a man who has a long history of anxiety and depression.
- The availability of *social support* following a catastrophe: the celebration and veneration of World War II veterans versus open hostility directed toward veterans of the war in Vietnam.

Often, the psychological stress associated with a catastrophe is not limited to the duration of the event itself, but persists for years or even decades in the form of **post-traumatic stress disorder (PTSD)**, an anxiety disorder described in detail in Chapter 4. In addition to suffering from a number of anxiety symptoms, people with PTSD also continue to relive the catastrophic event in the form of nightmares, flashbacks, and intrusive memories of the experience.

We can get a sense of the severe and long-term stress associated with catastrophes by considering what is known about the long-term effects of the 1995 terrorist bombing of the Alfred P. Murrah Federal Building in Oklahoma City. A study of 182 adults who were direct survivors of the Oklahoma City bombing found that nearly every survivor continued to experience emotional hyperarousal and intrusive recollections of the event when interviewed six months after the attack (North et al., 1999). Seventeen months after the attack, a full 41% of the explosion survivors continued to suffer from PTSD (North et al., 2004). Not surprisingly, children who lost a parent in the Oklahoma City bombing experienced high levels of ongoing arousal and fear, and persistent post-traumatic stress symptoms, when compared to their nonbereaved peers (Pfefferbaum et al., 1999). Studies of Oklahoma sixth graders who had not been physically exposed to the bombing and who did not know anyone killed or injured in the attack found that even watching media coverage of the bombing, or knowing someone who knew someone killed or injured in the attack, was associated with posttraumatic stress symptoms and functional impairment two years after the catastrophe (Pfefferbaum et al., 2003).

Reports about the psychological aftermath of the September 11th attacks confirm the expectation of massive posttraumatic effects. A nationwide phone survey of 560

adults conducted in the week immediately after the attacks found that 44% of adults and 35% of children reported one or more symptoms of PTSD (Schuster et al., 2001). Investigators using random-digit dialing to contact a sample of 1008 adults living in Manhattan found that 5 to 8 weeks after the attacks 7.5% of the people they contacted reported several symptoms consistent with a diagnosis of current PTSD related to the events of September 11th. The prevalence of PTSD was 20% for research participants living in close proximity to the World Trade Center (Galea et al., 2002). Nearly two years after the disaster, World Trade Center cleanup and recovery workers were found to experience higher rates of symptoms associated with PTSD depression, anxiety, and a host of other psychological problems as compared to workers who were not directly exposed to the World Trade Center site (Gross et al., 2006). Surveys of Pentagon staff members found that two years after the disaster 14% had probable PTSD and 7% had probable depression. High levels of ongoing psychological distress were associated with sustaining an injury during the attack, being exposed to dead bodies, or providing intensive social support to the families of people who were killed during the attack (Grieger et al., 2005). Mental health experts have every reason to expect that ongoing stress reactions to the events of September 11th will be severe, pervasive, and lasting for thousands of directly affected individuals.

BRIEF SUMMARY

- Stress experts have grouped stressors into the following categories: major life events, chronic stressors, daily hassles, and catastrophic events.
- Studies of major life events hypothesize that the more life change an event requires (whether positive or negative), the more stressful it is.
- Chronic stress can result from everyday life situations such as living in a low-quality neighborhood or a crowded household, or caring for a sick relative.
- Daily hassles, such as being caught in a traffic jam or worrying about one's appearance, can be perceived as stressful and contribute to physical or emotional symptoms.
- Catastrophes are extreme and unusual events that invariably cause significant psychological stress; they are sometimes experienced as traumatic or psychologically overwhelming.

Critical Thinking Question

If you were to conduct a research study on stress, how would you go about measuring the degree to which events were stressful? Keep in mind that the stress associated with any event—from a daily hassle to a catastrophe—depends on the person who is stressed and the circumstances surrounding the event.



The importance of context

EXPLAINING STRESS AND HEALTH: PSYCHOPHYSIOLOGICAL DISORDERS

Now that we have described how psychologists define and categorize stress we can turn our attention to understanding how psychological stress influences physical health. We will begin by considering three pathways by which stress contributes to **psychophysiological disorders**, illnesses significantly influenced by emotional factors. These are: (1) the effects of psychological stress on health-related behaviors; (2) the effects of psychological stress on physiological reactions; and (3) the effects of certain personality traits on the management of psychological stress and, consequently, on health-related behaviors (see Figure 6.1).

Psychophysiological disorders Medical illnesses caused or exacerbated by stress.

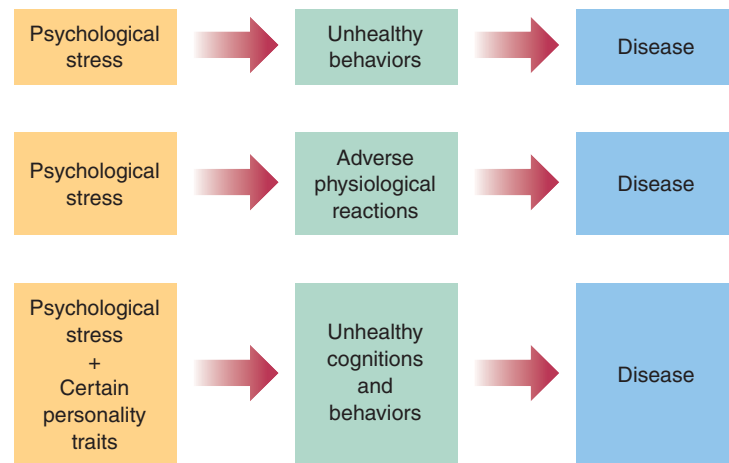


Figure 6.1 Three Pathways by Which Stress Can Contribute to Physical Illness
Psychological stress can influence health in more ways than one.

Psychological Stress and Unhealthy Behaviors

Stress can contribute to the development of physical illness by influencing health-related behaviors. Common sense and everyday experience tell us that even the most health-conscious college students are less likely to exercise and more likely to eat junk food during final exams than they are at the start of the semester. Research evidence shows that psychological stress decreases health-promoting behaviors, such as exercising and getting enough sleep, and increases unhealthy behaviors such as consumption of caffeine, nicotine, alcohol, and foods high in fat, salt, and sugar (Steptoe et al., 1998; Wardle et al., 2000). In a fascinating study of the relationship between work stress and car accidents, Bruce Kirkcaldy and his colleagues measured the working conditions of a German medical staff and the number of car accidents they had during a 12-month period (Kirkcaldy, Trimppop, & Cooper, 1997). They found that the age of the driver and the number of hours spent at work predicted the overall frequency of car accidents during the year but that the number of accidents that occurred on the way *to and from* work depended on factors such as working climate, hours spent at work, and length of lunchtime break.

Psychological Stress and Adverse Physiological Reactions

In 1932 Walter Cannon, an American physiologist, described what has become known as the **fight-or-flight response** (Cannon, 1932). This primitive physiological response is rooted in an evolutionarily based instinct to go on the attack or run away when faced with danger or extreme stress (Chapter 4). The fight-or-flight response involves a cascade of physical reactions within the sympathetic branch of the *autonomic nervous system*: increased blood pressure and heart rate, dilation of the pupils, muscle tension, deepened and quickened breathing, and secretion of stress hormones. This physiological response to an environmental stressor is adaptive if it helps a person to meet or avoid a serious threat, but it places a great deal of strain on the body and can cause permanent harm if it occurs repeatedly (DiMatteo & Martin, 2002).

General Adaptation Syndrome

Following a tradition begun by Cannon, Hans Selye devoted his career to investigating the physiological effects of chronic stress in animals (Selye, 1956; 1976). Selye observed that when laboratory rats were put through a variety of highly stressful medical experiments they tended to develop a set of physical symptoms: enlarged adrenal glands, atrophied

Fight-or-flight response An extreme form of sympathetic nervous system arousal which prepares humans to flee or attack when faced with danger.

lymph nodes, and an increased number of stomach ulcers. Based on these observations, Selye developed a theory of a three-stage **General Adaptation Syndrome** (GAS) that occurs when animals (including humans) are faced with chronically stressful circumstances. The first phase of the GAS, known as the *alarm phase*, involves the mobilization of the body's defenses, especially those associated with the pituitary-adrenocortical systems. This is followed by the *resistance stage* in which the pituitary-adrenocortical system attempts to adapt to the external stressor, and then the *exhaustion stage* in which the body loses its ability to adapt to chronic stress and suffers significant physical damage (Marks et al., 2000). While Selye's work fostered interest in the relationship between chronic stress and physical illness, subsequent research found that environmental stressors and specific emotions interact to produce various physiological effects, not just one general physiological syndrome (Mason, 1975). Let's turn our attention to what we now know about how psychological stress alters and damages *specific* biological systems.

Stress and the Immune System

As we mentioned, many college students have noticed that they survive final exams (often on a steady diet of chips, cookies, and caffeine) only to go on vacation and come down with a bad cold. The field of **psychoneuroimmunology** aims to provide a scientific explanation for what college students frequently experience: that periods of high stress interfere with immune functioning and increase susceptibility to infectious diseases.

Ample anecdotal evidence supports the relationship between heightened stress and vulnerability to viral or bacterial infections, but well-controlled studies of this phenomenon have only emerged in the last decade. State-of-the-art research in this field involves **viral challenge studies** in which healthy research participants are first evaluated for the degree of stress in their lives, then *deliberately* exposed to cold or flu viruses, then quarantined and monitored to see who gets sick and who doesn't (Marsland et al., 2001). For example, Sheldon Cohen and his colleagues in the Department of Psychology at Carnegie Mellon University measured the psychological stress of 55 research participants before infecting them with an influenza virus and placing them in quarantine (Cohen, Doyle, & Skoner, 1999). While in quarantine, the research participants were assessed on a number of objective measures of infection, such as upper respiratory symptoms and weight of mucus production. Consistent with findings from other studies and in keeping with the **connection between mind and body**, Cohen's group learned that higher levels of preinfection psychological stress predicted increased severity of influenza infection. Using similar methods, Cohen and colleagues learned that people are more likely to contract a common cold when they are faced with chronically stressful experiences (lack of employment, underemployment, ongoing relationship problems with family or friends) than when faced with an acute, but brief (less than one month), stressor (Cohen et al., 1998).

Findings from the field of psychoneuroimmunology also highlight the core concept of **multiple causality**. Illness typically results when individuals are faced with the combination of psychological stress and exposure to an infectious agent, not just one or the other. Stomach ulcers provide an excellent example of the principle of **multiple causality**. For many years, the medical community believed that ulcers (small holes in the gastrointestinal tract) were caused by psychological stress alone. However, in the mid-1980s, researchers discovered that ulcers involve infection with the bacterium *Helicobacter pylori* (Marshall & Warren, 1984). While exposure to *H. pylori* is common, the bacterium is far more likely to contribute to the development of an ulcer when the stomach's protective mucosal lining has been weakened by the effects of psychological stress.

But what, exactly, does stress do to inhibit the functioning of the immune system? This simple question has a complicated answer because the immune system is made up of many types of immune cells that work together to prevent disease. *B cells*, *T cells*, and *natural killer cells* are some of the major players in the complex, yet elegant, design of the

General Adaptation Syndrome According to some theories, a three-stage response—alarm, resistance, and exhaustion—that occurs when animals (including humans) are faced with chronically stressful circumstances.

Psychoneuroimmunology A field that investigates the interaction between emotional phenomena and immune system functioning.

Viral challenge studies Studies in which research participants are deliberately exposed to an infectious agent in order to assess their immune system response.



Mind-body connection



Multiple causality

Antigens Foreign substances, such as viruses or bacteria, that typically trigger an immune system response.

Immunosuppression Sub-normal functioning of the immune system.

Hypertension Chronically elevated blood pressure.

Essential hypertension Hypertension for which no physiological cause can be found.

human immune system. B and T cells and natural killer cells help the body to recognize and attack external (viral or bacterial illnesses) or internal (cancer cells) causes of disease. A subclass of T cells known as *T-helper cells* mobilizes other immune cells into action. The HIV virus is particularly dangerous because it attacks the T-helper cells and prevents them from alerting the rest of the immune system to dangerous foreign substances known as **antigens**, giving even the most minor virus or bacterium lethal potential.

Research evidence suggests that acute stress leads to a brief *increase* in the production and activity of immune cells, but that sustained or chronic stress leads to **immunosuppression**, or sustained *decreases* in immune functioning (Dhabar, 2000). Although the latest research indicates that the activation of the sympathetic branch of the nervous system (as in the fight-or-flight response) accounts, in part, for these effects on the immune system, researchers are still working to explain the subtle mechanisms by which sympathetic stress hormones such as epinephrine, norepinephrine, and cortisone influence immune-cell activity (Charmandari, Tsigos, & Chrousos, 2005).

Stress and Cardiovascular Disorders (CVDs)

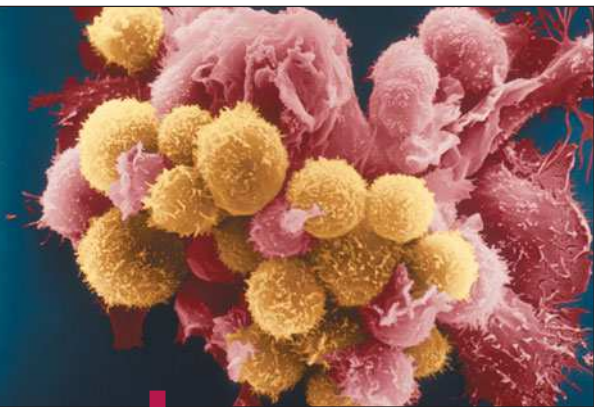
Physiologists have discovered that there is a great deal of individual variation in *cardiovascular reactivity*—the degree to which people react to environmental stressors with an increase in heart rate and blood pressure. Cardiovascular reactivity can be assessed under controlled conditions by measuring heart rate and blood pressure in volunteers while they participate in stressful activities such as the *Stroop task* (1935) or the *cold pressor task*. In the Stroop task (Table 6.2), volunteers are asked to identify, as quickly as possible, the *color* of the ink in which a word is spelled. Research participants are then presented with a highly frustrating list like the following:

TABLE 6.2 Sample Stroop Task

RED	GREEN
BLUE	PURPLE
BLACK	ORANGE

The cold pressor task requires research participants to hold their hands and arms under ice water for as long as possible; although the ice water does no physical damage, it quickly becomes quite painful. Measures of heart rate and blood pressure taken during these tasks provide an index of an individual’s cardiovascular reactivity that appears to be stable across time and in a variety of situations (Treiber et al., 2003). “High reactors” experience dramatic increases in their heart rate and blood pressure when faced with a stressful situation, while “low reactors” do not. As you can see from Figure 6.2, even a common stressful situation, such as giving a classroom speech, will cause heart rate and blood pressure to be much higher in “high reactors” than in “low reactors.” By understanding the relationship between external stressors and individual differences in cardiovascular reactivity, researchers have gained important insights into how stress plays a role in two common cardiovascular disorders: hypertension and coronary heart disease.

Stress and Hypertension While a temporary increase in blood pressure is an adaptive component of the fight-or-flight response, *chronically* elevated blood pressure, known as **hypertension**, increases the risk for stroke, coronary heart disease, and kidney failure by placing unnecessary and damaging strain on the walls of coronary arteries. A variety of factors contribute to the development of hypertension: being severely overweight, eating a diet high in sodium, failing to exercise, and having a genetic predisposition toward hypertension. Stress experts are especially interested in what is known as **essential hypertension**—hypertension not caused by biological factors. A variety



The immune system at work
T-cells attacking a cancer cell.
Jean Claude Revy/Phototake

of environmental stressors such as having a stressful job, living in a city, or living in a war-torn area have been found to contribute to essential hypertension (Nyklicek, Vingerhoets, & Van Heck, 2000; Shapiro, 2001).

Stress and Coronary Heart Disease Coronary heart disease (CHD) is the leading cause of death in the United States and many other industrialized countries. Nearly half a million Americans die from the effects of CHD each year, and the Centers for Disease Control estimates that 12.4 million Americans currently suffer from CHD (CDC, 2001). While CHD is responsible for one out of every five deaths nationally, deaths from heart disease occur disproportionately among African Americans and people living in southern states such as Mississippi, West Virginia, and Kentucky (CDC, 2001) (see Box 6.1).

CHD is a blanket term used to describe several different kinds of heart problems including *arteriosclerosis*, *atherosclerosis*, and *myocardial infarction*. Arteriosclerosis, the thickening and stiffening of coronary arteries, often results from the excessive pressure that chronic hypertension places upon the arteries. Atherosclerosis occurs when cholesterol deposits collect within the coronary arteries, causing the artery walls to become narrow and stiff and impeding the flow of blood to the heart. Arteriosclerosis and atherosclerosis both lead to myocardial infarctions, or “heart attacks,” when artery damage prevents sufficient amounts of oxygenated blood from reaching the heart. Like all muscles, the heart requires a constant supply of oxygen, and areas of heart tissue die when oxygen becomes unavailable.

A variety of factors contribute to the risk of developing CHD: smoking, being significantly overweight, failing to exercise, having uncontrolled hypertension or diabetes, having high levels of blood cholesterol, and having a genetic predisposition to heart problems (DiMatteo & Martin, 2002). In addition to these biological factors, researchers have learned that how a person reacts to stressful situations constitutes a significant *psychological* risk factor for CHD. The first indications that personality factors might play a significant role in CHD came in the 1950s when two cardiologists, Meyer Friedman and Ray Rosenman, observed that many of their patients were intense and impatient, even to the degree that they were wearing out the upholstery on the front of the waiting room chairs by constantly sitting on the edge of their seats (Friedman & Rosenman, 1974). Upon further investigation, Friedman and Rosenman found that a disproportionate number of their cardiology patients suffered from what they called “type A” personality: their patients were hard-driving, felt an urgent need to do as many things as quickly as possible, and had little patience for others (Friedman & Rosenman, 1974).

In recent years, the conceptualization of what constitutes type A behavior has shifted away from competitive and time-conscious behavior toward hostile, irritable, and antagonistic behavior (Siegman et al., 2000). As the definition of what constitutes a “heart-damaging” personality becomes increasingly refined, researchers are finding more robust connections between personality factors and CHD. Even when other coronary risk factors such as smoking, obesity, exercise, family history, and socioeconomic status are taken into account, hostile behavior constitutes a significant risk factor for developing CHD (Olson et al., 2005). In addition to interpersonal hostility, mood states such as depression and anxiety have also been found to contribute to heightened risk for CHD (Barger & Sydeman, 2005; Sundquist et al., 2005).

Stress and Other Medical Disorders

In addition to compromising the functioning of the immune system and being a major causal factor in disorders such as essential hypertension and coronary heart disease, psychosocial stress has been found to contribute to a number of other medical disorders such as **asthma**, **migraine headaches**, and **cancer**. Asthma, a medical condition in which the

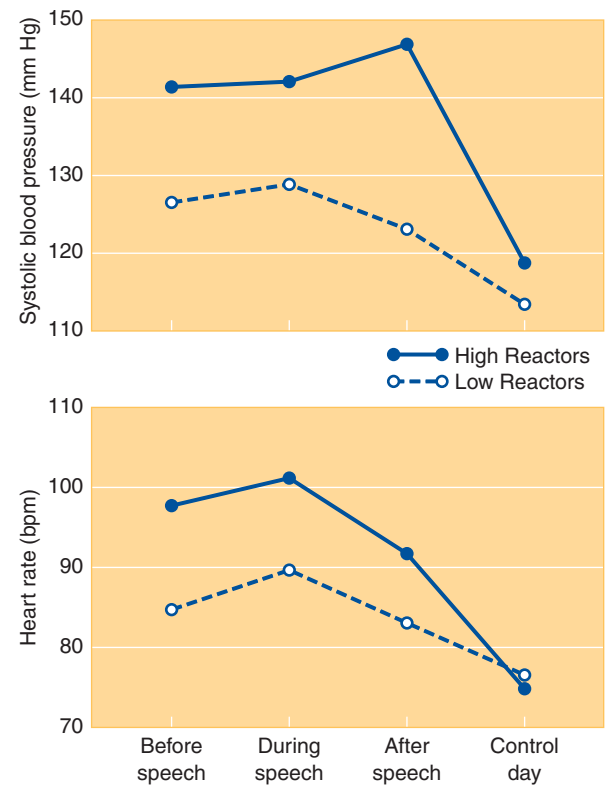


Figure 6.2 Heart Rate and Blood Pressure in High- and Low-Reactive Individuals Before, During, and After Giving a Speech As you can see, “high reactors” and “low reactors” had similar blood pressure and heart rate readings on a control day when no speeches were scheduled. However, when scheduled to give a speech, the “high reactors” had higher blood pressure and heart rate readings before, during, and even *after* delivering their speeches than the “low reactors” did.

Hugdahl, 1995 (p. 202), adapted from Manuck, Kasprowicz, & Muldoon, 1990

Asthma A medical condition in which the airways to and from the lungs become periodically constricted.

Migraine headaches Painful headaches that result from the constriction of blood vessels in the cranium and are often heralded by extreme sensitivity to light and sound, dizziness, nausea, or vomiting.

Cancer A disease characterized by the uncontrolled growth of malignant cells in some part of the body.

BOX 6.1 | Hypertension Among African American Men

JOHN HENRYISM

FOCUS ON PSYCHOLOGY IN SOCIETY

John Henry was an African American man born in the mid-1800s who, according to legend, was one of the most industrious and powerful men working on the U.S. railroad system during the Reconstruction period following the Civil War. While hand-drilling through a mountain with his team, John Henry was challenged by a salesman who claimed that his steam-powered machine could drill faster than any human. John Henry raced against the machine and won, only to die from exhaustion immediately thereafter. The term **John Henryism** was coined by Dr. Sherman James, a social psychologist, and his colleagues to describe a style of active coping fueled by the belief that *any* environmental obstacle can be overcome with enough hard work and persistence (1983).

Although John Henryism may seem on its surface to be an adaptive response to the social and economic pressures placed on ethnic minorities, this active coping style has been linked repeatedly with high rates of hypertension, particularly among poor African Americans (Fernander et al., 2004; Merritt et al., 2004). Unfortunately, some economically disadvantaged minorities who are doing their best to succeed against enormous odds may be risking their own health in the process.

If you were asked to develop an intervention program to address the negative effects of John Henryism, how might you proceed? In designing your program, be sure to consider psychological, medical, and economic options.



John Henryism African Americans are at heightened risk for death due to coronary heart disease.

Kathy McLaughlin/The Image Works



Steel drivin' man The legend of John Henry has been the subject of numerous songs, literary pieces, and works of folk and traditional art.

©Frederick Brown, *John Henry*/Smithsonian American Art Museum, Washington, DC/Art Resource

airways to and from the lungs become periodically constricted, tends to begin during childhood and adolescence. Research on the relationship between stress and asthma has found that healthy children and adolescents experience increases in respiration rate and airway resistance when faced with a highly stressful situation such as being required to play a frustrating computer game (Ritz et al., 2000). However, these effects are especially problematic for children who also happen to suffer from asthma, which may cause mild airway constriction to turn into a full-blown asthma attack (McQuaid et al., 2000).

Migraine headaches result from the constriction of blood vessels in the cranium and are often heralded by extreme sensitivity to light and sound, dizziness, nausea, or vomiting. Although migraine headaches are different for everyone who experiences

them, many people suffer completely debilitating aching or throbbing pain. Stress seems to trigger migraine headaches, which then cause additional stress as a result of physical pain, lost sleep and productivity, and so on; increased levels of stress then appear to contribute to future migraines (Wacogne et al., 2003).

Given the strength of the association between type A personality and coronary heart disease, researchers were eager to explore whether a particular personality profile might be linked to another major disease: cancer. Early research indicated that certain personality traits might predispose people to cancer. By studying people who had just received a cancer diagnosis, two psychologists (LeShan & Worthington, 1956) developed a “cancer personality” profile, which “included the tendency to deny and suppress emotions, to avoid conflict, and to be overly agreeable” (DiMatteo & Martin, 2002, p. 350). However, subsequent work in this area revealed that this original formulation of a “cancer personality” involved the major methodological flaw of assessing people who had recently been diagnosed with life-threatening cancers. Under these circumstances, research participants may have been understandably reluctant to share intense feelings with a virtual stranger during the personality assessment rather than displaying pathological personality traits.

Well-designed prospective studies (which conduct personality evaluations of a large number of individuals and then see who goes on to develop cancer) have failed to find a direct connection between any particular personality profile and cancer (Levenson & Bemis, 1995). However, stress may promote the development of cancer through indirect routes. Physically harmful stress-related behaviors, such as smoking or eating an unhealthy diet, are known to increase cancer risk. Stress-related immunosuppression, particularly among the natural killer cells, also interferes with the body’s natural ability to identify and destroy cancer cells (Anderson, Golden-Kreutz, & DiLillo, 2001). Researchers at Johns Hopkins University studied the role of stress in the development of cancer by exposing 40 mice to the smell of fox urine—a stressful experience given that foxes are natural mice predators—and high doses of cancer-causing UV light. Twenty-one weeks into the study, 14 of the 40 stressed mice developed skin tumors, while only two of 40 “nonstressed” mice developed skin tumors in response to identical levels of UV light exposure (Parker et al., 2004).

Psychological Stress, Personality Traits, and Health

In addition to the type A personality style that has been linked with coronary heart disease, psychologists have found that cognitive and behavioral tendencies such as *pessimism*, *optimism*, and *repressive coping* influence health. Pessimism, optimism, and repressive coping shape how individuals manage psychologically stressful circumstances and have a general impact on health-related behaviors and physiological reactions to stress.

Pessimism and Optimism

Substantial research evidence indicates that **pessimism** increases the likelihood that one will become ill, while **optimism** has salutary effects. For research purposes, psychologists have defined *pessimistic explanatory style* as the tendency to attribute negative events to stable, global, and internal factors; optimism is the opposite tendency. When a pessimist loses his car keys he may think, “I always lose things (stable), I can’t keep track of anything (global), I’m totally irresponsible (internal),” while the optimist may think “It’s not really like me to lose my keys (unstable), I keep track of everything else (specific), I must have been distracted by all of the work I have this week (external).”

In one of the most interesting investigations into the relationship between optimism, pessimism, and health, psychologists analyzed surveys filled out by 99 Harvard University graduates from the classes of 1942 to 1944 when they were about 25 years old (Peterson, Seligman, & Vaillant, 1988). In follow-up health evaluations of the men when they were between 45 and 60, those men with pessimistic explanatory styles were far more likely to have died or to be in poor physical health than their optimistic peers,

Pessimism In cognitive terms, the tendency to make internal, global, and stable explanations of negative events; associated with depression.

Optimism In cognitive terms, the tendency to make external, specific, and unstable explanations of negative events; associated with good health.



Attitude counts Pessimism, written all over this man’s face, appears to contribute to long-term negative health outcomes.

Jose Luis Pelaez/©Corbis

even when mental and physical health at age 25 was taken into account. But does an optimistic attitude by itself keep people in good health? Not necessarily. Researchers have found that people with optimistic explanatory styles are more likely to be and stay healthy if their optimism influences them to engage in behaviors, such as exercising, that are known to promote good health (Peterson & Bossio, 2001). Put another way, optimism promotes good health partly because people feel optimistic that healthy choices in the present (exercising, eating a healthy diet) will contribute to future physical well-being. Apparently, pessimism has the opposite effect; people with a pessimistic explanatory style are likely to think, “Why should I worry about my health now, it won’t make a difference anyway!”

Repressive Coping

Although the open hostility of “type A” behavior has been linked to CHD, consistently *repressing* hostile emotions also seems to have negative health effects. Psychologists have identified a pattern of emotional behavior called **repressive coping** in which people actively suppress negative emotions to the degree that they may not even know that they are experiencing these feelings (see Chapter 2 on the defense mechanism of *repression* for more on this topic). To identify people with repressive coping styles, researchers typically compare self-report measures of anxiety with self-report measures of social desirability (social desirability is defined as the tendency to distort the truth in order to “look good”). People who report little or no anxiety, but who also score very high on measures of social desirability (endorsing statements like “I like everyone I know”), are considered to be repressive copers: they underreport feelings of subjective distress and exaggerate cheerful, happy, and content feelings. The constant effort required to keep negative feelings at bay seems to have a damaging effect on health. People who use a repressive coping style have been found to have fewer circulating T-helper cells and higher blood cholesterol levels than nonrepressors. When faced with a laboratory stressor designed to trigger an immune system response (the Stroop task), repressors also exhibited a smaller increase in the availability of natural killer immune cells than nonrepressors (Barger et al., 2000).

Repressive coping A coping style characterized by general suppression of negative emotions.

BRIEF SUMMARY

- There are three distinct pathways by which stress contributes to physical illness:
 - The effects of psychological stress on health-related behaviors.
 - The effects of psychological stress on physiological reactions.
 - The effects of certain personality traits on the management of psychological stress and consequently on health-related behaviors.
- Stress contributes to the development of physical illness by influencing health-related behaviors such as getting enough exercise and sleep and limiting consumption of caffeine, nicotine, alcohol, and foods high in fat and sugar.
- Adverse physiological reactions to stress can take the form of a persistent fight-or-flight response, suppressed immune functioning, and/or heightened cardiovascular reactivity.
- Cardiovascular reactivity contributes to two serious heart conditions: hypertension (chronically elevated blood pressure) and coronary heart disease (CHD).
- “Type A” behavior (hostile, irritable, and antagonistic) also appears to be a significant risk factor for developing CHD.
- Stress has been found to contribute to medical disorders such as asthma, migraine headaches, and cancer.
- In addition to “type A” personality features, psychologists have found that cognitive and behavioral tendencies, such as pessimism, optimism, and repressive coping, influence health.

Critical Thinking Question

Now that you know about three different pathways by which stress can influence health, can you think of a situation in which all three of these pathways could combine to produce a negative health outcome?

REDUCING STRESS AND TREATING PSYCHOPHYSIOLOGICAL DISORDERS

As experts in the mental health and medical fields began to learn about the relationship between psychological stress and physical health, they became interested in developing preventative interventions to reduce stress. A wide variety of psychophysiological interventions have been developed over the past three decades. Some psychophysiological interventions fall squarely within established Western medical and psychological traditions, while others, such as meditation and yoga, have been borrowed from Eastern spiritual practices. The interventions described next serve two important purposes: (1) reducing stress to prevent disease and (2) managing the stressful effects of physical illness to improve prognosis.

Relaxation and Meditation

As you will recall from Chapter 4, **relaxation training** can be used to reduce and prevent episodes of intense anxiety. Even people who don't suffer from panic disorder (for which *relaxation training* is frequently employed) can benefit from learning how to calm their body by systematically tightening and relaxing their muscles and focusing on their breathing. *Progressive muscle relaxation* has been found to reduce sympathetic nervous system activity, lower heart rate, and enhance immune response (Stefano & Esch, 2005; Gatchel, 2001). In an early investigation of the effects of relaxation training on the immune system, Janice Kiecolt-Glaser and her colleagues studied T-helper cells and natural killer cells in the blood samples of first-year medical students taken one month before a scheduled exam, and again on the day of the examination. After the first blood sample was collected, half of the students were assigned to a relaxation training group, and the other half were left to their own devices. At exam time, students in the relaxation group not only reported feeling less distressed than their peers, but more frequent relaxation practice among individuals in the relaxation group was associated with heightened T-helper cell and natural killer cell activity (Kiecolt-Glaser et al., 1986).

Eastern meditation and exercise practices, such as yoga, that focus on controlled breathing and reducing mental distractions have also been found to have a significant salutary effect on a variety of physiological measures of stress (Gatchel, 2001). Relaxation techniques, meditation, and breathing exercises not only reduce stress and thereby prevent certain psychophysiological diseases but have also been found to be effective in the treatment of insomnia, muscle contraction headaches, and premenstrual syndrome and also work to reduce some of the side effects (such as nausea) associated with cancer chemotherapy (Gatchel, 2001). A large-scale review of mindfulness-based stress reduction (MBSR) programs found that regular meditation leads to improvements in measures of physical well-being and quality of life, and to reductions in measures of depression, anxiety, medical symptoms, and physical impairment (Grossman et al., 2004).

The benefits of meditation—the dispassionate observation of one's own moment-to-moment mental processes—have long been recognized within Buddhist traditions. State-of-the-art brain imaging techniques now indicate that meditation measurably changes brain functioning. One study found that people who had only been meditating regularly for four months enjoyed more robust immune functioning and increased activity in the parts of the brain associated with positive feelings than a control group of nonmediators (Davidson et al., 2003). Another study of people with extensive meditation experience found that brain regions associated with attention and the processing of internal and external sensory experiences were thicker (meaning, more developed) than the same brain regions in control participants without meditation experience (Lazar et al., 2005).



Improving health through relaxation Yoga and other Eastern meditation and exercise practices have been found to reduce stress and, thereby, contribute to improved health.

Jeff Greenberg/PhotoEdit

Relaxation training Training people how to calm themselves by regulating their breathing and attending to bodily sensations.

Exercise

The physical health benefits of exercise have long been recognized; new research shows that exercise confers significant mental health benefits as well. Physical exercise reduces psychological stress and thereby helps to *prevent* the occurrence of stress-related mental and physical health problems (Hong et al., 2004; Spalding et al., 2004). Furthermore, physical exercise can also play a significant role in the *treatment* of psychological disorders when they do occur. Accumulating research evidence indicates that a program of regular exercise can relieve mild to moderate depression in some people (Dunn et al., 2005). Studies also suggest that the combination of regular exercise and drug treatment for depression leads to better long-term outcomes than drug treatment alone (Stathopoulou et al., 2006).

Researchers are in the process of trying to understand exactly what exercise does to treat depression, and several hypotheses show early promise. To date, studies indicate that exercise may reduce depression by stimulating the adaptive regulation of serotonin receptors, improving the quality of sleep (which is often disrupted in depression), and increasing feelings of mastery and self-efficacy (Stathopoulou et al., 2006). Exercise also increases concentrations of peptides that are known to reduce anxiety (Strohle et al., 2006) and may help in the management of some anxiety disorders (Manger & Motta, 2005).

Biofeedback

In the 1960s, behavioral scientists discovered that humans could be taught to control a variety of autonomic nervous system responses that were previously thought to be involuntary, such as heart rate and blood pressure. When connected to monitors that provide visual feedback about heart rate, blood pressure, and even skin temperature, most people can learn to modify these physiological responses. **Biofeedback training** teaches people to attend to and partially control certain problematic physiological processes with the help of such feedback.

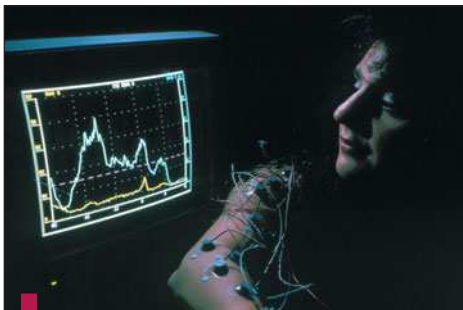
One study of biofeedback efficacy evaluated the effects of 12 sessions of biofeedback training for pain management in patients suffering from chronic temporomandibular disorders—discomfort or pain in the muscles and joints that control jaw function. When compared to patients who had received no training, patients in the biofeedback group reported less pain, decreased pain-related disability, and improved jaw functioning one year after treatment was completed (Gardea, Gatchel, & Mishra, 2001). Biofeedback training has also been found to be an effective aid in the treatment of asthma, essential hypertension, gastrointestinal disorders, insomnia, migraine headaches, Raynaud's disease (a painful vascular disorder), and possibly even epileptic seizures (Gatchel, 2001).

Cognitive Retraining

As you recall from the study of the Harvard graduates described earlier, men who exhibited pessimistic explanatory styles at age 25 were more likely than their optimistic classmates to be ill or to have died when they were evaluated again at ages 45 to 60 (Peterson et al., 1988). Based on these and other findings, psychologists have sought out ways to change how people think about negative events in the hopes that this will lead to better health outcomes. Cognitive interventions can be employed to improve physical health in two important ways: by reducing the kinds of thoughts that cause stress and increase susceptibility to disease, and by helping patients who are already ill to adopt adaptive attitudes and behaviors.

Cognitive retraining interventions to reduce stress focus on changing pessimistic explanatory styles, which may leave people feeling helpless and overwhelmed in the face of negative life events. Standard cognitive interventions help clients to replace cognitive distortions (“I’m hopelessly irresponsible!”) with rational thinking (“I’ve lost something today, but if I pay attention in the future, I’ll keep better track of my things.”). It is important to recall that stress is best defined as an *interaction* between an event and a person’s subjective perception or cognitive appraisal of the event. Although it is not

Biofeedback training Training people to attend to and partially control autonomic physiological functions with the help of visual feedback.



Monitoring the autonomic nervous system Here, a person engages in biofeedback training. With practice and the availability of visual feedback, people can learn to modify and control certain physiological responses.

Tom McCarthy/PhotoEdit

possible to prevent bad things from happening, it is possible to reduce stress by changing how people interpret negative events (see Figure 6.3).

Cognitive-behavioral stress management (CBSM) techniques have been found to improve the health status of people who have already been diagnosed with an illness. For example, a group of men diagnosed with HIV participated in a CBSM training program that enhanced or maintained adaptive coping strategies such as exercising and taking advantage of social support and reduced maladaptive coping strategies such as denial or repression. The training program prevented some of the immune changes typically associated with HIV and also decreased social isolation. Research participants who maintained maladaptive cognitive styles were more depressed, more immunosuppressed, and more symptomatic one year after the intervention when compared to men who developed or maintained adaptive coping styles (Ironson et al., 2000).

Cognitive-behavioral interventions can be especially useful in the treatment of disease when they help people to reduce *catastrophizing* cognitions. Not surprisingly, many people who are diagnosed with serious illnesses such as cancer and heart disease are quick to think “I’m going to die from this,” “The doctors won’t be able to help me,” and “All hope is lost.” When such beliefs are maintained, patients are often reluctant to engage in a wide variety of activities (exercise, support groups, improved diet) that are known to improve the outcome of many health problems.

Social Support

Social support is closely associated with health. Studies of social networks and mortality rates have consistently found that the more social connections a person has, the less likely he or she is to die prematurely (Tomaka, Thompson, & Palacios, 2006). Social support comes in many forms. *Emotional support* can help reduce stress by providing an outlet for worries, a confidante in difficult times, and feelings of connection and acceptance; *instrumental support* reduces stress by providing practical, tangible support such as financial loans or extra help around the house; and *informational support* reduces stress through the provision of useful advice or helpful feedback (Wills & Filer Fegan, 2001).

Ample evidence suggests that people who have solid social connections are less likely to become ill. A major prospective study of 736 healthy Swedish men found that research participants with the highest levels of emotional support and social integration were the least likely to have developed heart disease when evaluated six years later (Orth-Gomer, Rosengren, & Wilhelmsen, 1993). Several models have been offered to explain *how* social support prevents disease; Table 6.3 illustrates a variety ways in which social support might reduce stress and improve health outcomes.

TABLE 6.3 Possible Ways that Social Support Reduces Stress and Improves Health Outcomes

- Promotes physical calming
- Reduces anxiety and depression
- Improves immune functioning
- Alters appraisals of threats
- Lowers physiological reactivity
- Reduces harmful behaviors
- Promotes healthful behaviors
- Results in better coping with stressors

Adapted from Wills & Filer Fegan, 2001 (p. 214).

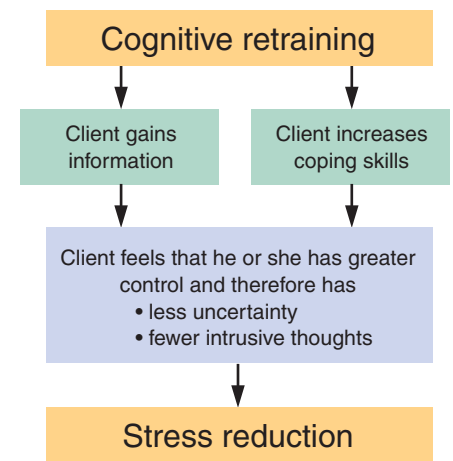


Figure 6.3 How Cognitive Retraining Reduces Stress Cognitive retraining programs that help decrease pessimism and increase sense of control have been found to reduce stress and improve prognosis in people suffering from some medical disorders. Adapted from Helgeson et al., 2001, p. 274.

Cognitive-behavioral stress management

An intervention designed to enhance or maintain adaptive coping strategies and decrease maladaptive coping strategies.



A little help from one’s friends

Social support helps to reduce stress and, as a result, improve physical health. Jack Hollingsworth/Photodisc/Getty Images

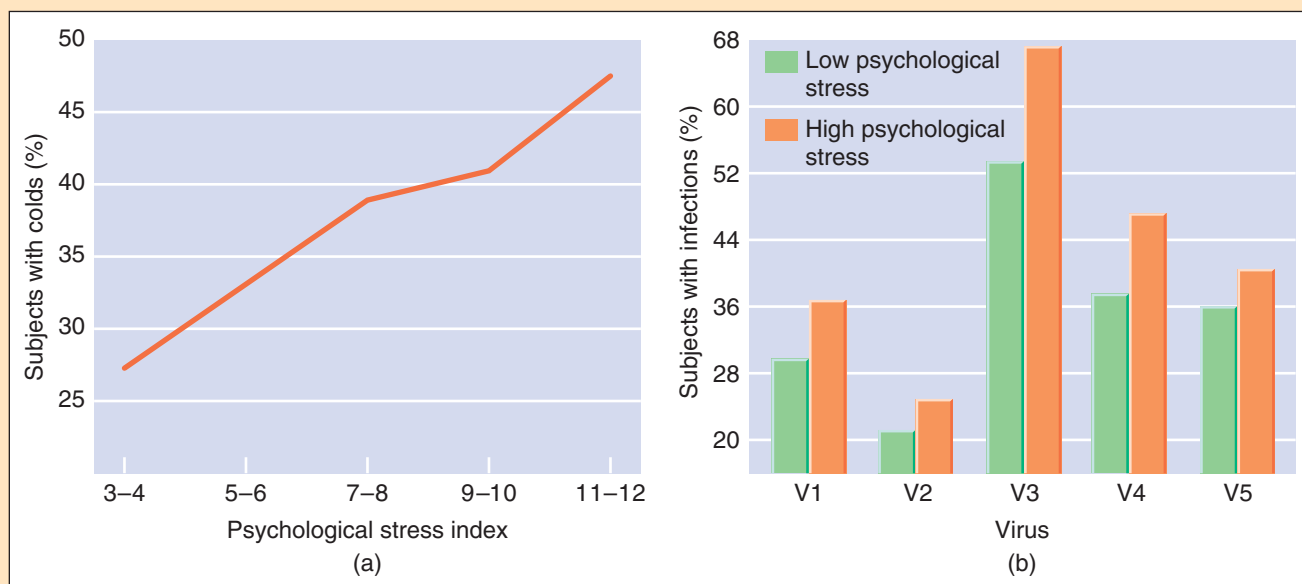
Chronic Stress and Immunosuppression

Our bodies respond to stress in adaptive and maladaptive ways. When we experience acute stressors, such as hearing a fire alarm or slamming on our car brakes to avoid an accident, our hypothalamus signals our sympathetic nervous system to prepare for immediate action. This “fight-or-flight” response involves the activation of the adrenal medulla which releases large amounts of noradrenaline and adrenaline, two hormones that slow digestion and increase heart rate, blood pressure, respiration, and muscle tension. The effects of noradrenaline and adrenaline enable us to think and act quickly in order to protect ourselves from danger.

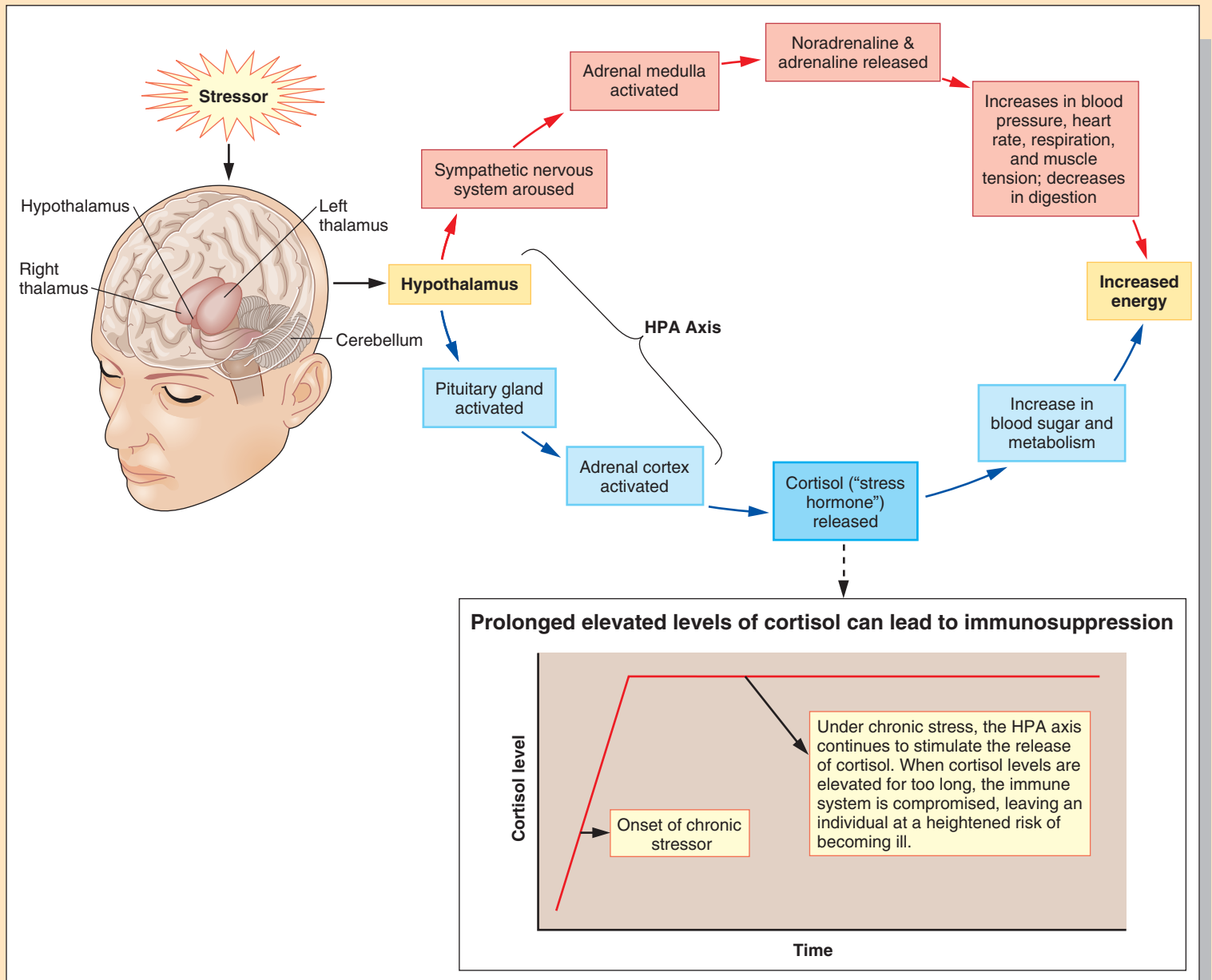
At the same time that our sympathetic nervous system becomes activated by a stressor, our hypothalamus signals the activation of a system called the *HPA axis* (short for the

hypothalamus-pituitary-adrenal axis). The *HPA axis* releases the stress hormone, *cortisol*, which leads to increases in blood sugar and metabolism. Although the *HPA axis* responds more slowly than the sympathetic nervous system, its effects last longer. Thus, the *HPA axis* helps us to deal with chronic stressors, such as unemployment and life transitions (e.g., marriage, relocation).

If the chronic stressor lasts too long, our immune system may be compromised due to the activity of the *HPA axis*. *Immunosuppression* occurs due to the prolonged elevation of cortisol in our systems. When our immune system is weakened, our *B cells*, *T cells*, and *natural killer cells* are less effective at recognizing and attacking external (viral or bacterial illnesses) or internal (cancer cells) causes of disease. Therefore, we are at a heightened risk for becoming ill.



The relation between stress and illness following viral exposure. Part (a) shows the relation between the amount of self-reported psychological stress and the percentage of participants judged by a physician to have a clinical cold after exposure to a virus. As can be seen, the more stress, the more colds. Part (b) presents data from a biological test of participants' blood for presence of infection. For each of five viruses, participants reporting higher stress showed higher rates of infection. *Source: Cohen et al., 1991, pp. 609-610.*



Social support not only protects against the onset of disease, but it also improves physical and mental health outcomes in people who are already sick. Researchers have found that social support in the form of being married, participating in social activities, and/or maintaining relationships with friends increases survival time in cancer patients even when the severity of cancer at the time of diagnosis is taken into account (Kroenke et al., 2006). In addition to prolonging the lives of people suffering from life-threatening disorders like cancer, social support also seems to ward off anxiety and depression in people with chronic illnesses. Strong interpersonal relationships have also been found to improve mental health outcomes in patients suffering from chronic diseases such as arthritis, diabetes, kidney failure, and HIV infection (Wills & Filer Fegan, 2001). While some experts have observed that having numerous social ties and their attendant obligations can also *increase* stress, most research indicates that the health and stress-reduction benefits of social support far outweigh the costs.

BRIEF SUMMARY

- Interventions to reduce stress serve two major purposes: (1) the prevention of disease and (2) the management of the physical effects of illness in order to improve prognosis.
- Relaxation training involves systematically tightening and relaxing muscles while focusing on breathing. It has been found to reduce sympathetic nervous system activity, lower heart rate, and enhance immune response. Regular meditation is associated with improvements in physical well-being and quality of life, and with reductions in measures of depression, anxiety, medical symptoms, and physical impairment.
- Physical exercise reduces psychological stress and helps to prevent the occurrence of stress-related mental and physical health problems. In addition, exercise may aid the treatment of psychological disorders such as depression and anxiety.
- Biofeedback training teaches people to attend to and partially control physiological processes with the help of visual feedback provided by monitors that measure physical indices such as heart rate, blood pressure, or skin temperature.
- Cognitive retraining that alters pessimistic explanatory styles, or enhances adaptive coping strategies, can reduce stress and susceptibility to disease and also help patients who are already ill to improve their medical prognosis.
- Social support comes in several forms: emotional (having a confidante, feeling connected and accepted), instrumental (financial support, help with chores), and informational (advice and feedback). Social support not only protects against the onset of disease, but it also improves physical and mental health outcomes in people who are already sick.



Critical Thinking Question

In another example of the powerful *connection between mind and body*, recent research has found that people who write about stressful experiences in a way that enhances the meaning of the stressors may boost their immune systems (see Box 6.2). Do you think that some people might benefit more from a writing intervention than others? If so, who do you think would be most and least likely to benefit? Why?

DEFINING THE SOMATOFORM DISORDERS

The **somatoform disorders** are characterized by the presence of physical symptoms or concerns that are not due to a medical disorder. The term *somatoform* comes from the ancient Greek word *soma*, which means body. People suffering from somatoform disorders experience symptoms of physical disease or defect, even though there is

BOX 6.2 | Strengthening the Immune System

WRITING TO HEAL by Bridget Murry

Writing is no stranger to therapy. For years, practitioners have used logs, questionnaires, journals and other writing forms to help people heal stresses and traumas.

Now, new research suggests that expressive writing may also offer physical benefits to people battling terminal or life-threatening diseases. Studies by those in the forefront of this research—psychologists James Pennebaker, Ph.D., of the University of Texas at Austin, and Joshua Smyth, Ph.D., of Syracuse University—suggest that writing about emotions can boost immune functioning in patients with such illness as HIV/AIDS, asthma and arthritis.

Researchers are only beginning to get at how and why writing might benefit the immune system, and why some people appear to benefit more than others. There is emerging agreement, however, that the key to writing's effectiveness is in the way people use it to interpret their experiences, right down to the words they choose. Venting emotions alone—whether through writing or talking—is not enough to relieve stress, and thereby improve health, Smyth emphasizes. To tap writing's healing power, people must use it to better understand and learn from their emotions, he says.

A ground-breaking study of writing's physical effects appeared in the *Journal of the American Medical Association* (Vol. 281, No. 14) three years ago. In the study, led by Smyth, 107 asthma and rheumatoid arthritis patients wrote for 20 minutes on each of three consecutive days—71 of them

about the most stressful event of their lives and the rest about the emotionally neutral subject of their daily plans. Four months after the writing exercise, 70 patients in the stressful-writing group showed improvement on objective, clinical evaluations compared with 37 of the control patients. In addition, those who wrote about stress improved more, and deteriorated less, than controls for both diseases. "So writing helped patients get better, and also kept them from getting worse," says Smyth.

Not everyone agrees, though, that the mere act of writing is necessarily beneficial. In fact, initial writing about trauma triggers distress and physical and emotional arousal, researchers have found.

But there is evidence that the nature of a person's writing is key to its health effects, notes health psychology researcher Susan Lutgendorf, Ph.D., of the University of Iowa. An intensive journaling study (Ullrich & Lutgendorf, 2002) she conducted recently with her doctoral student Phil Ullrich suggests that people who relive upsetting events without focusing on meaning report poorer health than those who derive meaning from the writing. They even fare worse than people who write about neutral events.

"You need focused thought as well as emotions," says Lutgendorf. "An individual needs to find meaning in a traumatic memory as well as to feel the related emotions to reap the positive benefits from the writing exercise."

Monitor on Psychology, June 2002 (pp. 54–55)



James Pennebaker

Courtesy of James Pennebaker, Ph.D.



Joshua Smyth

Courtesy of Joshua Smyth, Ph.D.

nothing medically wrong with their bodies. **Factitious disorders** are similar to somatoform disorders in that bodily symptoms are the focus of concern. However, unlike the somatoform disorders, factitious disorders are intentionally produced, or faked, because the person wants to be perceived as sick (see Box 6.3).

CLASSIFYING THE SOMATOFORM DISORDERS

Accounts of fascinating but medically impossible physical complaints date back to the *Papyrus Ebers*, an ancient Egyptian medical document from 1600 B.C.E. (Phillips, 2001). Somatoform symptoms were for a long time included as part of an old diagnostic category known as **hysteria**. You may recall that Freud described *hysteria* as a disorder involving physical symptoms resulting from the repression of anxiety-provoking impulses. Beginning with the DSM-III in 1980, there was a deliberate move away from

Factitious disorders Physical disorders that are intentionally produced, or faked, because the person wants to be perceived as sick.

Hysteria A term used for centuries to describe a syndrome of neurological-seeming symptoms without a neurological cause, now classified as *conversion disorder*.

BOX 6.3 | Deliberately Feigning Illness

FACTITIOUS DISORDERS AND MALINGERING

The factitious, or faked, disorders have been recognized by savvy physicians for many centuries; a medical essay written in 1838 and titled “On Feigned and Factitious Diseases” tells us that faking illness is nothing new (Gavin, 1838). In the 1950s a physician named Richard Asher identified a particularly severe form of factitious disorder, which he named Munchausen’s syndrome after a German cavalry officer, Baron von Munchausen (1720–1797) who was reputed to have made up fantastic, but untrue, tales about his military exploits and heroism. Individuals suffering from Munchausen’s syndrome create real, self-induced disease symptoms by ingesting toxic substances, misusing medications, or employing other, similar means. They usually have extensive medical histories marked by multiple hospitalizations, surgeries, and medical tests, tell elaborate tales about their own medical problems, and often travel from one area to the next to keep hospital staff members from becoming familiar with their ruse (Eisendrath, 1996; Feldman, Hamilton, & Deemer, 2001). People with Munchausen’s syndrome are usually motivated by their desire to obtain the care and attention provided by medical staff members. In one particularly disturbing form of factitious disorder, known as *Munchausen syndrome by proxy*, parents exaggerate or induce physical symptoms in their children in order to draw medical attention and to provide an arena for acting as self-sacrificing, devoted caretakers. Here is a case of a 6-year-old boy whose mother was ultimately discovered to have been injecting her son with infectious microbes:

*A 6-year-old white male was transferred to the University of Chicago Children’s Hospital for evaluation of headaches, fever, and vomiting. The patient was well until 6 weeks before admission when he began having recurrent headaches. Phenobarbital was prescribed for presumptive migraine headaches. Despite this treatment, the symptoms persisted and the patient presented to a local hospital with severe headache and vomiting. . . To evaluate the headaches, magnetic resonance imaging (MRI), magnetic resonance angiography (MRA), and [electroencephalography] EEG were performed; results were normal. To evaluate the abdominal pain, an ultrasound was performed, which appeared normal. . . Fevers persisted and subsequent blood cultures grew *E[scherichia] coli*, *Enterococcus faecium*, and *Candida albicans*. . .*

Because no anatomic source for the polymicrobial sepsis could be identified despite extensive investigation, the possibility of external contamination of the intravenous lines was considered. . . A review of the chart revealed that the mother was the patient’s most frequent visitor, having stayed in the

child’s room overnight and most of each day. She helped with nursing chores including monitoring intravenous infusions. . . The parents were interviewed separately regarding the possibility that microorganisms were being introduced externally into the intravenous lines. The mother denied any wrongdoing, but the father was willing to consider the diagnosis and offered additional family history. It was learned that the mother had a history of laxative abuse and anorexia nervosa/bulimia. . . A sibling had had a prolonged hospitalization at another institution for chronic diarrhea. The etiology was never determined despite an extensive evaluation.

The patient was transferred to the Intensive Care Unit for continuous monitoring and observation. All intravenous lines were removed. The patient remained afebrile [without a fever] with marked clinical improvement in all symptoms. After a meeting among the primary medical team, the multiple consult services, child psychiatry, and social work, Munchausen syndrome by proxy was diagnosed. The state’s attorney was contacted and the child was placed in protective custody. . . The [woman’s] children were placed in foster care for 15 months and subsequently have been returned to the father’s custody. The patient has had no further infections or hospitalizations. The mother eventually confessed to contaminating the child’s intravenous lines.

Seferian, 1997 (pp. 419–422)

Like many victims of Munchausen by proxy, this boy endured painful physical symptoms, multiple hospitalizations, and intrusive diagnostic procedures. Parents who engage in Munchausen by proxy are often quite adept at hiding their behaviors and may even be well-liked by the hospital staff for their patience with extensive medical procedures and eagerness to help with their child’s care. Many of these parents have also been found to have their own histories of factitious or somatoform disorders, self-harming behaviors, and histrionic or borderline personality disorders (Bools, Neale, & Meadow, 1994).

Factitious disorders differ slightly from **malinger**ing in which individuals also feign or deliberately induce illness. While people with factitious disorder fake illness in order to garner medical concern and attention, malingerers have a clear and specific external incentive to be sick. For example, they fake illness to avoid having to work, to get out of unpleasant duties, or to evade military service.

Malingering The act of purposely feigning illness in order to get out of an obligation.



Telling tall tales An artist’s rendition of Baron von Munchausen on one of his fantastic adventures.
Mary Evans Picture Library

theoretically laden terms like hysteria—a word closely associated with psychoanalysis—to more symptom-based descriptions of psychological disorders. In the DSM-III, and subsequent editions of the DSM, the symptoms associated with hysteria have been categorized as specific somatoform disorders.

The DSM-IV-TR Categories

The DSM-IV-TR includes five somatoform disorders: *conversion disorder*, *somatization disorder*, *pain disorder*, *hypochondriasis*, and *body dysmorphic disorder* (APA, 2000; Table 6.4). These disorders are encountered primarily in medical settings and have two important features in common: a focus on bodily complaints that have no physical basis, and symptoms that are not being intentionally produced or faked. Of course, before a diagnosis of a somatoform disorder can be made, all plausible medical explanations have to be evaluated and ruled out. Thus, these disorders are generally diagnosed after extensive medical testing, and clinicians must be careful not to jump to a conclusion that a physical symptom is somatoform just because no immediate medical explanation can be found. We'll begin our explanation of the DSM-IV-TR somatoform disorders with a description of conversion disorder.

Conversion Disorder

The modern history of abnormal psychology began with the study of **conversion disorder** (see Table 6.5), then called *hysteria*. As described in Chapter 2, in the 1890s Sigmund Freud and Josef Breuer were struggling to understand clients who would today be diagnosed with conversion disorder. Breuer's famous patient, Anna O., had a variety of bizarre and unexplainable physical symptoms

There developed in rapid succession a series of severe disturbances which were apparently quite new: left-sided occipital headache. . . disturbances of vision which were hard to analyse; paresis of the muscles of the front of the neck, so that finally the patient could only move her head by pressing it backwards between her raised shoulders and moving her whole back; contracture and anesthesia of the right upper, and, after a time, of the right lower extremity. The latter was fully extended, adducted [drawn close to the body] and rotated inwards. Later the same symptom appeared in the left lower extremity and finally in the left arm, of which, however, the fingers to some extent retained the power of movement. So, too, there was complete rigidity in the shoulder-joints. . .

Breuer & Freud, Studies in Hysteria, 1893/1955 (p. 23)



Trailblazer Joseph Breuer's famous patient, Anna O., was actually named Bertha Pappenheim. In later years, Ms. Pappenheim became a staunch advocate for women's rights.
REX USA Ltd.

Conversion disorder Specific symptoms or deficits in voluntary motor or sensory functions with no physiological cause.

TABLE 6.4 The DSM-IV-TR Somatoform Disorders

Conversion disorder: Specific symptoms or deficits in voluntary motor or sensory functions with no physiological cause (prevalence rate among referrals to outpatient mental health clinics: up to 3.0%; prevalence rate in general population: up to 0.005%).

Somatization disorder: Recurrent gastrointestinal, sexual, or pseudoneurological symptoms without a physiological cause (prevalence rate among women: 0.2% to 2.0%; among men: less than 0.2%).

Pain disorder: Physical pain without a physiological cause (prevalence rate: unknown, but physical pains that are difficult to diagnose occur frequently in the general population).

Hypochondriasis: Preoccupation with the fear of contracting, or the mistaken idea that one has a serious disease (prevalence rate in the general population range from 1% to 5%; prevalence rate among primary care outpatients range from 2% to 7%; 4.0% to 9.0%).

Body dysmorphic disorder: Preoccupation with an imagined or exaggerated defect in physical appearance (prevalence rate unknown).

Adapted from the DSM-IV-TR (APA, 2000)

TABLE 6.5 Diagnostic Criteria for Conversion Disorder

- One or more symptoms or deficits affecting voluntary motor or sensory function that suggest a neurological or other general medical condition.
- Psychological factors are judged to be associated with the symptom or deficit because the initiation or exacerbation of the symptom or deficit is preceded by conflicts or stressors.
- The symptom or deficit is not intentionally produced or feigned.
- The symptom or deficit cannot be fully explained by a general medical condition, or by the direct effects of a substance, or as a culturally sanctioned behavior or experience.
- The symptom or deficit causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or warrants medical evaluation.

Adapted from the DSM-IV-TR (APA, 2000)

Anna O.'s symptoms fit the current definition of conversion disorder insofar as she precipitously developed a variety of physical impairments—disturbances of vision, paralyzed neck muscles, loss of feeling in her arms and legs, and so on—without any medical basis. Anna O.'s symptoms mimicked a neurological condition, even though nothing was actually wrong with her brain. Physicians are often able to detect conversion symptoms because they “typically do not conform to known anatomical pathways and physiological mechanisms” (APA, 2000, p. 493). For example, a person who claims to have a paralyzed leg may still have the normal reflex when hit below the knee with a rubber mallet, or complain that she has lost all feeling in her hand from her wrist down, even though this contradicts what is known about nerve pathways in the body (Figure 6.4). People suffering from conversion symptoms frequently display an attitude known as *la belle indifférence*, (literally “the beautiful indifference”), meaning that they do not seem to be particularly bothered by their strange symptoms.

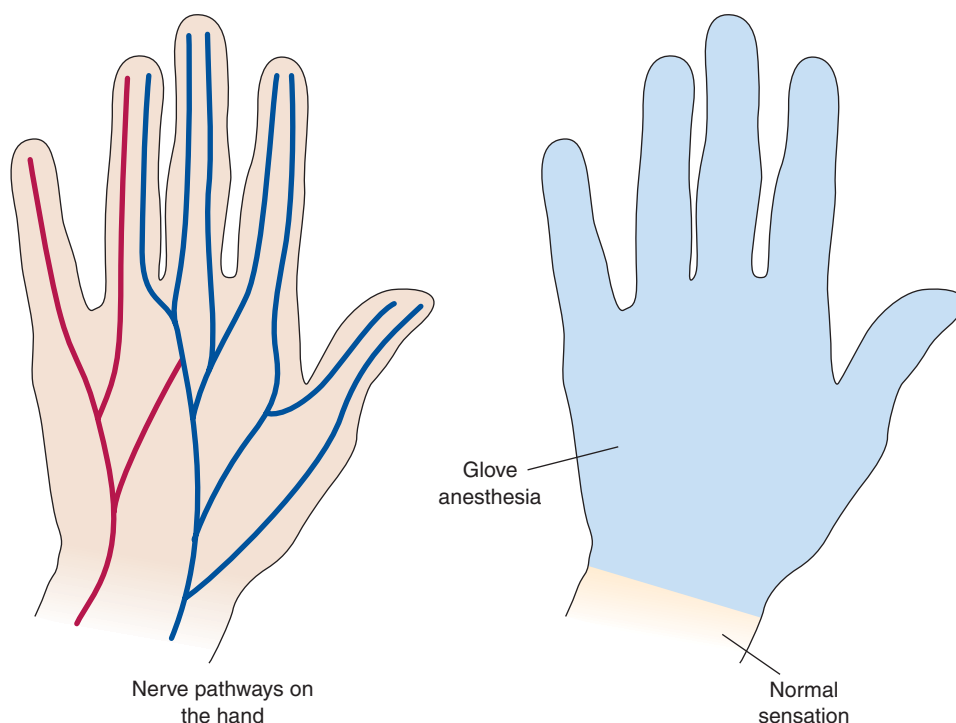


Figure 6.4 **Glove Anesthesia** Conversion anesthetics (loss of feeling) can often be detected when an area of numbness does not correspond to known neural pathways. Normal neural innervation pathways are shown in the hand on the left; the shaded area, indicating loss of feeling in the hand on the right, shows a medically impossible conversion symptom known as “glove anesthesia.”

Somatization Disorder

Somatization disorder differs from conversion disorder in that it involves a collection of physical complaints occurring over an extended period of time (see Table 6.6), while conversion disorder tends to focus on a specific functional deficit (for example, loss of feeling in one's arm) that occurs in the wake of a psychological conflict or stressor. Sufferers of somatization disorder often make repeated visits to physicians to complain of physical symptoms that turn out to have no physiological basis. Health-care utilization studies find that people with somatization disorder are three times more likely to use walk-in services and spend *nine times* more money on health-care services than people without the disorder (Hollifield et al., 1999). People with somatization disorder often describe their medical complaints in an exaggerated, dramatic manner that lacks concrete details, and may seek treatment from several different doctors simultaneously, thus making the diagnosis of somatization difficult (APA, 2000).

Somatization disorder Recurrent pain, gastrointestinal, sexual, and pseudoneurological symptoms without a physiological cause.

CASE ILLUSTRATION

Donna, a 25-year-old department store clerk, was asked to report to her company's human resources office to discuss her unusually high number of absences due to illness. In her meeting with the personnel director, Donna explained that she had been experiencing headaches, nausea, an aching sensation in her arms, and dizziness for the last several years. She missed work often because her visits to several primary care physicians had failed to find a medical explanation for her problems. As a result, she had been sent from one subspecialist to the next and undergone multiple medical tests to see if a diagnosis could be determined. While Donna seemed to be quite distressed about her physical discomfort (she cried when describing her symptoms), she seemed to be quite indifferent to the personnel director's hopefulness that she would find a diagnosis and proper treatment soon. After the meeting, the personnel director placed a call to Donna's boss at the last place she was employed before coming to the department store. He was disheartened, but not surprised, to learn that she had been fired from that job for excessive absenteeism due to vague medical complaints, related to her menstrual cycle, that could not be diagnosed or treated.

TABLE 6.6 Diagnostic Criteria for Somatization Disorder

- A history of physical complaints beginning before age 30 that occur over the course of several years and result in treatment being sought or significant impairment in social, occupational, or other important areas of functioning.
- Each of the following criteria must be met, with individual symptoms occurring at any time in the history of physical complaints:
 - Four pain symptoms: pain related to at least four different sites or functions (head, abdomen, back, etc.).
 - Two gastrointestinal symptoms other than pain: such as nausea, bloating, vomiting, etc.
 - One sexual symptom other than pain: such as sexual indifference, erectile dysfunction, etc.
 - One pseudoneurological symptom other than pain: impaired coordination or balance, paralysis or localized weakness, etc.
- Either of the following:
 - Physical symptoms cannot be explained by a general medical condition or the direct effect of a substance.
 - If there is a general medical condition, the physical complaints or resulting functional impairment cannot be fully explained by the medical condition.
- The symptoms are not intentionally produced or faked.

Adapted from the DSM-IV-TR (APA, 2000)

Like most people suffering from somatization disorder, Donna complains of diffuse medical symptoms that are not related to each other, or to an actual medical condition. Her symptoms have been present for several years, and include pain (headaches, arms), gastrointestinal (nausea), pseudoneurological (dizziness), and sexual (menstrual) complaints. This pattern of multiple and chronic medical complaints that defy explanation was called *Briquet's syndrome* in the first two editions of the DSM (APA, 1952; 1968) in honor of the French physician Pierre Briquet who published a description of a young woman with diffuse somatization complaints in 1859 (Holder-Perkins & Wise, 2001).

Pain Disorder

Pain disorder Physical pain without a physiological explanation.

Hypochondriasis Preoccupation with the fear of contracting, or the mistaken idea that one has, a serious disease.

Somatization and **pain disorder** have much in common, but pain disorder is characterized specifically by complaints of *physical pain* that cannot be accounted for, or accounted for fully, by a medical condition (see Table 6.7).

CASE ILLUSTRATION

Steven, age 44, has complained of neck pain for years. Despite extensive medical evaluations, no doctor has been able to come up with an explanation or treatment for Steven's discomfort. At times, Steven's pain is so severe that he cannot drive, go to work, or even get out of bed. His family members have noticed that Steven's neck pain came on shortly after he was divorced by his wife, and that it seems to be worse when he sees her at family events involving their children.

People suffering from pain disorders may experience physical pain that is severe enough to interfere with their ability to work or maintain relationships. They may spend a great deal of time seeking medical care, may rely heavily on analgesic (painkilling) medications, and may become preoccupied with their pain to the exclusion of most other things (APA, 2000).

Hypochondriasis

Hypochondriasis could be characterized as the tendency to make medical mountains out of benign molehills. People with hypochondriasis constantly worry that there is something terribly wrong with their bodies and often interpret the most minor symptom to be a sign of serious disease. They worry that an occasional cough is actually tuberculosis, that a stomachache heralds a severe bout of severe food poisoning, and that

TABLE 6.7 Diagnostic Criteria for Pain Disorder

- Pain in one or more anatomical sites is the major focus of complaint and is sufficiently severe to warrant clinical attention.
- The pain causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- Psychological factors are judged to have an important role in the onset, severity, exacerbation, or maintenance of the pain.
- The symptoms are not intentionally produced or faked.
- Subtypes of pain disorder:
 - Pain disorder associated with psychological factors.
 - Pain disorder associated with both psychological factors and a general medical condition.

Adapted from the DSM-IV-TR (APA, 2000)

TABLE 6.8 Diagnostic Criteria for Hypochondriasis

- Preoccupation with fears of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms.
- The preoccupation persists despite appropriate medical evaluation and reassurance.
- The belief in having a serious disease is not of delusional intensity and is not limited to a circumscribed concern about appearance (a body dysmorphic disorder, described on page 234).
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- The duration of the disturbance is at least 6 months.

Adapted from the DSM-IV-TR (APA, 2000)

a garden-variety pimple is actually a tumor. Hypochondriacal concerns may also focus on normal bodily processes and cause sufferers to seek medical care for having a quick heartbeat after exercising, for the appearance of freckles, and so on (see Table 6.8).

CASE ILLUSTRATION

Leslie, age 18, has missed most of her classes this semester. Though she is quite healthy, she is constantly worried that she might have some horrible disease. As a result, she often stays in bed in her dormitory room or goes to the doctor's office rather than going to class. On a recent morning, she woke up feeling a bit dizzy. She was afraid that the dizziness was due to viral meningitis and took herself to the emergency room. The physicians at the hospital agreed to test her for meningitis, but the tests came back negative. At that point she insisted that she be given a computerized axial tomography (CAT) scan to rule out a brain tumor. Rather than give her an unwarranted CAT scan, the physician referred her to the school's counseling services for a psychological evaluation.

Despite frequent medical visits, hypochondriacs are rarely reassured that their bodies and their health are normal. They are known for going from doctor to doctor for medical advice, or for wearing out and frustrating their regular physicians with a constant stream of medical worries (APA, 2000). Personal and family relationships may be focused almost exclusively on the hypochondriac's medical concerns and conditions, and work or school may suffer due to excessive absences for unnecessary medical appointments or "sick days" for minor physical ailments.

Body Dysmorphic Disorder

A person suffering from **body dysmorphic disorder** is convinced that there is something dreadfully wrong with his or her physical appearance even though a defect is rarely present, or, if one does exist, it is not nearly as severe or unusual as believed to be. Concerns are often focused on anomalies of the head and face, such as "hair thinning, acne, wrinkles, scars, vascular markings, paleness or redness of the complexion, swelling, facial symmetry or disproportion, or excessive facial hair" (APA, 2000, p. 507). The symptoms of body dysmorphic disorder highlight the *continuum between normal and abnormal behavior*. Although most of us can point to something about our physical appearance that we wish were different, people suffering from body dysmorphic disorder become utterly preoccupied with their imagined defect and may come to organize their lives around altering or hiding a part, or several parts of their bodies (see Table 6.9).

Body dysmorphic disorder Preoccupation with an imagined or exaggerated defect in physical appearance.



Normal-
abnormal
continuum

TABLE 6.9 Diagnostic Criteria for Body Dysmorphic Disorder

- Preoccupation with an imagined defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive.
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Adapted from the DSM-IV-TR (APA, 2000)

CASE ILLUSTRATION

Marjorie, age 30, is convinced that she has (in her words) “hideously shaped, ugly breasts,” despite the reassurance of her husband and doctor that her breasts are normal. For many years she insisted on wearing bulky sweaters all year round in order to hide her breasts. She also tried out a wide variety of bras and prosthetic breasts, but was never satisfied with the outcome. Eventually, she decided to get plastic surgery to change the shape of her breasts, but she was not pleased with the results and continued to feel terribly self-conscious.

Some people with body dysmorphic disorder become profoundly socially isolated because they do not want others to observe what they believe to be wrong with their bodies. Others, like Marjorie (described above) or the singer Michael Jackson, may undergo multiple surgeries in an effort to “fix” something that was never broken in the first place. The constant preoccupation with having an abnormal (or “hideous” or “disgusting”) body part may become so severe as to interfere with an individual's ability to work or attend school, and may result in depression and/or suicidal behavior (APA, 2000).

BRIEF SUMMARY

- The somatoform disorders are characterized by the presence of physical symptoms that are not explained by a medical disorder.

**Dramatic change**

Michael Jackson in 1972, and 30 years later in 2002, after numerous plastic surgeries to alter his appearance.

©AP/Wide World Photos

- Factitious disorders are similar to somatoform disorders in that bodily symptoms are the focus of concern. However, unlike the somatoform disorders, factitious disorders are intentionally produced, or faked, because the person wants to be perceived as sick.
- The DSM-IV-TR includes five somatoform disorders: conversion disorder, somatization disorder, pain disorder, hypochondriasis, and body dysmorphic disorder. These disorders have two important features in common: a focus on bodily complaints that have no physical basis, and symptoms that are not being intentionally produced or faked.
- Conversion disorder is characterized by specific symptoms or deficits in voluntary motor or sensory functions with no physiological cause.
- Somatization disorder involves recurrent gastrointestinal, sexual, or pseudoneurological symptoms without a physiological cause.
- Pain disorder involves the experience of physical pain without a physiological explanation.
- Hypochondriasis is defined as a preoccupation with the fear of contracting, or the mistaken idea that one has, a serious disease.
- Body dysmorphic disorder involves a preoccupation with an imagined or exaggerated defect in physical appearance.

Critical Thinking Question

Do you think that plastic surgeons should encourage patients like Marjorie (described in this section) to seek psychotherapy instead of plastic surgery? Why or why not?

The Advantages and Limitations of the DSM-IV-TR Somatoform Diagnoses

The DSM-IV-TR classification of somatoform disorders has both *advantages and limitations*. The somatoform disorders category has the advantage of separating out, on the basis of the primary symptom of physical complaints, disorders that were previously lumped together with other categories, such as the dissociative disorders (Chapter 7). Yet, despite the fact that, as a group, the somatoform disorders are characterized by a focus on bodily concerns, they do not necessarily have similar causes or psychological mechanisms. In fact, some of the somatoform disorders may share more descriptive and causal features with disorders in other DSM-IV-TR diagnostic categories than they do with each other.

For example, conversion disorder can have a great deal in common with some of the dissociative disorders when conversion disorder involves symptoms of alterations in consciousness and sensory disruptions (as in the case of Anna O.) (Holmes et al., 2005). Furthermore, some cases of hypochondriasis and most cases of body dysmorphic disorder share common features with obsessive-compulsive disorder (OCD), the anxiety disorder described in Chapter 4. Like OCD, body dysmorphic disorder and hypochondriasis are often characterized by intense preoccupations (“my nose is disgusting” or “this spot on my hand is cancerous”) and repetitive behaviors designed to reduce the anxiety brought on by the thoughts. In body dysmorphic disorder and hypochondriasis, the behaviors may take the form of repeatedly checking one’s face in the mirror or constantly seeking medical evaluation and advice (Phillips, 2001). Body dysmorphic disorder may also share a common boundary with anorexia, an eating disorder described in Chapter 8. Like body dysmorphic disorder, anorexia involves significant perceptual distortions with regard to one’s body—believing one’s body to be fat when it is in fact emaciated—and intense concerns about monitoring and regulating one’s weight and shape.



Advantages/
limitations
of diagnosis



Cultural and Historical Relativism in Defining and Classifying Somatoform Disorders

While somatization symptoms are observed around the world, the different forms of somatization symptoms highlight the role of **cultural and historical relativism** in abnormal behaviour. For example, many experts agree that the disorder previously known as hysteria hasn't disappeared, but merely changed forms as Western culture has evolved over time (see Box 2.2: Modern Hysteria: New Forms for an Old Disorder?). In the words of one expert:

It is safe to conclude that while classic conversion symptoms of motor paralysis and sensory loss are seen more commonly in clinics in many developing countries, they have diminished in westernized health care settings. However, if disorders of pain, fatigue, dizziness, or vague malaise are understood as equivalent, then conversion disorders have not so much disappeared as changed shape to fit common health beliefs and expectations in the health care system.

Kirmayer & Santhanam, 2001 (p. 256)

Different cultures seem to promote different physical pathways for expressing psychological distress. For example, in regions of India, Sri Lanka, and China, men sometimes complain of *dhat* (DOT), a syndrome characterized by intense anxiety, hypochondriacal concerns about loss of semen, and feelings of physical exhaustion. In Korea, pent-up rage is believed to cause *hwa-byung* (WA-bung), which results in a wide variety of physical symptoms including fatigue, indigestion, palpitations, aches, and pains. *Koro* (CORE-oh), a syndrome reported in south and east Asia, involves an intense fear that one's penis (or, in women, vulva and nipples) will withdraw into the body, possibly causing death. And Portuguese Cape Verde Islanders sometimes complain of *sangue dormido*, or "sleeping blood" (SAHN-greh dor-MEdoh) a syndrome that causes numbness, tremor, paralysis, blindness, and other physical symptoms (APA, 2000).

In contrast, body dysmorphic disorder seems to have highly similar features regardless of the culture in which it occurs. The body part that is the focus of concern may be influenced by cultural or historical factors, but case studies from Eastern and Western Europe, Russia, Japan—and even reports from 100 years ago—all share the hallmark feature of a singular, obsessive focus on a defective body part (Phillips & Castle, 2002).

Critical Thinking Question

While it is important for clinicians to be sensitive to how different cultures express physical and psychological distress, it is equally important to avoid stereotyping individuals based on cultural generalities. As a clinician, how would you go about balancing these competing demands?



Cultural relativism Women in the Padaung tribes of Thailand use metal rings to gradually elongate their necks to startling lengths. This practice reflects the degree to which physical concerns and preoccupations can be highly culturally relative. While an elongated neck is not considered to be a sign of beauty in our culture, other physical features such as shapely breasts or flawless skin are valued in Western society. Not surprisingly, these features are often the focus of body dysmorphic concerns among Americans.

©AP/Wide World Photos

Classification in Demographic Context

Like all mental disorders, the somatoform disorders are best understood when demographic factors are taken into account. Factors such as gender, age, and class influence both the prevalence and characteristics of the various somatoform disorders.

Gender

Conversion symptoms occur disproportionately in women, with studies finding that American women are between two and ten times more likely to be diagnosed with conversion disorders as men (APA, 2000). Explanations for the different rates of conversion symptoms in men and women have ranged from the ancient Greek idea that hysteria was caused by a wandering uterus (Chapter 2) to the contemporary finding that women are more likely than men to *internalize* emotional distress, possibly leading



The importance of context

to conversion symptoms, whereas men tend to *externalize* (or act out) emotional distress. (Women also experience higher rates of depression and anxiety than men, whereas men are far more likely to engage in antisocial behavior or abuse substances.) Men who are diagnosed with conversion disorder often have many of the personality characteristics associated with antisocial personality disorder (Chapter 11), such as being irresponsible, deceitful, and having little remorse when it comes to violating the rights of others.

Both hypochondriasis and body dysmorphic disorder occur with roughly equal frequency in men and women. However, women suffering from body dysmorphic disorder are likely to focus their concerns on their hips and weight, to use makeup to hide their “flaws,” and to also suffer from bulimia nervosa (Chapter 8). Men with this disorder tend to be preoccupied with concerns about their body build, genitalia, or thinning hair, to be unmarried, and to have problems with substance abuse or dependence (Phillips, Menard, & Fay, 2006). Rates of somatization disorder are more equal between men and women in Greece and Puerto Rico than in the United States (where the disorder is somewhat more likely to occur in women), indicating that cultural factors may influence the degree to which men express emotional distress through physical symptoms (APA, 2000).

Age

Occasional somatization symptoms, such as the common nervous stomach before the first day of school, are often seen in children. However, full-fledged somatoform disorders usually begin during adolescence or early adulthood. First episodes of conversion disorder are rarely diagnosed before age 10 or after age 35, while hypochondriasis typically begins in early adulthood and often persists as a chronic condition throughout an individual’s lifetime. Body dysmorphic disorder usually begins in adolescence, but proper diagnosis may be delayed because many parents and doctors are prone to consider even extreme bodily concerns to be examples of “typical teenage behavior” (APA, 2000). Pain disorder and hypochondriasis appear to be the most common somatoform disorders among older adults, though experts in the area of geriatric psychiatry recognize that pain symptoms are extremely common in late life and urge caution when diagnosing a psychogenic pain disorder (Rabinowitz, Hirdes, & Desgardins, 2006). In general, somatic complaints among older adults are associated with depression, actual physical illness, and low levels of perceived social support (Sheehan et al., 2003).

Class

Epidemiological studies have found that somatization disorder and hypochondriasis are more likely to occur among members of lower socioeconomic classes, especially those who have little formal education and are unemployed (Gureje et al., 1997; Kirmayer & Looper, 2001). Conversion disorder has also been found to occur more frequently among members of rural populations, people of lower socioeconomic status, and those less fluent in medical and psychological concepts (APA, 2000). Interestingly, a 20-year follow-up study of prevalence rates for conversion disorder and depression in two rural Indian villages found that improvements in housing, educational facilities, health-care delivery, and the social status of women led to a dramatic drop in the rate of conversion disorder from 24.47 to 3.15 per 1000 (Nandi et al., 2000). However, rates of depression rose significantly over the same time period—from 49.93 to 73.97 per 1000.

BRIEF SUMMARY

- Some somatoform disorders share features with disorders in other DSM-IV-TR diagnostic categories (such as dissociative, anxiety, or eating disorders) highlighting the *advantages and limitations* of the DSM-IV-TR somatoform disorder diagnoses.

- While somatization symptoms are observed around the world, the form taken by somatization symptoms often appears to be dictated by cultural or historical factors highlighting the role of *cultural and historical relativism* in abnormality.
- Conversion symptoms occur disproportionately in women in the United States, with studies finding that they are between two and ten times more likely than men to be diagnosed with conversion disorders. Both hypochondriasis and body dysmorphic disorder occur with roughly equal frequency among men and women.
- Though occasional somatization symptoms are often seen in children, diagnosable somatoform disorders usually begin during late adolescence or early adulthood.
- Somatization disorder and hypochondriasis are more likely to occur among members of lower socioeconomic classes, especially those who are not well educated and unemployed.
- Conversion disorder has also been found to occur more frequently among members of rural populations, people of lower socioeconomic status, and those less fluent in medical and psychological concepts.



The
importance
of context

Critical Thinking Question

Why might complaints of depression take the place of conversion symptoms when groups gain in economic and social status?

EXPLAINING AND TREATING THE SOMATOFORM DISORDERS

Several theoretical perspectives have developed explanations and interventions for the somatoform disorders. For historical purposes we'll begin with the psychodynamic perspective, which has its roots in treatments for conversion symptoms. As you read about interventions for somatoform disorders, keep in mind the delicacy of the task of encouraging a person to seek psychological help for what they experience as physical complaints. Consider the advice of one expert in the treatment of somatoform disorders:

The first step in treating conversion disorder involves reassuring the patient that the symptoms are not the result of a medical or neurological condition, but are secondary to an underlying psychological conflict. However, it is wise to present this information to patients and their families in a manner that does not imply that the patients have been faking their symptoms, or that their symptoms do not have a physical component. Rather, an approach that conveys that there are physical and psychological aspects of the illness that can best be addressed by a rehabilitation approach invites the patient to engage in treatment without feeling humiliated.

Maldonado & Spiegel, 2001 (pp. 117–118)

Psychodynamic Components

As you know, the modern history of abnormal psychology began with Sigmund Freud and Josef Breuer's work with conversion disorder, then known as *hysteria* (Breuer & Freud, 1893/1955). In his treatment of Anna O., Breuer discovered that each of her physical complaints, such as her coughing spells, was rooted in an emotional conflict. Breuer noted that "she began coughing for the first time when once, as she was sitting at her [dying] father's bedside, she heard the sound of dance music coming from a neighbouring house, felt a sudden wish to be there, and was overcome with self-reproaches" (Breuer & Freud, 1893/1955, p. 40). Freud and Breuer coined the term *hysterical conversion* to describe the conversion of uncomfortable emotions into physical symptoms. Later, Freud postulated that conversion symptoms typically arose from emotional conflicts over sexual

feelings, wishes, or impulses. Modern psychodynamic theorists emphasize that conversion symptoms can result from the repression of any feeling that a person considers “forbidden” or intolerable, whether it is anger, jealousy, sadness, or sexual excitement.

The psychodynamic approach assumes that conversion symptoms often symbolically represent some aspect of a repressed wish or feeling. For example, a boy repressing “forbidden” wishes to scream in rage at his sickly younger brother might lose his voice; a person who has witnessed something horrible or shocking might temporarily lose her eyesight. Psychodynamic clinicians have also noted that conversion symptoms can be particularly tenacious because they confer some advantages on their sufferers (McWilliams, 1994). The symptoms effect a **primary gain** by temporarily resolving the emotional conflict (you can’t yell at your brother if you can’t speak at all) and a **secondary gain** because they often bring desired attention and concern from others.

Psychodynamic explanations of somatization disorder, pain disorder, hypochondriasis, and body dysmorphic disorder are similar to psychodynamic explanations of conversion symptoms. In all of these disorders, physical distress is seen as an indirect expression of and metaphor for unconscious emotional distress. Clients who complain of imagined or exaggerated physical symptoms (as in somatization and pain disorder), or who worry excessively about health (as in hypochondriasis) are indirectly saying “I am in (psychological) pain and I need help.” Similarly, clients with body dysmorphic disorder may be expressing the idea “something (psychological) is not right with me, I need to be altered or repaired” (Phillips, 2001). Accordingly, when working with clients with somatoform symptoms, psychodynamic clinicians ask themselves two questions: what is the nature of this client’s *emotional* distress, and why is this psychological distress being expressed as a bodily symptom?

Psychodynamic Interventions

As noted, engaging a person in a psychotherapy for a somatoform disorder can be difficult. Initially, what the client sees as the problem (physical pain) and what the clinician sees as the problem (underlying emotional distress) may be quite different. Given this possible discrepancy in goals, psychodynamic clinicians emphasize the importance of “meeting the client where he/she is” in order to develop a therapeutic alliance. For example, a therapist might begin with a focus on the client’s physical concerns and only address deeper issues over time. By developing a therapeutic alliance, the clinician lays the groundwork for investigating—through free associations, reflections, memories, dreams, and transferences—the unconscious thoughts and feelings that might be responsible for the presenting somatic symptoms. When working with clients suffering from somatoform disorders, clinicians employing psychodynamic techniques are especially watchful for the workings of defense mechanisms such as **repression**, the motivated forgetting of upsetting events or experiences that might contribute to the conversion of emotional distress into physical distress, **regression**, the tendency to return to more dependent, childlike functioning, and the **displacement** of emotional concerns onto the body (Lipsitt, 2001; McWilliams, 1994). The clinician would aim to help his or her client understand the connection between conflicted emotions, the use of *repression*, *regression*, *displacement* and other defense mechanisms, and the development or exaggeration of somatic symptoms. Randomized, controlled studies have found psychodynamic therapy to be an effective treatment for somatic symptoms (Leichsenring, 2005); these techniques appear to be most helpful for people who are also experiencing psychological distress, such as anxiety or depression (Guthrie, 1995).

Cognitive-Behavioral Components

Cognitive-behavioral theorists generally agree with the psychodynamic view that conversion, somatization, and pain disorder result when emotional distress finds expression in physical symptoms, but they emphasize specific behavioral and cognitive processes by which somatic symptoms are developed and maintained. For example, behavioral principles such as **modeling** or *social learning* and **reinforcement** play a role in

Primary gain The relief of anxiety that occurs when an emotional conflict is converted into a physical symptom.

Secondary gain The desired attention and concern from others that results from the “sick” role.

Repression A defense mechanism consisting of the forgetting of painful mental content.

Regression A defense mechanism that involves a return to childlike behavior in order to avoid anxieties associated with progressive development.

Displacement A defense mechanism in which feelings about someone or something are unconsciously shifted onto someone or something else.

Modeling Learning based on observing and imitating the behavior of others; see also: **social/observational learning**.

Reinforcement In operant conditioning theory, any reaction to a behavior that increases the probability that the behavior will be repeated.



Pass the aspirin Children whose parents express emotional distress through physical symptoms may quickly learn to do the same through modeling and other processes.

©Corbis

Amplification The anxious magnification of minor physical sensations, such as in people with hypochondriasis.

Catastrophizing Cognitive term for the tendency to view minor problems as major catastrophes.

the development of somatic symptoms. Children whose parents express their emotional pain in a physical form may follow in their parents' footsteps, and parents may reinforce their children's somatic expressions of distress by being warm and caring about physical symptoms and making fewer demands on children who are not feeling well (Kirmayer & Loooper, 2001). Although the exact causal relationship between parent behavior and somatization in children can be hard to establish, empirical evidence supports both the modeling and reinforcement theories of somatization (Garraalda, 2000; Levy & Walker, 2005; Rocha et al., 2003).

Cognitive explanations of hypochondriasis emphasize two cognitive processes: the **amplification** and **catastrophizing** of physical symptoms (Barsky, 2001). In symptom *amplification*, hypochondriacs pay extremely close attention to their bodies and bodily sensations and experience even minor physical sensations as intense. Once physical sensations are perceived, hypochondriacs interpret the symptoms in *catastrophic* terms. Consider the following example: two college students, John and Harry, stand up quickly after sitting through a long lecture. Each experiences a brief "head rush" as his blood pressure adjusts to the change in bodily position. John notices the head rush but knows that it comes from standing quickly after sitting so long and gives it little thought. Harry also notices the head rush, but he focuses on it to the point of becoming a little dizzy (symptom amplification) and then begins to worry "What's wrong with me!? Why am I feeling dizzy!? Maybe I have a brain tumor!" (catastrophic interpretation). Symptom *amplification* and *catastrophic* interpretations usually cause intense anxiety that may lead to withdrawal from regular activities and/or seeking medical care. If suspending normal activities or seeing a physician helps someone with hypochondriasis feel better, the accompanying anxiety reduction may also reinforce the withdrawal and help-seeking behaviors.

Body dysmorphic disorder involves a chain of similar cognitive distortions that begins with the belief that one has a significant physical defect. From there, people with body dysmorphic disorder go on to amplify and catastrophize: "I look defective, other people notice and are interested in my defect, they view me as unattractive (ugly, deformed, deviant, etc.) and evaluate me negatively as a person, and consequently my appearance proves something negative about my character and worth to other people" (Rosen, 1998, p. 366). Not surprisingly, these cognitive distortions leave people with body dysmorphic disorder feeling depressed and anxious and lead to behaviors such as mirror checking, seeking reassurance from others, and undergoing cosmetic surgery.

Cognitive-Behavioral Interventions

Cognitive interventions often focus on providing rational reasons for clients to consider addressing their physical symptoms differently than they have in the past. For example, a therapist working with a client whose conversion symptom involves difficulty using his legs might explain the following:

So, even though it is understandable that you rest when you feel weak and that it probably feels impossible to move your legs, immobility in the long term can only result in one thing. . . more weakness and loss of muscle bulk and fitness. In fact, did you know that bed rest results in a 3 per cent reduction in muscle bulk per day? So, in the long term, inactivity and lack of exercise will contribute to you remaining disabled.

Chalder, 2001 (p. 306)

Cognitive-behavioral interventions often involve a variety of specific behavioral prescriptions to reduce the reinforcement of somatization or conversion symptoms and to provide alternative coping mechanisms. Clients may be encouraged to engage in a variety of physical activities that had been avoided in the past and discouraged from seeking reassurance from others about their physical complaints. They may also be urged to seek assertiveness training or anger management instruction so that the emotional distress communicated by their physical symptoms can find a more adaptive route for expression

(Chalder, 2001). **Exposure and response prevention** treatments have been found to be effective for some people suffering from body dysmorphic disorder (Grant & Phillips, 2005). For example, a client who believes that her facial freckles make her look “diseased” could be exposed to an anxiety-provoking situation, such as sitting in a crowded place without wearing heavy cover-up makeup, and prevented from executing her typical responses, such as applying makeup, checking herself in the mirror, or hiding her face. The goal of this technique would be to break the connection between her anxiety and her maladaptive behavioral response, while teaching a more adaptive way of dealing with her irrational anxiety.

Cognitive restructuring, which identifies, evaluates, and changes harmful negative thoughts, is widely used in treating all of the somatoform disorders. Clients are encouraged to write down concerns about their bodies as they occur (“If I use my arm today, it will be unbearably painful again tomorrow,” or “My sore throat may be a sign of cancer”) and to evaluate them objectively (see Figure 6.5). Special consideration is given to alternative (and nonpathological) explanations for their physical symptoms and sensations.

Cognitive restructuring techniques can be especially helpful for clients suffering from body dysmorphic disorder (Grant & Phillips, 2005). Clinicians focus on the distorted negative thoughts and assumptions that cause physical idiosyncrasies to feel like major defects. For example, a clinician might acknowledge a client’s perception that his nose is large (“Yes, I can see that your nose has a different shape than most people’s”) but challenge the client’s

Exposure and response prevention A behavioral intervention in which people are encouraged to confront a frightening thought or situation and then prevented from engaging in anxiety-reducing behaviors.

Cognitive restructuring Therapy techniques that focus on changing irrational and problematic thoughts.

Instruction: Write down your negative thought about your symptoms, then make a list of all of the possible alternative explanations for your symptoms. Use the pie chart to assign a percentage value to your negative thought and to your alternative explanations. Each percentage value should reflect the likelihood that the thought or explanation is accurate.

Negative thought: my stomachache could be caused by an ulcer (2%)

List of alternative explanations:

- 1) I might have a stomach flu (13%)
- 2) I ate something that didn't agree with me (25%)
- 3) I feel tense about turning in an important assignment (60%)
- 4) _____
- 5) _____
- 6) _____

etc.

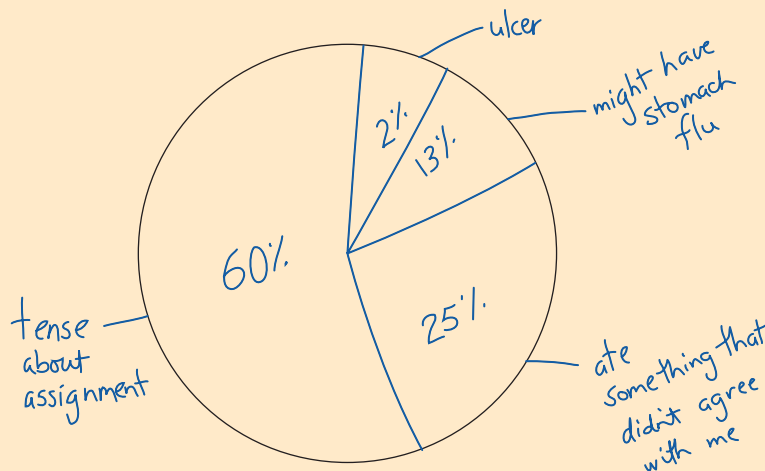


Figure 6.5 Cognitive-Behavioral Intervention for Somatoform Disorders

Worksheets like this one can be used to help people suffering from somatoform disorders to take a more rational, objective, and adaptive view of their physical symptoms.

Adapted from Botella & Narvaes, 1998, p. 35

belief that strangers are disgusted by his “hideous” nose and consequently judge him to be a worthless person. This technique not only encourages the client to evaluate the evidence for his beliefs about how people react to his appearance but also enables the clinician to model an attitude of acceptance and tolerance of physical differences. Cognitive therapists may also encourage clients with body dysmorphic disorder to use a self-monitoring diary in which they record their experiences in an A-B-C-D-E format (after Rosen, 1998):

Activating events—the situation or event that activated body concerns:

“The waitress at the coffee shop looked at me in a strange way.”

Beliefs—your thoughts about yourself, your situation, or your body:

“I’m deformed—she sees it.”

Consequences—how you feel or what you do as a result of your beliefs:

“I feel mortified and leave the coffee shop without getting my drink.”

Disputing thoughts—alternative beliefs that could explain activating event:

“The waitress was tired or was having a bad day.”

Effects of corrective thinking—describe benefits of alternative beliefs:

“Tomorrow I’ll go back to the coffee shop and see if she is friendly to me when I am friendly to her.”

Cognitive-behavioral interventions, especially those that focus on developing a therapeutic alliance as a basis for helping clients evaluate their reactions to physical symptoms, have been found to be effective for many somatoform disorders (Kroenke & Swindle, 2000). Cognitive-behavioral interventions aimed specifically at treating somatization disorder and hypochondriasis have been shown to produce positive and lasting results (Allen et al., 2006; Barsky & Ahern, 2004).

Sociocultural Components

Research evidence suggests that somatization disorder among adults is strongly correlated with the experience of having been sexually or physically abused (Sansone, Gaither, & Barclay, 2002; Sansone, Gaither, & Sansone, 2001). One study found that women with a history of childhood sexual abuse had a significantly higher number of physical complaints and made almost twice as many visits to the doctor each year as women with no abuse history (Newman et al., 2000). Another study found that adult survivors of sexual assault had more somatic complaints, higher anxiety about their own health, took a greater number of sick days from work, and made far more visits to their physicians than women of the same age and education who had no history of sexual assault (Stein et al., 2004). Both childhood victims of sexual abuse and adult survivors of rape tend to have somatic complaints that focus on gastrointestinal or genital problems, such as irritable bowel syndrome or chronic pelvic pain (Berkowitz, 2000; Newman et al., 2000). As the connection between physical trauma and somatization has become more apparent, physicians have been encouraged to ask about the abuse histories of people with diffuse and unexplainable physical complaints (Katon, Sullivan, & Walker, 2001).

Biological Components

Many people who suffer from somatoform disorders also experience **comorbid** depression and anxiety, sometimes as a result of incapacitation due to conversion, somatization, or pain symptoms, constant hypochondriacal health concerns, or the social and occupational isolation that typically accompanies body dysmorphic disorder (de Waal et al., 2004). Antidepressant and anti-anxiety medications may be prescribed when mood symptoms accompany somatoform disorders, and in some cases these medications have been found to have a salutary effect on the somatoform disorder itself (Fallon, 2001). However, many clinicians are reluctant to prescribe medications because people with somatoform disorders are often highly sensitive to side effects, are at risk for abusing medications, and may already be taking several medications simultaneously (Holder-Perkins & Wise, 2001).

Comorbidity The presence of two or more disorders in one person, or a general association between two or more different disorders.

As noted previously, body dysmorphic disorder and some extreme cases of hypochondriasis share a common diagnostic boundary with obsessive-compulsive disorder, as all three disorders involve repetitive, intrusive thoughts and associated disruptive behaviors. Selective serotonin reuptake inhibitors (SSRIs), which are commonly used to treat OCD, show promise as a treatment for the preoccupations found in body dysmorphic disorder and hypochondriasis (Magarinos et al., 2003; Phillips & Najjar, 2003). Some experts view the effectiveness of SSRIs for the treatment of body dysmorphic disorder as tentative support for the hypothesis that some of the brain regions involved in OCD are also involved in body dysmorphic disorder (Hadley, Newcorn, & Hollander, 2002).

The Connection Between Mind and Body in Somatoform Disorders

By their very nature, the somatoform disorders profoundly illustrate the *connection between mind and body*. The relationship between somatoform disorders and hypnosis further amplifies this connection. Some experts in the area of conversion disorders have noted that a person suffering from leg paralysis due to conversion disorder has a great deal in common with a person who has been hypnotized and told that her legs are paralyzed (Oakley, 1999). Each feels that her legs are genuinely paralyzed, each seems to have lost voluntary control over her legs, and yet neither person actually has anything physically wrong with her legs. Indeed, research suggests that there may be some similarities in the neurological bases of hypnosis and conversion disorder. Both hypnosis and conversion symptoms appear to involve the activation of the anterior cingulate and orbito frontal cortex, parts of the brain that regulate attention and coordinate or inhibit the functioning of other cortical systems, such as the motor cortex, which regulates physical movement (Halligan et al., 2000). With these similarities in mind, some clinicians have suggested viewing conversion disorder as an **auto-suggestive disorder**, meaning that people with conversion symptoms have essentially hypnotized themselves into believing that they have lost some form of physical functioning (Halligan, Bass, & Wade, 2000). Although the auto-suggestive theory may explain part of the mechanism for conversion disorders, it still leaves room for psychodynamic, cognitive, and behavioral perspectives on what might *motivate* a person to inhibit a physical function in the first place.

Interestingly, Sigmund Freud and Josef Breuer's first treatments for patients with hysteria involved using hypnosis to treat conversion symptoms. Breuer triumphantly describes how he used hypnotic suggestion to cure Anna O.:

[T]he hysterical phenomena disappeared as soon as the event which had given rise to them was reproduced in her hypnosis. . . Each individual symptom in this complicated case was taken separately in hand; all the occasions on which it had appeared were described in reverse order, starting before the time when the patient became bed-ridden and going back to the event which had led to its first appearance. When this had been described the symptom was permanently removed.

Breuer & Freud, Studies in Hysteria, 1893/1955 (p. 35)

Freud ultimately abandoned hypnosis as a therapeutic technique because he felt he was not skilled at it and because he came to doubt its long-term effectiveness. Hypnosis is still used by some contemporary clinicians to treat conversion symptoms though its effectiveness remains in question (Moene et al., 2002; 2003).

BRIEF SUMMARY

- Psychodynamic theorists emphasize that conversion symptoms can result from the repression of feelings that a person considers “forbidden” or intolerable. Psychodynamic interventions emphasize addressing defense mechanisms such as *repression*, the motivated forgetting of upsetting events or experiences, *regression*, the tendency to return to more dependent, childlike functioning, and *displacement*, in which feelings about someone or something are unconsciously shifted onto someone or something else.



Mind-body connection

Auto-suggestive disorder Disorder in which an individual convinces themselves, through a process akin to self-hypnosis, that they have lost some form of physical functioning.

- Behavioral principles such as *modeling* (or *social learning*) and reinforcement explain how children may develop behaviors associated with somatoform disorders. Cognitive approaches to somatoform disorders such as hypochondriasis emphasize two cognitive processes: the *amplification* of symptoms (experiencing even minor physical symptoms as intense) and the *catastrophic* interpretation of physical symptoms (believing minor physical symptoms to herald dire consequences).
- *Exposure and response prevention techniques* have been found to be particularly effective for people suffering from body dysmorphic disorder. Cognitive restructuring is also a widely used intervention in the treatment of the somatoform disorders.
- Somatization disorder among adults appears to be strongly correlated with the experience of having been sexually abused as a child or having experienced physical and sexual trauma during adulthood.
- Many people who suffer from somatoform disorders also experience depression and anxiety. Antidepressant and anti-anxiety medications may be prescribed when mood symptoms accompany somatoform disorders, and in some cases medication has been found to have a salutary effect on the somatoform disorder itself.
- In keeping with the core concept of the *connection between mind and body*, some experts view conversion disorder as an autosuggestive disorder, meaning that people with conversion symptoms have essentially hypnotized themselves into believing that they have lost some form of physical functioning.

CASE Vignettes

Treatment

Robert • Coronary Heart Disease

After his heart attack, Robert spent several days in the hospital undergoing a variety of medical tests and working with his doctors to evaluate the risk factors that contributed to his recent heart attack. Despite their experience with many “intense” patients, Robert’s doctors and nurses felt that he was one of the most aggressive and unpleasant patients they had ever treated. After his second day in the hospital he began to pester the staff about when he would be released, and he insisted on spending most of his time making business calls regardless of his doctor’s orders to the contrary.

Upon release, he was referred to a cardiac rehabilitation unit where he was encouraged to adopt a routine of regular exercise and to give up smoking. He was referred to the rehabilitation

unit’s psychiatric staff for help with smoking cessation, but also in the hope that the rehab psychiatrist could direct Robert toward stress and anger management training and psychotherapy. The rehab psychiatrist strongly encouraged Robert to consider psychotherapy so that he could “blow off steam” about events at work, but Robert was offended by the implication that his difficulties had a psychological component. Robert also rejected the recommendation for stress and anger management classes, insisting that stress was just part of his job and that he could “handle it.” Though Robert did agree to start walking for exercise three days a week and to cut back on smoking, his cardiologist was not surprised when Robert suffered another, more severe, heart attack only eight months after the first.

CASE DISCUSSION • Coronary Heart Disease

Robert fits the profile of a “type A” personality—right down to his refusal to accept psychological help. His hostile and aggressive behavior likely contributes to chronic hypertension (high blood pressure), which has the effect of stiffening and narrowing

his coronary arteries. Though engaging in a regular program of exercise and cutting back on smoking should improve the health of his heart, research suggests that Robert’s lifestyle and personality will continue to place him at risk for heart attacks.

David • Somatization Disorder

David's father became increasingly frustrated by the debilitating effects of his son's physical symptoms and the failure of any doctor to render a diagnosis or suggest a treatment that could get David back on his feet. Eventually, David's father insisted that David attend a chronic pain support group run by a social worker at a nearby YMCA. During meetings, David and the other participants were encouraged to articulate their negative thoughts about their pain symptoms and then to evaluate their thoughts objectively. When David stated that he believed

that he might never be able to work again because of his neck, arm, and back pain, the social worker (and other group members) observed how quickly David gave up on considering interventions for his physical problems, or other lines of employment where his pain symptoms might not be exacerbated. Over time, David was able to use support and encouragement from the group to find work as a janitor at a local school. Eventually, he moved out of his parents' house into a small apartment of his own.

CASE DISCUSSION • Somatization Disorder

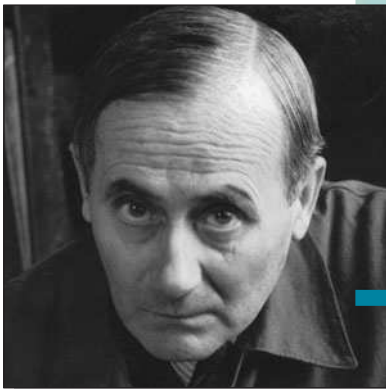
Cognitive restructuring techniques helped David to notice and evaluate the extreme assumptions he made about his own pain symptoms and his willingness to be debilitated by them. Drawing on the encouragement of the support group, David was able to find and maintain employment despite his ongoing physical discomfort. However, David did not use the support group setting to address the

likely psychological causes of physical symptoms, or to question his reasons for continuing to live with his parents, especially after he became employed. Like many people with somatization symptoms, David was able to make some gains through a psychotherapeutic intervention, but remained somewhat resistant to considering the deeper psychological roots of his troubles.

Chapter Summary

- Psychophysiology (the study of actual physical illnesses caused or exacerbated by psychological stress) and the somatoform disorders (physical symptoms caused by psychological stress), provide a detailed look at the core concept of the *connection between mind and body*.
- Findings from the field of psychoneuroimmunology highlight the core concept of *multiple causality* in that illness often results when individuals are faced with the combination of psychological stress and exposure to an infectious agent, not just one or the other.
- The DSM-IV-TR includes five somatoform disorders: conversion disorder, somatization disorder, pain disorder, hypochondriasis, and body dysmorphic disorder.
- The DSM-IV-TR classification of somatoform disorders has both *advantages and limitations*. While the somatoform disorders are characterized by a common focus on bodily concerns, they do not necessarily have similar causes or psychological mechanisms.
- Like all mental disorders, the somatoform disorders are best understood when demographic *context* factors such as gender, age, and social class are taken into account.
- The form taken by somatization symptoms is often influenced by cultural and historical factors, highlighting the role of *cultural and historical relativism* in abnormality.
- Psychodynamic, cognitive, behavioral, neuropsychological, sociocultural, and biological perspectives all contribute to the understanding and treatment of somatoform disorders.

Joan Miro, *Le Disque Rouge la Poursuite de l'Alouette*, 1953. Oil on canvas.
/SUPERSTOCK/©2007
Estate of Joan Miro/
Artists Rights Society (ARS), New York



Herbert List/Magnum Photos, Inc.

Joan Miró (1893–1983), a Spaniard considered to be one of the leading figures in the Surrealist art movement, emphasized simplified shapes and organic imagery in his abstract paintings. Miró often worked “automatically,” using his brush without conscious intention, in the hopes that this would reveal the hidden content of his unconscious mind. Like others in his circle, Miró was reputed to have sometimes fasted and deprived himself of sleep in order to generate hallucinatory experiences that could become fodder for future paintings. Miró’s efforts to induce alterations in consciousness—dissociative states—may have helped secure his place as a key figure in the history of modern art.

Dissociation and the Dissociative Disorders

CASE Vignettes

John, a college sophomore, came for a walk-in appointment at his university counseling center because he was worried that his tendency to “space out” was getting in the way of his schoolwork. Though he had experienced what he called “spacey” episodes off and on since his senior year in high school, they had increased in intensity and duration around the time of his most recent midterm exams, sometimes happening while he was in the middle of taking a test. John had been able to continue working on the exams when this happened, but his academic performance was dropping and he was sure that “spacing out” during exams wasn’t helping. When the counselor asked if anything important had occurred in John’s life around the time the episodes began, John explained that his father had died shortly after being diagnosed with lung cancer in the summer before John’s freshman year of college. However, John felt that his father’s death was unrelated to the spacey episodes because he and his family were able to say their good-byes to their father and everyone handled the loss “very well.” Furthermore, John explained that when he felt spacey he didn’t feel sad or like he missed his father; he just felt nothing at all.

Margaret, a clerical worker at a manufacturing company, was contacted by the staff assistance program of her division due to her excessive absences. Although she did not feel comfortable giving the details of her many absences to the counselor, Margaret explained that she had been having “mental problems” and accepted a referral to a local psychologist. The psychologist was struck by Margaret’s description of a typical week. On Mondays, she often awoke feeling miserable from the weekend’s activities, though she could rarely remember what had occurred. Margaret was almost always terribly hungover and unable to go to work. Occasionally, she would find a strange man in her bed or would receive phone calls from men she had never met who seemed to know her, but who addressed her as “Janie.” Margaret explained to the psychologist that she had been having similar experiences for the past nine years, since the time she was a sophomore in high school. Though genuine cases are rare, the psychologist began to suspect that Margaret might be suffering from multiple personality disorder.

As treatment progressed, it became clear to Margaret and her therapist that over the weekends Margaret did indeed seem to exhibit an alternate personality who called herself “Janie” and would engage in impulsive and self-destructive behavior. During therapy sessions when Margaret was feeling especially upset she would suddenly begin to act and talk like a young child who did not know where she was. This little girl personality referred to herself as “Suzie,” and in this way the therapist became aware of the existence of a third distinct personality within Margaret.

CASE VIGNETTES

Defining Dissociation and Dissociative Disorders

- The Continuum Between Normal and Abnormal Dissociation
- The Importance of Context in Defining Dissociative Disorders

Classifying Dissociative Disorders

- The DSM-IV-TR Categories
- Classification in Demographic Context
- Cultural and Historical Relativism in Defining and Classifying Dissociative Disorders
- The Advantages and Limitations of the DSM-IV-TR Dissociative Disorder Diagnoses

Explaining and Treating Dissociation and Dissociative Disorders

- Psychodynamic Components
- Behavioral Components
- Cognitive Components
- Biological Components
- The Multiple Causality of Dissociative Disorders

CASE VIGNETTES

Treatment

Dissociation A significant disruption in one's conscious experience, memory, sense of identity, or any combination of the three, without a physical cause.

DEFINING DISSOCIATION AND DISSOCIATIVE DISORDERS

The cases of John and Margaret—one relatively mild, one quite extreme—have a central feature in common. It is a process known as **dissociation**, which refers to a significant disruption in one's state of consciousness, memory, sense of identity, or any combination of the three when caused by psychological, not biological, factors. Although the dissociative disorders are some of the most strange and fascinating of the mental disorders, mild forms of dissociation are common, everyday experiences. For example, if you have ever meditated, been lost in a daydream, or experienced déjà vu, you have had a mild dissociative experience. Such states are not necessarily unpleasant or pathological and are even sought out by some people through exercise, meditation or drug use. In other cases, people have dissociative symptoms during frightening experiences, such as being in a car crash or falling down stairs. They may feel as if the accident were happening in slow motion, or as if they were standing outside their bodies, watching it occur. Indeed, dissociation is particularly associated with trauma, and it represents one of the ways that the mind can protect itself against overwhelmingly frightening or painful experiences—in other words, it can be understood as one of the mind's *defense mechanisms* (Chapter 2). Like other defense mechanisms, dissociative experiences can be adaptive, such as when athletes are able to detach from pain and anxiety to perform at unusually high levels. Hypnosis, a form of induced dissociation, has been found to be effective in treating some anxiety disorders and in helping people stop smoking (Green, 2000).

Because dissociative symptoms are common, and sometimes adaptive, it is a challenge to define *pathological* dissociation. As with the other disorders already discussed, two factors are critical: the severity of the dissociative symptoms on the *continuum between normal and abnormal behavior* and the *context* in which the dissociation occurs.



The Continuum Between Normal and Abnormal Dissociation

The *continuum between normal and abnormal behavior* must be considered in order to define *pathological* dissociation. On the normal side of the continuum are common dissociative experiences such as déjà vu or daydreaming. On the abnormal end of the continuum are extreme and chronic dissociative states in which people literally forget who they are or shift involuntarily between alternate identities. Between these two extremes are mildly disruptive dissociative symptoms, such as John's "spaciness." Whether or not



In the “zone” Dissociative experiences can be highly adaptive. Through meditation people can achieve deep states of relaxation; by ignoring pain, people can perform at remarkably high levels of athleticism. Donovan Bailey, a Canadian runner, appears to be truly transported as he sets the new world record in the 100 meter final at the 1996 Olympics.

(Left) Roy Philippe/Photo Researchers, Inc. (Right) Gilbert Iundt; TempSport/Corbis Images

dissociative symptoms constitute a dissociative *disorder* depends, in large part, on the severity of the dissociation and how much it interferes with overall functioning.

The Importance of Context in Defining Dissociative Disorders

As already mentioned, there are certain *contexts* in which dissociation is an adaptive response. For example, a person who is terrified of flying on airplanes may begin every flight by mentally transporting himself to a safe and familiar place while the plane takes off. Dissociation may also allow people to perform heroic feats in situations that would normally cause paralyzing fear and dread. We are all familiar with stories of people who rescue themselves and others from accidents with no apparent awareness of their own physical injuries. Once the danger has passed, the heroic individual may feel overwhelmed by the memory of the harrowing experience. However, at the time of the incident, he or she was able to create a profound detachment from normal consciousness.

Unfortunately, dissociation is not always helpful or adaptive. John, the college junior described at the beginning of the chapter, is having mild dissociative experiences during examinations. While his dissociation may be in part a reaction to anxiety about the exam, it is not helpful for him to be “spacing out” when he needs to be concentrating. So, when we are trying to determine whether a dissociative experience should be considered pathological, we need to ask ourselves if the dissociative symptoms are occurring in a context in which they assist or interfere with the individual’s ability to function.



The
importance
of context

BRIEF SUMMARY

- Dissociation refers to psychologically caused alterations in state of consciousness, memory, sense of identity, or any combination of the three.
- Dissociative disorders are defined by dissociative symptoms that occur in inappropriate *contexts* and are severe enough on the *continuum* of dissociative experiences to interfere with functioning.

Critical Thinking Question

Everyone has had some form of a dissociative experience at one time or another, and, as we’ve seen, many common dissociative experiences are not pathological. Where would you draw the line between normal and abnormal dissociation?



Normal-
abnormal
continuum

CLASSIFYING DISSOCIATIVE DISORDERS

Dissociative symptoms sometimes occur as part of certain anxiety disorders (Chapter 4) or personality disorders (Chapter 11). However, the conditions that are classified as the dissociative disorders in the DSM-IV-TR are those in which dissociation is the *main symptom*.

The DSM-IV-TR Categories

The DSM-IV-TR recognizes four different dissociative disorders: *depersonalization disorder*, *dissociative amnesia*, *dissociative fugue*, and *dissociative identity disorder* (see Table 7.1).

Depersonalization Disorder

People, like John (described at the beginning of the chapter), with **depersonalization disorder**, are distressed or impaired by persistent feelings of detachment and unreality. Individuals who suffer from depersonalization feel disconnected from their own mental processes, sometimes saying that they feel as if they were robots or living in a dream or a movie. At the time of a depersonalization experience, most people feel emotionally detached and numbed, though there may be some distress about the depersonalization experience itself (see Table 7.2).

Depersonalization disorder Persistent and distressing feelings of being detached from one’s mind or body.

TABLE 7.1 The DSM-IV-TR Dissociative Disorders

- Depersonalization disorder** ■ Persistent and distressing feelings of being detached from one's mind or body (lifetime prevalence estimate: up to 2.8% of U.S. population).
- Dissociative amnesia** ■ Inability to recall important personal information, usually of a traumatic or stressful nature (lifetime prevalence estimate: up to 6% in some highly traumatized populations).
- Dissociative fugue** ■ Sudden and unexpected travel away from home accompanied by forgetting of one's past and personal identity (lifetime prevalence estimate: 0.2%).
- Dissociative identity disorder** (formerly *multiple personality disorder*) ■ Presence of two or more distinct personalities or identity states that recurrently control an individual's behavior (lifetime prevalence estimate: highly controversial, but generally believed to occur at far less than 1%).

Adapted from DSM-IV-TR (APA, 2000; prevalence data from Ross, 1996)

CASE ILLUSTRATION

Mara, age 35, sought counseling for help with her long-standing sense of emotional detachment and repeated episodes during which she felt that “life doesn’t seem real.” During an intake interview, Mara explained that as a child she could escape from the tension of her parents’ loud arguments by immersing herself in imaginative play. As an adult, she found herself feeling strange, “nonhuman” and “unreal” during confrontational situations. She was scared and upset because the “unreal” episodes had recently become more frequent.

Occasional symptoms of depersonalization are fairly common. Most people have experienced times when they feel disconnected from themselves and the world around them. Such experiences may be brought on by a stressful event, such as having to give a public talk, or may even result from feeling overly tired. Most of the time, temporary experiences of depersonalization are not particularly upsetting or problematic. The diagnosis of depersonalization disorder is reserved for situations in which depersonalization symptoms are frequent or persistent enough to become distressing or to interfere with normal functioning. Estimates of the prevalence of depersonalization disorder vary widely due, in part, to the fact that symptoms of depersonalization are often present in other psychological disorders such as acute stress disorder (Chapter 4) and borderline personality disorder (Chapter 11) (Johnson et al., 2006).

TABLE 7.2 Diagnostic Criteria for Depersonalization Disorder

- Persistent or recurrent experiences of feeling detached from one's body or mental processes, as if watching one's self from outside.
- During the period of depersonalization, the person is not psychotic; that is, he or she continues to know what is real and not real.
- The experience of depersonalization causes significant distress or difficulty in social, occupational, or other important areas of functioning.

Adapted from DSM-IV-TR (APA, 2000)

Dissociative Amnesia

Dissociative amnesia Psychogenic loss of ability to recall important personal information, usually of a traumatic or stressful nature.

People with **dissociative amnesia** literally forget basic information about their identity or recent past, usually following a traumatic or emotionally upsetting event (see Table 7.3). Dissociative amnesia can take many forms (APA, 2000):

**Portrait of Edward James** René

Magritte's painting communicates the feelings of detachment and disconnection often described by people suffering from depersonalization disorder.

©Photothèque R. Magritte-ADAGP/Art Resource/©2007 Artists Rights Society, NY

TABLE 7.3 Diagnostic Criteria for Dissociative Amnesia

- One or more episodes of being unable to recall important personal information, usually of a traumatic or stressful nature.
- The forgotten information is too extensive to be accounted for by ordinary forgetting.
- The forgetting causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Adapted from DSM-IV-TR (APA, 2000)

- **Localized amnesia** refers to forgetting that occurs within a circumscribed period of time, such as a person having amnesia for all of the events that happened on the same day that she witnessed a gruesome car accident.
- **Selective amnesia** refers to the ability to recall some but not all of the information from a specific period of time, such as someone who has forgotten many episodes from a recent combat experience.
- **Generalized amnesia** refers to the experience of forgetting everything about one's personal identity—having no knowledge of one's own name, background, family history, and so on. Nonpersonal aspects of memory remain intact, such as knowing about current events.
- **Continuous amnesia** refers to amnesia that begins at a specific time and continues through to the present, such as a man who cannot remember anything that has occurred since learning of the accidental death of his spouse a week ago.
- **Systematized amnesia** refers to the loss of memory for a certain category of information, such as memories related to a particular person.

Amnesias can also result from a head injury or medical illness, but these are classified as organic (that is, biologically caused) amnesias (Chapter 14). Dissociative amnesia usually results from an emotionally traumatic experience and, by definition, does not have a biological cause.

CASE ILLUSTRATION

Two police officers accompanied Mrs. Perez to her local emergency room after she flagged them down in the street and said that she could not remember her name or where she lived. As the emergency room physician asked her questions about her family, she recalled what had triggered her amnesia. On the previous day her husband of 15 years announced that he had been having an affair and wanted a divorce. Mrs. Perez was overwhelmed and devastated by the news. She left the house abruptly and apparently had been wandering for the past 24 hours, with no memory of these events. As the events came back to her, she began to shake and cry.

CASE ILLUSTRATION

Sam, age 70, fought in the Korean War for nearly two years until he returned home with a shrapnel injury to his leg. Upon his return, he joined his father's printing company, which he ran from the time of his father's death to his own retirement. Although Sam sometimes tells war stories to his friends and grandchildren, he is aware that there are large gaps in his memory of being in Korea. Sam knows better than to attribute this forgetting to old age. Even at the time of his return home, he was unable to recall anything at all about periods of several weeks when he had been stationed in areas of heavy fighting.

Localized amnesia Loss of memory for all of the events that occurred within a circumscribed period of time.

Selective amnesia Loss of memory for some, but not all, of the events from a specific period of time.

Generalized amnesia Loss of memory for events and information, including information pertaining to personal identity, from the time both before and after a traumatic event.

Continuous amnesia Loss of memory that begins at a specific time, continues through to the present, and prevents the retention in memory of new experiences.

Systematized amnesia The loss of memory for a certain category of information.



Fugue on film Alfred Hitchcock’s movie *Spellbound* (1945) tells the tale of a man (played by Gregory Peck) who cannot remember the details of his own life and assumes the identity of a psychiatrist named Dr. Anthony Edwardes. His love interest, a psychoanalyst named Dr. Constance Petersen (played by Ingrid Bergman), helps Edwardes unravel his dark and forgotten past.

Photofest

Dissociative fugue Sudden and unexpected travel away from home accompanied by forgetting of one’s past and personal identity.

TABLE 7.4 Common Experiences in Dissociative Amnesia

<ul style="list-style-type: none">• Blackouts or “time loss”• Reports of disremembered behavior• Appearance of unexplained possessions• Perplexing changes in relationships• Fragmentary recall of life history• Brief, trancelike amnesia episodes (“microamnesias”)
--

Adapted from Loewenstein, 1996, p. 310

Mrs. Perez suffers from generalized amnesia while Sam suffers from selective amnesia. In both cases, upsetting or harrowing experiences appear to have triggered amnesia for these experiences or for aspects of personal identity. The symptoms of dissociative amnesia can take a variety of forms; Table 7.4 lists different experiences that can be characteristic of dissociative amnesia. In most cases of dissociative amnesia, the forgotten experiences or aspects of identity spontaneously return.

The major challenge in diagnosing patients with amnesia lies in determining whether their amnesia is dissociative or organic (biological). Both dissociative and organic amnesias involve the inability to remember personal events from the past. However, people who suffer from organic amnesia usually forget both personal information (such as where they were born) and general information (such as the name of the current president), while people with dissociative amnesia typically forget personal information only.

Dissociative Fugue

The DSM-IV-TR criteria for **dissociative fugue** (listed in Table 7.5) involve the experience of dissociative amnesia plus two other features. After losing their memories, people with dissociative fugue leave their regular lives to travel to new areas and typically assume new identities without any apparent recollection of the lives they’ve left behind. The dramatic nature of the disorder has inspired many fictional depictions, such as Alfred Hitchcock’s famous movie *Spellbound*, and many soap opera plots. Dissociative fugues are considered to be rare and most often last a few days or hours; experts suggest that lengthy fugue states should be viewed with considerable skepticism (Kopelman, 2002).

TABLE 7.5 Diagnostic Criteria for Dissociative Fugue

<ul style="list-style-type: none">• Sudden, unexpected travel away from one’s home or place of work with inability to recall one’s past.• Confusion about personal identity or the assumption of a complete or partial new identity.• The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
--

Adapted from DSM-IV-TR (APA, 2000)

CASE ILLUSTRATION

Warren, age 25, had always dreamed of becoming a lawyer but had a great deal of trouble with the intellectual demands of law school. In his first semester Warren failed three of his four classes and was asked to leave school. After receiving the news, he walked out of the Dean's office and hailed a cab. He found an apartment in a neighboring town, began introducing himself to others as "Bill," and did odd jobs for money for a period of several weeks. His parents filed a missing persons report with the local police department and circulated a recent photograph of their son. One of Warren's employers recognized the photograph and contacted the police. Only when he was reunited with his parents was Warren able to recall his previous identity, and the upsetting event that led to his sudden amnesia and travel.

Like dissociative amnesia, dissociative fugue usually occurs in the wake of a traumatizing event. Fugue states appear to be more common in people who have had past incidents of amnesia and may also be more likely to occur in individuals who are also depressed (Kopelman, 2002). In most cases of dissociative amnesia or fugue, forgotten information about identity or recent events is recovered spontaneously, either in the course of a clinical intervention or simply with the passage of time (Glisky et al., 2004). In other cases, the false identity may be discovered, or the individual may be located by family and friends. Upon recovering from a fugue state, the individual often has no recall for anything that occurred during the time of the fugue (APA, 2000).

Dissociative Identity Disorder

Dissociative identity disorder, better known by its former name, *multiple personality disorder*, is the most severe of the dissociative disorders, and one of the most fascinating and controversial of all mental disorders. A person with dissociative identity disorder (such as Margaret, described at the beginning of the chapter) typically maintains his or her own "original" identity, but also has other identities or personalities that intermittently replace the original personality. Dissociative identity disorder (DID) is often confused with schizophrenia (Chapter 12) because people sometimes mistakenly believe that schizophrenia involves "split personality." In fact, schizophrenia involves symptoms focusing on psychosis in the form of hallucinations and delusions. When an individual truly exhibits separate personalities, the appropriate diagnosis is DID (see Table 7.6).

The following case comes from a published account (Muller, 1998) of a woman with DID who sought help at a hospital emergency room.

This was the third time I had been asked to see her [Nadine] in the ER. She was sitting on a royal blue mattress in the seclusion room, watched and comforted by a female technician who had a particularly gentle way with patients.

Dissociative identity disorder Presence of two or more distinct personalities or identity states that recurrently control an individual's behavior.

TABLE 7.6 Diagnostic Criteria for Dissociative Identity Disorder

- Presence of two or more distinct identities or personality states within one person.
- At least two of these identities or personality states recurrently take control of the person's behavior.
- Forgetting of personal information that is too extensive to be explained by ordinary forgetfulness.

Adapted from DSM-IV-TR (APA, 2000).



The real “Eve” Chris Sizemore, whose story was made famous by the movie *The Three Faces of Eve* (1957), struggled for years to reconcile and integrate three distinct personalities: a 1950s housewife, a racy seductress, and a high-functioning intellectual.

©AP/Wide World Photos

Nadine seemed to be holding court, alternately speaking English and Russian, a language she later told me she had studied seriously. Her speech was rapid and pressured, loud and emphatic. Much of what she said was intelligible, some was not. She wrote in a notebook as she spoke, making bold strokes that produced lines and, occasionally, a few words. Nadine was childlike in appearance and manner—short, slightly built, with short brown hair and thick glasses that seemed too big for her sharp-featured, feral face.

Nadine had come from the oncology unit upstairs. Proudly, she flashed a hospital badge with her picture and the word Volunteer printed in bold, black letters. She had two reasons for coming to the ER. She needed prescriptions for paroxetine (Paxil), trazodone (Desyrel) and levothyroxine (Synthroid); her psychiatrist was not due back from vacation for two weeks, and she had only enough medication for six days. The second reason was because, as she put it, “the children started coming out.” These “children,” as far as I could tell, were several of the more immature facets of her identity—the “alters”—who tended to cause trouble for the major identity, “Nadine” (a name she chose, not her legal first name).

Whoever was speaking for the ensemble of labile identities constituting the consciousness of this patient, ostensibly Nadine, gave an agreeable and often cogent interview. Much of what she said made sense, but some of what she said did not and was clearly bizarre. Both the cogent and the bizarre were put forward with equal conviction, making me think she could not distinguish one from the other.

Agitation quickly gave way to hysterics. The patient (whatever facet of her dissociated, fractured identity was paramount now, possibly not Nadine) was screaming, and drawing the attention of the ER staff, as well as other patients being evaluated or waiting to be seen. In a few seconds, she went from what appeared to be a composed young woman (Nadine?) to a hysterical child (one of the “children” who “started coming out” just before she came to the ER? Or, alternatively, simply an hysterical adult), screaming that we were not giving her the attention she needed and was promised.

Excerpted from Muller, 1998.

(Available at: <http://www.psychiatrictimes.com/p981107.html>)

Although no two cases of DID are identical, the disorder has several common features (Ross, 1997). Most people with DID have between two and four personalities at the time they are diagnosed. In the course of psychotherapy, an average of 13 to 15 personalities are discovered, but in a minority of complex cases more than 25 “alters,” or alternate personalities, exist (Kluft, 1996). Often, the various personalities are radically different from each other: young, old, gay, straight, male, female, and so on. One personality may be calm and thoughtful while another is cruel and aggressive; a pious and chaste personality might coexist with another personality that is wild and promiscuous. Usually, at least one of the alternate personalities is a child or teenager who has a joyful, happy-go-lucky demeanor, or who is terribly traumatized and frightened. Diametrically opposed pairs of personalities like these are typical in DID.

The *host* personality usually retains the individual’s legal name and identity and may help the individual function by holding down a job, meeting responsibilities, and maintaining relationships, while other *persecutory* personalities act out aggressive and hostile impulses and may actively seek to undermine the more adaptive personalities. *Protector* personalities often work to avoid dangerous situations, and they may be aggressive toward anyone who appears to pose a threat. Some individual personalities have their own names; others may use labels that describe their traits (such as “Fury,” or “Tease”) (see Box 7.1). In many cases, the host or protector personalities are aware

BOX 7.1 Life as a Multiple

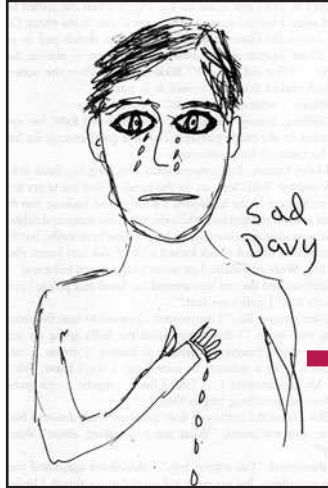
"MY GUYS"

In a book titled *First Person Plural: My Life as a Multiple*, Cameron West, Ph.D., describes suffering from dissociative identity disorder, recovering lost memories of having been sexually abused as a child, being treated for his disorder, and, ultimately, becoming a psychologist. He begins his book with a description of his 24 alternate personalities. Here are a few of his descriptions:

Soul is an ageless alter who emerged early on and whose job it was to give me hope so I could survive. His presence is still felt but he rarely comes out, even in therapy.

Sharky is a private alter who at first couldn't form words at all. He would grunt and swing his head from side to side and bite things, like tables and clothes and plants. One of the other alters drew a picture of him as a limbless being with a huge toothy mouth. Sharky has learned to talk and eat with his hands or a fork. He doesn't come out too often, but he likes to share treats with the others.

Davy is four. He is sweet and sad. He was the first to emerge, but he doesn't come out much anymore.



Anna and *Trudi* are four-year-old twins. Anna is doe-eyed and happy, with a smile so big it makes my face hurt. She remembers her abuse, but feels no anger, no sadness. She loves a good cookie. Trudi is dark and brooding, a kid in the corner. She remembers, too, but only the pain and sadness and horror. Anna shares her cookies with her. Anna is a member of the core group of alters who come out most frequently . . .

Switch is eight years old. He held incredible rage for being abused, but he also felt a powerful allegiance to one of our abusers and turned that rage toward me and some of the others. Switch harmed my body many times. He is not so angry anymore and he has been accepted by everyone in the system. Switch has his own sheriff's badge now, which he likes to wear around. He is a member of the core group . . .

West, 1999 (pp. vii-viii)

Cameron West's alter "Davy" Davy made this drawing on his first day "out."

From Cameron West, *First Person Plural: My Life as a Multiple*, Hyperion, 1999, p. 51.

of and can describe all of the other personalities, while other personalities may or may not be aware that they are one of many identities. Amnesia between certain personalities accounts for the common DID experience of *lost time* in which there is no memory for events during which another personality was dominant. Margaret's amnesia for the weekends in which Janie was dominant (described at the beginning of the chapter) is an example of this phenomenon.

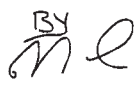
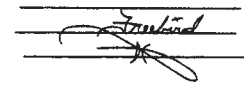

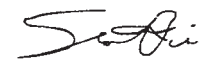
DID provides one of the most fascinating and compelling examples of the **connection between mind and body** in abnormal behavior. For example, some research has shown that different subpersonalities may have distinct biological profiles. An early single-case study reported "consistent differences" in the skin conductance, heart rate, and respiratory activity of four different identities in one person with DID (Bahnson & Smith, 1975, cited in Zahn, Moraga, & Ray, 1996) (see also Figure 7.1). More recently, researchers have found that the individual subpersonalities of people with DID appear to have different degrees of electroencephalogram (EEG) coherence (Hopper et al., 2002). EEG coherence reflects the degree to which brain waves from separate parts of the brain are synchronized with each other. Although differences were found in EEG coherence between host and alter personalities in people with DID, professional actors demonstrated no difference in EEG coherence as they simulated the presence of alternate personalities. Other researchers have found unique profiles of cardiovascular response (heart rate, blood pressure) and cerebral blood flow among different subpersonalities (Reinders et al., 2006). Some experts interpret these physiological differences as proof of the validity of DID. However, studies have found that hypnosis, or even the voluntary suppression of certain emotions, can also produce alterations in physiological measures (Beauregard, Levesque, & Bourgouin, 2001; Gruzelier, 2006).



Found guilty Kenneth Bianchi became known as the "Hillside Strangler" for his gruesome murders of several women in the Los Angeles area in the late 1970s. During his trial, he pretended to suffer from dissociative identity disorder in order to avoid being convicted for his crimes. He eventually confessed to five murders and was sentenced to life in prison.

©Corbis-Bettmann

Figure 7.1 Handwriting samples of people suffering from DID. A person's handwriting can be like a fingerprint—a unique reflection of individual identity. The wide variety of handwriting samples taken from those with DID appears to demonstrate the radical differences among various personalities within the same person. From Lewis et al., 1997, p. 1706

<p>Entries from subject number six's diaries</p> <p><i>Enter opens that fat door for the people that wronged me!!!</i></p> <p><i>What am I—sitting in a jail cell / Sitting in a jail cell for a crime someone else has done & guess what happened. Just as the names that I use actually belong to people I know...</i></p>	<p>Signatures of subject 6</p>  <p>By Johnny?</p> 
<p>Letters from subject number 10</p> <p>11:24 (summed 61-year old in New Jersey—see Atlanta Journal of 11-18-80) in prison in New Louisiana based during first 4: killed 61 yrs. old Anna Mae Charles on Dec. 19, 1979. In prison from Aug. 24-Dec. 1, 1979. What about REST??</p> <p>I also have the letter from the INCA in Rochester, and the Bureau of VITAL STATIS-</p> <p>Once in a cell in the old Special Housing Ex-4 at this is being submitted Aug. 9, 1972. Minors in the. Clamantosa denied of his hearing his rights under the 6th</p>	<p>Signatures of subject 7</p>  <p>Scott</p> 

BRIEF SUMMARY

- The DSM-IV-TR lists four dissociative disorders: depersonalization disorder, dissociative amnesia, dissociative fugue, and dissociative identity disorder (DID).
- Depersonalization disorder is characterized by persistent and distressing feelings of being detached from one's mind or body.
- People suffering from dissociative amnesia forget basic personal information usually related to traumatic or upsetting events.
- In dissociative fugue, the forgetting of one's personal identity is accompanied by travel away from home and sometimes by the assumption of a complete or partial new identity.
- DID involves the existence of two or more distinct personalities within one person that recurrently control the individual's behavior. Some studies have reported that different personalities in DID have distinct biological profiles.



Mind-body
connection

Critical Thinking Question

What kind of biological evidence, if any, would be most convincing to you as proof of the reality of DID?

Classification in Demographic Context

We know less about the demographic factors associated with dissociative disorders than we do about many other disorders because, for many years, dissociative disorders were considered to be extremely uncommon and were rarely diagnosed. Despite recent evidence that dissociative disorders are more common than had been previously assumed, we are just beginning to learn about their demographic features (Kihlstrom, 2005). In particular, little is known about whether dissociative disorders occur at different rates

or in different forms among members of various socioeconomic groups. In the following sections we describe what is known about age and gender factors in dissociative disorders; unique cultural aspects of dissociative phenomena are described later in the section on *cultural relativism*.

Age

Cases of dissociative disorders in children and adolescents have been reported for years (Fast & Chethik, 1976) but did not become the focus of systematic clinical studies until the mid-1980s (Kluft, 1984, 1985; Putnam, 1985). The dearth of information about childhood dissociation prior to the last two decades is due, in part, to the fact that descriptions of dissociative pathology in adults are not always applicable to children and adolescents. For example, many behaviors that might be considered examples of pathological dissociation in adults are normal aspects of child and adolescent development, such as the presence of an imaginary companion in childhood or fluctuations in sense of self or identity in adolescence.

The development of research and diagnostic instruments designed especially for children (such as the Child Dissociative Checklist; Putnam, Helmers, & Trickett, 1993) has led to a more refined understanding of the nature of dissociative disorders in children and adolescents. In an extensive study of children with dissociative disorders, Nancy Hornstein and Frank Putnam (1992) found that dissociation in children and adolescents may take the form of extreme forgetfulness or strange variations in academic performance. In very young children with DID, alternate personalities may be seen as external imaginary companions, and they may be based on superheroes or other fictional characters. Unlike the imaginary companions who are often a part of normal child development, children with DID feel that the imaginary companion is in charge of their behavior and “making” them do dangerous or disturbing things. Severe and prolonged trancelike states in which children were unresponsive to and disengaged from their surroundings were also commonly found in children with dissociative disorders. A study of dissociation in very young children found that abused and neglected children between the ages of 3 and 5 had higher rates of dissociation than their nonmaltreated peers and that ongoing exposure to abuse and neglect increased rates of dissociation (Macfie, Cicchetti, & Toth, 2001).

Gender

Available evidence indicates that approximately 75 to 90% of the people diagnosed with DID are female (DSM-IV-TR, 2000). The disproportionate diagnosis of DID in women may be due to the fact that girls are far more likely to be the victims of sexual abuse, a major predisposing factor for DID (Johnson, 2004). However, some experts believe that men with DID are more likely to become involved with the legal system, owing to criminal behavior by one of their alters, than with the mental health system. Thus, prevalence data on DID may underestimate the number of men who might warrant the diagnosis. Indeed, some researchers (Ellason & Ross, 1999) have found high rates of DID among male sex offenders.

A large study of gender and dissociation found no significant differences between men and women in terms of overall scores on a measure of dissociative psychopathology (Spitzer et al., 2003). With regard to specific dissociative symptoms, the same researchers found that men were more likely than women to suffer from dissociative amnesia. While some controversy remains about the gender distribution of dissociative disorders, evidence suggests that previously observed differences in the rates of dissociation between men and women may have reflected the populations under study (e.g., veterans of war, victims of sexual abuse) rather than actual gender differences in the occurrence of dissociative disorders (Spitzer, et al., 2003).

Lost in the “system”

Men suffering from undiagnosed dissociative identity disorder may find themselves serving time for crimes committed by a criminal “alter.” Women suffering from the disorder are more likely to be identified through their contact with mental health, as opposed to legal, systems.

Andrew Lichtenstein/Aurora Photos



Cultural and Historical Relativism in Defining and Classifying Dissociative Disorders

Studies indicate that the experience and description of dissociative phenomena are *culturally relative*. For example, the members of some South Asian cultures describe an experience called “spirit possession,” which closely resembles the symptoms of dissociative amnesia or fugue (Castillo, 1994). Similarly, in some African, Middle Eastern, and Asian cultures individuals fall into what is known as a “possession trance” in which the body is believed to have been taken over by a spirit (Tseng, 2001). During a possession trance, the individual is unable to control his or her actions, takes on a new personality, and may demand gifts or favors from family and friends (Gonzales & Griffith, 1996). Clinical descriptions of such trances note that they often occur during times of stress, may last several days, and are not necessarily seen as pathological within their cultural context. Interestingly, most ancient religious texts also tell stories of individuals who become possessed or who enter trance or “altered” states (Castillo, 1991).

Some Eskimo and Central American cultures describe trancelike syndromes during which an individual runs or flees aimlessly until he or she becomes exhausted and then has no memory of the incident. One dramatic version of this behavior is known as *amok*, a syndrome found in Malaysia (also described in Chapter 1). A person who “runs amok” experiences a period of brooding followed by a violent rampage that is later completely forgotten (APA, 2000). Finally, African Americans in the southern United States and inhabitants of the Bahamas use terms such as “falling out” or “blacking out” to describe a form of dissociation. An episode of falling or blacking out is usually triggered by an emotionally intense experience such as a religious ceremony or a family fight. People who fall or black out usually fall down and are temporarily unable to move, though they are still able to hear and comprehend what is going on around them (Gonzales & Griffith, 1996).

The definition and classification of dissociative disorders is also *historically relative*. As you may recall, dissociative symptoms were included as part of a syndrome classified as **hysteria** (described in detail in Chapter 2) from the days of the Greeks until the mid-twentieth century. When the DSM-I was published in 1952, dissociative disorders were placed together with what are now called the **somatoform disorders** in which physical symptoms are caused by psychological factors

Hysteria A term once used to describe what are now categorized as dissociative or somatoform disorders.

Somatoform disorders Disorders in which physical symptoms are caused by psychological factors.

(Chapter 6) (APA, 1952). In the DSM-III (1980), dissociative and somatoform disorders were differentiated into separate diagnostic categories in keeping with the DSM-III's emphasis on descriptive diagnosis. The four major dissociative disorders included in the DSM-III are the same four dissociative disorders that are currently classified in the DSM-IV-TR.

The Advantages and Limitations of the DSM-IV-TR Dissociative Disorder Diagnoses

Perhaps one of the most heated debates in all of clinical psychology centers around the diagnosis of DID. Two major camps exist. On one side of the debate are the proponents of the **posttraumatic model** (PTM), who argue that DID is a real disorder that can result from overwhelming childhood experiences such as severe abuse. According to this model, a dissociative response served as a survival strategy that helped the child cope with the overwhelming trauma (Gleaves, 1996). In other words, people develop alternative identities as a way of escaping severe physical or sexual abuse. Colin Ross, a psychiatrist who is an expert in the field of dissociative disorders, states that DID develops from “a little girl imagining that the abuse is happening to someone else” (Ross, 1997).

On the other side of the debate stand the proponents of the **sociocognitive model** (SCM) of DID. According to these theorists, the diagnosis of DID is an unfortunate contemporary fad that is fueled by naive or overzealous therapists and the media. For example, one expert describes DID as “a syndrome that consists of rule-governed and goal-directed experiences and displays of multiple role enactments that have been created, legitimized, and maintained by social reinforcement. Patients with DID synthesize these role enactments by drawing on a wide variety of sources of information, including the print and broadcast media, cues provided by therapists, personal experiences, and observations of individuals who have enacted multiple identities” (Lilienfeld et al., 1999, pp. 507–508). In other words, proponents of the sociocognitive model believe that DID is an **iatrogenic** (eye-at-row-GEN-ick) disorder, which translates from Greek to mean “doctor borne.” They propose that the disorder is created in suggestible individuals by clinicians who encourage clients, sometimes under hypnosis, to see their complex and opposing traits as independently operating personalities, or who unwittingly communicate this view through various cues.

Consider the PTM and SCM positions on the following facts that are relevant to the debate about the validity of the DID diagnosis:

Fact 1: The overwhelming majority of people diagnosed with DID report histories of extreme childhood abuse (Gleaves, 1996).

PTM position: The validity of the DID diagnosis is supported by its strong association with a history of extreme childhood abuse (see Table 7.7). Many empirical studies have found objective documentation of extreme abuse during the childhoods of individuals who later developed DID (Coons, 1994).

SCM position: Most reports of child abuse in DID are based exclusively on client recollections, which may or may not be accurate (see Box 7.2 and Box 7.3 on the recovered memories debate). Even if child abuse is highly correlated with the diagnosis of DID in adulthood, this does not prove either that abuse causes DID or that DID is a valid diagnosis (Lilienfeld et al., 1999; Piper & Merskey, 2004).

Fact 2: The diagnosis of DID has increased dramatically since 1980 (Kihlstrom, 2005).

PTM position: DID was properly defined for the first time in the DSM-III, published in 1980 (although it was then called multiple personality disorder). With the growth in awareness and scientific knowledge about the disorder since then, fewer cases



Advantages/
limitations
of diagnosis

Posttraumatic model A theory of dissociative identity disorder that argues that it results from traumatic childhood experiences.

Sociocognitive model A theory of dissociative identity disorder that argues that it is iatrogenic and/or the disorder results from socially reinforced multiple role enactments.

Iatrogenic (eye-at-row-GEN-ick) A disorder unintentionally caused by a treatment.

The Biology of Depersonalization

Depersonalization, a psychological state characterized by emotional numbness and a sense of detachment from one's body, can occur on its own or as part of other conditions, such as depression, anxiety, or schizophrenia. Individuals with medical conditions, such as seizure disorder or chronic migraines, have also reported experiencing depersonalization. Episodes of depersonalization are also known to occur among healthy individuals during periods of fatigue, meditation, or extreme stress.

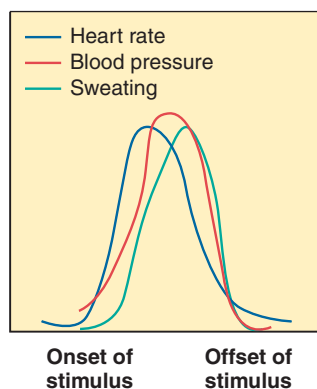
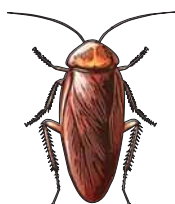
Neurologically, depersonalization is believed to arise from disruptions in the functioning of brain pathways involved in emotional processing. Lesions to the temporal lobe and corticolimbic pathway (two brain areas associated with the processing of emotions) are known to produce symptoms of depersonalization.

Electrophysiological studies measuring skin conductance and blood flow have shown that people who suffer from depersonalization have suppressed autonomic sympathetic responses when presented with unpleasant or aversive stimuli (see Figures 1 and 2). Additionally, people with depersonalization tend to rate unpleasant or aversive stimuli as less disturbing than people without depersonalization.

Neuroimaging studies have shown that people with depersonalization demonstrate decreased activity in the neural regions that typically generate the expected emotional responses to unpleasant or aversive stimuli. Specifically, people with depersonalization show reduced *anterior insula* activation in comparison to control subjects (see Figure 3). More generally, the anterior insula has been linked to pain perception, sadness, and anticipatory anxiety.

Other regions hypothesized to be implicated in depersonalization are as follows: (1) the *amygdala*, which is associated with fear states; (2) the *ventral striatum* (including the putamen and caudate nucleus) and the anterior aspect of the *cingulate gyrus*, both of which are associated with affective experiences and reward responses; (3) the *orbitofrontal cortex*, which may mediate autonomic responses during the generation of affective states; and (4) the ventrolateral aspect of the *prefrontal cortex*, which may be implicated in the appraisal of emotionally laden information. Regions associated with the regulation (as opposed to generation) of affective states may also be implicated in depersonalization. These include the dorsal anterior region of the *cingulate gyrus* and the dorsomedial and dorsolateral regions of the prefrontal cortex.

Normal sympathetic response



Sympathetic response in individual with depersonalization disorder

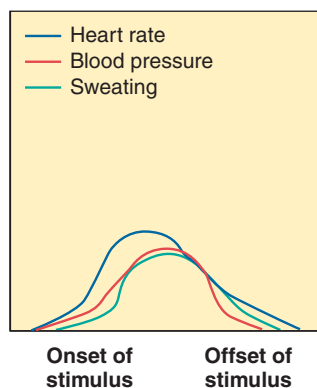
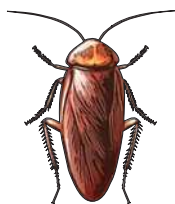
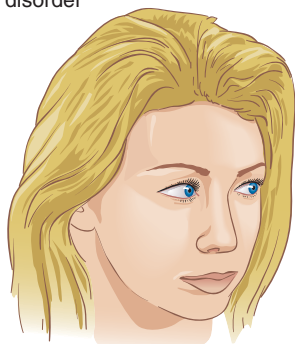


Figure 1. Sympathetic arousal in response to unpleasant stimulus

People suffering from depersonalization appear to have an unusually low autonomic response (as measured by heart rate, blood pressure, and sweating) when confronted with an aversive stimuli, such as a cockroach.

Adapted from Sierra et al., 2002

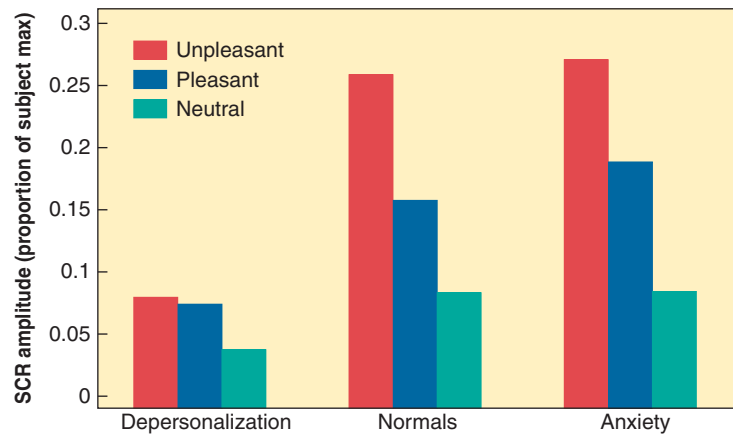


Figure 2. Skin conductance response, also known as electrodermal response, can be used to measure physiological arousal or anxiety. The magnitude of skin conductance response (SCR) to unpleasant, pleasant and neutral images was measured in people with depersonalization disorder, normal controls, and people with anxiety disorders. Figure 2 illustrates that people with depersonalization disorder had significantly lower anxiety responses to unpleasant images ($P = 0.01$) than people in the other two groups.

Adapted from Phillips, M. L. & Sierra, M. (2003). Depersonalization disorder: A functional neuroanatomical perspective. *Stress: The International Journal on the Biology of Stress*, 6(3), 157-165.

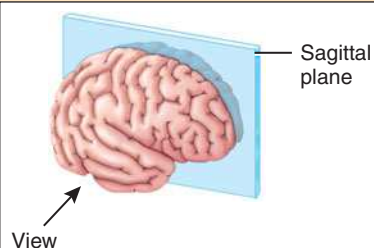
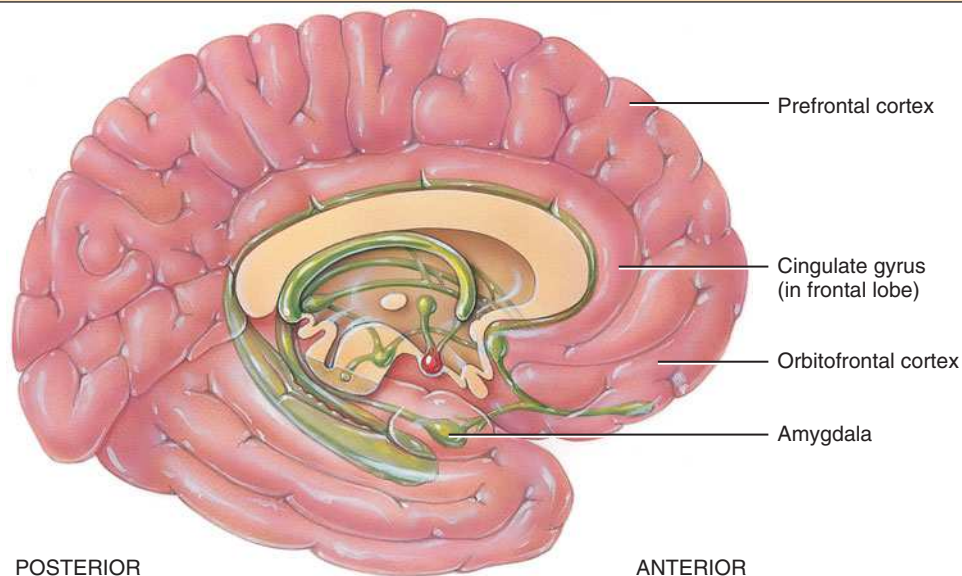
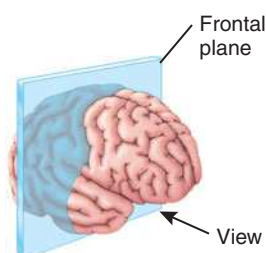
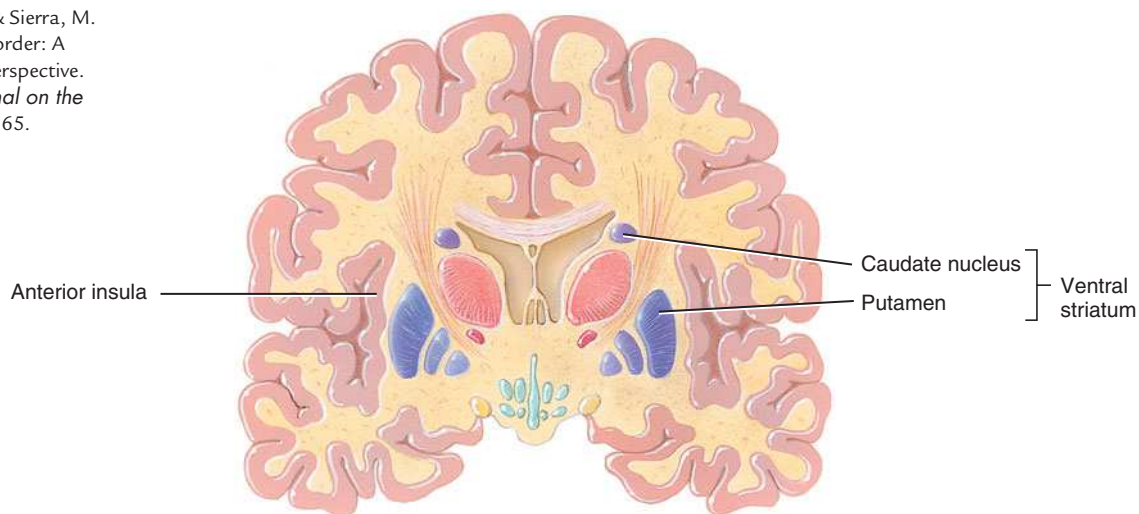


Figure 3. Sagittal and frontal plane views of the brain highlight the multiple regions associated with the generation and regulation of affective states. People who suffer from depersonalization appear to have a blunted emotional response to unpleasant or aversive stimuli and lesions to brain areas associated with emotional processing are known to produce symptoms of depersonalization.

Adapted from Phillips, M. L., & Sierra, M. (2003). Depersonalization disorder: A functional neuroanatomical perspective. *Stress: The International Journal on the Biology of Stress*, 6(3), 157-165.



Sagittal section



Anterior view of frontal section

TABLE 7.7 Percentage of Patients with DID and Reported Histories of Sexual or Physical Abuse

RESEARCH STUDY	NUMBER OF PARTICIPANTS IN STUDY	SEXUAL TRAUMA OR ABUSE	PHYSICAL TRAUMA OR ABUSE
Putnam et al. (1986)	100	83.0%	75.0%
Coons et al. (1988)	50	68.0%	60.0%
Ross, Norton, & Wozney (1989)	236	79.2%	74.9%
Ellason et al. (1996)	135	92.3%	90.0%
Ross et al. (1990)	102	90.2%	82.4%
Schultz et al. (1989)	355	86.0%	82.0%
Boon & Draijer (1993a)	71	77.5%	80.3%

From Gleaves, 1996, p. 53.

are being confused with other dissociative disorders, or with psychotic disorders, and more cases are accurately being diagnosed as DID (Gleaves, 1996).

SCM position: The increasing public fascination with the concept of multiple personalities has led clinicians to overdiagnose DID in their clients, and suggestible clients may begin to believe that they have multiple personalities (Spanos, 1994). Proponents of the SCM model also point out that an “epidemic” of DID cases occurred following the release of the book and film *Sybil* during the 1970s. According to the SCM, the widespread interest in *Sybil* led psychotherapists to “find” DID where it had not existed before (Lilienfeld & Lynn, 2003).

Fact 3: DID is diagnosed primarily within the United States and Canada.

PTM position: In the absence of large, systematic studies using standardized assessment measures, the higher rates of DID diagnosis in the United States and Canada cannot be assumed to indicate that cases are created iatrogenically in North America (Ross, 1997). DID is, in fact, diagnosed in many countries around the world (Dorahy et al., 2006; Gast et al., 2001; Xiao et al., 2006), and evidence suggests that it tends to be grossly underreported in countries where clinicians do not ask about dissociative symptoms (Kluft, 2005).

SCM position: Culture-bound examples of dissociative experiences demonstrate that DID-like symptoms are highly influenced by cultural factors. In the words of Nicholas Spanos, one of the leading critics of the posttraumatic model of DID: “When examined across cultures and historical eras, the rule-governed nature of multiple identity enactments and their embeddedness within a legitimizing social matrix becomes clear. Each culture develops its own indigenous theory of multiple identity enactments. These local theories reflect local social structures and institutions, and they translate into culturally specific expectations that guide both the performance of multiple identity enactments and the reactions of the audience to these enactments” (Spanos, 1994, p. 160). Such factors argue against the validity of DID as a unique, cross-cultural disorder. Furthermore, some SCM proponents contend that cases of DID rise in countries where the disorder was previously undiagnosed when media and professional attention to the disorder increases (Lilienfeld & Lynn, 2003).

Fact 4: The symptoms of DID can be convincingly faked or elicited in people who do not suffer from the disorder (Spanos et al., 1986).

PTM position: Whether or not the symptoms of a disorder can be created in a laboratory setting has nothing to do with the legitimacy of the diagnosis. Depression, psychotic symptoms, and eating disordered behaviors have all been created in “healthy” individuals through experimental methods (Gleaves, 1996).

BOX 7.2 Research Methodology

THE LIMITATIONS OF RETROSPECTIVE RESEARCH

FOCUS ON RESEARCH

While many clinicians believe that dissociative disorders in general, and DID in particular, are related to the experience of childhood trauma, the vast majority of research in this area has been **retrospective**, meaning that it is based on research participants' recollection of events that occurred in the past. By their very nature, retrospective studies are subject to *recall* and *rumination* bias and, like many other kinds of studies, they also can suffer from *selection*, *information*, *investigator*, and other forms of bias, as described below.

- **Recall bias:** Human memory can be highly fallible (see Box 7.3, p. 264).
- **Rumination bias:** People who suffer from mental disorders may ruminate about the causes of their disorders and therefore may have more complete or detailed memories than members of a comparison group without mental disorders.
- **Selection bias:** Many retrospective studies only investigate people who already have the disorder in question, and do not survey a comparison group without the disorder.
- **Information bias:** Researchers often limit their investigation to variables they already believe contribute to the disorder in question.
- **Investigator bias:** When researchers ask about past events, they are typically expecting (and usually hoping) to find that the past events they ask about are related to the disorder in question.

An ideal study of the causes of dissociative disorders would involve several design features to minimize the types of bias described above. First, the study would be **prospective**, or forward-looking, in order to allow researchers to avoid the limitations of retrospective methodologies. Such a study would involve: collecting data on a

large, random sample of children (minimizing selection bias); measuring a wide variety of variables such as family interactions, IQ, school performance, physical and sexual abuse, other forms of trauma, and so on (minimizing information and investigator bias); collecting objective measures in addition to personal reports (minimizing recall and rumination bias); and following the sample over time to see who develops dissociative disorders. Unfortunately, such studies are costly, time-consuming, and difficult to conduct with samples large enough to yield meaningful results.

Further, even if a prospective study found that a variable such as childhood abuse was highly correlated with the later development of DID, we must remember the general principle that *correlation does not prove causation*. Correlational studies can demonstrate that two variables are related, and even that one systematically precedes the other, but not that one *causes* the other. Only a true experimental design, in which one variable is manipulated while others are held constant, can prove causation.

For obvious moral and ethical reasons, true experimental studies cannot be employed to answer the question of whether trauma causes dissociative disorders. However, in the effort to find answers to this question, researchers can consider the role of trauma in other psychological disorders, look for evidence of nontraumatic causes of dissociation, and seek objective verification for reports of past traumas in people suffering from dissociative disorders.

Retrospective Research based on participants' recall of information about events that occurred in the past.

Recall bias Bias based on distortion in memories for past events.

Rumination bias Bias based on the fact that thinking about past events enhances the memory of such events.

Selection bias Bias based on researching non-representative samples, such as when studies only investigate research subjects who already have the disorder in question and do not investigate a comparison group without the disorder.

Information bias Bias based on researchers only studying variables already believed to be related to the phenomena in question.

Investigator bias Bias based on the influence of the researchers' expectations or preferences on the study's results.

Prospective Research based on data that is collected as the events being studied are occurring, rather than recalling them retrospectively.



The origins of dissociative identity disorder Many experts on dissociative identity disorder believe that the disorder results from chronic and extreme childhood abuse yet investigations into how abuse may contribute to DID are constrained by the limitations of retrospective research.

Michael Newman/PhotoEdit

BOX 7.3 From Freud to the American Psychological Association

ONE HUNDRED YEARS OF THE “RECOVERED MEMORIES” DEBATE

FOCUS ON PSYCHOLOGY IN SOCIETY

How accurate are memories? Can highly significant events be forgotten? If so, can “lost” memories be found again? These questions arise in many areas of psychology but are perhaps most salient in the heated debate over memories of childhood sexual abuse that are “recovered” during adulthood, sometimes in the course of psychotherapy. The debate over the accuracy of such childhood memories is almost as old as the field of psychology itself.

Sigmund Freud, the first practitioner of psychotherapy as we now know it, struggled with this question, a struggle that continues for today’s clinicians and researchers. Early in his psychotherapeutic career, Freud had many clients who recalled during therapy experiences of having been sexually exploited as children.



Recovered memories? In a highly controversial 1990 trial, George Franklin, Sr. was convicted of murdering the childhood friend of his daughter, Eileen Franklin-Lipsker (center). The trial was based on Franklin-Lipsker’s sudden recollection of the crime 20 years after it occurred. Franklin’s conviction was overturned six years later due, in part, to questions about the validity of Franklin-Lipsker’s recovered memories.

©AP/Wide World Photos

Though Freud was initially surprised by these revelations, he believed the memories were real and, in fact, theorized that childhood sexual abuse caused his clients’ symptoms of hysteria. In a summary report titled *The Aetiology of Hysteria* (1896), Freud proclaimed that “at the bottom of every case of hysteria there are one or more occurrences of premature sexual experiences, occurrences which belong to the earliest years of childhood, but which can be reproduced through the work of psycho-analysis in spite of the intervening decades.” This became known as the “seduction theory” of hysteria.

Freud began to doubt his own theory within a year. As memories of childhood sexual abuse emerged in nearly every one of his clinical cases, he concluded that the sexual abuse of children could not be so rampant among the elite Viennese families whose members he treated. Furthermore, Freud began to see an alternative explanation for these memories; they could be distorted relics of conflicted childhood sexual feelings, in keeping with his emerging theory of childhood psychosexual development. Accordingly, Freud soon modified his original position, arguing that while sexual abuse occurred all too often, memories (which Freud called *psychic reality*) could not be assumed to correspond with *historical reality*, a perspective that became central to the psychodynamic focus on the subjectivity of recollections.

Later, Freud explained the shift in his perspective: “I was at last obliged to recognize that these scenes of seduction had never taken place, and that they were only fantasies which my patients had made up” (Freud, 1925).

Ultimately Freud took a nuanced position on the question of recovered memories of sexual abuse. According to one of his biographers, Peter Gay, “the collapse of this [seduction] theory did not induce Freud to abandon his belief in the sexual etiology of neurosis or, for that matter, the conviction that some neurotics at least had been sexually victimized by their fathers” (Gay, 1988).

The two sides in the modern debate over recovered memories of sexual abuse echo Freud’s struggle. On one side are expert clinicians who believe, based on numerous case examples, that memories of highly traumatic events are often repressed and may emerge years after an event took place. Supporting evidence that traumatic experiences can be exiled from memory comes from empirical studies that compare objective documentation of abuse with the victims’ own recollection (or lack thereof) of traumatic experiences.

For example, Williams (1994) sought out 129 adult women whose hospital records indicated that they had been treated for childhood sexual abuse. Thirty-eight percent of the women had no recollection of the documented incidents of childhood molestation. Further, the women who were quite young at the time of the abuse, or were molested by someone they knew, were the most likely to have forgotten the abuse.

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On the other side of this debate are experts in the area of memory who argue that memories can be highly inaccurate and easily distorted. Elizabeth Loftus, a leader in such research, has shown that memories of childhood events can be retrospectively altered, or even implanted. For example, Loftus (1997) worked with the family members of college-aged research participants to “invent” incidents that never occurred (telling the participants that they had been lost in a mall for a long time or hospitalized overnight as a child) and then asked the family members to tell the research participant that such an event had occurred. Loftus found that within two or three interviews, roughly one-quarter of her research participants now “remembered” an event that had never actually happened. Evidence is mixed as to whether memory for events as traumatic as childhood sexual abuse are equally malleable (Pezdek & Hodge, 1999). However, work by Loftus and others (Clancy et al., 2000) shows that children who are asked specific, repeated questions about sexual abuse, or are told by a parent that such events occurred, could mistakenly remember such experiences.

In all likelihood, experts on both sides of the recovered memory debate are partly correct: sometimes memories for traumatic events that actually occurred are repressed and recovered, while in

other situations memories of traumatic events have been distorted or created by the individual's imagination, or by parents, investigators, or clinicians. A panel of clinical and research experts convened by the American Psychological Association to study the controversy ended up taking this balanced position. It concluded that:

Under certain circumstances, memories of abuse that have been forgotten for a long time can be remembered. The mechanism by which such delayed recall occurs is not currently well understood.

and that

Under certain circumstances it is possible to construct pseudo-memories. These are potentially harmful and disruptive to the person in whom they are induced as well as to his or her social support network. (APA, 1996)

Given the gravity of allegations of childhood sexual abuse—no one wants to disbelieve a victim or to accuse someone who is innocent—it is incumbent upon members of the clinical and legal professions to be sensitive yet cautious when dealing with recovered memories of abuse.

SCM position: Studies demonstrating that college-aged subjects can convincingly enact multiple identities and other characteristics of DID support the idea that people may develop DID symptoms in response to external cues and prompts (Lilienfeld et al., 1999). Moreover, college students who are asked to pretend to suffer from DID fabricate stories consistent with media depictions of the disorder (such as having experienced severe sexual and physical abuse), suggesting that “popular” views of the origins of DID are readily incorporated into cued enactments of the disorder (Stafford & Lynn, 2002).

In all likelihood, the posttraumatic and sociocognitive models are both partly correct. One of the most prominent advocates of the posttraumatic model—a firm believer in the validity of the DID diagnosis—has reported that he has also seen cases of DID that were created iatrogenically by irresponsible therapists employing poor therapeutic technique (Ross, 1997).

BRIEF SUMMARY

- Recent research suggests that dissociative disorders also occur in children and adolescents, but may have different clinical features than those usually seen in adults.
- Women are disproportionately represented among those diagnosed with dissociative identity disorder (DID). However, recent evidence suggests that differences in the rates of dissociation between men and women may reflect the populations under study more than actual gender differences in the occurrence of dissociative disorders.
- The diagnosis of dissociative disorders is *culturally relative* insofar as dissociative phenomena take different forms in various parts of the world.
- The definition and classification of dissociative symptoms has changed substantially over the last century, an example of *historical relativism*.
- Experts continue to debate the *advantages and limitations* of the DID diagnosis. The main controversy centers on whether DID is a valid disorder usually caused by childhood trauma or a recent diagnostic fad supported by iatrogenically produced cases.

Critical Thinking Question

Do you think a therapist who was skeptical of the DID diagnosis could work effectively with a person who believed that he or she had the disorder?



Psychopathology and popular culture *Sybil*, a book which detailed the life story of a woman with sixteen personalities, quickly became a best seller when it was published in 1973. Three years later, Sally Field played the title role in a movie of the same name. The public's fascination with accounts of dissociative identity disorder has fueled debate about the validity of the diagnosis.

Photofest

EXPLAINING AND TREATING DISSOCIATION AND THE DISSOCIATIVE DISORDERS

Dissociative disorders are widely believed to result from traumatic experiences, (Kihlstrom, 2005). As you may recall from the discussion of the anxiety disorders (Chapter 4), a *trauma* is an emotionally overwhelming event that falls outside the realm of expectable everyday occurrences. Traumatic experiences come in many forms: war combat, natural disasters, serious accidents, physical or sexual victimization, and so on.

DID, in particular, appears to be related to especially intense and prolonged physical and/or sexual abuse in childhood. In a fascinating study of 11 men and 1 woman—all incarcerated for murder—who were diagnosed with DID, Dorothy Lewis and her colleagues (1997) used medical, psychiatric, social service, and school records to document histories of extreme abuse. The authors note that the individuals in their study were not just abused, but “tortured,” by their caretakers: one man was purposely set on fire by his parents; another was dressed up as a girl by his grandmother and then offered to his grandfather to be used for sexual gratification. Other accounts of DID, such as the book *Sybil*, which tells the story of a woman with 16 personalities, also detail childhoods filled with horrific physical and sexual abuse (Schreiber, 1973).

While clinicians from most theoretical perspectives agree that trauma is a major causal factor in the dissociative disorders, each theoretical approach offers its own perspective on how and why traumatic events contribute to dissociative phenomena. As is often the case, the various theoretical perspectives are complementary since each focuses on a different component of human functioning when explaining dissociative experiences. Similarly, many contemporary treatments for dissociative disorders address their psychodynamic, behavioral, cognitive, and biological components, another illustration of the core concept of *multiple causality*. We will take a brief look at each theoretical component and then turn our attention to an integrated treatment model that draws on a variety of theoretical perspectives for treating DID.

Repression A defense mechanism in which specific upsetting thoughts, feelings, or events are pushed out of consciousness.

Splitting A defense mechanism in which one views oneself or others as all-good or all-bad in order to ward off conflicted or ambivalent feelings.

Identification Taking on the traits of someone else; sometimes used as a defense mechanism.



Like mother, like daughter

Identification, a normal developmental process whereby children adopt qualities of people they admire, may be employed to create alternate personalities in dissociative identity disorder.

Kathy Sloane/Photo Researchers

Psychodynamic Components

Psychodynamic theorists suggest that dissociative disorders result from the use of the defense mechanism of *dissociation* to cope with painful and overwhelming feelings. Considered as a defense mechanism, dissociation can be understood as an extreme form of **repression** (Gabbard, 2000). As you know, in repression, painful thoughts and memories are split off from consciousness and “forgotten.” The defense mechanism of repression is usually employed to forget specific painful memories, and doing so does not necessarily disrupt one’s overall sense of identity. In contrast, the defense mechanism of dissociation involves forgetting large amounts of personal information and, accordingly, disrupts personal identity.

DID involves additional defense mechanisms that can contribute to the creation of multiple identities. For example, people with DID employ a form of the defense mechanism known as **splitting** (Gabbard, 2000; Kernberg, 1975). Typically, splitting refers to the tendency to see people as being “all good” or “all bad.” In the case of DID, good and bad aspects of the self are split off from each other and treated as separate personalities. For the child who is being abused, a “bad” personality who is seen as deserving the abuse may be split off from a “good” personality who is innocent. Similarly, **identification**, the normal developmental experience of imitating and adopting admired qualities in others, may be used excessively as a defense mechanism in DID. For example, abused children who would like to forget what is happening to them may identify with, and adopt as *alters*, the personalities of various people in their surroundings.

The defense mechanisms operative in DID are believed to develop as a means of coping with chronic and severe childhood traumatization. Unfortunately, the same defense mechanisms that may have promoted emotional survival in a highly pathological childhood situation become maladaptive in later life. For obvious reasons, it is difficult to maintain relationships or hold a job if separate personalities take turns dominating one’s consciousness.

Psychodynamic Interventions

Psychodynamic interventions for the dissociative disorders emphasize providing a safe and supportive environment for the exploration of past traumas and the defense mechanisms developed to protect against overwhelming emotions (Herman, 1997). The main goal of psychodynamic interventions is not necessarily to gain an accurate account of what occurred in childhood, which can be difficult to do (see Box 7.3), but to help the client improve his or her overall emotional functioning, though this usually involves processing the client's perceptions, thoughts, and feelings about what might have happened in the past (Ganaway, 1994). Some clinicians have suggested that psychodynamic interventions for dissociative disorders require an especially active and supportive approach (Horevitz & Loewenstein, 1994). Clients are encouraged to explore painful experiences and are gently confronted when their defense mechanisms are employed to maladaptive ends. For example, a clinician using a psychodynamic technique might point out that a client emotionally detaches or switches to an aggressive personality when the therapist asks about traumatic childhood experiences. Therapists can help clients find better ways to cope—other than dissociating—with intense feelings of anxiety, anger, or despair.

Modern psychodynamic approaches to dissociative amnesia and fugue treat these conditions as defense mechanisms to protect against the emotional effects of a traumatic experience. Rather than seeking an immediate remission of amnesia, psychodynamic interventions focus on restoring the client's sense of personal safety, developing a strong therapeutic alliance, and understanding the effects of trauma on the client's general functioning (Loewenstein, 1993). Case reports document that some clients are able to recover and process forgotten traumatic events in the context of safe and supportive exploratory therapy (Brenner, 2001).

Behavioral Components

Behavioral explanations of dissociative disorders focus mainly on the role of operant conditioning in the development of dissociative behaviors. As you recall, operant conditioning occurs when an individual's behaviors are reinforced or punished; behaviors that are reinforced are more likely to be repeated, whereas behaviors that are punished tend to disappear. In the midst of traumatic experiences, some people discover that they can remove themselves mentally, if not physically, from what is happening (Marx & Sloan, 2005). This splitting of consciousness is usually accompanied by feelings of relief, which, in behavioral terms, are negatively reinforcing (Williams, Haines, & Sale, 2003). Learning to dissociate is the psychological equivalent of learning to duck a punch; by dissociating, emotional pain is avoided and the behavior of dissociating is reinforced. When such a person subsequently remembers the traumatic event, or when another traumatic or highly upsetting circumstance occurs, dissociation may be repeated.

These behavioral principles apply to all four of the dissociative disorders. Depersonalization disorder could develop from episodes of depersonalization that provide relief from emotional pain. In dissociative amnesia and fugue, the amnesia for devastating personal events also provides negatively reinforcing relief. A similar principle applies to the dissociative shifts between personalities in DID. Unfortunately, although these behavioral “solutions” provide short-term emotional relief, they create other significant problems in people's lives.

Behavioral Interventions

Operant conditioning principles are involved in almost every approach to treating dissociative disorders, and behavioral interventions are especially useful with clients who engage in behaviors that place their own health or the therapy in jeopardy (Brantley, Wood, & McKay, 2007). For example, dissociative clients who threaten suicide, harm themselves in other ways (alcohol abuse, self-injury), or fail to attend sessions are taught how to manage overwhelming feelings in constructive ways, often through the

suggestion of specific alternative behaviors (for example, phoning a friend or taking a walk) (Bohus et al., 2000). Experts in the treatment of dissociative disorders generally agree that addressing self-harming and/or treatment-compromising behaviors should be the first priority in therapy with these clients (Horevitz & Loewenstein, 1994).

BRIEF SUMMARY

- Clinicians from most theoretical perspectives agree that trauma is the major causal factor in dissociative disorders. Each theoretical approach offers a different perspective on how and why traumatic experiences contribute to dissociative phenomena.
- The psychodynamic approach explains dissociative disorders as resulting from the extreme use of several defense mechanisms, especially dissociation, repression, splitting, and identification. Although these defense mechanisms may help people endure traumatic situations, they impair overall functioning. Psychodynamic interventions emphasize providing a supportive environment for helping clients develop adaptive responses to traumatic events.
- Behavioral explanations of dissociative disorders focus on operant-conditioning principles. During a traumatic experience, the splitting of consciousness can bring relief; this negatively reinforced behavior may then be repeated in response to new upsetting events. Behavioral interventions may be especially helpful in reducing self-harming behaviors.

Critical Thinking Question

What do you think is the most persuasive point of view in the “recovered memory” debate?

Self-hypnosis The ability to put oneself in a trance state; may contribute to dissociative disorders according to some experts.

Cognitive Components

In the past, cognitive explanations of dissociation have focused on the **self-hypnosis** theory, which suggests that people who dissociate are, in fact, putting themselves in a hypnotic trance state to remove themselves from painful experiences (Hilgard, 1991). Although self-hypnosis and dissociation may not be entirely the same, both hypnotic and dissociative states involve alterations and divisions in consciousness. Several other similarities between dissociation and hypnosis have also been observed. Both are marked by periods of amnesia, the ability to disregard physically or psychologically painful experiences, the ability to recall previously forgotten memories, and the sense of a “hidden observer,” or a part of the self who is not actively conscious but is aware of what the conscious part of the self is doing.

Recent investigations into the nature of dissociation have focused on disruptions in the cognitive functions of memory and attention. Research on people who have been traumatized show that a large number experience what is known as peritraumatic dissociation—meaning that they experience alterations in consciousness at the time of

The power of suggestion

Here, a hypnotist puts a group of volunteers to sleep at a state fair. Some experts have raised questions about whether hypnotic interventions for dissociative identity disorder may, in fact, create the symptoms they are designed to treat.

Jonathan Nourok/PhotoEdit



the trauma—which is associated with disrupted or disorganized memory for the trauma itself (Halligan et al., 2003). Furthermore, studies that present participants with a series of words and then test word recall demonstrate that people who are prone to dissociation tend to have more difficulty remembering trauma-related words than neutral words (DePrince & Freyd, 2001; Halligan et al., 2003). Interestingly, the memory disruptions associated with dissociation also appear to interfere with normal attentional processes. In other words, the effort to keep certain information out of awareness (such as memories of past traumatic experiences) may disrupt the ability to control attentional processes in general (Cromer et al., 2006; Holmes et al., 2005).

Cognitive Interventions

We will describe two cognitively based interventions for dissociative disorders: schema-focused cognitive therapy and hypnosis. Schema-focused cognitive therapy addresses maladaptive beliefs that contribute to dissociative disorders, whereas hypnosis is a widely used but controversial technique employed to help clients recover memories of traumatic events and to reintegrate dissociated mental states.

Schema-Focused Cognitive Therapy Schema-focused cognitive therapy (SFCT) assumes that **cognitive schemas**, or organized patterns of thought, are shaped by early life experiences. Emotionally charged schemas—those beliefs that were shaped by very strong feelings—are most likely to lead to cognitive distortions. Given that dissociation is often triggered by overwhelming emotional experiences, the thinking processes of a person suffering from a dissociative disorder may be characterized by a variety of reality-distorting, maladaptive schemas about the self. Catherine Fine (1996, 1999), an expert in cognitive interventions for dissociative disorders, proposes that much of the disruptive behavior associated with DID can be attributed to processes called *schema maintenance*, *schema avoidance*, and *schema compensation*.

For example, a client suffering from DID might *maintain* an early maladaptive schema (EMS) that she is a bad person deserving of mistreatment by attending only to information that supports that schema. Cognitive techniques would focus on challenging the perceptions that maintain such a belief, while reframing the client's perception of her own and other people's behavior (for example, she acts "bad" only when she is feeling scared; people who mistreat others have their own problems; and so on). Although some EMS are actively maintained, others are actively *avoided* owing to their painful emotional content. An adult client who harbors the EMS that she is a helpless child may avoid thoughts and feelings associated with helplessness. For example, she might focus excessively on how she can be of help to others. Cognitive therapy would address how her thinking processes distort reality in order to avoid recognizing her upsetting EMS. Alternatively, the same client might *compensate* for the helpless child EMS by developing a tough and aggressive personality (Fine, 1996). A cognitive intervention would help the client make the connection between her EMS and her compensatory behaviors, and then attempt to correct the distortions of the EMS.

Hypnosis Some clinicians who specialize in the treatment of DID use hypnosis as one element of their work (Kihlstrom, 2005). The aim of hypnotic interventions is to help clients gain control over their dissociative reactions and to recover forgotten traumatic memories. By using hypnosis, clients can sometimes be helped to recall and address traumatic experiences at a pace that feels safe and tolerable. Hypnosis can also facilitate *cognitive restructuring* by providing access to memories that can then be considered from new perspectives. For example, a client who felt that she did not do enough to avoid her abusers may remember through hypnosis ways that she had tried, as a child, to protect herself from the abuse (Maldonado & Spiegel, 1998).

Although many clinicians consider hypnosis to be a helpful technique in treating clients with dissociative disorders, its use is controversial. As noted earlier, critics of the diagnosis of DID believe that hypnosis may have iatrogenic effects, meaning that

Schema-focused cognitive therapy Therapy for dissociative disorders that focuses on changing cognitive schemas that are based on traumatic childhood experiences.

Cognitive schema Patterns of thought used to organize information.



“Truth serum” treatment World War II soldiers suffering from dissociative amnesia or fugue, often in the wake of highly traumatic war experiences, were sometimes given sodium amytal in order to help retrieve their lost memories.

©Corbis

Hippocampus A brain structure involved in the formation of memories.

Amygdala A brain structure which registers the emotional significance of the sensory signals and contributes to the expression of emotion.

Narcosynthesis The use of medication to promote therapeutic remembering; used during World War II to help soldiers remember forgotten traumatic incidents.

symptoms could be unintentionally caused by hypnotic treatment. For example, memories of abuse, or the experience of separate identities, might be created, rather than discovered, under hypnosis (Lynn, 2001; Powell & Gee, 1999).

In some cases, people suffering from dissociative amnesia and fugue may not remember critical personal information even after a great deal of time has passed. Under these circumstances, hypnosis may be used to recover lost information (Degun-Mather, 2001). However, many clinicians are reluctant to use hypnosis to gain access to memories that clients may not be emotionally ready to recall. Instead, they may prefer to use traditional techniques or to wait for clients to recover their lost memories spontaneously (Kihlstrom, 2005).

Biological Components

Most of the research on the neurobiology of dissociative states has emerged within the last decade. One particularly interesting line of investigation explores how dissociative states can be medically induced in healthy research subjects. Three drugs have been studied in connection with dissociative states: NMDA receptor *antagonists* (which interfere with the functioning of neuronal receptor sites normally reserved for *N*-methyl-D-aspartate), cannabinoids, and serotonergic hallucinogens. Research subjects who took ketamine, an NMDA receptor antagonist, reported a wide variety of dissociative symptoms: the slowing of time, altered sensory experiences, “out of body” experiences, and impaired concentration (Curran & Morgan, 2000). Tetrahydrocannabinol (THC), the main psychoactive component in the cannabinoids (such as marijuana), can produce depersonalization, a sense that the external world is not real (*derealization*), perceptual changes, and disorientation to time (Castle & Murray, 2004; Simeon, 2004). Serotonergic hallucinogens, such as LSD (lysergic acid diethylamide), are also known to produce dissociative symptoms. Indeed, many people recreationally use hallucinogens specifically to experience the dissociated states they induce (Chapter 9). It remains unclear exactly how these drugs produce dissociative experiences, but their effects suggest that glutamate receptors (which receive NMDA), G-protein-coupled receptors (which receive cannabinoids), and serotonin-2 receptors (which receive serotonergic hallucinogens) are involved in dissociation.

In addition to discovering some of the neurochemical pathways that may contribute to dissociative experiences, researchers are also learning more about the involvement of specific brain structures in dissociation. A recent study comparing the **hippocampus** (HIP-o-cam-pus) and **amygdala** (uh-MIG-duh-la) volumes in women with and without DID found the hippocampus to be 19.2% smaller and the amygdala to be 31.6% smaller in the women suffering from DID (Vermetten et al., 2006). As you’ll recall from Chapter 4, the amygdala registers the emotional significance of experiences and works with the hippocampus to form and store memories for emotional events. Interestingly, reduced hippocampal volumes have been widely associated with exposure to trauma, indicating that traumatic experiences may disrupt the evaluation and recollection of experiences (Hull, 2002; Karl et al., 2006). The thalamus, for example, which acts as a gateway between external sensory stimulation and higher mental functions (Chapter 2), may play a key role in dissociation (Llinas, 2002). Among its functions, the thalamus aids in the regulation of sleep and dreaming. Given the similarities between dreaming and dissociative states, some researchers are investigating the possibility that dissociation involves alterations in the normal functioning of the thalamus (Frewen & Lanius, 2006).

Biological Interventions

Because neurobiological research on dissociation is relatively new, medications designed specifically to treat dissociation are not yet available. However, the discovery that ketamine can generate dissociative experiences in healthy subjects has led some researchers to consider the possibility that drugs that enhance NMDA receptors could be used to alleviate dissociative symptoms (Morgan, Krystal, & Southwich, 2003).

Narcosynthesis, the use of barbiturates such as sodium amytal to gain access to forgotten experiences, was employed during World War II with soldiers suffering from

dissociative amnesia or fugue. How these “amytal interviews” work is not well understood; some researchers suspect that the sedation and anxiety reduction caused by the medication simply lessens reluctance to recall anxiety-provoking experiences. Narcosynthesis is rarely used today because it is not always effective and people are often unable to recall what they remembered once the drug wears off (Krystal et al., 1998). However, some clinicians have reported the successful use of benzodiazepines (another class of antianxiety drugs) to help retrieve information lost during a dissociative fugue (Ilechukwu & Henry, 2006).

Currently, antidepressants and anxiolytics (antianxiety drugs) are sometimes used to provide relief from depression and anxiety symptoms in individuals with dissociative disorders (Loewenstein, 2005). To date, no drug has been shown to have potent antidissociative effects, but recent studies indicate that lamotrigine, an antiseizure medication, can aid in the treatment of depersonalization disorder when used in conjunction with antidepressants (Sierra et al., 2006; Simeon, 2004).

The Multiple Causality of Dissociative Disorders

As we have noted, the dissociative disorders provide an excellent example of the core concept of **multiple causality** since the various theoretical explanations and interventions complement each other. For example, in all of the dissociative disorders, defense mechanisms (psychodynamic component) may be used to reduce overwhelming anxiety, and the subsequent reduction in anxiety negatively reinforces (behavioral component) the further use of these defense mechanisms. This cycle is supported by trauma-focused maladaptive schemas (cognitive component) that involve a preoccupation with traumatic experiences. Finally, each of these mental processes may be influenced by or contribute to changes in brain structures and functions that regulate dissociative experiences (biological component).

Accordingly, the general consensus among experts who treat dissociative disorders is that a **multimodal**, integrated approach works best, especially when treating the most complex dissociative disorder: DID. Often, techniques associated with different theoretical approaches are employed at different stages of treatment (Horevitz & Loewenstein, 1994; Ross, 1997). What follows is a summary of the stages of the treatment of DID as described by Richard Kluft (1999), who has integrated his own stage model of treatment with similar models proposed by other experts.



Multiple causality

Multi-modal A treatment strategy that integrates a variety of theoretical perspectives.

Stage One: Establishing the psychotherapy

The major goals of this stage are to introduce the client to the treatment plan, make an appropriate diagnosis, and establish feelings of hope and confidence that the therapy, though difficult at times, will be helpful. The clinician works hard to develop a relationship with the client and to establish the beginnings of a therapeutic alliance.

Stage Two: Preliminary interventions

In the second stage of therapy, the clinician seeks to establish a relationship with any subpersonalities that are readily accessible and to convince them to accept the diagnosis of DID. This stage of treatment frequently involves interventions such as making agreements with self-destructive alters not to end the treatment prematurely and to reduce self-harming behaviors. When necessary, symptomatic relief may be sought by the adjunctive use of psychotropic drugs such as antidepressants or antianxiety medications.

Stage Three: History gathering and mapping

The clinician and client now work together to gather information about all of the subpersonalities. Each personality is assessed in terms of its age, traits, functions, problems, time of creation, and knowledge of and relationships with the other personalities. With this information, the client and clinician can work together to understand how the subpersonalities interact with each other and encourage cooperation among the various alters.

Stage Four: Metabolism of the trauma

In this stage of treatment, the different subpersonalities discuss and explore traumatic memories from the past. If necessary, hypnosis may be used to help clients

recall forgotten traumas. This stage is often extremely painful and taxing for the client, and may result in emotional crises or interruptions in the therapy if the earlier stages have not been managed adequately.

Stage Five: *Moving toward integration-resolution*

The client continues to work through each alter's traumatic memories and to promote further cooperation and communication among the subpersonalities. The various personalities are helped to recognize, understand, and empathize with each other; doing so may begin to dissolve some of the boundaries between particular alters. In this stage of therapy, the client begins to see what were previously separate personalities as potentially different sides of one integrated personality.

Stage Six: *Integration-resolution*

The work from the previous stage continues as the therapist and client endeavor to blend the various traits of the different personalities into one complex, but unified, personality. If the client is unable to merge divergent personalities with each other, he or she may work toward what is known as a *resolution*, in which the various personalities agree to collaborate with each other rather than pursuing their own individual interests at each other's expense.

Stage Seven: *Learning new coping skills*

Once the client has consolidated multiple personalities, or achieved a resolution among various personalities, he or she will need to develop coping skills for managing stressful situations that were previously dealt with by dissociation. In this phase of therapy, the clinician may act as a "coach" who helps the client to consider, try, and evaluate new ways of handling old problems.

Stage Eight: *Solidification of gains and working-through*

Having achieved a more stable personality structure, the client may now be able to address problems that were obscured by the presence of multiple personalities. This stage of treatment may last at least as long as all of the stages that preceded it, especially as exploration is interwoven with interventions to improve functioning in current relationships and other aspects of daily life. When the client and therapist agree that they have accomplished as much as possible, a plan is made to complete the work, which allows plenty of time to address reactions to the ending of therapy and to review the achievements of treatment.

Stage Nine: *Follow-up*

After the psychotherapy has ended, clinicians arrange for periodic follow-up to assess the stability of therapeutic gains and to offer continued treatment, if needed.

Although some clinicians have aimed to test the efficacy of treatment for DID (Ellason & Ross, 1997; Kluft, 1994), the absence of standardized interventions and adequate control groups has made it difficult to systematically evaluate treatment outcomes (Kihlstrom, 2005).

BRIEF SUMMARY

- Cognitive explanations of dissociative disorders focus on the phenomenon of self-hypnosis as well as disruptions in memory and attention that are typically associated with dissociation. Cognitive interventions for dissociative disorders may involve the identification and evaluation of early maladaptive schemas (EMS) or the induction of hypnotic states in which clients suffering from dissociative identity disorder (DID) can gain control over their dissociative reactions and recall previously forgotten traumatic experiences. Hypnosis remains controversial because of its potential for iatrogenic effects.
- Biological research has focused on understanding how certain drugs produce dissociative states, and on the possibility that dissociation involves alterations in the normal functioning of the hippocampus, amygdala, and thalamus. Medications

designed specifically to treat dissociative symptoms are not yet available, but researchers are investigating the possibility that drugs that enhance NMDA receptors might be useful in treating dissociative disorders.

- In keeping with the principle of **multiple causality**, the various theoretical components provide complementary accounts of the processes underlying dissociative disorders. An integrated, multimodal approach is particularly useful when attempting to conceptualize and treat a complex condition like dissociative identity disorder (DID).

Critical Thinking Question

You may have noticed substantial overlap in how the psychodynamic, cognitive, and behavioral approaches explain dissociative disorders. Where do the approaches seem to overlap? Where do they diverge?



CASE Vignettes

Treatment

John • Depersonalization Disorder

John sought help at his college counseling center because he was often feeling “spacey” in a way that interfered with his schoolwork. After an evaluation, the psychologist recommended therapy and noted that John’s otherwise lively manner seemed to go flat when he talked about his father and the time around his father’s death. The psychologist suggested that perhaps John was still struggling with feelings about his father’s death. John asserted that he had already dealt with his father’s death, especially since he had “two entire months of sadness” between the time of his father’s cancer diagnosis and the time when he died.

However, in the next session, John reported the following dream: “I spent most of the evening at my own bachelor party, but it was never clear whom I was marrying. Though I was at least 25, at the end of the evening I returned to my current dorm room where I found my father was sitting at my desk. When I told him that I missed him at the party he said that I should stop

yelling at him, and he abruptly left the room.” The dream helped John to recognize that he did continue to have a lot of thoughts and feelings about his father, such as feelings that his father was missing out on important events in his life (such as a future marriage) and that he felt abandoned and angered by his father’s early death.

Over time, John was able to talk with his therapist in a heartfelt way about how he wished he could tell his father about his college life, and how sad he was that his father would not see him graduate from college. John began to cry during some sessions, especially when he talked about the enormous amount of physical pain his father had endured in the last months of his life and how difficult it had been to see his previously powerful father reduced to such a helpless state. Around the same time, John found that he was no longer experiencing depersonalization, and he became convinced that his “spacing out” had been a way to avoid his grief.

CASE DISCUSSION • Depersonalization Disorder

John was able to benefit from psychodynamic interventions aimed at understanding the root causes of his depersonalization symptoms. As John became increasingly comfortable with and

aware of the painful feelings he had about his father’s death, he no longer needed to use dissociation as a defense mechanism to block out distressing emotions.

Margaret • Dissociative Identity Disorder

As noted earlier, Margaret and her therapist soon learned that mild-mannered Margaret had two additional personalities: the promiscuous Janie and the terrified young girl, Suzie. Once Margaret committed to the idea of being in therapy (stage one) and brought her other personalities into the therapeutic relationships (stage two), she and her therapist spent a great deal of time in therapy trying to understand the roles that each personality played (stage three). It became clear that by becoming Janie, Margaret could act out impulses that she could not otherwise tolerate, and that Suzie served the function of containing all of the painful memories from the past that Margaret did not wish to recall. As the therapy progressed,

Margaret would frequently turn into Suzie during the sessions. The therapist observed that this seemed to happen most often when Margaret spoke about her unstable father, who had raised her alone after her mother died when she was five. Margaret began to describe strange memories, starting just after her mother’s death, of “games” with her father in which he would pretend she was “mommy” and he would teach her “how to make a baby.” Then he would get mad, hit her, and leave, sometimes for days. Margaret began to understand that she had inexplicably “forgotten” so much of her childhood in an effort to forget how betrayed, debased, and damaged she felt by the sexual abuse and neglect she’d suffered.

As Margaret recalled and began metabolize (stage four) more and more of what had happened to her when she was growing up, she became extremely depressed. She had difficulty sleeping, often missed work, was at risk of losing her job, and was frequently suicidal. Margaret's therapist suggested that perhaps Margaret would be better able to function if she were to begin a course of antidepressant medication. The antidepressants did help, and Margaret and her therapist returned to the task of working through the painful memories from Margaret's childhood. As Margaret remembered what had happened when she was young, Suzie made fewer appearances in the therapy. In time, Margaret was able to accept some of her own "darker" parts, and many aspects of Janie were also integrated into Margaret's personality (stage five).

Occasionally, Margaret would "forget" to attend several sessions in a row. Together, Margaret and her therapist understood that Margaret would skip sessions when she was feeling afraid of what she might remember or discover about herself. At other

times, Margaret would forget her appointments because she felt that her therapist was being "pushy" and making her feel bad in a way that felt uncomfortably familiar. They talked about how old feelings of being mistreated and manipulated had made their way into the therapy relationship. Margaret agreed that she would let the therapist know when she did not want to talk about certain things so that she wouldn't feel pushed or have to worry about being emotionally overwhelmed (stage six).

Margaret remained in therapy for many years. At times, she used the therapy to talk about newly remembered experiences with her father, and at other times, she sought the therapist's advice on how to approach new relationships in a less self-destructive manner (stage seven). Although Margaret often became disconnected from her surroundings when painful feelings were triggered, she was much better able to tolerate and understand her emotions and no longer needed to use alters in order to feel safe (stage eight).

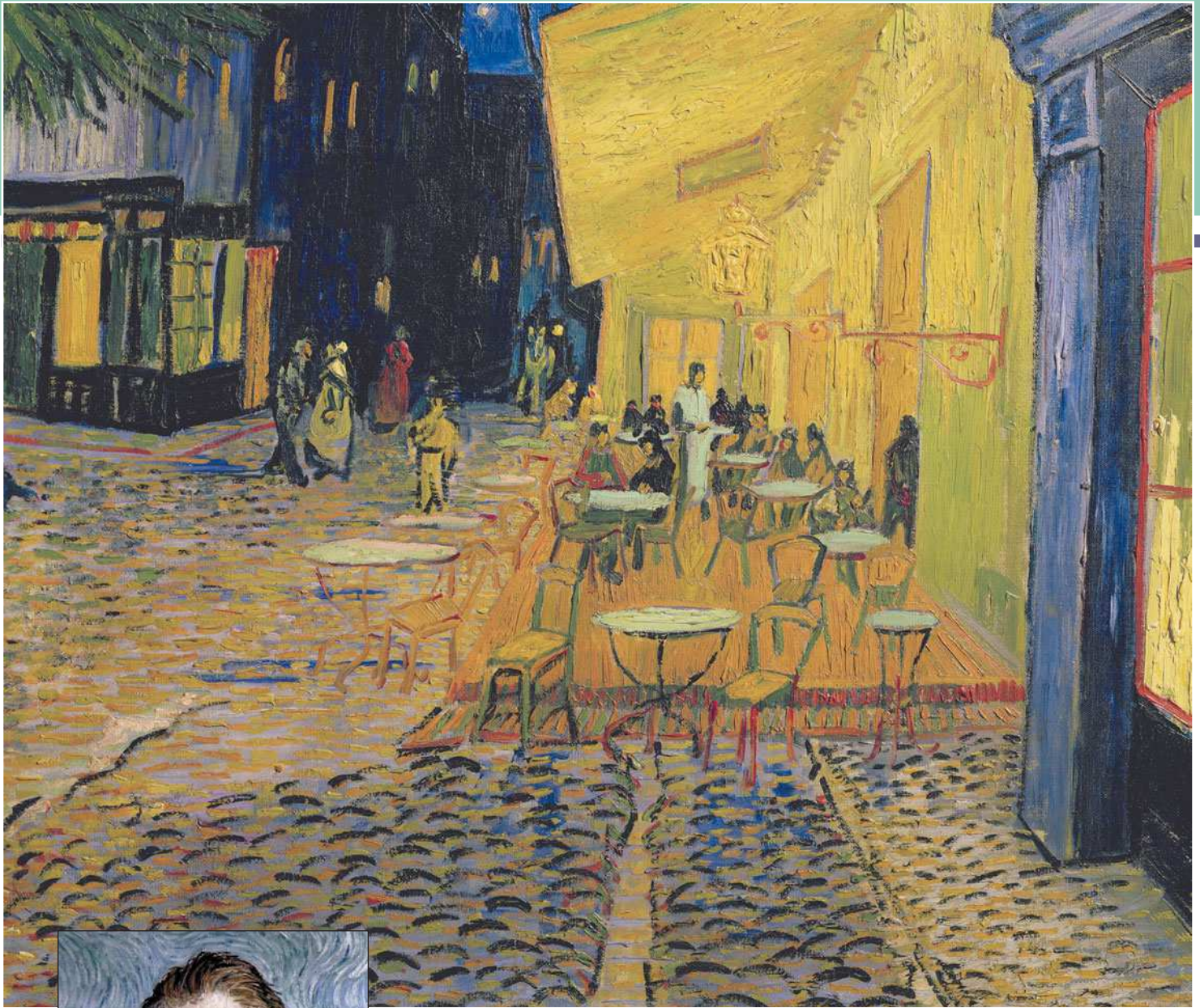
CASE DISCUSSION • Dissociative Identity Disorder

Margaret's therapist employed the multimodal, stage approach to treat dissociative identity disorder (DID), as described earlier in the chapter. Her therapist used psychodynamic methods to explore traumatic memories and to address transference feelings when they arose in the therapy relationship. Cognitive-behavioral techniques were

used to "coach" Margaret on how to manage new relationships in her life. A biological intervention was included when Margaret's depressive symptoms interfered with her ability to function in her life, in her work, or in therapy. Like most people suffering from DID, Margaret required an open-ended therapy that lasted many years.

Chapter Summary

- *Dissociation* refers to alterations in consciousness, memory, sense of identity, or any combination of the three.
- Dissociation can be adaptive or maladaptive depending on how severe it is on the *continuum between normal and abnormal behavior* and on the *context* in which it occurs.
- The DSM-IV-TR describes four dissociative disorders: depersonalization disorder, dissociative amnesia, dissociative fugue, and dissociative identity disorder (DID).
- The experience and classification of dissociative phenomena are *culturally and historically relative*. For example, dissociative phenomena take different forms in different parts of the world, and the classification of dissociative disorders has changed substantially over the past century.
- The major issue concerning the *advantages and limitations* of the DSM-IV-TR dissociative disorder diagnoses centers on whether DID is a valid diagnostic entity or whether it is a diagnostic fad in which symptoms are iatrogenically created in suggestible individuals.
- Clinicians from most theoretical perspectives agree that trauma is the major causal factor in most dissociative disorders, yet each theoretical approach offers its own way of understanding how and why traumatic experiences contribute to dissociative disorders.
- The various theoretical components provide complementary accounts of the processes underlying dissociative disorders, in keeping with the *principle of multiple causality*. An integrated multimodal approach is particularly useful when attempting to conceptualize and treat a complex disorder like DID.



Topham/The Image Works

Vincent van Gogh, *Café Terrace, Place du Forum, Arles, 1888*. Oil on canvas. Rijksmuseum Kroller-Muller, Otterlo, Netherlands/The Bridgeman Art Library International

Vincent van Gogh (1853–1890) drew upon the Impressionist movement's explorations of color and light to create paintings saturated with intense and often distorted hues. Many of Van Gogh's canvases have a tactile, sculptural quality as his thickly applied layers of paint and obvious brushstrokes reveal the strength of his emotional response to his subjects. Van Gogh's famous act of cutting off his own ear provides only one example of his abnormal behaviors: he also experienced auditory and visual hallucinations, sometimes assaulted orderlies in the asylum to which he had himself committed, and even ate the paint with which he worked. This last symptom is technically known as *pica*, an eating disturbance in which an individual consumes nonnutritive substances.

Topham/The Image Works

Eating, Weight, and the Eating Disorders

CASE Vignettes

Megan, age 15, started to participate in competitive gymnastics when she was 8 years old. When puberty began at age 13, she was upset by the changes in her body. She felt that her widening hips and increasing breast size interfered with gymnastics and wished that she could keep her body in its prepubescent form. Megan decided to stop eating sweets and soon received some encouraging comments from her gymnastics coach about her weight loss. For the next four months, she began to monitor what and how much she ate and limited herself to a daily total of 1000 calories. Megan lost weight quickly, and before long she weighed only 85 pounds even though she was 5'4" tall. Her parents and coach became extremely concerned about her weight loss, especially when Megan began to faint after particularly intense practices. Megan, however, continued to feel that her hips were too big and that she had more weight to lose. Even though Megan looked like a walking skeleton, she persisted with her diet until she collapsed one day at school and was rushed to the hospital. She weighed 72 pounds.

Theresa, a 19-year-old sophomore, sought help at her college counseling center when she realized that she was unable to control her impulses to binge eat and then “purge” by making herself vomit. She told the therapist that she had never worried about her weight before coming to college, and that she had had a “normal, happy” childhood. Theresa explained that the first time she made herself throw up occurred five months earlier after she had eaten some of a sorority sister’s birthday cake shortly after deciding that she was going to cut back on carbohydrates as part of a diet. Theresa felt guilty for breaking her diet and mentioned to her roommate that she wished that she had exercised more self-control. Theresa’s roommate sympathized with her situation and showed Theresa how she could make herself vomit by putting a toothbrush down her throat. Theresa tried it and found that she no longer felt guilty and, in fact, felt thinner than she had before the birthday party.

Soon, Theresa began to eat much more food than she needed because she knew that she could “get rid of any extra.” She began to worry about her new habit when she started to feel that she could not control her eating. Whenever she was stressed or upset, Theresa would eat a huge amount of food quickly. She hated the way that she shoved food into her mouth, but she could not make herself stop until she felt sick to her stomach. She felt “disgusting” and would relieve some of her discomfort by making herself vomit. This helped her to feel less physically ill but left her feeling ashamed for giving in to her urges to overeat and then throw up.

CASE VIGNETTES

Defining Eating Disorders

- The Continuum Between Normal and Abnormal Eating
- The Importance of Context in Defining Abnormal Eating

Classifying Eating Disorders

- The DSM-IV-TR Categories
- Classification in Demographic Context
- Cultural and Historical Relativism in Defining and Classifying Eating Disorders
- The Advantages and Limitations of the DSM-IV-TR Eating Disorder Diagnoses

Explaining and Treating Eating Disorders

- Psychodynamic Components
- Family Systems Components
- Cognitive-Behavioral Components
- Sociocultural Components
- Biological Components
- The Connection Between Mind and Body in Eating Disorders
- The Multiple Causality of Eating Disorders

CASE VIGNETTES

Treatment

DEFINING EATING DISORDERS

While Megan keeps extremely tight control of her diet and Theresa cannot control how much she eats, both are at the mercy of their feelings about food. Megan and Theresa suffer from what are known as *eating disorders*. Megan thinks about her weight constantly and is convinced that she weighs too much even though she is alarmingly thin. Megan is so preoccupied with being thin that she has put herself at risk for a variety of serious medical disorders. Theresa, in contrast, feels that her eating is out of control. She comforts herself by overeating when she is upset and cannot keep herself from eating much more food than her body needs. In order to manage her overeating she deliberately vomits. For Theresa, food is not simply a source of nourishment; it is an emotional comfort, but also an enemy.

Recent years have brought a growing awareness of the prevalence and severity of eating disorders, particularly among young women. In the last few decades eating disorders have become a part of mainstream culture as the fashion industry continues to feature increasingly thin models in popular advertisements. Indeed, one study found that half of *Playboy* centerfolds and a third of models meet criteria for being severely underweight (Oldenberg, 1998).

There is a great deal of debate about what causes eating disorders (an issue we'll get to soon), but there is no question that the rates of eating disorders in the United States are alarmingly high. Presently, between 0.5 and 1% of American women suffer from *anorexia nervosa*, which is technically defined as refusal to maintain a normal body weight, while up to 3% suffer from *bulimia nervosa*, which is characterized by repeated binge eating followed by compensatory measures, such as self-induced vomiting or excessive exercise, to avoid weight gain (APA, 2000). In addition, many individuals who are not technically anorexic or bulimic struggle in their relationships with food, exercise, and weight. How do we tell the difference between “normal” concerns

Starving for success

Models, dancers, and members of other low-weight subcultures are expected and encouraged to engage in many of the behaviors associated with eating disorders.

(Left) Chet Gordon/The Image Works
(Right) STOCK4B-RF /Getty Images, Inc





Too thin? In the spring of 2006, celebrity Nicole Richie precipitously lost a significant amount of weight. Though she consistently denied that she suffered from an eating disorder, questions remain about the cause of her weight loss.

(Left) Frazer Harrison/Getty Images News and Sport Services

(Right) ©AP/Wide World Photos

about weight and eating disorders? To answer that question, we return to two core concepts: the *continuum between normal and abnormal behavior* and the *importance of context* in defining and understanding abnormality.

The Continuum Between Normal and Abnormal Eating

While up to 4% of American women may suffer from anorexia or bulimia, many more suffer from “subclinical” eating disorders (meaning that they have some but not all of the symptoms of an eating disorder) and a third of American adults are dieting at any given time (Cassell & Gleaves, 2006). On the *continuum between normal and abnormal* eating behavior, we could place people who are at a healthy weight and have no concerns about their weight at one end, and people who are severely anorexic or bulimic at the other. Between these two poles we would find a variety of conditions: people who are mildly overweight or underweight; people of normal weight who worry about their weight all the time; people who feel inordinately guilty when they eat unhealthy foods; people who radically restrict their food options for fear of gaining weight; people who engage in compulsive exercise to maintain normal weight; and so on. In other words, not everyone who has an eating-related problem fits the definitions of anorexia or bulimia, and not everyone with anorexic or bulimic tendencies has a full-blown eating disorder. As we’ll see, the DSM-IV-TR criteria for anorexia and bulimia include guidelines for defining how much weight loss and how much bingeing and purging are necessary for a diagnosis of anorexia or bulimia. Although these diagnoses reflect extreme versions of behaviors that are relatively common, the behaviors associated with anorexia and bulimia are still potentially problematic even in their milder forms.



Normal-abnormal continuum



The
importance
of context

The Importance of Context in Defining Abnormal Eating

In addition to considering the *continuum* of eating behaviors, we must also consider *context* when defining abnormal eating. In some subcultures, eating disordered behavior is the norm. For example, the fashion and entertainment industries are widely populated by women who weigh less than 85% of what is considered normal for their heights—one of the main diagnostic criteria for anorexia. Professional dancers and competitive gymnasts also commonly maintain very low body weights, and wrestlers, jockeys, and boxers engage in many of the behaviors associated with bulimia to drop weight when needed. Do most models, dancers, gymnasts, and jockeys therefore have eating disorders? The best answer is that some do and some do not. Members of these “low-weight” subcultures can point to those among them who are extreme even by the group’s stringent weight standards, such as the actress Mary-Kate Olsen of Olsen twin fame. Yet there are also some models, gymnasts, and wrestlers who return to normal weights and eating patterns when they leave the *context* in which success depends on maintaining a very low weight. As with all disorders, eating disorders can be defined and understood only in the context of a particular individual’s life circumstances. This complicates the task of defining abnormality among members of these groups, but clinicians can still make appropriate diagnoses by paying attention to each individual’s circumstances when assessing whether an eating-related problem exists.

BRIEF SUMMARY

- As many as 4% of American women suffer from the eating disorders anorexia nervosa and bulimia nervosa.
- Disordered eating occurs along a *continuum*. Eating-disordered behavior (such as excessive worrying about food and weight) can be problematic even if it does not meet the diagnostic criteria for anorexia or bulimia.
- Eating disordered behavior must be considered within the *context* in which it occurs. In some subcultures (professional dance, wrestling, etc.), eating-disordered behavior is the norm, and this has to be taken into account in determining if an individual member of the subculture has an eating disorder.

Critical Thinking Question

If Theresa (described at the beginning of the chapter) binges and purges only when she is at her sorority house and surrounded by other women who do the same, would you consider this abnormal? Why or why not?

CLASSIFYING EATING DISORDERS

The DSM-IV-TR identifies three eating disorders: *anorexia nervosa*, *bulimia nervosa*, and *eating disorder not otherwise specified* (Table 8.1).

TABLE 8.1 The DSM-IV-TR Eating Disorders

Anorexia nervosa	■ Refusal to maintain a minimally normal body weight (prevalence estimate among women: 0.5%–1.0%; prevalence rates for men: 0.05%–0.1%).
Bulimia nervosa	■ Binge eating and inappropriate compensatory measures to avoid weight gain (prevalence estimate among women: 1%–3%; prevalence estimate among men: 0.1%–0.3%).
Eating disorder not otherwise specified	■ Disordered eating that does not meet the diagnostic criteria for anorexia or bulimia nervosa (prevalence rates unknown).

Adapted from DSM-IV-TR (APA, 2000); prevalence data from APA, 2000

Anorexia nervosa is primarily characterized by extreme thinness, whereas bulimia nervosa involves episodes of consuming inordinately large amounts of food followed by compensatory behaviors, such as vomiting, to avoid weight gain. The diagnosis of eating disorder not otherwise specified applies to some eating-disordered behaviors that do not meet the diagnostic criteria for anorexia or bulimia.

The DSM-IV-TR Categories

Having addressed some questions about how to define eating disorders, let's turn our attention to the DSM-IV-TR eating disorder diagnoses.

Anorexia Nervosa

Anorexia nervosa involves a refusal to maintain a body weight that is at least 85% of what would be considered normal for an individual's height and age. People who suffer from anorexia are usually very fearful of gaining weight and will persist in dieting even when they are bone-thin and experiencing many of the physical and psychological symptoms associated with severe malnutrition. Anorexia is often perpetuated by significant cognitive distortions in the perception of one's own weight and shape. Though emaciated, many people with anorexia believe that they are still overweight and continue to diet in order to lose what they consider to be excess weight. People with anorexia become obsessed with their efforts to stay thin; feelings of personal value or worth are often completely contingent upon success in losing weight. Women who suffer from anorexia also usually stop menstruating (see Table 8.2).

CASE ILLUSTRATION

Janice, age 16, began to lose weight rapidly during her sophomore year in high school when she switched from the public school she had been attending to an elite private school. Though she was excited about the many opportunities available at her new school, Janice worried about her ability to keep up with her peers in the classroom. As her first year at the new school progressed, Janice developed an increasingly ascetic approach to life. She ran around the school track for an hour each day and would have joined the school's cross-country team if she hadn't worried that the meets would cut into her rigid study schedule. Before long, Janice started to skip all desserts and some entire meals because she felt that her body did not look quite the way she wanted. She took pride in limiting her caloric intake, sometimes eating only a few vegetables and a handful of crackers all day. By December of her sophomore year her weight had dropped from 115 to 90 pounds. Though Janice's parents expressed concern about her rapid weight loss, Janice interpreted their comments as praise for her self-discipline and strong academic showing at her new school, and she returned for her second semester with a strengthened devotion to exercise, hard work, and dieting.

TABLE 8.2 Diagnostic Criteria for Anorexia Nervosa

- Refusal to maintain body weight at or above minimally normal weight for age and height (less than 85% of expectable weight).
- Intense fear of gaining weight or becoming fat, even though underweight.
- Disturbance in the way in which one's body or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of current low body weight.
- In women, the absence of at least three consecutive menstrual cycles, a condition known as *amenorrhea*.

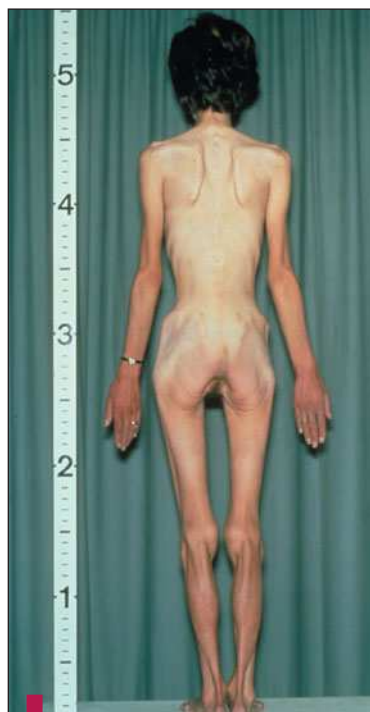
Adapted from the DSM-IV-TR (APA, 2000)

Anorexia nervosa A disorder involving extreme thinness, often achieved through self-starvation.



A deadly disorder Gymnast Christy Henrich competes at the 1988 Olympic Trials. Though she was 4 foot 10 inches and weighed only 90 pounds, an American judge remarked that Henrich would need to lose weight if she hoped to make the U.S. team. Six years later she was dead from the effects of severe anorexia.

©AP/Wide World Photos



Severe perceptual distortions

Despite sometimes obvious emaciation, people suffering from anorexia have highly distorted perceptions of their own weight and shape and will continue to see themselves as being overweight.

Custom Medical Stock Photo, Inc.

Electrolytes Charged molecules that regulate nerve and muscle impulses throughout the body.

Amenorrhea The cessation of the menstrual cycle.

Restricting type anorexia Anorexia in which the individual loses weight by severely restricting food intake.

Binge-eating/purging type anorexia Anorexia in which the individual loses weight by bingeing and purging.

The severe weight loss associated with anorexia has a number of psychological and physical effects. Clients with anorexia are often irritable, have a diminished interest in sex, and may suffer from insomnia (APA, 2000). Depression and anxiety occur in at least half of people with anorexia, though there is some question as to whether mood disturbances result from or contribute to eating disorders (O'Brien & Vincent, 2003). Individuals suffering from anorexia are also likely to have some perfectionistic and emotionally restricted personality traits, although no one personality profile accurately describes all individuals suffering from anorexia (Westen, Thompson-Brenner, & Peart, 2006).

The numerous physical symptoms associated with anorexia (see Table 8.4), such as the dramatic slowing of metabolism and hypotension (low blood pressure), represent the body's natural response to the effects of starvation. People suffering from anorexia or bulimia run the risk of inducing **electrolyte** imbalances in their bodies through chronic starvation and dehydration, or starvation followed by bingeing. Electrolytes are charged molecules that regulate nerve and muscle impulses throughout the body; severe electrolyte imbalances may result in heart attacks and death. Women who suffer from anorexia develop **amenorrhea**, the cessation of the menstrual cycle, because they lack the necessary fat to store estrogen and support pregnancy. Anorexia is one of the most dangerous forms of psychopathology: up to 10% of people suffering from severe anorexia die of heart attacks or one of the other physical effects of starvation (Nielsen, 2001). Even people who recover from anorexia face the possibility of having done permanent damage to their skeletal and reproductive systems (Gendall & Bulik, 2005).

The DSM-IV-TR distinguishes between two subtypes of anorexia nervosa based on the method of weight loss. People with anorexia who lose weight by restricting their food intake are classified as having **restricting type anorexia**. They do not binge eat and do not attempt to “purge” the food they eat through behaviors such as vomiting. In most cases, restricting type anorexics eat extremely small amounts of food (for example, only an apple and a piece of tofu each day). However, there are also restricting type anorexics who eat normal amounts of food but exercise so much that they remain significantly below normal body weight. People with anorexia who lose weight by bingeing and purging (usually by inducing vomiting or by abusing laxatives and water-reducing pills called diuretics) are classified as having **binge-eating/purging type anorexia**. Binge-eating/purging type anorexics differ from people with bulimia (see Table 8.3) because they lose weight to the point where they are 15% or more below normal body weight for their height.

TABLE 8.3 Diagnostic Criteria for Bulimia Nervosa

- Recurrent episodes of binge eating characterized by eating an unusually large amount of food in a discrete period of time and feeling unable to stop eating or control what or how much one is eating.
- Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives or diuretics, fasting, or excessive exercise.
- The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.
- Self-evaluation is unduly influenced by body weight and shape.

Adapted from DSM-IV-TR (APA, 2000)

Bulimia Nervosa

Bulimia nervosa is a repeated pattern of eating an excessive amount of food in a very short period of time (bingeing) and then engaging in behaviors to compensate for the extreme food intake and to avoid weight gain (purging). Most people with bulimia report that they feel out of control while bingeing and that they cannot stop eating until they are uncomfortably full or sick to their stomachs. The intense feeling of loss of control associated with bingeing is often described in terms similar to those used by alcoholics or drug addicts who cannot control their compulsive desire to use substances. Like people with anorexia, people with bulimia are preoccupied with their weight and may measure their self-worth mainly in terms of their weight and what they have (or haven't) eaten. However, in contrast to those suffering from anorexia, individuals with bulimia are typically at or above a normal weight.

CASE ILLUSTRATION

Marsha, a buyer for a major department store, managed to maintain a façade of competence and control despite her difficult battle with bulimia. Soon after she turned 25, Marsha was given an exciting, but very stressful, promotion at her job. While celebrating the promotion with friends, Marsha ate much more food than usual and went home feeling upset with herself for eating so much. She resolved that she would join a gym the next day. Marsha followed through on her resolution and felt better about herself immediately after her first intense workout. In an effort to keep from gaining weight, Marsha decided to limit her food intake and to continue to work out. After several days of eating little and exercising a lot, Marsha “broke down” and ate an entire pizza and a gallon of ice cream in about 20 minutes. Feeling terrible about the binge, she marched off to the gym and exercised for five hours until the calorie count on her exercise machine indicated that she burned off all of the food she had just eaten. A pattern quickly developed: Marsha would undereat for several days, “break down” from hunger, binge, and then try to “exercise off” all of the calories she had consumed. Marsha sometimes spent hours exercising after a particularly large binge. Despite the exercise, Marsha slowly gained weight over the next several months and complained to her friends that she felt like “a horrible, fat pig.”

Like anorexia, bulimia has powerful psychological and physical effects (see Box 8.1). People with bulimia often experience high levels of depression and anxiety, but they tend to suffer from even greater mood instability and have more difficulty controlling their impulses than people with anorexia (Westen, Thompson-Brenner, & Peart, 2006). For example, people suffering from bulimia or binge-eating/purging type anorexia are far more likely than people suffering from restricting anorexia to abuse drugs and alcohol (O'Brien & Vincent, 2003). Bulimia also commonly co-occurs with personality disorders, especially borderline personality disorder (Chapter 11), a disorder characterized by chronic mood instability and impulsive behavior (Diaz-Marsa, Carrasco, & Saiz, 2000). People with bulimia usually experience a variety of medical symptoms at the time of their eating disorder and even after they have recovered. Many of the medical problems associated with bulimia are due to the damaging effects that chronic vomiting has on the throat, salivary glands, and teeth (see Table 8.4).

The DSM-IV-TR distinguishes between two kinds of bulimia: purging and nonpurging types. Those with **purging type bulimia** try to avoid weight gain by making efforts to physically remove ingested food from their bodies. This can take the form of self-induced vomiting, or inappropriate use of laxatives, diuretics, or enemas. Those with **nonpurging type bulimia** try to avoid weight gain by burning off the calories they have eaten. Usually this takes the form of fasting for a period of days after a binge, or engaging in excessive exercise. All efforts to remove ingested food (through purging or nonpurging methods) usually result in extreme hunger and increase the chances of repeated bingeing.

Bulimia nervosa A disorder involving repeated binge eating followed by compensatory measures to avoid weight gain.

Purging type bulimia Bulimia in which the individual tries to avoid weight gain from binges by physically removing ingested food from her body, usually through vomiting or the use of laxatives.

Non-purging type bulimia Bulimia in which the individual tries to avoid weight gain from binges by burning off calories, usually through fasting or engaging in excessive exercise.



Tragic Princess Princess Diana, whose weight and appearance were constantly scrutinized by the media, was reputed to have suffered from bulimia. Reuters/Landov LLC

BOX 8.1 | An 11-Year Struggle

INSIDE THE MIND OF ANOREXIA AND BULIMIA

In a book entitled *Wasted: A Memoir of Anorexia and Bulimia*, Marya Hornbacher chronicles her 11-year struggle with anorexia and bulimia during which her weight ranged between 52 and 135 pounds. The following passage describes some of what went on in her mind.

Up to that point, the bulimia had had a life of its own. It was purely an emotional response to the world—under pressure, binge and purge; sad and lonely, binge and purge; feeling hungry, binge and purge—and actually had little to do, believe it or not, with a desire to lose weight. I'd always wanted to be thinner, sure, but I wanted to eat as well. The year I got to boarding school, I actually began to hate my body with such incredible force that my love of food was forced underground, my masochistic side surfaced, and anorexia became my goal.

Part of this had to do with the self-perpetuating nature of eating disorders: the worries about your weight do not decrease no matter how much weight you lose. Rather, they grow. And the more you worry about your weight, the more you are willing to act on that worry. You really do have to have an excessive level of body loathing to rationally convince yourself that starvation is a reasonable means to achieve thinness. Normally, there is a self-protective mechanism in the psyche that will dissuade the brain from truly dangerous activity, regardless of how desirable the effects of that activity may be. For example, a woman may wish to lose weight but have an essential respect for her physical self and therefore refrain from unhealthy eating. I had no such self-protective mechanism, no such essential self-respect.

When you have no sense of physical integrity—a sense that your own health is important, that your body, regardless of shape, is something that requires care and feeding and a basic respect for the biological organism that it is—a very simple, all-too-common,

truly frightening thing happens: you cross over from a vague wish to be thinner to a no-holds-barred attack on your flesh. . .

By winter, I was starving. Malnutrition is no joke.

Whether you're skinny or not, your body is starving. As the temperature dropped, I began to grow fur, what is technically called lanugo. Your body grows it when you're not taking in enough calories to create internal heat . . . I liked my fur. I felt like a small bear. I grew fur on my belly, my ribs, the small of my back, my cheeks, fine downy fur, pale white.

My skin grew whiter far north. I began to look a bit haunted. I stood in the shower, feeling the bones of my lower back, two small points at the top of my rear. I took hold of my pelvic bones, twin toy hatchets.

I took Fiberall and Dexatrim.

I drank gallons of water. I was perpetually cold.

Hornbacher, 1998 (pp. 108-109)

Marya Hornbacher

©Keri Pickett/World Picture Network



TABLE 8.4 Physical Symptoms Associated with Anorexia and Bulimia

ANOREXIA	BULIMIA
<ul style="list-style-type: none">• Lowered metabolism• Dehydration and anemia• Reduced blood pressure and body temperature• Development of lanugo (la-NEW-go), a pale, downy hair, on face and trunk• Electrolyte imbalances• Cessation of menstrual cycle• Possible permanent damage to bones and reproductive system	<ul style="list-style-type: none">• Corrosion of dental enamel by exposure to stomach acids during vomiting• Dehydration and anemia• Irritation and enlargement of salivary glands due to frequent vomiting• Menstrual irregularities• Electrolyte imbalances

For a long time, mental health professionals believed that people with eating disorders *either* were anorexic and always restricted food intake *or* were bulimic and engaged in chronic bingeing and purging. With this mistaken idea in mind, psychologists put a great deal of energy into delineating the differences between the “anorexic personality” and the “bulimic personality.” More recent research shows that a high percentage of people with anorexia have suffered from bulimia at some point, and vice versa (see Box 8.1) (Franco et al., 2004). The current eating disorder categories in the DSM-IV-TR demonstrate the growing awareness of the fluid boundaries between anorexia and bulimia. As you can see from Figure 8.1, both anorexia and bulimia exact a high toll on the lives of people who struggle with these disorders.

Eating Disorder Not Otherwise Specified

In addition to the diagnoses of anorexia and bulimia, the DSM-IV-TR includes the diagnostic category called **eating disorder not otherwise specified** (EDNOS) for eating behaviors that are disordered but do not meet diagnostic criteria for either anorexia or bulimia nervosa. For example, EDNOS can be used to categorize people who meet the diagnostic criteria for anorexia while maintaining normal weight or other people who repeatedly chew and spit out large amounts of food. Some people engage in recurrent episodes of binge eating not followed by compensatory behaviors, a condition called **binge eating disorder** (BED), which is currently included in a DSM-IV-TR appendix for diagnostic categories under consideration. Though BED is rapidly gaining credibility as a diagnosis in its own right (Hsu, 2006), the behaviors associated with it are still currently diagnosed under EDNOS.

Eating disorder not otherwise specified

The DSM-IV-TR diagnosis for eating behaviors which are disordered but do not meet diagnostic criteria for either anorexia or bulimia.

Binge eating disorder A diagnostic category currently under study that describes recurrent episodes of binge eating not followed by compensatory behaviors.

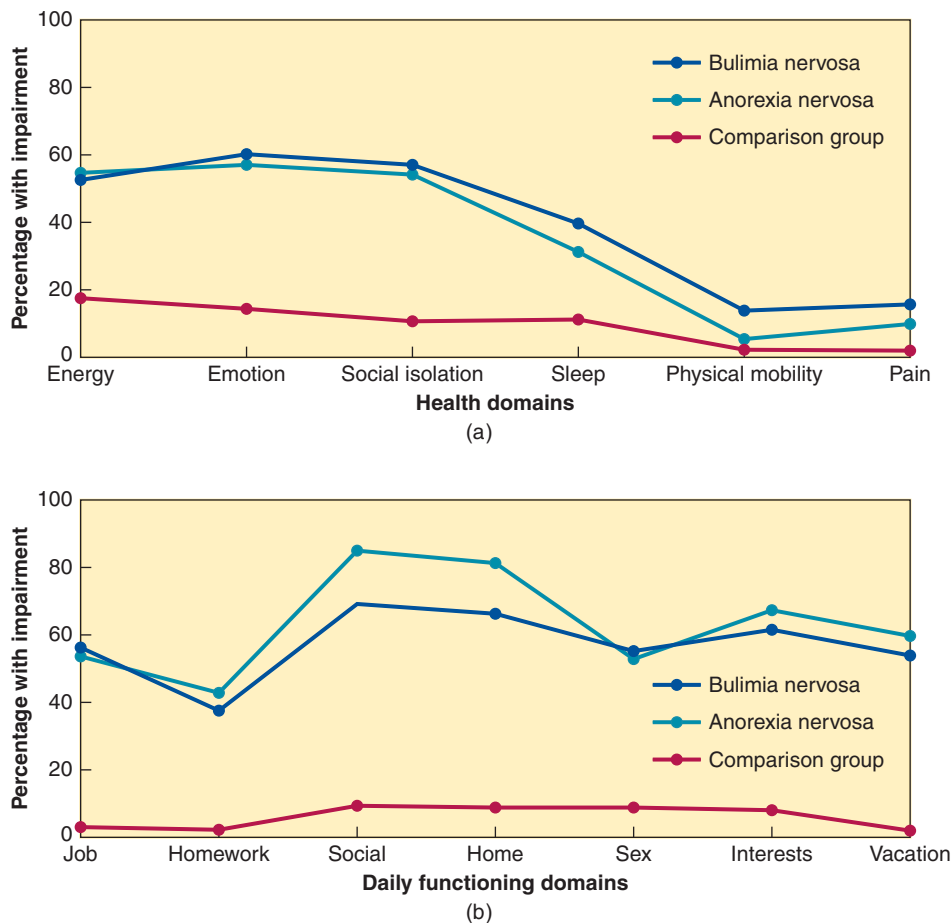


Figure 8.1 Impairments in health and daily functioning in people with anorexia or bulimia As these two graphs illustrate, anorexia and bulimia dramatically affect many aspects of health and daily functioning. In contrast to a comparison group of people without eating disorders, people suffering from anorexia or bulimia experience more difficulties related to energy level, emotion regulation, social isolation, sleeping, physical mobility, and pain management (a). Furthermore, they are more likely to have difficulty functioning in a job, doing homework, engaging in social activities, enjoying life at home, pursuing sexual activity, maintaining other interests, or enjoying vacations (b).

Adapted from Treasure & Szmulker, 1995, pp. 198–199

BED is associated with obesity as well as depression, anxiety, and personality pathology (Fontenelle et al., 2003; Linde et al., 2004; van Hanswijck de Jonge et al., 2003). Preliminary data suggest that BED occurs at roughly equal rates among men and women, and among Caucasians and African Americans (Striegel-Moore & Franco, 2003). Although the treatment of BED has only recently become a subject of clinical investigation, early studies indicate that people suffering from BED yield substantial benefits from cognitive-behavioral interventions (Grilo, Masheb, & Wilson, 2005). Research on antidepressant and other medical interventions has yielded mixed results (Bellini & Merli, 2004).

BRIEF SUMMARY

- The DSM-IV-TR includes three diagnostic categories for eating disorders: anorexia nervosa, bulimia nervosa, and eating disorder not otherwise specified (EDNOS).
- Anorexia nervosa is characterized by significantly low body weight and distortions in how the body is perceived.
- Bulimia nervosa involves episodes of binge eating followed by inappropriate methods to avoid weight gain.
- EDNOS applies to eating behaviors that are disordered but do not meet the diagnostic criteria for anorexia or bulimia. The diagnosis of binge eating disorder (BED) is currently under consideration for inclusion in future editions of the DSM.

Critical Thinking Question

If you were asked to decide whether BED should be added to future editions of the DSM, what questions would you need answered before you arrived at your decision?



Early worries Not only are eating disorders in teenage girls on the rise, girls as young as eight years old report concerns about their weights and diets.

Myrleen Ferguson Cate/PhotoEdit

Subclinical The presence of symptoms at levels below the full diagnostic criteria for a disorder.

Classification in Demographic Context

The eating disorders are profoundly influenced by demographic factors such as age, gender, class, and culture. For example, the majority of eating disorders occur in adolescent women in industrialized countries (van Hoeken, Seidell, & Hoek, 2003). This relatively specific demographic profile for eating disorders stands in stark contrast to other psychological disorders such as depression or anxiety, which frequently occur in people of both sexes, and of all ages, socioeconomic classes, and cultures. In the following sections we'll consider the demographic factors that appear to shape eating disorders, and also explore the ways in which these factors appear to be changing.

Age

Eating disorders are most common among females between the ages of 15 and 25; the majority of eating disorders begin during the late teenage years and may be triggered by a stressful life event such as graduation from high school or parental divorce. Indeed, some studies find that as many as 10% of college women suffer from anorexia or bulimia, with many more having **subclinical** problems with eating, weight, or dieting (Casell & Gleaves, 2006). The eating irregularities of college students have become a major public health concern; one study of 1620 male and female college students found that 21.8% of women and 10.7% of men reported that weight concerns had interfered with their social relationships and that 17.4% of women and 10.4% of men reported that weight concerns had interfered with their academic performance (Hoerr et al., 2002).

Sadly, eating disorders and excessive concerns about weight sometimes begin before adolescence. Some researchers have found that children as young as 6 years old express concerns about their weight and physique that reflect the preoccupation many adult women have with thinness and dieting (Lowes & Tiggeman, 2003). Alarming, a large-scale study of Canadian grade school girls discovered that nearly 31% of 10-year-old girls reported that they were currently dieting, even though most were at or below normal weight (McVey, Tweed, & Blackmore, 2004).

In recent years, clinicians have also begun to appreciate that anorexia has been underdiagnosed in older adult populations. While frailty and thinness are traditionally associated with growing older, accruing evidence suggests that some older people radically restrict food intake with the aim of losing weight. Anorexia among older adult women in particular appears to be related to depression, fear of aging, and a desire to conform to cultural ideals of beauty (Lewis & Cachelin, 2001; Zerbe, 2003).

Gender

Approximately 90% of eating disorders occur in women (APA, 2000). Many experts argue that the dramatic difference in the rates of eating disorders for men and women results from social pressures on women to achieve an ideal of perfection and success partly measured by being thin. Some feminists, most notably Susan Faludi in her book *Backlash: The Undeclared War Against American Women*, propose that the current emaciated beauty ideal is intended to keep women physically frail in reaction to their increasing social and economic power.

Standards for attractiveness are generally considered to be more flexible for men than for women. In particular, weight standards for men are closer to what most men naturally weigh. Despite significant gains in social equality for women, men tend to be valued for their talents and personal qualities, whereas women are more likely to be hired and promoted, to have dates, and to be considered attractive if they are thin (Yuker & Allison, 1994). However, any discussion of beauty standards should also address the question of who is holding such standards. A number of studies have found that women believe that men prefer much thinner women than they actually do (e.g., Bergstrom, Neighbors, & Lewis, 2004).

Recent evidence suggests that men account for 5 to 10% of all individuals suffering from eating disorders (O'Dea & Yager, 2006). There has been an increased prevalence of eating disorders among men over the past two decades, but it is not clear whether this results from an actual rise in new cases of eating disorders or from greater accuracy in diagnosing eating disorders when they do occur in men. Although men do not suffer from DSM-IV-TR eating disorders nearly as frequently as women, there are some experts who argue for the recognition of **reverse anorexia**, also known as *muscle dysmorphia*, as an eating and weight disorder (Olivardia, 2001). Men with *reverse anorexia* worry that their muscles are too small and underdeveloped (see Box 8.2). They are preoccupied with their perceived smallness and may spend an inordinate amount of time lifting weights and exercising, even if their muscles are obviously overdeveloped. Men with this syndrome may take potentially dangerous anabolic steroids in the effort to increase their muscle mass.

Female athletes in the “appearance” sports (ballet, figure skating, gymnastics) or “endurance” sports (track, cross-country) are at an extremely high risk for anorexia. Indeed, success in some activities may depend on being unusually thin; among elite athletes, as many as 45% of “appearance” and 22% of “endurance” athletes have been found to suffer from eating disorders (Sundgot-Borgen, Skarderud, & Rodgers, 2003). However, not all athletes with eating disorders are female. As noted earlier, eating disordered behavior commonly occurs among males in competitive wrestling. Wrestlers often binge when training for competition in order to gain strength, then engage in

Reverse anorexia A condition, usually affecting men, that involves excessive worry that muscles are too small and underdeveloped.

BOX 8.2 Eating Disordered Behavior in Men

KEN CATCHES UP WITH BARBIE

Mental health professionals are learning that men *do* suffer from eating disorders, even if they don't have the same symptoms seen in women with anorexia or bulimia. There is a growing interest in what some researchers call *reverse anorexia* or *muscle dysmorphia*, the belief that one's body is small and weak, even in cases of male bodybuilders who have developed an unusual amount of muscle mass (Olivardia, 2001). Studies of competitive male bodybuilders find high levels of preoccupation with food 81% and binge eating (10%) (Anderson et al., 1995). Research on reverse anorexia has found that sufferers will miss important social or occupational activities in order to maintain a rigid workout schedule and will spend as many as five hours a day worrying that they are too small or thinking about becoming bigger (Olivardia, Pope, & Hudson, 2000). Researchers are also learning of bodybuilders who have not eaten in restaurants for years because they cannot control the exact carbohydrate and protein ratios of their food (Smith, 1997). Some reverse anorexics report avoiding social situations or wearing heavy clothes in order to hide their bodies.

Like females with eating disorders, male bodybuilders report high

levels of body dissatisfaction and perfectionism, and low levels of self esteem (Pope, Phillips, & Olivardia, 2000). One particularly concerning aspect of reverse anorexia in men is the use of anabolic steroids to promote muscle development. Steroid abuse can lead to increased aggression, as well as psychotic and manic symptoms (see Chapter 9). Major depression is also a common psychological side effect of steroid withdrawal. It also seems that "Ken" may be catching up with "Barbie," the popular female doll whose physical proportions represent an impossible standard. A study of action figures for boys found that the waist, chest, and biceps of the most popular American action figures have been growing steadily over the last 30 years and are now much more muscular than those of even the largest human bodybuilders (Pope et al., 1999).



Man in the mirror In *reverse anorexia*, men see themselves as small and weak despite their obviously excessive muscle development. The focus on building muscle mass is often accompanied by preoccupations with what, and how much, they eat.

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dramatic weight loss measures including food restriction and fluid depletion through saunas, laxatives, and diuretics in order to cut weight before competition. Table 8.5 shows the rates of vomiting, laxative use, diet pill use, and sauna or steam use among male and female National Collegiate Athletic Association (NCAA) athletes. Such practices have resulted in the deaths of a number of college wrestlers and have led the NCAA to adopt rules prohibiting the use of "laxatives, emetics, excessive food and fluid restriction, self-induced vomiting, hot rooms, hot boxes, saunas and steam rooms [and] vapor-impermeable suits" (Renfro, 1998).

Class

In the past, eating disorders were believed to occur mostly in members of the higher socioeconomic classes, but studies have demonstrated that the prevalence of eating disorders does not vary significantly by socioeconomic class (Rogers et al., 1997). However, the same studies have shown that subclinical eating problems (such as unhealthy dieting behavior) are significantly more common among members of higher socioeconomic groups. It also continues to be the case that eating disorders are most prominent in affluent, developed countries where there is an abundance of food, and they are comparatively rare in preindustrialized societies (Anderson-Fye & Becker, 2004).

TABLE 8.5 Rates of Vomiting, Laxative Use, Diet Pill Use, and Sauna/Steam Use Among Male and Female NCAA Athletes

	FREQUENCY	FEMALES	MALES
Vomiting	Lifetime	23.90%	5.93%
	Monthly	6.41%	2.04%
	Weekly	3.20%	1.13%
	Daily	1.42%	0.34%
Laxative use	Lifetime	11.72%	5.06%
	Monthly	1.78%	1.02%
	Weekly	0.36%	0.34%
	Daily	0.18%	0.23%
Diet pill use	Lifetime	14.30%	2.16%
	Monthly	1.42%	0.57%
	Weekly	1.25%	0.23%
	Daily	1.25%	0.23%
Sauna/steam use	Lifetime	6.59%	24.26%
	In last year	2.50%	14.63%

From Johnson, Powers, & Dick, 1999, p. 182

Culture

Within the United States, eating disorders have generally been thought to occur more frequently among Caucasian women than minority women. Until recent years, minority women were believed to be less prone to eating disorders because they were exempted from the dominant cultural ideal for beauty (thin, blue-eyed, and blonde) and enjoyed more reasonable beauty standards. However, research on eating disorders among ethnic minority populations yields a wide range of findings depending on the ethnic minority population and eating behavior under study. Some studies indicate that the rates of eating disorders among minority women approach eating disorder rates for Caucasian women, especially among ethnic minorities who are heavier, well educated, and more involved with middle-class, white, American culture (Crago, Shisslak, & Estes, 1996). Other research suggests that some ethnic minority groups in the United States may suffer from *higher* rates of certain eating disordered behaviors than their Caucasian counterparts. For example, binge eating disorder may occur more frequently among Latinas than among African-American or non-Latino white women (Anderson-Fye & Becker, 2004). Although experts are only beginning to understand the prevalence and nature of eating disorders in ethnic minority populations, it is now clear that eating disorders do occur with notable frequency in many minority groups.

BRIEF SUMMARY

- Eating disorders are most common in women between the ages of 15 and 25, although there is evidence of increased dieting and weight-preoccupation among younger girls.
- Ninety percent of eating disorders occur in women. However, there is growing awareness of a reverse anorexia syndrome among men.



How the dominant culture dominates Once thought to be insulated from the beauty ideals of the dominant culture, it appears that African American women are increasingly affected by social attitudes that idealize a slim female form.
© AP/Wide World Photos

Authors' Note: Eating disorders often develop during the college years. If you know someone who seems to be suffering from an eating disorder but does not feel that he or she has a problem, the following approaches are recommended by experts:

- Gently let your friend know that you are worried about his or her behavior by citing specific actions as examples (not eating meals, throwing up after meals).
- Encourage your friend to talk with someone who knows how to help solve eating problems (such as a mental health professional at your college or university counseling services).
- Don't be surprised if your friend denies that a problem exists.
- Let your friend know that you may need to alert his or her parents or a college official about the problem if the problem doesn't get better, or if your friend won't seek help.



Cultural
and historical
relativism

- Eating disorders occur at approximately the same rate across different socioeconomic groups, but subclinical eating disorders are more common among members of the upper socioeconomic classes.
- While eating disorders have traditionally been thought to be most prevalent among white American women, new research indicates that eating disorders do occur with notable frequency in many minority groups.

Critical Thinking Question

Clinicians generally agree that eating disorders are underdiagnosed in men. What factors might contribute to this problem?

Cultural and Historical Relativism in Defining and Classifying Eating Disorders

While eating disorders are, as we've noted, highly culture specific, a fascinating review of eating disorders across a wide range of cultures and historical periods suggests that bulimia may be somewhat more culturally and historically "bound" than anorexia (Peel & Klump, 2003). By surveying international prevalence rates and historical documentation of eating disorders, researchers learned that cases of bulimia increased dramatically in the second half of the twentieth century and that bulimia seems only to occur in cultures that are subject to Western influence. (See Box 8.3 for more on what happens when non-Western cultures are exposed to Western media and its glorification of thinness.)

In contrast, a significant number of cases of anorexia were found in many cultures and historical periods. The authors note that while preoccupation with thinness is a culture-bound phenomenon that increases the incidence of anorexia, this factor is not sufficient or necessary for anorexia. Indeed, cases of deliberate self-starvation occur in a variety of cultures that do not glorify thinness and are not subject to the influence of Western beauty standards. Documentation exists for numerous reasons for food refusal (such as religious asceticism and digestive discomfort), but the authors of this study argue that the "purported motivations may not represent the true causes of self-starvation. Indeed, they may represent culturally meaningful attempts to understand an affliction that leaves women feeling unable and unwilling to eat" (Peel & Klump, 2003, p. 754).



Advantages/
limitations
of diagnosis

The Advantages and Limitations of the DSM-IV-TR Eating Disorder Diagnoses

According to some researchers, between 25 and 60% of eating disorder cases are classified as eating disorder not otherwise specified (Andersen, Bowers, & Watson, 2001). The fact that so many people with eating disorders fit best in this residual diagnostic category highlights the core concept of the *advantages and limitations of diagnosis*. On the one hand, eating disorder experts are better able to communicate with each other about research findings and clinical phenomena when they have clearly defined diagnostic categories such as anorexia and bulimia. On the other hand, these narrowly defined categories may represent only a minority of people suffering from disordered eating. As noted, many people with significant eating problems do not fit into these categories as they are currently defined.

One of the most interesting controversies in the classification of eating disorders revolves around the problem of **obesity**, which is defined as being 20% or more over the ideal weight as determined from life insurance statistics for a person's age, build, sex, and height. Obesity is extremely common in the United States; one in three

Obesity The condition of being twenty percent or more over ideal weight.

BOX 8.3 Exporting Eating Disorders

WE HAVE TO HAVE THOSE THIN, SLIM BODIES

Sociocultural theorists are quick to say that women in Western, industrialized societies suffer from high rates of eating disorders because they are constantly exposed to media images of ultra-thin models and actresses. But do we really know that such images are to blame? Perhaps these media images don't *set* a trend but merely *reflect* a national obsession with physical beauty. Perhaps eating disorders would be just as common with or without slimfigured movie stars and svelte magazine models.

Remarkably, a group of researchers led by Dr. Anne Becker of Harvard Medical School was able to find a place where they could study this question (Becker et al., 2002). Prior to 1995, eating disorders were virtually non-existent on the island of Fiji, located in the South Pacific. Eating disorders were not only rare, but Fijians considered a hearty appetite and a robust figure to be signs of emotional well-being and physical health. In 1995, the island of Fiji began to receive Western television programs such as "Beverly Hills 90210," "Seinfeld" and "ER." Within three years, the number of teenage girls receiving high scores on a measure of eating-disordered behaviors went from 12.7% to 29.2%. In 1995, not a single teenage girl included in the study had ever self-induced vomiting in an effort to control her weight; by 1998, 11.3% of the girls in the study reported having done so. In a culture where dieting had traditionally been frowned upon and discouraged, 69% of the girls surveyed in 1998 reported having dieted, and 74% said they sometimes felt that they were overweight.

Becker and her colleagues point out that the arrival of television is only one of many

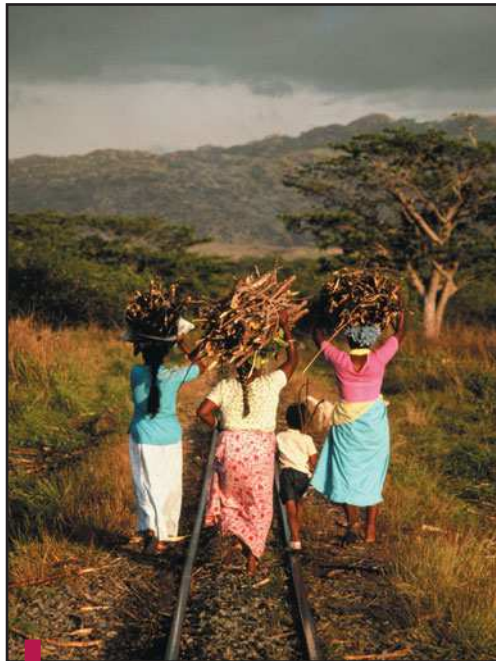
recent modernizations in Fijian culture. The gradual conversion from subsistence agriculture to a cash economy may also play a role in changing how girls feel about their bodies.

Yet, when interviewed, the Fijian girls included in Becker's study made direct reference to the connection between what they saw on television and how they thought about themselves: *When I look at the characters on TV, the way they act on TV and I just look at the body, the figure of that body, so I say, "look at them, they are thin and they all have this figure," so I myself want to become like that, to become thin.*

... it's good to watch [TV] because ... it's encouraged me that what I'm doing is right; when I see the sexy ladies on the television, well, I want to be like them, too.

... the actresses and all those girls ... I just like, I just admire them and I want to be like them. I want their body, I want their size. I want to be [in] the same position as they are ... Because Fijians are, most of us Fijians are, many of us, most, I can say most, we are brought up on these heavy foods, and our bodies are, we are getting fat. And now, we are feeling, we feel that it is bad to have this huge body. We have to have those thin, slim bodies.

(Becker et al., 2002, p. 513)



In traditional Fijian culture, a hearty appetite and a robust figure were viewed as signs of emotional well-being and physical health.

© Ian Osborne/Stone/Getty Images

Becker's findings raise questions about why some girls who watch American television go on crash diets and others don't. All the same, her study shows that Western television programming can have a powerful, noxious effect on the lives and bodies of those who watch it.

American adults is significantly overweight or obese (Cassell & Gleaves, 2006). Presently, obesity is *not* included in the DSM-IV-TR, despite strong evidence that obesity involves prominent behavioral and psychological factors.

Studies show that obesity involves a preference for fatty foods and the disinclination to engage in physical activity (Devlin, Yanovski, & Wilson, 2000). In addition, people experiencing emotional stress are more likely to eat unhealthy, fatty foods and to exercise less than people who report low levels of stress (Ng & Jeffery, 2003). Obesity also has a wide variety of negative psychological effects such as low self-esteem and depression (Miller & Downey, 1999). In his book *Food Fight: The Inside Story of the Food Industry, America's Obesity Crisis and What We Can Do About It*, psychologist Kelly Brownell

Physical Symptoms Associated with Eating Disorders

There are numerous **physical** symptoms associated with bulimia and anorexia nervosa. Both conditions lead to dehydration, *anemia* (decreases in red blood cells), and *electrolyte* imbalances. Electrolytes are charged molecules that regulate nerve and muscle impulses throughout the body. Severe electrolyte imbalances may result in heart attacks and death. Bulimia and anorexia also cause abnormalities in blood pressure and heart functioning, such as *hypotension* (low blood pressure), *orthostasis* (drops in blood pressure upon standing), and *cardiac arrhythmias* (irregular heart beats).

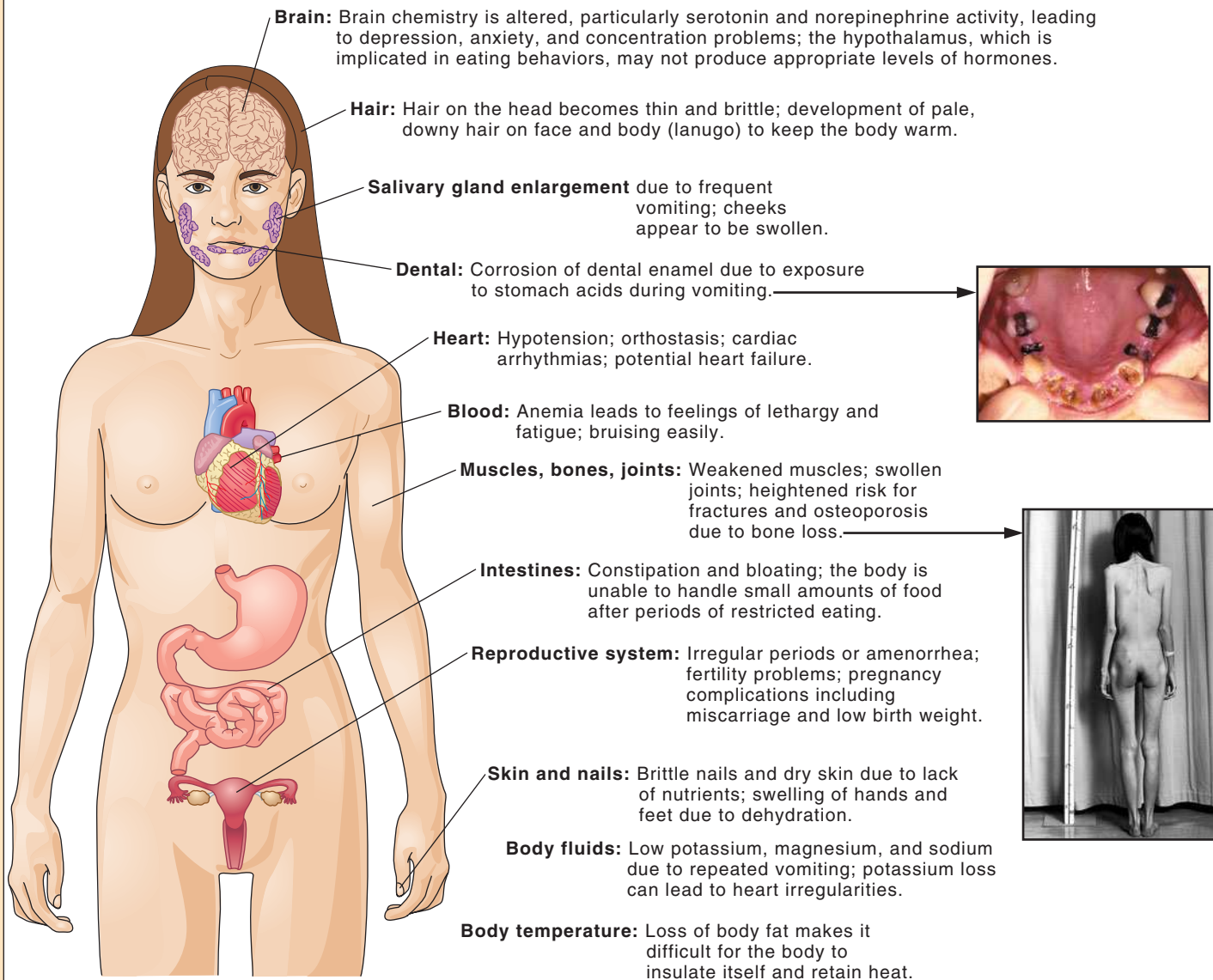
Other physical symptoms related to bulimia include corrosion of dental enamel due to exposure to stomach acids during vomiting, irritation and enlargement of salivary glands due to frequent vomiting, and menstrual irregularities. Additional physical symptoms related to anorexia include reduced body temperature, brittle hair and nails, development of *lanugo* (pale, downy hair on the face and body), *amenorrhea* (cessation of the menstrual cycle), and possible permanent damage to bones and to the reproductive system. In terms of brain functioning, some studies have shown that individuals with anorexia have lower levels of hormones produced by the hypothalamus than people without anorexia. People with bulimia have also been shown to have unusually low levels of the neurotransmitters norepinephrine and serotonin. It is unclear whether these brain abnormalities are a cause or result of eating disorders.



Famously thin In the spring of 2004, Mary-Kate Olsen of Olsen-twin fame stunned fans with her emaciated appearance. By June of the same year, the 18-year-old star began treatment for anorexia.

©smg/Finalpixx/NewsCom

THE EFFECTS OF EATING DISORDERS ON THE BODY



Source: (Top) Gill/Custom Medical Stock Photo, Inc.; (Bottom) Topham/The Image Works



Eating disorder? Obesity is not included in the DSM-IV-TR, but some experts contend that the condition involves prominent psychological and behavioral features and should be classified as an eating disorder.

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points out that environmental factors, such as ballooning portion sizes and the savvy marketing techniques of the convenience-food industry, also contribute to epidemic rates of American obesity (Brownell & Horgen, 2003). As noted earlier, binge eating that occurs without compensatory behavior may be diagnosed as an eating disorder not otherwise specified, but presently, no DSM-IV-TR diagnosis describes the chronic overeating (not necessarily in the form of binges) that usually results in obesity. However, many mental health professionals *do* consider obesity to be a form of eating disorder.

BRIEF SUMMARY

- New research on the *cultural and historical relativism* of eating disorders suggests that the incidence of bulimia reflects cultural and historical factors such as contact with modern Western beauty ideals that glorify thinness. In contrast, anorexia appears to occur across cultures and historical periods. Although the explanations for self-starvation may be culturally bound, the actual causes of anorexia likely involve biological factors as well as cultural and historical influences.
- Between 25 and 60% of eating disorder cases are diagnosed as eating disorder not otherwise specified, highlighting the core concept of the *advantages and limitations of diagnosis*.
- Obesity is not currently listed in the DSM-IV-TR, even though there are significant psychological and behavioral factors associated with it.

Critical Thinking Question

Some people feel that the DSM-IV-TR should not include obesity as a psychological/psychiatric disorder because people who are obese are already stigmatized in our culture. Do you agree with this reasoning? Why or why not?

EXPLAINING AND TREATING EATING DISORDERS

Each of the major theoretical perspectives offers explanations of and interventions for eating disorders. As with the other disorders we have discussed, you will notice important areas of overlap and complementarity among the various approaches, as well as some critical differences.

Psychodynamic Components

Hilde Bruch's book, *The Golden Cage: The Enigma of Anorexia Nervosa* (1978), is considered one of the classic texts in the field of eating disorders. Bruch emphasizes that clients with anorexia are often so focused on others' needs and desires that they lose awareness of what they want for themselves. In particular, young women who develop anorexia may be striving to live up to the high expectations they feel their parents have set for them. The constant struggle to meet parental expectations may take the form of overcompliance and high achievement in a number of areas. Although the daughter suffering from anorexia may succeed in pleasing her parents, she is usually dogged by feelings of inferiority and believes that she must continue to be highly successful in order to ensure that she will be loved and supported by her parents. The daughter who develops anorexia may be striving for the "perfection" she feels her parents want from her, while simultaneously asserting her independence. Indeed, being able to achieve and maintain extreme levels of weight loss speaks to the daughter's ability to meet difficult goals while also proving her ability to chart a course separate from the one outlined for her by her parents.

Some empirical evidence supports Bruch's assertion that eating disorders are more likely to occur in families that are preoccupied with appearance and high achievement; families of women with eating disorders do tend to value perfectionism and control more than most families (Woodside et al., 2002). Other studies have investigated the link between parental attitudes toward weight and appearance and eating disorders in adolescent girls. For example, one study of 345 college women found that negative comments from family members about appearance and family emphasis on the need to lose weight were strongly predictive of bulimic behavior in the women studied (Crowther et al., 2002). Another study found that parents who are preoccupied with physical appearance and attractiveness put their daughters at heightened risk for eating disorders, though this was true only for daughters who had high scores on a measure of psychological vulnerability (Davis et al., 2004). Of the young women studied, the most psychologically sturdy did not have elevated rates of eating disorders even when their parents were heavily focused on weight and appearance. In other words, this study supports the *principle of multiple causality*: the risk for eating disorders rises when psychological vulnerability is *combined* with family emphasis on weight and appearance.

Recent psychodynamic explanations elaborate on Bruch's view that eating disorders are fueled by complex, often unconscious feelings. For example, some psychodynamic theorists have suggested that anorexia may provide the sufferer with an opportunity to retain a childlike physical form and thereby avoid the sexual anxieties that accompany the physical and psychological move into adolescence (Csabai, 2004). Others have noted that there is consistent research evidence for the relationship between childhood sexual abuse and later eating disorders (Smolak & Murnen, 2002). In the wake of a sexual trauma, a person with anorexia may aim to regain control over her body by ridding herself of sexual characteristics such as menses, shapely hips, or breasts. A client with bulimic symptoms may be unconsciously reenacting a sexual trauma: first by overwhelming herself, in this case with food, and then "undoing" the trauma by vomiting. In addition, young women who are highly emotionally conflicted about their own sexual desires may resist or restrict all forms of sensuality, including the pleasures of eating, in an ascetic anorexic life (Dare & Crowther, 1995). Needless to say, people with anorexia or bulimia pay a high price when they use their bodies as an arena for self-punishment, self-assertion, or self-control.

Psychodynamic Interventions

Psychodynamic interventions for eating disorders involve exploratory techniques such as free association, dream analysis, and analysis of the relationship with the therapist (transference) to uncover the meaning and function of eating disorder symptoms. The following case description illustrates the use of transference interpretations in the treatment of an 18-year-old who had been anorexic since age 12. In this case, the client felt that she needed to surrender her own age-appropriate interests so that she could be a dutiful companion for her lonely and depressed mother. She could only express her independence by not eating.

CASE ILLUSTRATION

The patient's difficulties began when she had the opportunity to join school activities that took her away from her mother for hours over the weekend. The patient's mother was not overtly destructive, but the patient felt guilty about participating in age-appropriate activities because "[her] mother wanted [her] to stay home, watch TV with her, and go shopping."

In the therapy process, the patient would closely observe her therapist for any waning of interest when activities, school, and friendships were mentioned. The therapist pointed out that the patient seemed to stay on guard to “figure out what [the therapist] might want [the patient] to do.” The therapist’s sensitivity to the maternal transference issues enabled the clinician to gently wonder and later confront the patient for not permitting herself more participation in age-appropriate activities.

In this case, understanding how the patient was attempting to repeat in the transference an earlier, but ultimately unhealthy way of relating enabled the eating symptoms to subside. The patient did not have to “find [her] own space” by not eating, nor did she have to “stay a little girl” because this is what she assumed adults (e.g., her mother and her therapist) desired.

Zerbe, 2001 (pp. 310–311)

Many case studies support the effectiveness of psychodynamic interventions for eating disorders, but few studies have compared psychodynamic interventions to other therapeutic approaches. However, a recent study of outpatient treatments for anorexic clients at the University of London found psychodynamic psychotherapy to be more effective than a control condition in which clients had regular nontherapeutic contact with a member of the hospital staff and also more effective than a cognitive intervention program (Dare et al., 2001).

Family Systems Components

As Bruch’s work suggests, family relationships and pathological family structures may play a role in the development or perpetuation of eating disorders. Salvador Minuchin, a pioneering family systems theorist, was particularly interested in how disturbed family relationships might impede the normal tasks of separation and individuation during adolescence and contribute to the onset of eating disorders in teenaged girls (Minuchin, Rosman, & Baker, 1978). Like many family systems therapists, Minuchin focused on family boundaries, roles, and coalitions, and attributed psychopathology in any one family member to disruptions within the broader family system. Minuchin believed that eating disorders usually occur in families that are overly **enmeshed**. By this he meant that individual family members become too involved with the details of each other’s lives: the parents might be directing every aspect of their children’s school work, while the children are overly involved in the details of their parents’ finances. Enmeshed family members may provide a great deal of support to each other, but their overinvolvement presents a problem for teenagers who, in the normal course of development, need to become increasingly private and independent.

According to Minuchin, developing an eating disorder may be a particularly elegant, if dangerous, “solution” to the dilemma of being an adolescent in an overly enmeshed family. On the one hand, becoming anorexic is a profound statement of independence. In effect, the teenager is saying, “You may be too involved in many areas of my life, but you can’t make me eat!” On the other hand, having an eating disorder renders the young woman “sick” and causes her family to worry about what she eats, how much she exercises, and how much she weighs. Rather than gaining independence from her family, the eating-disordered teenager may spend less time with her friends and find that her parents are more involved with the details of her daily life than ever before.

As you can see, family systems and psychodynamic approaches overlap; both view eating disorders as rooted in complex family problems. However, critics have noted the possibility that the enmeshed family style described by family systems and psychodynamic theorists could be a *result* of an eating disorder, not its *cause*. In other words, it may be expected and desirable for parents to become heavily involved with

Enmeshed Families in which boundaries between members are weak and relationships tend to be intrusive.

children who are engaging in life-threatening behaviors, such as self-starvation; the family may not have been enmeshed prior to the onset of the eating disorder. Research efforts to verify the family systems belief that enmeshment precedes and contributes to eating disorders have been largely unsuccessful (Eisler, le Grange, & Asen, 2003). Empirical investigations have failed to find specific family styles or patterns that are consistently associated with eating disorders, and community-based studies have found few differences between families in which a family member suffers from an eating disorder and matched controls (Rastam & Gilberg, 1991).

As a result, recent family theorists have shifted from thinking of enmeshment as simply a cause of eating disorders toward considering what kinds of family processes maintain eating disorders once they have begun. Consider the following description of Hannah, a 16-year-old who binges compulsively and who hurts herself when prevented from bingeing:

CASE ILLUSTRATION

When Hannah gets distressed and feels the compulsive need to fill herself with food, the family responds: father tries to prevent her forcibly from doing so, Hannah fights back, he becomes enraged and breakages occur. If he does manage to prevent her from bingeing, she breaks the window, cuts herself, or hits her head against the wall until her agony subsides. Father is consumed with guilt at feeling he has harmed her, enraged that she has pushed him to such desperate measures and ends up feeling impotent and frustrated.

Meanwhile, Hannah calms down, phones her mother at work and tells her what her father has done. Mother returns from work, in a panic, furious with father, and berates him for being a useless violent brute . . . father in shame and despair goes to the pub; Hannah and mother console each other for having to put up with such a creature. . . .

However, mother, whilst responding to Hannah's needs and joining her in unity against the father when he is out of favour, has adult needs of her own which require her to make choices in favour of her husband. Hannah's impossible desire for a symbiotic relationship with her mother is thus repeatedly frustrated, and the vicious cycle continues.

Colahan & Senior (1995, p. 250)

A family systems approach may not be able to explain why Hannah developed bulimia in the first place, but it does offer a framework for understanding the complex family processes that maintain her emotional and eating problems.

Family Systems Interventions

Despite the lack of consistent empirical support for family systems explanations of eating disorders, family systems interventions have been found to be effective in the treatment of anorexia and bulimia (Eisler, le Grange, & Asen, 2003). The major distinguishing characteristic of family systems interventions is that the therapist views the entire family as the "client." In family systems terms, the person suffering from anorexia or bulimia is simply the **identified patient**, meaning that her symptom is viewed as an index of difficulties within the whole family.

When working with young clients, family therapists often encourage parents to take an active role in opposing the adolescent's eating-disordered symptoms. Once the eating-disordered symptoms begin to diminish, the therapist urges the family members to return to their individual interests and activities, many of which may have been ignored due to concerns about the adolescent's eating disorder (le Grange, 1999). Not surprisingly, family members often find that they have trouble operating independently, and family sessions can be used to address impediments to autonomous functioning. For Hannah and her family (described in the previous case), a family therapist would most likely address Hannah's wish to provoke and then exclude her father in order to have an exclusive



Reasons for hope Family therapy interventions for eating disorders, especially in families that are otherwise functioning well, have been found to be highly effective.

© David Young- Wolff/PhotoEdit

Identified patient The member of the family identified by the family as having problems; family systems theorists see this as a manifestation of a problem in the family system, not in an individual member.

relationship with her mother, and also confront the marital problems between Hannah's parents that allow for the maladaptive gratification of Hannah's wishes.

Family systems interventions seem to be especially helpful for families that are generally functioning well and do not feel overtly hostile toward the person with the eating disorder (Dare & Eisler, 1995). In contrast, families that feel highly critical toward their eating-disordered child seem to derive more benefit from meeting in separate parent and child psychotherapy sessions (Eisler et al., 2000). In either case, including parents in the treatment of adolescents with eating disorders appears to be an important component of therapeutic success.

BRIEF SUMMARY

- Psychodynamic explanations of anorexia and bulimia have focused on anorexia as a complex reaction to perfection-oriented families, anorexia as a retreat from adult sexuality, and eating disorders as reactions to traumatic events such as sexual abuse or assault.
- Psychodynamic interventions aim to help clients understand how eating-disordered symptoms relate to their unconscious emotional conflicts.
- Salvador Minuchin believed that eating disorders occur in families that are overly enmeshed. Since empirical research has not supported the assertion that a specific kind of family dynamic causes eating disorders, recent family systems approaches emphasize family processes that perpetuate eating disorders once they have begun.
- Family systems interventions for eating disorders involve the whole family and assume that the eating disorder represents a problem within the broader family system.

Critical Thinking Question

Although family systems explanations of eating disorders have received little research support, family systems interventions have proven to be quite useful. How might you explain this discrepancy?

Cognitive-Behavioral Components

From the cognitive-behavioral perspective, anorexia and bulimia result from a combination of dysfunctional thoughts and repeated experiences that have reinforced eating-disordered behaviors. For example, the belief that one's physical shape reflects one's value or worth as a person fuels a great deal of eating-disordered behavior (APA, 2000a). Table 8.6 describes some of the common cognitive distortions in anorexia.

Both anorexia and bulimia are maintained by “black and white” thinking about food and weight. Many people with bulimia and anorexia have categories of “good” and “bad” foods that do not take into account nutritional values and normal dietary requirements. Foods containing fat may be considered to be “bad” even though they are required for healthy physical functioning. Similarly, people with eating disorders may create and follow arbitrary but rigid rules that perpetuate their problems. For example, a client with anorexia may decide that it is “against the rules” to eat after 6 o'clock in the evening, or that it is imperative that she run 8 miles in the morning before eating anything. A client with bulimia may tell herself that she is not “allowed” to eat for a whole day to make up for bingeing, and then find herself bingeing all over again because she is so hungry from fasting. The weight loss in anorexia and the relief that comes from purging after a bulimic binge unfortunately reinforce anorexic and bulimic behaviors, creating a vicious cycle of disordered eating.

Cognitive-behavioral models of bulimia illustrate the thoughts and actions that perpetuate the disorder (Figure 8.2). As you can see, cognitive processes (dysfunctional thoughts about weight and fear of becoming fat) trigger behavioral responses (excessive dieting, binge eating, and purging), which lead to emotional reactions (reinforcing

TABLE 8.6 Cognitive Distortions in Anorexia Nervosa

	DYSFUNCTIONAL COGNITION	EXAMPLES
Selective abstraction	<ul style="list-style-type: none">One aspect of a complex situation is the focus of attention, and other relevant aspects of the situation are ignored.	<ul style="list-style-type: none">“Yes, I have friends, a great family, and good grades, but I gained two pounds this week—I’m such a loser.”
Dichotomous reasoning	<ul style="list-style-type: none">Thinking in extreme and absolute terms.	<ul style="list-style-type: none">“If I am not in complete control, then I will lose all control.”
Over-generalization	<ul style="list-style-type: none">Deriving a rule form one event and applying it to other situations or events.	<ul style="list-style-type: none">“I failed at controlling my eating last night. So I am going to fail today as well.”
Magnification	<ul style="list-style-type: none">Exaggerating the significance of events.	<ul style="list-style-type: none">“I have gained a pound. I’ll never be able to wear shorts again.”

Adapted from De Silva, 1995, p. 145

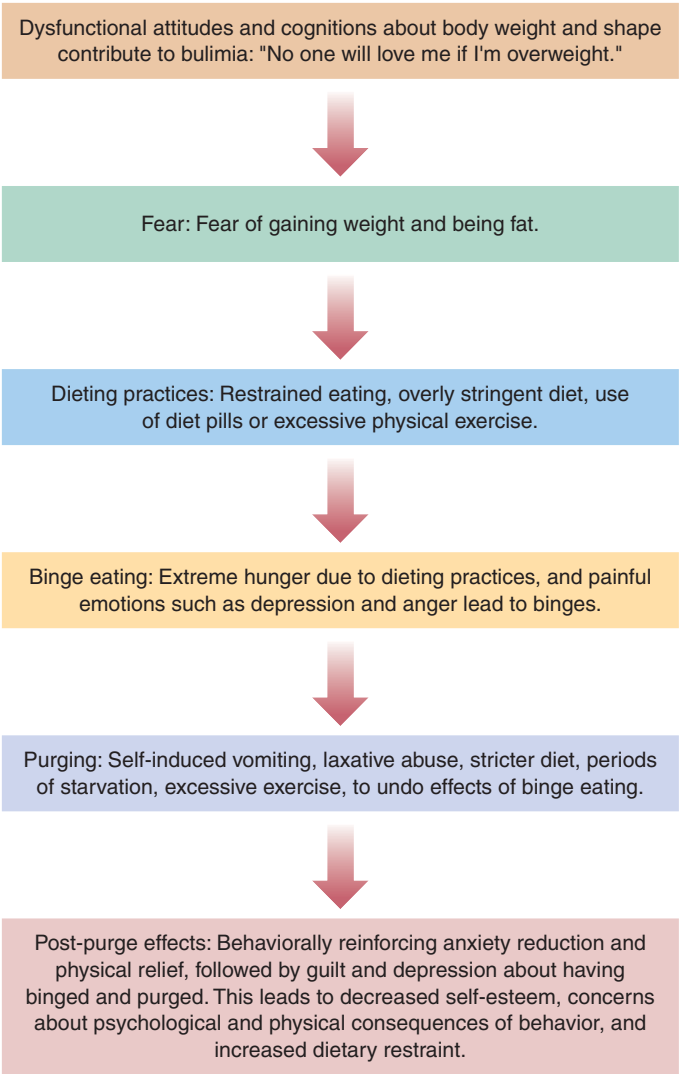


Figure 8.2 A cognitive-behavioral model of bulimia.
(Adapted from De Silva, 1995, pp. 148–149).

emotional relief, followed by guilt and depression) that renew the cycle of cognitive distortions and behavioral disruptions. Although cognitive-behavioral approaches to eating disorders have received considerable empirical support (Abramson et al., 2006) they, like family systems descriptions, may explain more about how eating disorders are *maintained* than about how a person with weight concerns develops dysfunctional cognitions in the first place.

Cognitive-Behavioral Interventions

Cognitive-behavioral interventions for eating disorders usually involve a variety of techniques. In hospital settings, behavioral interventions are typically employed to help clients with severe anorexia gain weight when they are dangerously thin. For example, a client with anorexia may not be allowed to watch television or visit with friends until she eats regularly and begins to put on weight. Such behavioral interventions may help with initial weight gain, but they rarely work outside of a hospital setting and are not usually effective as a long-term solution for anorexia (Russell, 2001). Once basic health needs have been addressed, more complex cognitive-behavioral interventions have been found to be useful in the subsequent treatment of both anorexia and bulimia (APA, 2000b).

Most cognitive-behavioral approaches to eating disorders begin by asking clients to keep records of what, where, and when they eat (Tobin, 2000). In addition to monitoring eating, clients are usually asked to record the thoughts and feelings they have about eating (see Table 8.7). Clients may also be asked to monitor and record their thoughts and feelings after they exercise, purge, or weigh themselves.

Therapists use the client’s records to help the client understand the cognitive mechanisms that contribute to eating-disordered behavior. For example, a therapist might notice that a client fasted for a whole day after eating a “forbidden” food like a chocolate-chip cookie. The clinician would point out that such rigid and extreme rules increase the likelihood of bingeing and may result from a cognitive error, such as **catastrophizing** a minor event (such as “If I eat one cookie, I will get fat”). Cognitive-behavioral interventions for bulimia and anorexia usually include education about the physical consequences of binge-eating, fasting, and/or self-induced vomiting (Freeman, 1995). Clients are asked to consider the effects that maintaining an eating disorder may have, such as the serious physical consequences of anorexia and bulimia.

Cognitive-behavioral therapists may “prescribe” a pattern of regular eating and ask their clients to record their thoughts and feelings when they attempt to eat normally (Bowers, 2001). A cognitive-behavioral therapist would help the client evaluate the evidence for and against each of her dysfunctional thoughts and point out how errors in her thinking influence her eating behavior (see Table 8.8). For anorexic clients who are extremely reluctant to gain weight, a cognitive-behavioral therapist might need to focus on other areas where the client with anorexia says that she is unhappy with her life and then help the client make the connection between her anorexia and her unhappiness.

Catastrophizing Cognitive term for the tendency to view minor problems as major catastrophes.

TABLE 8.7 Self-Monitoring for Bulimia Nervosa

TIME	BEHAVIOR	CIRCUMSTANCES	FEELINGS
3:00 P.M.	Binge: two orders of pancakes, three milkshakes, half of a pizza	Avoided food all day, felt like I was starving.	Furious with myself throughout binge, guilty afterwards.
5:00 P.M.	Exercised for an hour.	Trying to work off binge.	Feeling better, more in control.
8:00 P.M.	Purged by vomiting.	Just finished normal-sized dinner.	Disgusted with myself.

TABLE 8.8 A Cognitive Therapist's Questions: Helping Clients Look for Rational Answers

- **What is the evidence?**
What evidence do you have to support your thoughts?
What evidence do you have against them?
- **What alternative views are there?**
How would someone else view this situation?
What evidence do you have to back alternative views of the situation?
- **What is the effect of thinking the way you do?**
Does it help you, or hinder you from getting what you want? How?
What would be the effect of looking at things a little differently?
- **What thinking error are you making?**
Are you thinking in all-or-nothing terms?
Are you condemning yourself totally as a person on the basis of a single event?
Are you expecting yourself to be perfect?
Are you using a double standard? How would you view someone else in your situation?
Are you assuming that you can do nothing to change your situation?
Are you overlooking solutions to problems on the assumption they won't work?
- **What action can you take?**
What can you do to change your situation?
What can you do to test out the validity of your rational answers?
Can you use "I want," "I need," and "I wish" instead of "I must," "I should," and "I ought"?

Adapted from Freeman, 1995, p. 321

Some cognitive-behavioral techniques are specific to the treatment of anorexia or bulimia. For example, a cognitive-behavioral intervention for a client with bulimia may focus primarily on the negative effects of dieting and other weight-loss measures (Tobin, 2000). Indeed, many people with bulimia find themselves in a cycle of purging in order to compensate for a binge and then bingeing again because they are extremely hungry after extended periods of fasting. When binge episodes are linked to feelings of emotional distress, cognitive-behavioral therapists may help clients to problem-solve around the source of their distress, or develop more adaptive means for managing their feelings.

Cognitive-behavioral interventions for anorexia often include an effort to understand what triggered the anorexia, how it is maintained, and what "benefits" the client believes accrue from being anorexic. Distorted thoughts are challenged (for example, "If being very thin will make you perfect, why are you too tired to do many of the things you used to do?"), and the client and therapist work together to develop healthier ways of managing the problems that led to the anorexia in the first place (Bowers, 2001).

Cognitive-behavioral interventions are often highly effective in the treatment of bulimia nervosa (Wilson & Fairburn, 2002). For example, a large study comparing cognitive-behavioral therapy with an interpersonal therapy that emphasized the role of interpersonal problems in bulimic behavior found that only 8% of the people treated with interpersonal therapy had stopped bingeing and purging after 20 weeks of psychotherapy as compared to 45% of those treated with cognitive-behavioral therapy (Agras et al., 2000). Cognitive-behavioral interventions have not received the same

Changing beauty ideals

The weight of historical “supermodels” has dropped fast—from Rubens’ voluptuous nymphs, to Marilyn Monroe’s abundant feminine form, to today’s sleek ideal.

(Left) Corbis

(Center) Corbis-Bettmann

(Right) Mitchell Garber/Corbis



strong support in the treatment of anorexia nervosa (Wilson & Fairburn, 2002); some studies have found cognitive approaches to be no more effective in promoting weight gain than nontherapeutic meetings with clinical staff (Dare et al., 2001).

Sociocultural Components

The sociocultural explanation of eating disorders emphasizes that the prevalence of eating disorders has grown as media images of women increasingly equate thinness and physical beauty with success, intelligence, popularity, power, and self-control (Szmukler & Patton, 1995). Furthermore, the implicit message of these images is that being overweight (or even of normal weight) is a reflection of laziness, weakness, stupidity, or, at best, lack of self-control. Adult women may have a hard enough time resisting such media messages, but teenagers are naturally preoccupied with how they are viewed by others and often find such messages almost impossible to ignore. Add to this scenario the natural tendency of the adolescent female body to begin to retain fat in late puberty and the stage is set for high rates of adolescent eating disorders. The extremely thin standard for physical beauty is marketed to even the youngest members of our society; by one estimate, the average Barbie doll would be 7' 2" and weigh 125 pounds if her height, weight, and proportions were converted to human form (Brownell & Napolitano, 1995).

Naomi Wolf, a feminist theorist, takes the sociocultural argument a step further. She asserts that cultural standards for beauty become more impossible for women to attain as women gain more equal economic status with men. Wolf argues that women are subjected to increasingly restrictive standards for beauty precisely *because* they are achieving economic independence:

Dieting and thinness began to be female preoccupations when Western women received the vote around 1920; between 1918 and 1925, “the rapidity with which the new, linear form replaced the more curvaceous one is startling.” In the regressive 1950s, women’s natural fullness could be briefly enjoyed once more because their minds were occupied in domestic seclusion. But when women came en masse into male spheres, that pleasure had to be overridden by an urgent social expedient which would make women’s bodies the prisons that their homes no longer were.

Wolf, 1990 (p. 150)

For Wolf, it is no accident that women feel compelled to starve themselves as they gain social power. She asserts that our culture requires women to keep themselves in a weakened state from which they will never be able to attain full equality with men. Despite the strengths of Wolf's argument, her work also highlights the major limitation of the sociocultural explanation of eating disorders: by asserting that eating disorders result from cultural forces, it fails to explain why only some women in our culture develop eating disorders while most do not.

Sociocultural Interventions

Recently, a number of studies have investigated the effectiveness of media literacy training to help young women question and resist the media's unrealistic standards for female beauty (Levine & Harrison, 2003). Psychoeducational programs that describe the unnatural techniques required to create "perfect" images for magazines (plastic surgery, airbrushing, computer imaging) appear to have at least a short-term effect in helping to reduce body-image disturbances in many women (Posavac, Posavac, & Weigal, 2001). Sociocultural interventions for eating disorders have also taken the form of "media activism," including organized protests against unrealistic or harmful advertising images. Watchdog and advocacy groups, such as Eating Disorders Awareness and Prevention, Inc. (EDAP), which monitor and then criticize or praise media images of women, have led several major corporations (including Nike and Kellogg) to discontinue ads that glorify unrealistic standards for female beauty (Levin, Piran, & Stoddard, 1999).

BRIEF SUMMARY

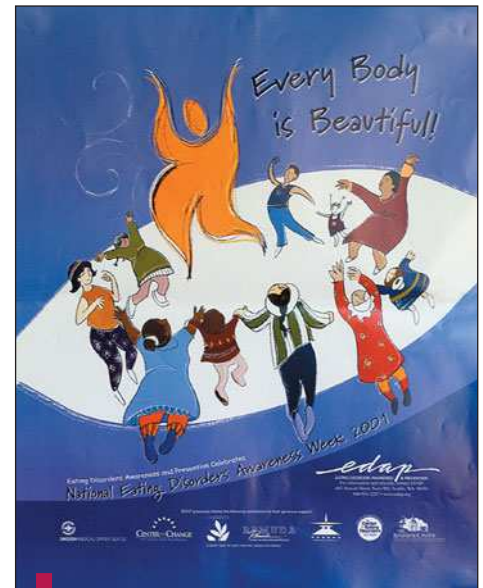
- Cognitive-behavioral explanations of eating disorders focus on experiences that reinforce eating-disordered behaviors and faulty and distorted thoughts about food and weight.
- Cognitive-behavioral interventions are particularly helpful in educating clients about the psychological effects of eating disorders and helping clients to identify the thoughts and feelings that support self-starvation or the cycle of bingeing and purging. In general, cognitive-behavioral interventions seem to be more effective for bulimia nervosa than for anorexia nervosa.
- The sociocultural explanation of eating disorders focuses on the unrealistic images of female beauty presented by the media and their negative effects on women.
- Sociocultural interventions focus on educating young women about distorted and unhealthy media images and use social activism to protest these harmful images.

Critical Thinking Question

If you were to design an eating disorders prevention program for seventh grade girls, what information would you provide?

Biological Components

Biological explanations for eating disorders focus on genetic factors, hormonal and neurotransmitter abnormalities, and structural brain abnormalities. On the genetic front, studies have consistently found that identical twins have higher concordance rates for anorexia and bulimia than fraternal twins, thus indicating some genetic basis for eating disorders (Bulik, 2004). Interestingly, other studies find that the specific of eating disorder symptoms (e.g., whether a person purges, restricts, etc.) appears to be heavily influenced by nongenetic factors (Mazzeo et al., 2006), again illustrating the *principle of multiple causality* in eating disorders. Eating disorders often co-occur with two other



Sociocultural intervention An Eating Disorders Awareness and Prevention, Inc. (EDAP) poster promoting respect for all physical shapes and sizes.

© Rachel Epstein/PhotoEdit



Figure 8.3 Self-portrait by an anorexic woman This self-portrait depicts the profound sense of suffering, isolation, and sadness commonly felt by people with eating disorders.

Susan Rosenberg/Photo Researchers, Inc.

disorders that are known to have genetic components: depression and obsessive-compulsive anxiety disorder (Figure 8.3 shows a self-portrait by a woman with anorexia that illustrate depressive features of the disorder) (Wonderlich & Mitchell, 2001). Some clinicians argue that eating disorders can be seen as an outgrowth of obsessive-compulsive anxiety disorder (Chapter 4), the disorder in which an individual is preoccupied by anxiety-provoking thoughts and feels compelled to perform ritual acts in order to relieve anxiety (Anderluh et al., 2003). In the case of eating disorders, a person might develop the compulsive need to diet, exercise, and/or purge in response to obsessional thoughts about being overweight.

With regard to hormonal abnormalities, new research has focused on two recently discovered hormones: leptin, a hormone that suppresses appetite, and ghrelin (pronounced GREEL-in), a hormone that stimulates hunger. In general, people suffering from bulimia appear to have lower leptin levels than normal, thus stimulating appetite (Montelone et al., 2004). People suffering from anorexia also appear to have unusually low levels of leptin, but this likely results from malnutrition since leptin is produced by fat cells. Research on ghrelin levels in bulimia and anorexia has also produced some interesting results. Ghrelin levels normally drop off after a meal (thus leading to feelings of satiation), though this does not seem to be the case for people suffering from bulimia nervosa. Experts hypothesize that the failure to feel sated after eating may contribute to binge-eating episodes in bulimia (Kojima et al., 2005). Ghrelin levels are unusually high in people with anorexia, but return to normal levels with weight gain, making it unclear whether ghrelin abnormalities are a cause or a result of anorexia (Jimerson & Wolf, 2006). In addition, anorexia and bulimia may be perpetuated by stimulation of the body's **endorphins**, natural opiates that produce feelings of pleasure. Huebner (1993) proposes that the body secretes endorphins in response to the purging and/or self-starvation behaviors associated with anorexia and bulimia. The release of endorphins may then reinforce eating-disordered behavior.

Both anorexia and bulimia are associated with unusually low levels of serotonin, a neurotransmitter associated with appetite regulation, mood and anxiety disorders, impulse control problems, and obsessional thinking (de Zwaan, 2003). Efforts to determine whether low serotonin levels *cause* or *result from* eating disorders have met with mixed results. Some studies find that serotonin levels return to normal once an eating disorder remits, thus indicating that the low serotonin levels are the *result* of malnutrition or bingeing/purging (Ward et al., 1998). Other studies find that serotonin abnormalities persist after recovery, indicating that serotonin abnormalities precede, and perhaps contribute to, eating disorders (Bailer et al., 2005). However, some researchers point out that persistent serotonin abnormalities after eating disorder recovery could indicate that eating disorders damage and disrupt previously “healthy” serotonin systems (de Zwaan, 2003). As you can see, the role of serotonin in eating disorders is not yet fully understood.

Table 8.9 lists some of the structural brain abnormalities discovered in people suffering from eating disorders. By using neuroimaging techniques that allow for close observation of the living brain, researchers have found that several areas of the brain appear to be shrunken or atrophied, thus creating larger spaces for cerebrospinal fluid. As with research on serotonin systems, it is not clear whether brain abnormalities cause or result from disordered eating. Some evidence indicates that many brain abnormalities disappear once weight is restored to normal, suggesting that the abnormalities *result from* the eating disorder (de Zwaan, 2003). Other evidence indicates that some brain abnormalities persist, in at least some people, after recovery (Neumarker et al., 2000), and that total gray and white matter volumes can be notably decreased in adolescents who have been malnourished even for a relatively short period of time (Katzman et al., 1996). These latter findings suggest that brain abnormalities

Endorphins Brain chemicals that reduce pain and produce pleasurable sensations; sometimes referred to as the body’s “natural opioids.”

TABLE 8.9 Findings from Computerized Tomography (CT) and Magnetic Resonance Imaging (MRI) Studies in People with Anorexia or Bulimia

- Enlargement of external cerebrospinal fluid (CSF) spaces
- Enlargement of internal cerebrospinal fluid (CSF) spaces
- Decreased total gray matter volume
- Decreased total white matter volume
- Mild atrophy of the thalamus and midbrain area
- Reduced pituitary size

Adapted from de Zwaan, 2003, p. 91

may be a contributing *cause* of eating disorders. Both possibilities are likely true: Brain anomalies may make some people vulnerable to eating disorders *and* eating disorders probably damage the health of the brain.

Biological Interventions

Although biological interventions for eating disorders are relatively new, several studies have found **SSRI (selective serotonin reuptake inhibitor) antidepressants** (Chapter 5) to be effective in the treatment of bulimia whether or not the person suffering from bulimia is depressed (Mitchell et al., 2001). Research comparing cognitive-behavioral therapy (CBT), SSRI treatment, and a combination of CBT and SSRI treatment for bulimia has shown that CBT and SSRI treatment are most beneficial in combination, whereas CBT treatment alone is more effective than SSRI treatment alone (Walsh et al., 1997). However, SSRI treatment can be an alternative intervention for clients who do not respond to psychotherapy, or who relapse after a successful course of psychotherapy (Walsh et al., 2000). To date, there has been little experimental support for using SSRIs to treat anorexia nervosa, though some recent evidence indicates that the combination of SSRIs and psychotherapy may be effective in preventing relapses after weight recovery has occurred (Kaye et al., 2001).

SSRI antidepressants Medications that block the reuptake of serotonin from the synapse; used in the treatment of depression and other disorders.

The Connection Between Mind and Body in Eating Disorders

Eating disorders profoundly illustrate the *connection between mind and body*. Think of how you feel after you have skipped a meal. Are you able to concentrate well? Is your abstract thinking as good as usual? Probably not. Now, multiply that condition by 10 and you may approximate the mental state of a person with anorexia. Indeed, many clinicians find that clients with anorexia are very difficult to treat precisely because they are famished. Their chronic hunger makes it difficult for them to think constructively about their problems. A classic study of healthy men who volunteered to severely restrict their diets for an extended period of time found that of them most changed from being pleasant, cooperative, and social to becoming cranky, self-centered, and cognitively impaired (Brozek, 1953). Hilde Bruch was among the first clinicians to emphasize the effects of starvation on an anorexic client's behavioral and cognitive style. The growing appreciation of the cognitive impairment caused by starvation has led clinicians to prioritize weight gain interventions not only for health reasons, but also to restore the cognitive flexibility needed for psychotherapy.



Mind-body connection



Multiple causality

The Multiple Causality of Eating Disorders

Eating disorders also illustrate the principle of *multiple causality*. For example, a young woman whose family emphasizes perfection and self-control may be at risk for anorexia, but might not develop the disorder unless she starts to gain weight in adolescence and happens to be highly attuned to media images of thin models. Or a female athlete with mild concerns about weight and physical appearance may develop bulimia only after becoming upset about a disappointing period of athletic performance. Someone with a genetic predisposition to anorexia might cross the line from dieting to anorexia when faced with the stresses of leaving home to go to college.

Despite differences among the various theoretical perspectives on eating disorders, they also share some common ground. Both psychodynamic and family systems theorists focus on family dynamics and relationships in maintaining eating disorders. Several theoretical perspectives focus on the cognitive distortions that are central to eating disorders, such as overly rigid thinking about “good” and “bad” foods. While psychodynamic and family systems explanations emphasize the underlying causes of such cognitive distortions, cognitive-behavioral interventions focus directly on identifying the kinds of thinking and behavior that sustain eating disorders.

Treatment of a client with severe anorexia or bulimia often involves a team of specialists. A nutritionist, a psychiatrist, and a psychologist or social worker may work together to tackle the multiple components of a client’s eating disorder. In most cases, psychotherapy will draw on a variety of theoretical approaches. Cognitive-behavioral techniques might be used to help a client with anorexia gain weight, while psychodynamic interventions may be employed to address the roots of the eating disorder. Similarly, a cognitive-behavioral intervention for a client with bulimia may be supplemented by the prescription of an antidepressant. In cases where the eating disorder is less severe (intense dieting, but without significant weight loss, or occasional bingeing), a single-treatment approach may be tried at first, with other treatments added if necessary.

BRIEF SUMMARY

- Biological explanations for eating disorders focus on genetic factors, hormonal and neurotransmitter abnormalities, and structural brain abnormalities. Studies indicate some genetic basis for eating disorders, and research on hormonal abnormalities suggests that atypical leptin and ghrelin levels play a role in eating disorders. Both anorexia and bulimia are associated with unusually low levels of serotonin as well as a number of structural brain abnormalities. Researchers are working to determine whether the hormonal, neurotransmitter, and structural anomalies observed in anorexia and bulimia cause or result from the eating disorder.
- SSRI antidepressants have been shown to be effective in the treatment of bulimia and may be useful in preventing relapse in people who have already recovered from anorexia.
- The cognitive impairment caused by starvation illustrates the *connection between mind and body* in eating disorders.
- Eating disorders usually arise from *multiple causes*. Most treatments, especially in cases where the eating-disordered behavior is severe, involve a combination of techniques from a variety of theoretical perspectives.

Critical Thinking Question

We have noted the strong connection between eating disorders and depression. What possibilities do you see for how and why these disorders might be related?

CASE Vignettes

Treatment

Megan • Anorexia Nervosa

Megan's parents became terribly concerned when their daughter collapsed at school. The doctors at the ER determined that Megan needed to be hospitalized so that her electrolyte levels could be monitored. Megan insisted that she was not hungry and that she did not need or want to gain weight. A psychologist evaluated Megan and determined that it was impossible to assess her psychological makeup while she still suffered the effects of severe malnutrition. The psychologist worked with the hospital nutritionist and Megan's physician to develop a weight-gain plan that would be tolerable for Megan. They presented a plan in which she would be allowed to choose what she wanted to eat from a variety of foods as long as she made steady progress toward gaining weight. Megan and her physician determined that she could be released from the hospital to continue her weight recovery plan at home once she reached a weight of 85 pounds. Megan was very eager to leave the hospital, so she agreed to the plan without much protest.

At about the time she reached 82 pounds, Megan's attitude toward her anorexia began to change. No longer fighting the cognitive effects of starvation, she began to talk to her psychologist about how often she did feel hungry, but would deny this to herself and others because she did not want anyone to think she was "weak." Megan complained that giving up her anorexia meant giving up a feeling of being special and "tough," and different from the other teenage girls she knew.

Once Megan left the hospital and returned to living at home, she described to her therapist how her mother had been especially proud of her accomplishments in gymnastics. Megan's mother did not work outside the home and would spend hours driving Megan back and forth between gymnastic meets, or waiting in the back of the gym while Megan practiced. At times, Megan's mother credited her daughter's success in gymnastics to her own dedication and constant support. Megan appreciated her mother's interest in her sport and was happy that her suc-

cesses pleased her mother, but she also felt angry and resentful that her mother seemed to be taking credit for her hard athletic work. Over time, Megan understood that she began to lose weight so that she could have a personal accomplishment that her mother could not take credit for.

As her therapy progressed, Megan discussed how she had enjoyed gymnastics tremendously when she first began, but that her interest waned over time. She did not tell her parents that she had thoughts of quitting gymnastics because she knew that it meant a lot to them that she was such an accomplished gymnast. Megan also worried that her mother would feel lonely and bored if she did not have Megan's gymnastics, and she felt that she owed it to her mother to keep competing since her mother had been so supportive. In the final stages of therapy, Megan struggled to figure out what she wanted for herself and also worked to understand the origins of the strong sense of responsibility she had assumed for her mother's happiness.

Megan and her therapist decided that it would be helpful to begin a family therapy that included her parents. In the family therapy, Megan talked with her parents about how her anorexia stemmed from her desire both to please and to separate from them. The therapist also helped Megan's parents talk about their reactions to their daughter's anorexia and also confront some marital problems that Megan's anorexia had overshadowed. Throughout both therapies, Megan continued to meet on an outpatient basis with the hospital nutritionist who monitored her weight and made sure that Megan continued to gain weight until she reached 110 pounds.

Megan's weight stayed in the normal range until her sixteenth birthday. As soon as she began to drive, Megan spent more and more time away from home, missing meals and quickly losing weight. Despite her apparent recovery and therapeutic insights, Megan became anorexic again and needed to resume intensive multimodal therapy.

CASE DISCUSSION • Anorexia Nervosa

A team approach was used to help Megan in the early stages of her recovery from anorexia. By including a nutritionist and a physician in Megan's treatment, the psychologist was able to share the responsibility for monitoring Megan's weight. Megan's psychologist decided not to begin therapy while Megan was still severely malnourished because he knew that she would not be cognitively equipped to consider her problems in a constructive

way. A behavioral approach was used to help Megan regain weight; she was rewarded with being allowed to choose her own meals as long as she gained weight, and she was able to leave the hospital once her weight reached a satisfactory level.

Megan's individual therapist employed techniques from a variety of theoretical approaches. When therapy began, Megan and her therapist explored a number of psychodynamic themes,

particularly ones related to Megan's feelings of wishing to be special and not knowing how to decide what she wanted for herself. They also considered some family systems themes that were addressed later on in family therapy. Yet, despite Megan's

apparent recovery, her anorexic symptoms returned. Like many suffering from anorexia, Megan faces a life-long struggle with the wish to starve herself when psychologically distressed.

Theresa • Bulimia Nervosa

In Theresa's first therapy session, the therapist discussed how dieting, overconcern about weight, and allowing oneself to purge all work to perpetuate the binge-purge cycle. Theresa began to understand how changing her thinking and behavior would be critical to controlling her bulimia. Before the end of the second session, Theresa's therapist showed her how to monitor everything she ate, to record when she binged and purged, and to keep track of the thoughts and feelings that influenced her eating behaviors.

Theresa felt embarrassed when she next returned to meet with her therapist because she had binged and purged three times in the week since they had met. Together they looked over Theresa's monitoring sheets. The therapist observed that Theresa always binged after a period of fasting for at least six hours. Theresa's therapist encouraged her to eat breakfast, lunch, and dinner every day for the next week. Theresa worried that this would cause her to gain weight, but her therapist reassured her that this would in all likelihood reduce her binges and help her to feel more in control of her eating and weight.

Theresa was surprised to find that she only binged and purged once in the next week, and by the time of her next appointment she thought that she might even be getting back a sense of what it felt like to be a little bit hungry and then to eat only until she was pleasantly full. Next, Theresa and her therapist began to focus on the thoughts and feelings that Theresa had

been recording on her monitoring sheets. They talked about Theresa's sense that she could not control herself once she started eating. The therapist noted that there were bingeing episodes in which Theresa felt that she could not stop herself from eating, but the therapist also used the monitoring sheet to point out several other times during the week when Theresa had been able to eat a reasonable amount and then stop.

In the next session, Theresa talked about how she often felt pressured to eat at times when her sorority sisters were eating, even if she didn't feel hungry. Theresa worried that if she did not join her sisters in all their meals, or didn't eat the kinds of things they ate, they would feel that she was being aloof or "stuck-up." Theresa and her therapist talked about how Theresa was making extreme assumptions about what her sisters might be thinking about her. The therapist encouraged Theresa to join her sisters for meals only when she felt like eating, and then to eat only what she wanted. Theresa was instructed to watch carefully to see if her sisters treated her differently, and then report back in the next therapy session.

In the following session, Theresa reported that her sisters did not seem to mind, or even notice, the change in her eating patterns. The remainder of the therapy focused on helping Theresa maintain her improved eating habits and on identifying and challenging other cognitive distortions related to food and eating.

CASE DISCUSSION • Bulimia Nervosa

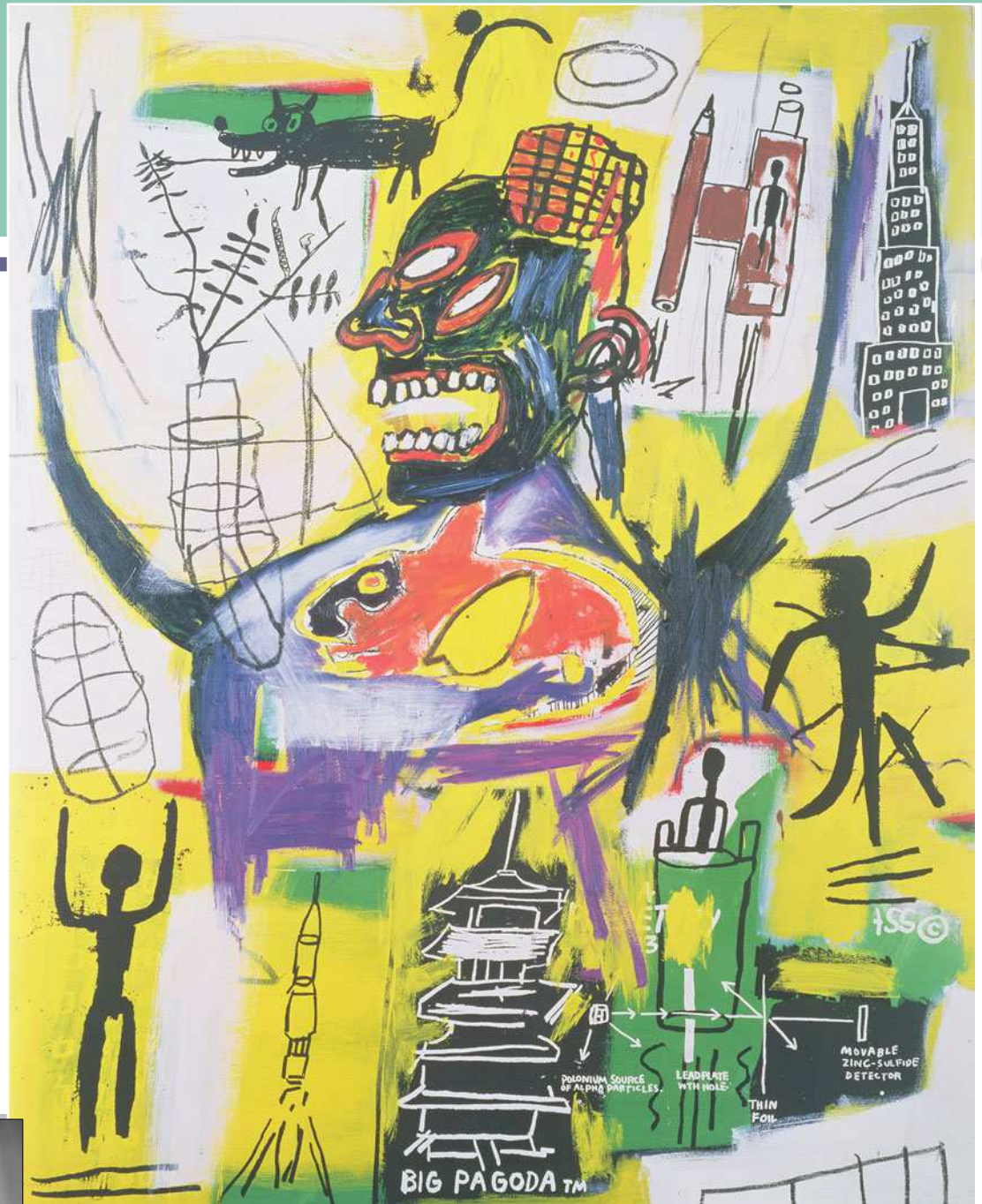
Theresa's therapist used cognitive-behavioral techniques to treat Theresa's bulimia. The therapist educated Theresa about healthy eating and the cognitive distortions that contributed to her unhealthy eating patterns. In addition, Theresa's therapist provided "homework" between sessions such as prescribing a regular pat-

tern of eating, or encouraging Theresa to experiment with how her friends reacted when she did not eat what they ate. Ongoing psychotherapy sessions helped Theresa maintain her progress and provided a forum for addressing new, or as yet unexplored, cognitive distortions.

Chapter Summary

- Eating concerns and disorders occur along a *continuum* that ranges from mild worries about food and weight to severe anorexia or bulimia.
- Problematic eating behavior must be considered within the *context* in which it occurs when the appropriateness of an eating disorder diagnosis is assessed.
- The DSM-IV-TR includes three diagnostic categories for eating disorders: anorexia nervosa, bulimia nervosa, and eating disorder not otherwise specified.
- The majority of eating disorders occur in young adult women from Western, industrialized countries, highlighting the *cultural relativism* of eating disorders.
- Although the categories of anorexia and bulimia characterize two prominent eating disorders, many people with significant eating problems do not meet the DSM-IV-TR diagnostic criteria for either disorder, highlighting the *advantages and limitations* of the DSM-IV-TR eating disorder diagnoses.
- The cognitive effects of physical starvation, which can interfere with psychotherapy, illustrate the *connection between mind and body* in eating disorders.
- Eating disorders arise from *multiple causes*, making it important to include a variety of interventions in most treatments.

Jean-Michel Basquiat, *Pyro*, 1984. Acrylic and mixed media on canvas, 218.4 x 172.2 cm. Private Collection/James Goodman Gallery, New York/The Bridgeman Art Library International/©2007 Artists Rights Society (ARS), New York.



©Allen Ginsberg/Corbis

Brooklyn-born Jean-Michel Basquiat (1960–1988) was a major figure in the New York art scene of the 1980s. He skyrocketed to fame when his graffiti-inspired creations were hailed by Rene Ricard of *Artforum* magazine. Soon after, he began to engage in artistic collaborations with Andy Warhol and to show his work with Keith Haring and other famed contemporary artists of the time. Basquiat's promising career was tragically cut short when he died of a heroin overdose in 1988 after several years of struggling with drug addiction.

Drug Use and the Substance Use Disorders

CASE Vignettes

Rob is a 25-year-old salesman at an electronics store. He enjoys work and his friends, but feels that he is not functioning at his best, possibly because of his marijuana use. Rob and his friends began drinking on weekends in ninth grade, but after getting very sick at a party Rob decided that alcohol was not for him. In tenth grade, Rob tried marijuana for the first time and found that he enjoyed it a great deal. The high relaxed him and made him feel more creative and intelligent. Also, it seemed to help him forget about the painful turmoil of his parents' recent divorce. Since tenth grade, Rob has gotten high on a regular basis, usually about three times each week. At times, Rob smoked pot every day, but he was always able to cut back after doing so. He even stopped smoking entirely for two months during his senior year in high school when his girlfriend complained that his marijuana use was interfering with their relationship.

During college, Rob tried a few other drugs, including LSD, ecstasy, and cocaine, but he rarely uses them, as he much prefers the marijuana high. Rob wonders at times if his pot use is a problem. He thinks that he could be doing more with his life if he was not smoking marijuana. However, he reassures himself by noting that he has a decent job and that he is so accustomed to being high that people usually can't tell when he is stoned.

Dr. Bryce consulted a psychologist after being denied tenure at the business school where she had been teaching. Dr. Bryce was furious about the decision and told the psychologist that she was considering suing the university. She wanted the psychologist's help in preparing her case and testifying to her emotional turmoil, as she had been agitated, anxious, and unable to sleep since receiving the news two weeks ago. When the psychologist asked Dr. Bryce about the grounds on which tenure had been denied, she reported that the committee had claimed that her teaching and research records were extremely poor, and they attributed this to her alcoholism. Dr. Bryce insisted that she was not an alcoholic and that her weak academic record was due to unfairly burdensome administrative responsibilities. When the psychologist gently questioned Dr. Bryce about her use of alcohol, she admitted to drinking daily to the point of intoxication for the past seven years. She also acknowledged having failed at several important projects and relationships during this time, but argued that these stresses were the cause of her drinking, not the result of it. Dr. Bryce claimed that alcohol helped her cope with her difficult situation, and since she could hold her liquor well, she saw no harm in it.

CASE VIGNETTES

Defining Substance Use Disorders

- The Importance of Context in Defining Substance Use Disorders
- The Continuum Between Normal and Abnormal Substance Use

Classifying Substance Use Disorders

- The DSM-IV-TR Substance Use Disorders
- The Advantages and Limitations of the DSM-IV-TR Diagnoses
- Commonly Abused Substances
- Classification in Demographic Context

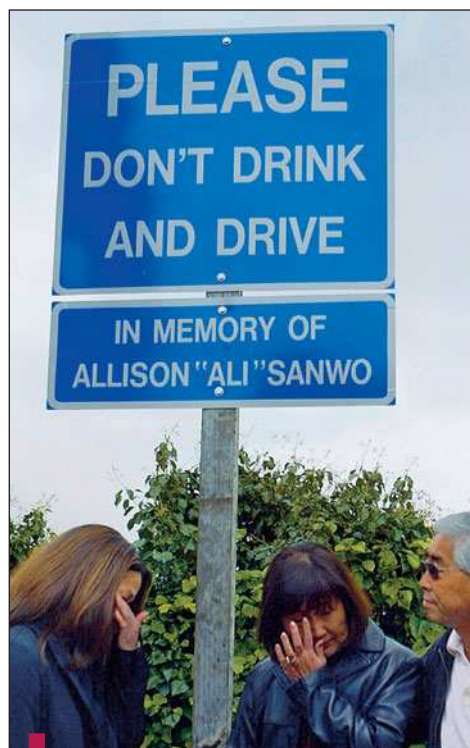
Explaining and Treating Substance Use Disorders

- Biological Components
- Behavioral Components
- Cognitive Components
- Sociocultural and Family Systems Components
- Psychodynamic Components
- The Twelve-Step Approach
- Multiple Causality and the Connection Between Mind and Body in Substance Use Disorders

CASE VIGNETTES

Treatment

Appendix: Histories of Some Commonly Abused Substances



Consequences of substance misuse Experts estimate the annual cost of substance related disorders in the U.S. at up to \$300 billion, but the human cost of substance misuse is incalculable.

© AP/Wide World Photos

DEFINING SUBSTANCE USE DISORDERS

Drug abuse (classified as the “Substance Related Disorders” in the DSM-IV-TR) is considered a major public health problem in the United States. At least one-quarter of the U.S. population will meet the criteria for a substance use disorder over the course of their lifetimes, making substance misuse the most common of all mental disorders (Kessler et al., 2005). In addition, alcohol, nicotine, and other drugs contribute to 25% of all deaths in the United States each year (Neumark, Van Etten, & Anthony, 2000). Practically everyone in this country, therefore, will at some point be personally affected by substance misuse—if not their own, then that of friends or family members (see Table 9.1). The social and economic price of substance misuse is staggering. By some estimates, the annual cost of substance-related disorders in the United States totals \$300 billion; this figure includes the cost of drug-related crime and mental health problems (Shuckit, 2000). Indeed, the Rand Corporation estimated that for every dollar spent on treating addiction, seven dollars are ultimately saved as a result of reduced crime and increased productivity (Ebener, McCaffrey, & Sane, 1994). The human cost of substance misuse—in deadly car accidents, dysfunctional families, lost achievement potential (such as in the case of Dr. Bryce), violence, and so on—is incalculable.

Among college and high school students, substance misuse is a particularly serious problem. While college has always been a time of experimentation with new and sometimes risky behaviors, American college campuses are currently experiencing an epidemic of a particularly dangerous form of substance abuse known as **binge drinking** (Miller et al., 2007; Miller, 2001; Mooney, 2001; Nelson & Wechsler, 2001; Rosenberg & Mazzola, 2007; Schulenberg et al., 2001). Every year, students die as a result of binge drinking, which is technically defined as drinking five or more drinks in a row for a man or four or more drinks in a row for a woman. Drinking-related fatalities aside, the lives of thousands of college students are disrupted by their own or others’ alcohol misuse. As a result, the topic of drug use is particularly relevant to a college-age population.

But how do we know when drug or alcohol use is a problem, rather than a harmless recreational activity? In severe cases like Dr. Bryce’s, we can easily label her alcohol use as problematic, despite her **denial** of the problem. (Denial is a defense

TABLE 9.1 Prevalence Estimates for Substance Use in the United States

SUBSTANCES	EVER USED (%)	PAST YEAR USE (%)	DEPENDENCE RATE AMONG USERS (%)
Alcohol	83.6	66.9	15.4
Tobacco	73.3	31.7	31.9
Marijuana	33.7	8.5	9.1
Cocaine	11.3	1.7	16.7
Stimulants	6.0	0.7	11.2
Sedatives (anxiolytics and hypnotics)	3.4	0.4	9.2
Analgesics	6.8	2.0	7.5
Inhalants	5.3	1.1	3.7
Hallucinogens	8.7	1.3	4.9
Heroin	1.1	0.1	23.1

Note: “Ever Used” and “Past Year” data based on individuals age 12 and up from the National Household Survey on Drug Abuse, Office of Applied Studies, Substance Abuse and Mental Health Services Administration. Dependence data are from the National Comorbidity Study (Kessler, et al., 1994).

Binge drinking A dangerous practice of rapid alcohol consumption, defined as four or more drinks in a row for a woman or five or more drinks in a row for a man.

Denial A defense mechanism in which an individual fails to acknowledge an obvious reality.

Adapted from Anthony & Arria, 1999

mechanism commonly found among drug users who minimize or deny the seriousness of their problem in order to keep using their drug.) Heavy substance users often become physically and emotionally dependent on a drug, and their daily functioning becomes seriously impaired. But what about Rob, or less extreme examples, in which substance use seems to cause few, if any, obvious problems? Drug and alcohol use is not always abnormal or problematic. We will return to the issue of how to define problematic substance use shortly. First, however, we must start with even more fundamental issues: what are drugs, and why, in general, are they used?

Experts in the field of substance misuse insist that in order to understand drug problems we have to understand two basic facts. First, we must get past the misconception that the term *drugs* refers only to illegal substances such as marijuana, cocaine, or heroin. In fact, any *psychoactive* (that is, brain-affecting) substance is a drug and can potentially be abused. Accordingly, caffeine, alcohol, and nicotine are all drugs. Some drugs are legal, some illegal, and some legal only by prescription. In order to address the misconception that only illegal drugs are abused, most experts have come to prefer the term *substance* to *drug*. This is why the relevant DSM-IV-TR category is called Substance-Related Disorders (APA, 2000).

The second point follows from the first. Drug, or substance, use is universal (Garrick et al., 2000; Gerostamoulos, Staikos, & Drummer, 2001; Laranjeira et al., 2001; Shewan et al., 2000). We all use psychoactive chemicals at times, most of us on a daily basis. While legal and consumed in relatively small doses, our daily cup of coffee, cigarette, or glass of wine are forms of substance use (see Box 9.1). Every known society—across cultures and across historical epochs—has engaged in substance use of some kind (Rassool, 1998).

Since substance use is so ubiquitous, we must also look at the question of *why* people use drugs. In a general sense, the answer is simple. People use substances in order to obtain feelings of pleasure, or to decrease feelings of distress or tension. In this way, substance use follows the fundamental laws of pleasure seeking and pain aversion that shape all behavior according to behavioral and psychodynamic theories (da Silva et al., 2000; Nesse & Berridge, 1997; Ng, George, & O’ Dowd, 1997). As one heroin addict put it, “I use drugs to feel good and to stop feeling bad.” This basic explanation applies to all substance use, from the heroin addict to the college student who has one cup of coffee in the morning to feel more alert and one beer in the evening to “take the edge off” a stressful day. While pleasure seeking and pain aversion explain substance use in general, they do not explain why some people can use substances in moderation while others become pathological users. To answer *this* question, we will turn to the various explanatory theories that offer much more detail about the biological, psychological, and sociocultural factors involved in substance misuse (in the Explaining and Treating Substance Use Disorders section later in this chapter).

The Importance of Context in Defining Substance Use Disorders

For many years, clinicians viewed substance misuse as a symptom of personality pathology rather than as a distinct syndrome of its own. In the DSM-I and DSM-II, for example, the diagnoses called “addiction” and “drug dependence” were classified under the personality disorders (Fleming, Potter, & Kettyle, 1996). When clinicians tried to evaluate whether someone had a drug problem, they usually relied on relatively crude *quantitative* (numerical) criteria. For example, clinicians focused on *how much* of the substance was used, *how often* it was used, and *when* it was typically used during the day. This approach was communicated to the general public, so that as recently as the 1970s high school students were sometimes taught that “an alcoholic is someone who has a drink every day at the same time.”

By the time the DSM-III was published (APA, 1980), most clinicians and researchers had come to believe that substance misuse was a distinct syndrome, not a type of personality disorder, and the DSM-III reflected this by placing substance use



Binge drinking Binge drinking, a popular activity among college students, is shown here during spring break in Cancun, Mexico. It is serious public health problem on college campuses.

Sean Murphy/Getty Images, Inc.



The
importance
of context

BOX 9.1 College Guerrilla Theatre: Are Coffee Drinkers Drug Addicts?

"AT AMHERST, THE DAY THE URNS WENT DRY" by Julie Flaherty

The following article describes a "guerrilla theatre" project by a group of students at Amherst College that aimed to highlight hypocritical attitudes about substance use.

On any given day, the coffee house in the Amherst College campus center offers a dozen brews, plus espresso. But today the pots were covered with white shrouds, and the dispensers in the dining hall were empty. This was the day that coffee was banned forever from the campus.

Or so it seemed. Actually, it was an elaborate class project staged by an art student, Andrew Epstein, and pulled off with the help of friends and the administration.

While not exactly the War of the Worlds, students and staff did panic when they showed up for their morning cup and found signs that read: "In order to curb the use of caffeine at Amherst College, the sale and distribution of coffee are no longer permitted on campus. Effective Immediately." Questions were to be directed to the Caffeine Control Coordinator.

And indeed, the dining services, which were in on the joke, brewed not a drop today. Mr. Epstein, who is 22, conceived the Day of No Joe as a final project for his art class on social sculpture, to draw attention to what he regards as the hypocrisy of drug laws. A painting is easily ignored, he said, but remove part of a person's daily routine, and notice is taken.

"I came upon this idea of trying to re-create Prohibition by taking away a substance that's been culturally domesticated to make people aware of their own substance abuse," Mr. Epstein said. He recruited friends to act as black-market coffee dealers, who sat outside the dining hall and offered bootleg java at inflated prices. "Hey, you need coffee?" Dan Frabman, 22, a senior, hissed from behind his dark glasses. To entice hard-core addicts looking for a quick hit, he added: "Espresso beans, 10 cents a bean." Some bought; many averted their eyes or just said no. Several confused students—"Is this for real?" one asked—attended a news conference at which Mr. Epstein enumerated the dangers of caffeine. Mr. Epstein later said he studied the speeches of Barry R. McCaffrey and William J. Bennett, two former federal drug-policy czars, to get in character.

The true art of Mr. Epstein's work was in convincing the college to go along with his scheme. The student government approved his plan in a closed-door session late one night. He also

met with Charles Thompson, the director of dining services, and Tom Gerety, president of the college, who gave their tacit blessing. Mr. Gerety said through a spokesman that the project was "a wonderful piece of guerrilla theater."

A college administration supporting the legalization of drugs, however indirectly? DeWitt Godfrey, the assistant professor who oversaw the art projects, said Mr. Epstein, who is known around campus for his involvement in Students for a Sensible Drug Policy, was wise to couch his proposal as art, not policy.

"I suspect if he had come to the administration as an activist, there would have been much stronger resistance," Mr. Godfrey said. "It shows us how art has this kind of peculiar permission."

Mr. Thompson, the head of dining services, said he had trouble sleeping the last several nights, knowing that he and his staff would be on the front lines when people discovered that coffee was no more. Denying his customers a product "went against everything I believe in my job," he said. He planned to post signs on Wednesday apologizing for the inconvenience, and offering hazelnut and other specialty coffees in the dining hall as penance.

"It wasn't as bad as I thought it would be," Mr. Thompson admitted. Mr. Epstein had originally proposed to stage his coffee ban next week—finals week. But Mr. Thompson objected, feeling that that would constitute cruel and unusual punishment.

The New York Times, May 9, 2001

Students at Amherst College confronting the absence of coffee in the dining hall.

© George Ruhe/New York Times Pictures



disorders in their own category. Concurrently, the quantitative approach to defining drug problems fell into disfavor as clinicians realized that numerical criteria did not usefully distinguish problematic from nonproblematic substance use. The major inadequacy of the quantitative approach is that it disregards the importance of *context* in assessing drug use. For example, one drink every day with dinner may not be problematic for a 250-pound man who is only mildly affected by the alcohol because of his body size. The same drink may cause significant impairment in a 95-pound woman and could be quite problematic if consumed on a daily basis. Similarly, assessing alcohol misuse among college students requires careful consideration of the context of their subculture, which differs considerably from other subcultures of our society in terms of its norms for alcohol use (Miller, Stout, & Sheppard, 2000; Weitzman & Wechsler, 2000).

In order to improve upon the quantitative approach to determining pathological drug use, some clinicians began to emphasize the nature of the *relationship* between the user and the drug (Adalbjarnardottir & Rafnsson, 2001; Camlibel, 2000). The relationship approach proposes that users have a complex relationship with the substances they use, and that this relationship can be healthy or pathological, just like interpersonal relationships. Assessing a drug relationship, then, is much like assessing any human relationship. The clinician obtains a history of the relationship, looking for indications as to whether the relationship is adaptive or maladaptive (O'Farrell, 2001). Does the substance use harm the user? How much does it interfere with everyday life? These questions cannot be answered by simply looking at quantitative criteria; they can be answered only by assessing the unique role of substance use in each user's life.

The relationship model for defining pathological drug use has been incorporated into the DSM criteria for diagnosing substance misuse since the DSM-III (APA, 1980). While there have been some modifications in the specific DSM criteria since DSM-III, the basic definition of Substance Use Disorders is "a maladaptive pattern of substance use, leading to clinically significant impairment or distress" (APA, 2000, p. 197). Notice that the emphasis is on a *pattern of use that causes distress or impairment*, rather than on quantitative criteria. Again, it is the particular relationship between the user and the drug that determines whether or not the drug use is pathological.

The Continuum Between Normal and Abnormal Substance Use

If we return to the cases of Rob and Dr. Bryce, we see that the relationship model can help us define whether or not their drug use is pathological. The relationship model takes into consideration the *continuum between normal and abnormal behavior*, since all relationships can be placed on a continuum from healthy to pathological. On this continuum, the case of Dr. Bryce is an easy call. Her relationship with alcohol is clearly extreme, maladaptive, and a cause of significant impairment. Rob's marijuana use, and the degree of impairment it causes, are less extreme, but still sufficient to suggest that the relationship is maladaptive since it is interfering with his job performance. Nonetheless, Rob's case, being closer to the middle of the continuum between normality and abnormality, highlights another core concept: the *advantages and limitations of diagnosis*. Even though the relationship approach helps define pathological substance use, it cannot provide an *absolute* definition of pathology because there will always be some approximation in drawing the line between normality and pathology for any type of mental disorder.

BRIEF SUMMARY

- Substance misuse is a serious public health problem in our society.
- Psychoactive chemicals, legal and illegal, are universally used, generally in order to increase pleasure and decrease distress or tension.



Legal drugs Millions of people use caffeine to regulate their moods and levels of alertness; Starbucks alone expects to have over 15,000 stores around the world by 2008.

©Yue Ren/Corbis



Normal-
abnormal
continuum

- The core concepts of the *importance of context* and the *continuum between normality and abnormality* help in defining pathological substance use. These core concepts inform the relationship model, which has replaced quantitative criteria for defining substance misuse.

Critical Thinking Question

In Rob’s case, how might the frequency of his marijuana use (a quantitative factor) play a role in defining whether his use is pathological?

CLASSIFYING SUBSTANCE USE DISORDERS

As we described, the DSM-IV-TR substance use disorders are defined in a manner consistent with a relationship model. The DSM-IV-TR identifies two distinct patterns of substance misuse: *substance abuse* and *substance dependence*. Each of these diagnoses identifies a *pathological relationship between a user and a drug* (or drugs) being used.

The DSM-IV-TR Substance Use Disorders

Substance abuse is the less severe of the two DSM-IV-TR diagnoses, although substance abuse may develop into substance dependence, a diagnosis roughly equivalent to the popular term *addiction*. To understand the distinction between substance abuse and substance dependence, let’s consider three criteria known informally among clinicians as the “three C’s” of substance misuse (see Table 9.2) (Committee on Problems of Drug Dependence, 1984). These criteria describe three features of a pathological drug relationship: a pattern of ongoing use of a substance despite experiencing negative consequences, a pattern of compulsive use (that is, significant time and resources are devoted to the substance), and a loss of control over use of the substance, such as using the substance in greater amounts or with greater frequency than intended. Substance abuse and substance dependence can be distinguished on the basis of the three C’s. **Substance abuse** consists of only the first C—continued use of a substance despite negative consequences, such as the case of Rob’s lack of initiative related to his marijuana use. Negative consequences may include failure to fulfill one’s family, work, or school obligations, the development of substance-related legal or medical problems, or the presence of dangerous behaviors such as driving while intoxicated (APA, 2000, see Table 9.3). **Substance dependence**, on the other hand, usually involves all three C’s (see Table 9.4), as in the case of Dr. Bryce. In addition, substance dependence often (though not always) involves symptoms of physiological dependence. Physiological dependence is defined by the presence of one or both of two physical symptoms: **tolerance** and **withdrawal**. Tolerance refers to the body’s adaptation to the substance as indicated by the need for increased amounts of the substance to achieve the desired effect or obtaining less effect in response to using the same amount over time (APA, 2000). Frequent drinkers, for example, often find that they must consume ever-increasing amounts of alcohol in order to feel intoxicated. Withdrawal refers to the occurrence of physical or psychological symptoms if substance use is decreased or stopped. For example, regular heroin users typically go through an excruciatingly un-

Substance abuse The DSM-IV-TR diagnosis for substance use that has negative consequences.

Substance dependence The DSM-IV-TR diagnosis for substance use that is compulsive, out of control, and has negative consequences, often including physical dependence on the substance.

Tolerance The body’s adaptation to a substance as indicated by the need for increased amounts of the substance to achieve the desired effect or obtaining less effect in response to using the same amount over time.

Withdrawal Physical or psychological symptoms that occur when substance use is decreased or stopped.

TABLE 9.2 The “Three C’s” of Substance Misuse

1.	Continued use despite negative consequences
2.	Compulsive use
3.	Loss of control of use

TABLE 9.3 Diagnostic Criteria for Substance Abuse

Substance abuse is a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following occurring within a 12-month period:

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
- Recurrent substance use in physically hazardous situations.
- Recurrent substance-related legal problems.
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused by or exacerbated by the effects of the substance.

Adapted from the DSM-IV-TR (APA, 2000)

pleasant period of withdrawal if they abruptly stop using heroin. It is important to keep in mind that withdrawal can occur even with less potent, legal drugs. The slight headache you may experience if you skip your morning cup of coffee is very likely a mild symptom of caffeine withdrawal!

Substance abuse and substance dependence can be diagnosed with regard to any psychoactive substance. (Table 9.5 lists the addictiveness and effects of various substances.) The DSM-IV-TR lists 11 commonly misused substances but also allows for diagnoses related to other unlisted substances such as anabolic steroids and nitrous oxide (laughing gas). In addition the DSM-IV-TR provides a diagnosis for situations of **polysubstance dependence**, in which three or more substances are misused (see Box 9.2). Because sub-

Polysubstance abuse The misuse of three or more substances.

TABLE 9.4 Diagnostic Criteria for Substance Dependence

Substance dependence is a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by three (or more) of the following occurring at any time in the same 12-month period:

- Tolerance, as defined by either of the following:
 - The need for markedly increased amounts of the substance to achieve intoxication.
 - Markedly diminished effect with continued use of the same amount of the substance.
- Withdrawal, as manifested by either of the following:
 - The characteristic withdrawal syndrome for the substance.
 - The same or a related substance is taken to relieve or avoid withdrawal symptoms.
- The substance is taken in larger amounts or over a longer time than was intended.
- There is a persistent desire or unsuccessful effort to reduce or control use.
- A great deal of time is spent in activities necessary to obtain the substance or recover from its use.
- Important social, occupational, or recreational activities are reduced due to use.
- Substance use is continued despite knowledge of having a recurrent physical or psychological problem that is likely to have been caused by or exacerbated by the substance.

Adapted from DSM-IV-TR (APA, 2000)



Withdrawal Withdrawal, one of the common symptoms of substance dependence, can be excruciatingly unpleasant, frightening, and sometimes medically dangerous.

David Young-Wolff/PhotoEdit

TABLE 9.5 Addictiveness and Effects of Some Commonly Abused Substances

	DRUGS	TRADE/STREET NAMES	MEDICAL USES	PHYSICAL DEPENDENCE
Stimulants	Cocaine	Coke, crack, snow	Local anesthetic	Possible
	Amphetamines	Biphetamine, Desoxyn, Dexedrine, Obetrol	Weight control, hyperactivity, narcolepsy	
	Methylphenidate	Ritalin		
	Phenmetrazine	Preludin		
	Other stimulants	Adipex, Bacarate, Cylert, Didrex, Sanorex, Tenuate, Tepanil		
Depressants	Chloral hydrate	Noctec	Hypnotic	Moderate
	Barbiturates	Amytal, Alurate, Butisol, Mebaral, Numbutol, Seconal	Anesthetic, anticonvulsant, sedative	Moderate to High
	Methaqualone	Quaalude	None	High
	Benzodiazepines	Ativan, Dalmane, Halcion, Librium, Valium, Xanax	Anesthetic, anticonvulsant, sedative, hypnotic	Low to Moderate
	Alcohol	Many types	None	Moderate
	Opium	Pantofen, Paregoric, Parepectolin	Analgesic, antidiarrheal	High
	Morphine	Morphine	Analgesic	High
	Codeine	Many brands	Analgesic, antitussive	Moderate
	Heroin	Many street names	None in U.S.	High
	Methadone	Dolophine	Analgesic, addict maintenance	High
	Other opiates	Demerol, Dilaudid, Fentanyl, Percodan, Talwin	Analgesic	Varies
	Hallucinogens	LSD	Acid, many others	Psychiatric uses under investigation
Psilocybin		Mushrooms, shrooms		
Mescaline, peyote		Mesc, cactus, others		
Other Drugs	Amphetamine variants	DOM, STP, MDA, MDMA, ecstasy, MMDA, TMA		Unclear
	Phencyclidine	PCP, angel dust	Veterinary anesthetic	Very low
	Marijuana	Pot, grass, weed, many others	Under investigation	Very low
	Tetrahydrocannabinol	THC, Marinol	Nausea	
	Hashish	Hash	None	

Adapted from Ray & Ksir, 2002, inside cover

Dual diagnosis The coexistence of a substance use diagnosis and another Axis I or II diagnosis for a client.

stance use disorders have significant *comorbidity* (co-occurrence) with other Axis I or II disorders, clients can receive a **dual diagnosis** when appropriate, and certain treatment approaches are specifically geared toward dual-diagnosis clients (Drake & Mueser, 2001; Evans & Sullivan, 2001; Hwang & Bermanzohn, 2001; SAMHSA, 2003). For example, an individual with an anxiety disorder may misuse alcohol, or someone with schizophre-

PSYCHOLOGICAL DEPENDENCE	TOLERANCE	USUAL METHODS OF ADMINISTRATION	POSSIBLE EFFECTS	EFFECTS OF OVERDOSE	WITHDRAWAL SYNDROME
Moderate (oral); very high (injected IV or smoked)	Possible	Sniffed, smoked, injected	Increased alertness, excitation, euphoria, increased pulse rate and blood pressure, insomnia, loss of appetite	Agitation, increased body temperature, hallucinations, convulsions, possible death	Severely depressed mood, prolonged sleep, apathy, irritability, disorientation
	Yes	Oral, injected			
Moderate	Possible	Oral	Slurred speech, disorientation, staggering, drunken behavior	Shallow respiration, cold and clammy skin, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, convulsions, possible death
Moderate to High	Yes	Oral, injected			
High					
Moderate to High					
Moderate		Oral			
Moderate (oral)	Yes	Oral, smoked	Euphoria, drowsiness, slowed respiration, nausea	Slow and shallow breathing, clammy skin, constricted pupils, coma, possible death	Watery eyes, runny nose, yawning, loss of appetite, tremors, panic, chills and sweating, cramps, nausea
High (smoked)		Oral, injected			
Moderate		Oral			
Moderate		Injected, smoked			
Very high (IV)		Oral, injected			
Moderate					
Varies					
Low	Yes	Oral	Visual illusions, hallucinations, altered perception of one’s own body, increased emotionality	More prolonged episodes that may resemble psychotic states	Not reported
Unknown					
High		Oral, smoked			
Moderate	Yes	Smoked	Euphoria, relaxed inhibitions, increased appetite, impaired memory and attention	Fatigue, paranoia, at very high doses a hallucinogen-like psychotic state	Insomnia, hyperactivity (syndrome is rare)
		Oral			
		Smoked			

nia may also have a heroin addiction. Epidemiological studies show that up to 72% of individuals with substance use disorders also have at least one other psychiatric diagnosis, and that 20% of individuals with serious mental illnesses also abuse drugs (Harvard Mental Health Letter, 2003). Part of this overlap has to do with common genetic, psychological, and social risk factors for substance misuse and other psychiatric disorders, and part

BOX 9.2 ■ An Addict's Firsthand Account

"DOPE, A LOVE STORY" by Patti Davis

This article by Patti Davis, daughter of Nancy and Ronald Reagan, chronicles her struggle with polysubstance addiction.

I once knew a girl who fell deeply in love at the vulnerable age of 15; her paramour was drugs. The girl would look at you with wide, dark eyes that seemed simultaneously to plead for understanding while pushing you away. There wasn't much room for anyone else in her life. Every time I see another mug shot of Robert Downey Jr., I think of that girl. Those eyes. . .

I overheard a comment by a stranger last Tuesday, when the news of Downey's latest arrest was released. "Did you see his mug shot?" the man was saying to his companion. "More like a smug shot. He was practically smirking."

No, I wanted to say. You don't understand. He was wishing that he could hide.

I knew a girl whose lover came in several disguises—white cross Methedrine, orange triangles of Dexedrine, "black beauties," long white lines of coke. She followed her lover everywhere—into parking lots with strangers. Into dark cars, into the shadows along steep mountain roads, into apartments that smelled like stale smoke and had three or four locks on every door. When her lover wasn't with her, she was left with her own terror of how to move through the world alone. She didn't know how to deal with people alone; she needed her partner, her other half. You need to know this about drugs: unlike people, drugs don't judge you or look at you too closely, too intimately. They don't ask you to reveal yourself or confide your secrets. They just take you away—far away; they let you hide, which is what frightened people want to do.

One night this girl's terror became too much. She sat alone in a bathroom, dark except for the blue-white light of the streetlamp outside spilling across her hands, her wrists, the small square of the razor blade as it moved closer to her soft web of veins. She imagined blood spilling over white porcelain; she imagined the end. But someone had told her something long ago when she was a child—that God put each of us here for a reason. A thought took shape in her mind, even through the jangle of nerves and the blur of the emotions, ragged by then from years of drug use. She felt God's heart breaking at the touch of cold steel on her soft young wrist; a little more pressure was all

it would take. She felt like she was betraying him. She put the blade back in the medicine cabinet.

That girl was me. I never got arrested like Robert Downey Jr.—more because of dumb luck or chance than anything else. But if I had been arrested, my eyes would have looked the same as his—a hard, puzzling, faraway stare into the camera. It isn't smugness. It's actually honesty, as strange as that sounds. It's a look that says, There, now you know who I really am. I'm not lying and pretending I know how to live in this world. I don't. Not alone, not without my lover.

Remember how Robert Downey Jr. described his relationship with drugs at one of his hearings? He said it's like he has a gun in his mouth, and he loves the taste of the gunmetal. You will never understand drug addiction unless you understand that it's a love story.

My story would be neatly tied up if I said that, after that night, after I put away the razor blade, I never did drugs again. But stories are rarely that neat. It was years before I stopped. I lost work, I risked my life, I even stole prescription drugs from people's medicine cabinets. I would reach past the razor blades and grab the pills. Dying can be accomplished in many ways.

I finally stopped because I kept feeling I was letting God down.

Because I didn't want to die like that. Because even though I was in love, my lover was cold and cruel, and hardly faithful.

But I never fell out of love. Every time I see a movie in which people are doing coke, I want it. I can almost taste it in the back of my throat, and I still love the taste. You don't get over drugs; you don't ever fall out of love. You just—somehow—tell yourself every morning that you can go through that day, that night, without the one lover who took away your fear. If Robert Downey Jr., ever leaves his lover, you will see a different look in his eyes—more frightened, I suspect, but with a bravery that will move you to tears. I don't know why the world is so hard for some people, why some of us run for the refuge of drugs. I do know why some of us quit though. I followed the white lines of coke laid out on mirror after mirror. In the end there was only the mirror left. I had to look at myself.



Patti Davis

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Time Magazine, May 7, 2001

has to do with the tendency for emotional problems to contribute to substance misuse, and other vice versa (Brook et al., 2002). Not surprisingly, the combination of drug abuse and other psychiatric problems can have particularly serious, even fatal, consequences. A recent Swedish study found that 24% of a group of young opiate addicts had died within 15 years of admission to a treatment facility, and those who had the most serious psychiatric symptoms (in addition to addiction) were the most likely to die (Fridell et al., 2006). We will return to the topic of dual diagnosis in the Explaining and Treating Substance Use Disorders section, because the relationship between substance misuse and other psychological problems is a complex and important issue.

The Advantages and Limitations of the DSM-IV-TR Diagnoses

One current controversy related to the classification of substance use disorders involves other kinds of compulsive, maladaptive behaviors that are sometimes referred to as “addictions.” For example, you may have heard about “food addiction,” “sexual addiction,” “work addiction,” or “gambling addiction” and treatment groups for each of them. Since the “relationship model” implies that any kind of addiction can be viewed as a pathological relationship with a substance or activity, it seems plausible that the DSM-IV-TR might group these other “addictive” behaviors together with substance use disorders. However, this is not the case. As we noted earlier, the tendency over the past few editions of the DSM has been to increasingly separate substance use disorders from other disorders. However, while some experts have been skeptical about whether these other problems are truly addictions in a technical sense (e.g., Fisher & Harrison, 1997), current neurobiological research suggests that dysregulations of the brain’s “reward pathway,” may be a common factor in both substance misuse and other compulsive behaviors (Hyman et al., 2006; see section on Biological Components). In any case, food, sex, work, and gambling “addictions” are not found in the DSM-IV-TR, but they do share certain descriptive features with other mental disorders. For example, food addiction resembles some of the eating disorders (Chapter 8), sexual addiction resembles some of the sexual disorders (Chapter 10), and work addiction resembles obsessive-compulsive personality disorder (Chapter 11). Gambling addiction is described in the DSM-IV-TR as “pathological gambling,” a disorder listed under the heading “Impulse Control Disorders Not Otherwise Specified” (APA, 2000). The issue of how closely these other “addictions” resemble substance addiction, and how they can best be classified, remains controversial and unresolved (Harvard Mental Health Letter, 2007).



Advantages/
limitations
of diagnosis

BRIEF SUMMARY

- The current DSM-IV-TR categories for substance use disorders are based on maladaptive relationships between a user and a drug (or drugs) as shown by a pattern of compulsive use, a loss of control over use, and continued use despite negative consequences (the “Three C’s”)
- Substance abuse is diagnosed when the main symptom is continued use despite negative consequences, while substance dependence involves all three of the “Three C’s” including, in some cases, physical dependence as indicated by tolerance and withdrawal symptoms.

Commonly Abused Substances

Let’s turn now to a description of some of the most commonly misused substances (Table 9.6). Understanding the characteristics, properties, and effects of different kinds of drugs will help us to address the two major topics to be covered later in the chapter: how substance misuse can be *explained* and *treated*.



Depressants Depressant substances commonly cause loss of coordination and decreased inhibition, in addition to other effects.
©Kelly-Mooney Photography/Corbis

TABLE 9.6 Categories of Commonly Abused Substances

DEPRESSANTS	STIMULANTS	HALLUCINOGENS	OTHER DRUGS
Alcohol	Cocaine	LSD	Marijuana
Sedative-Hypnotics	Amphetamines	Psilocybin	Ecstasy
Opioids	Nicotine	Mescaline	PCP/Ketamine
	Caffeine		GHB
			Inhalants
			Steroids

Depressants

Substances classified as central nervous system (CNS) **depressants** slow down the processes of the CNS by reducing the activity of some nerve cells (Schuckit, 2000). Heart rate, breathing, alertness, and other CNS functions decrease. In small doses, depressants produce a mild tranquilizing, sedative, or numbing effect and impair psychomotor performance (Blin et al., 2001). At higher doses, CNS effects become increasingly dangerous. Anesthesia (loss of sensation), coma, and even death can occur (Dodgen & Shea, 2000; Lazorthes et al., 2000; Oestroem & Eriksson, 2001). The most commonly used and abused depressant substances are alcohol, sedative-hypnotics (mostly antianxiety and sleeping pills), and opioids (derivates of opium).

Alcohol Alcohol is generally classified as a depressant, although it produces a *biphasic* response in humans, with stimulant effects during initial intoxication and predominately depressant effects thereafter (Demmel, Klusener, & Rist, 2004). Ninety percent of Americans use alcohol at some point in their lives, and 60 to 70% are current drinkers (McDowell & Spitz, 1999). Alcohol is also the most commonly abused substance in the United States (Dodgen & Shea, 2000; National Clearinghouse for Alcohol and Drug Information Services, 2000), but whites consume more and binge drink more frequently than blacks or Hispanics (Wallace, 1999). By some estimates, 40% of Americans will experience alcohol-related problems in their lifetimes. Around 25% will meet DSM-IV-TR criteria for alcohol *abuse* at some point in their lives; up to 10% will meet criteria for alcohol *dependence*, commonly known as **alcoholism** (McDowell & Spitz, 1999).

Alcohol is typically ingested by drinking beverages containing ethyl alcohol, or ethanol, a simple two-carbon molecule. Alcoholic beverages vary widely in the amount of ethanol they contain, ranging from approximately 4% in beer to up to 50% in liquors and distilled spirits (Dodgen & Shea, 2000). Ethanol is easily absorbed into the bloodstream through the lining of the entire digestive tract. The rate of absorption varies according to several factors such as the amount of food in the stomach, body weight, and the speed at which the alcohol is consumed. As alcohol travels to the CNS it affects a number of neurotransmission systems in the brain. For example, alcohol appears to increase the activity of the neurotransmitters serotonin, dopamine, gamma-aminobutyric acid (GABA), norepinephrine, and endogenous opioids (Lappalainen et al., 1998; Schuckit, 2000; see Chapter 9 Visual Essay), contributing to the sense of well-being and decreased anxiety associated with alcohol use. It also decreases the activity of glutamate, a major excitatory neurotransmitter in the brain.

Simultaneously, alcohol decreases the activity of neurological systems responsible for emotional and physical self-control, causing the well-known disinhibiting effects of the drug. With a moderate dose of alcohol, a person may become louder and more impulsive. (An old psychiatric joke has it that the superego is the only part of the mind that dissolves

Depressants Substances that slow CNS functions.

Alcoholism Another term for alcohol dependence.

TABLE 9.7 Relationship Between Blood Alcohol Concentration (BAC) and Behavior

PERCENT BAC	BEHAVIORAL EFFECTS
0.05	Lowered alertness, pleasant feeling, release of inhibitions, impaired judgment
0.10	Slower reaction times and impaired motor function, less caution, legal intoxication
0.20	Marked impairment in sensory and motor capability
0.25	Severe motor disturbance, staggering, great impairment
0.30	Stuporous but conscious—no comprehension of what's going on
0.35	Surgical anesthesia; minimal level causing death
0.40	About LD*

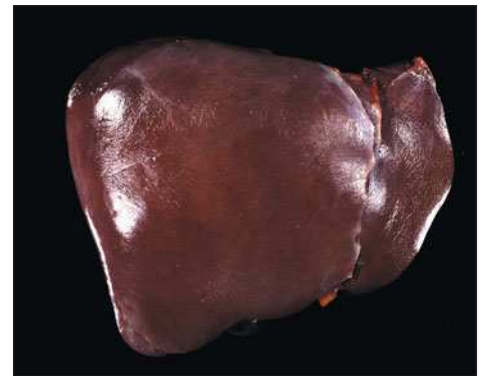
*LD = Lethal dose

Adapted from Ray & Ksir, 2002, pp. 254 & 255

in alcohol!) With increasing intoxication, brain centers controlling memory, balance, speech, and coordination are also affected (see Table 9.7). The intoxicated person may slur his or her speech, stagger clumsily, and generally become physically incompetent. Shakespeare famously described a common sexual version of emotional disinhibition combined with physical incapacity when the Porter tells Macduff (Macbeth, Act II, Scene iii) that alcohol “provokes the desire but takes away the performance.”

The degree of intoxication from alcohol is determined primarily by the amount consumed. One drink is usually defined as 12 grams of ethanol, an amount found in one 12-ounce can of beer, a 5-ounce glass of wine, or 1.5 ounces of an 80-proof liquor (“proof” is double the percentage of alcohol in the beverage). On average, one drink usually raises the blood alcohol level by 0.02 to 0.04% (McDowell & Spitz, 1999). However, there is a great deal of variability among people in the rate at which alcohol is metabolized in the liver (see Table 9.8). For example, women tend to manifest higher blood levels of alcohol than men after ingesting equivalent doses. This occurs in part because they have lower activity levels of the enzyme *alcohol dehydrogenase*, which breaks down alcohol and contributes to its elimination from the body. As a result, women are typically twice as affected as men by the same amount of alcohol. Thus, for a man, it may take four or six drinks to produce a blood alcohol level in the range of legal intoxication (0.08–0.10 g/100 mL, depending on the state), but only two or three drinks for a woman.

The physical and psychological effects of long-term alcohol misuse can be devastating. Chronic alcohol use damages almost every important system in the body (APA, 2000; Salaspuro, 1995). For example, the CNS can be profoundly affected in a number of ways. Chronic drinkers often become vitamin B (especially thiamine) deficient as alcohol replaces food in their diets, the capacity to absorb vitamin B decreases, and additional vitamin B is needed to metabolize alcohol (Brun & Andersson, 2001). Vitamin B deficiency can lead to severe neurological impairments such as *Wernicke’s encephalopathy*, a syndrome of cognitive, visual, and motor deterioration, and *Korsakoff’s syndrome* (Chapter 14), which involves amnesia and other cognitive symptoms. Gastrointestinal problems associated with prolonged alcohol use include cancers, ulcers, gastritis, cirrhosis of the liver, and pancreatitis. Hypertension (high blood pressure) and cardiomyopathy (heart muscle damage) are among the cardiovascular effects of chronic alcohol use.



Cirrhosis of the liver These pictures contrast a healthy liver (top) with one damaged by cirrhosis. Long-term alcohol use can lead to cirrhosis of the liver, a chronic disease in which scarring of the liver tissue blocks the flow of blood through the liver from the intestines.

(Top) Photo Researchers, Inc.

(Bottom) © PhotoEdit

Acute and Chronic Effects of Alcohol Use and the Effects of Alcohol on Neurotransmission

Alcohol use has both acute and chronic psychological and physical effects. Alcohol is first absorbed through membranes in the stomach, small intestine, and colon. The rate of absorption depends on many factors, such as body mass, amount of food in the stomach, hydration (or lack thereof), type of alcohol consumed (e.g., distilled versus beer and wine), and the speed at which it is consumed. After alcohol is absorbed, it is distributed to all of the body's organ systems, particularly those organs with the largest blood supply. Ultimately, alcohol is metabolized by the liver.

The behavioral effects of acute alcohol intoxication can include slurred speech, loss of coordination, unsteady gait, nystagmus (involuntary eye movement), attention and memory impairments, and stupor or coma. Although alcohol is generally classified as a central nervous system depressant, its effects on the brain are complex. In particular, alcohol interacts with several different neurotransmitter systems, accounting for its various effects (see Visual Essay diagram).

Chronic alcohol use can lead to a number of serious physical and psychological effects. Because alcohol abusers often replace a well-balanced diet with alcohol, it is not uncommon for them to develop vitamin deficiencies. In addition, alcohol can interfere with the body's ability to metabolize vitamin B (thiamine) which can lead to a serious neurological condition known as *Korsakoff's syndrome* (Chapter 14). Korsakoff's syndrome involves memory disturbances, particularly in the recall of new information (*anterograde amnesia*). Memory problems are thought to be due to the damage that thiamine deficiencies produce in the diencephalon, a part of the brain made up of the thalamus and hypothalamus. Prolonged alcohol use also wreaks havoc on the gastrointestinal system and can lead to cancers, ulcers, gastritis, cirrhosis of the liver, and pancreatitis. Cardiovascular consequences of prolonged alcohol use include hypertension and heart muscle damage. Psychologically, alcoholism is often accompanied by anxiety, depression, personality disturbances, and general impairments in functioning.

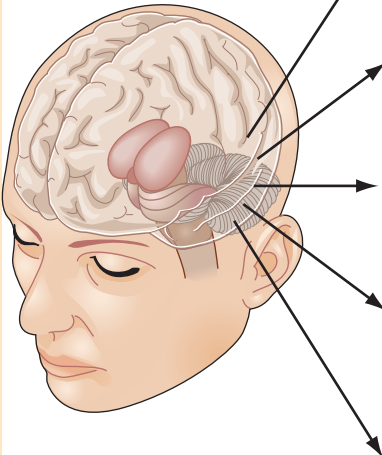
	Neurotransmitter	Alcohol effects on neurotransmitter	Psychological/ Behavioral effects
	<div>DA</div> Dopamine	Alcohol increases DA secretion at the nucleus accumbens, a system implicated in reward	Increases pleasurable sensations; System may be implicated in alcohol's addictive properties
	<div>NE</div> Norepinephrine/ noradrenaline	Alcohol increases the release of NE	Produces enlivening/activating sensations
	<div>GABA</div> Gamma-aminobutyric acid	Alcohol stimulates GABA activity, an inhibitory neurotransmitter	Reduction in stress and anxiety; Sedation; Memory disturbances; Coordination problems, such as slurred speech and stumbling
	<div>Opioids</div> Endogenous opioids	Alcohol increases the release of opioids	Increases pleasurable sensations; Reduces stress; Numbing effects
	<div>Glutamate</div> Glutamate	Alcohol blocks the excitatory NMDA receptor which, in turn, inhibits glutamate, an excitatory neurotransmitter	Causes memory problems and general cerebral depressant effects (slower reaction time, poor concentration)
	<div>5-HT</div> Serotonin	Alcohol stimulates 5-HT, an excitatory neurotransmitter	Associated with pleasurable effects and nausea

TABLE 9.8 Relationships among Gender, Weight, Alcohol Consumption, and Blood Alcohol Concentration

Blood alcohol concentrations (g/100 mL)							
ABSOLUTE ALCOHOL (OUNCES)	BEVERAGE INTAKE ¹	FEMALE (100 LB)	MALE (100 LB)	FEMALE (150 LB)	MALE (150 LB)	FEMALE (200 LB)	MALE (200 LB)
1/2	1 oz spirits ² 1 glass wine 1 can beer	0.045	0.037	0.03	0.025	0.022	0.019
1	2 oz spirits ² 2 glasses wine 2 cans beer	0.090	0.075	0.06	0.050	0.045	0.037
2	4 oz spirits ² 4 glasses wine 4 cans beer	0.180	0.150	0.12	0.100	0.090	0.070
3	6 oz spirits ² 6 glasses wine 6 cans beer	0.270	0.220	0.18	0.150	0.130	0.110
4	8 oz spirits ² 8 glasses wine 8 cans beer	0.360	0.300	0.24	0.200	0.180	0.150
5	10 oz spirits ² 10 glasses wine 10 cans beer	0.450	0.370	0.30	0.250	0.220	0.180

¹ In one hour² 100-proof

From Ray & Ksir, 2002, p. 256

Fetal alcohol syndrome (FAS) A syndrome consisting of mental retardation, growth impairment, and facial distortions in a child, caused by intrauterine alcohol exposure related to a mother's drinking during pregnancy.

Among the many other medical problems associated with alcohol use, one deserves special mention because it directly affects someone other than the user: *fetal alcohol effects* (FAE), the most serious form of which is called **fetal alcohol syndrome (FAS)** (Hankin, 2002; NIAAA, 2000; Sokol, 2003). FAS consists of severe mental and emotional deficits (it is the leading cause of mental retardation in the United States), growth impairment, and distorted facial features, all as a result of intrauterine alcohol exposure related to a mother's drinking during pregnancy. FAS also results in increased mortality in affected children, the need for long-term special education and medical services, and high levels of family stress (Greenfield & Sugarman, 2001). Women who consume 5 ounces of alcohol per day during pregnancy have a 33% chance that their child will develop FAS, a 33% chance that their child will experience more moderate fetal alcohol effects, and only a 33% chance of having a normal child (Raut, Stephen, & Kosofsky, 1996). As a result, most experts strongly advise pregnant women to completely refrain from alcohol consumption. Despite widespread public information about this problem, FAE still affect as many as 1% of all babies born in the United States (Harvard Mental Health Letter, 2004).

In addition to the serious physical risks of alcohol-related disorders, heavy alcohol users run the risk of causing serious psychological damage to themselves and those around them. Alcoholism can lead directly or indirectly—because of the havoc it causes in a person's life—to anxiety, depression, and a variety of other psychological symptoms including changes in personality (Brun & Andersson, 2001; Roberts & Linney, 2000; Zernig et

al., 2000). Clinicians often note that when serious substance problems begin, an individual's emotional development stops (Krystal & Raskin, 1994; Leonard & Blane, 1999). For example, Dr. Bryce (described in one of the chapter-opening case vignettes) was in her 30s when she sought help, but her psychologist noted that she seemed to have the emotional maturity of an adolescent, the point at which she began drinking.

Finally, as our awareness of the effects of alcohol misuse has increased, clinicians have become increasingly sensitive to the effects of alcoholism on the family members of the alcoholic. Having an alcoholic parent or spouse can be a profoundly damaging experience that is associated with increased risk for a variety of emotional problems (Barber & Gilbertson, 1999; Roberts & Linney, 2000). The current popularity of therapy groups such as Adult Children of Alcoholics (ACOA) testifies to the wide-ranging effects of alcoholism on family members.

Sedative-Hypnotics For centuries, human beings have searched for substances that might promote relaxation and sleep. Such substances, of course, fall under the general heading of depressants, and alcohol is one substance that has been widely (though not necessarily effectively) used for these purposes. In the 1800s, bromide salts were a popular form of sleeping medication, so much so that the word *bromide* entered our vocabulary as a term for a tiresome idea or person (Ray & Ksir, 2002). Unfortunately, most of the substances used to promote relaxation (**sedatives**) and sleep (**hypnotics**) have turned out to be problematic. Many are habit forming or have troublesome side effects. In addition, while these drugs produce anxiety relief (known as an **anxiolytic** effect) at low doses, and sleep at higher doses, overdoses can be lethal because depressants slow respiration and heartbeat.

As our understanding of neurochemistry has accelerated over the past 50 years, many new sedative-hypnotic drugs have been discovered and marketed. They have important medical uses in the treatment of anxiety and anxiety disorders, sleep disorders, and seizure disorders, and for anesthesia during medical procedures. But they are also widely misused. As we describe the history and nature of sedative-hypnotics, you will see that researchers have been able to develop increasingly safe and effective sedative-hypnotics, although misuse of these drugs remains a major problem.

Barbiturates, a major class of sedative-hypnotic drugs, were first discovered and marketed in the early 1900s. In 1903, barbitol—"named after a charming lady named Barbara"—was the first barbiturate to be marketed (Robson, 1999). Barbiturates became so popular as anxiolytics and hypnotics that before long 2000 different barbiturates were on the market. However, it soon became clear that barbiturates were dangerously addictive. By the 1960s, there were 2000 deaths per year from barbiturate overdose in Great Britain alone; among the notable casualties of barbiturate overdose in the 1960s and 1970s were the musicians Brian Jones, Jimi Hendrix, Janis Joplin, and Elvis Presley (Robson, 1999). As a result, the market for newer, safer, nonaddictive sedative-hypnotics was enormous. Fortunately, in the meantime, another class of sedative-hypnotic drugs was being developed—the *benzodiazepines*. The benzodiazepines showed promise as nonaddictive, nonsedating anxiety medications. Like barbiturates, benzodiazepines enhance the activity of GABA, an inhibitory neurotransmitter. Benzodiazepines calm nerve cells by increasing GABA's inhibitory role in neural transmission (Nishino, Mignot, & Dement, 2001). In early experiments, mice given chlordiazepoxide (a benzodiazepine later marketed as Librium) loosened their grip on wire screen cages and fell to the floor, and then walked around sniffing normally. In contrast, mice given barbiturates immediately fell asleep (Ray & Ksir, 2002). Librium was introduced as a medication in 1961, followed two years later by diazepam (trade name Valium), another benzodiazepine. These medications were aggressively and successfully marketed by their manufacturers; between 1972 and 1978, Valium was the most frequently prescribed drug in the United States (Friedman et al., 1996).



Fetal Alcohol Syndrome This Sioux Indian child living on the Pine Ridge Reservation suffers from FAS. He exhibits the distorted facial features, including a flat nasal bridge, thin upper lip, and small jaw, associated with fetal alcohol effects.

© Ted Wood/Stockphoto. com

Sedatives Substances used to promote relaxation.

Hypnotics Substances used to promote sleep.

Anxiolytic An anxiety-reducing effect.

TABLE 9.9 Some Popular Benzodiazepines

	TYPE	HALF-LIFE (HOURS) ^a
Anxiolytics	Alprazolam (Xanax)	6–20
	Chlordiazepoxide (Librium)	5–30
	Clonazepam (Klonopin)	30–40
	Clorazepate (Tranxene)	30–200
	Diazepam (Valium)	20–100
	Lorazepam (Ativan)	10–20
	Oxazepam (Serax)	5–15
Hypnotics	Flurazepam (Dalmane)	40–250
	Temazepam (Restoril)	5–25
	Triazolam (Halcion)	1.7–3

^a Amount of time for half the drug to be eliminated from the body.

From Ray & Ksir, 2002, p. 208

Cross-tolerance Tolerance extending across drugs within a class.

Synergistic The multiplication of effects when two or more drugs of the same class are taken together.

Opioids All of the derivatives—natural and synthetic—of the opium poppy.

Benzodiazepines are still widely used for anxiety problems, sleep problems, and other medical conditions and procedures (see Table 9.9). Because they share CNS depressant properties with other depressant substances such as alcohol, benzodiazepines can exhibit **cross-tolerance**, meaning that when tolerance develops for one drug in the class it may automatically be present for others. (As a result, benzodiazepines can relieve symptoms of alcohol withdrawal and are often used in treating alcohol dependence.) The combined depressant properties of different drugs in the depressant class can also result in dangerous **synergistic** effects—that is, a multiplication of effects when two or more drugs of the same class are taken together. This is why combinations of alcohol and benzodiazepines (such as Valium) or other sedative-hypnotics are so dangerous. The multiplied effects of these depressants can readily lead to coma and even death.

It is estimated that 12.5% of the U. S. population uses benzodiazepines each year, mostly to treat anxiety (Fingerhood, 2000; Kendler et al., 2000). This rate is especially high compared to rates of usage in other countries; for example, in China the current use rate is 0.1% (Teesson, Hodder, & Buhrich, 2000; Zhimin et al., 2001).

Benzodiazepines are typically taken orally, although they can be administered intramuscularly or intravenously. Despite their main advantage of causing less respiratory depression than barbiturates, benzodiazepines are not without problems. They can be addictive when used for four weeks or more and can produce tolerance and withdrawal symptoms (Brady, Myrick, & Malcom, 1999; McCrady & Epstein, 1999). In addition, they are widely abused as street drugs.

A particularly disturbing form of benzodiazepine misuse has come to public attention recently as flunitrazepan (Rohypnol, sometimes referred to on the street as “roofies”) and has gained notoriety as a “date rape” drug (Galvan et al., 2000). Added to alcohol, this benzodiazepine—which has not been approved for use in the United States but is widely available on the black market—causes disinhibition and loss of memory. In 1997, the manufacturer altered the composition of Rohypnol so that it would change the color of alcoholic beverages and thereby warn potential victims of its misuse (Ray & Ksir, 2002).

Opioids The term **opioids** refers to all of the derivatives—natural and synthetic—of the opium poppy and chemically similar drugs. The opium poppy produces opium for only a few days of its annual life cycle, right after the petals drop and before the seed pod matures (Ray & Ksir, 2002). The thick substance that oozes out of the unripe seed-



Opioids Opium has been used around much of the world for centuries; experts estimate that opiate use dates back at least 3500 years. By the early nineteenth century, opium use had spread across Europe, the Middle East, and the Far East. Opium was often consumed in smoking dens like the one pictured here.

©Sean Sexton Collection/Corbis

pod at this time contains morphine and codeine, natural products of the opium plant. Heroin, methadone, and analgesics (painkillers) such as Oxycodone, Hydrocodone, Vicodin, Dilaudid, Darvon, and Demerol are synthetic opioids that mimic morphine's action on the CNS (Sloan & Wala, 1998).

The opioids are sometimes also referred to as the **narcotics**, a term derived from the Greek word for "stupor." The term is appropriate, since opioids are powerful CNS depressants whose main effects include **analgesia** (pain relief), a feeling of euphoria, and sedation. In addition, opioids decrease respiration and smooth muscle motility, resulting in, among other things, constipation and cough suppression (Galanter & Kleber, 1999). (Heroin was once marketed by Bayer as an over-the-counter cough suppressant before its dangers were understood.) Opioids cause these changes, and differ from other depressant drugs, by binding with specific opioid neurotransmitter receptor sites throughout the body, rather than affecting the CNS generally. These inborn opiate receptors exist in order to be available for the body's **endogenous** (natural, internal) opioid neurotransmitters, which help regulate feelings of pleasure and pain. The first endogenous opioids, the **enkephalins**, were discovered in 1975; since then the **endorphins**, known to runners as the cause of the "runner's high," and at least 18 other endogenous opioids have been identified. Opiates taken as drugs essentially enhance the effects of these opioid neurotransmitters.

Opiates can be taken orally, intravenously, snorted, or smoked; the resulting blood levels of opiates, and the time it takes to achieve them, depend upon the route of administration (see Figure 9.1). Physical and psychological tolerance (including cross-tolerance to all other opioids) develops quickly; an opioid addict uses doses that would kill a first-time user. Dependence can develop in as little as one week for regular intravenous (IV) users (Fisher & Harrison, 1997). Withdrawal from opioids can be excruciatingly uncomfortable. During withdrawal, the ex-user experiences severe flu-like symptoms including vomiting, sweating, aching, and diarrhea along with cravings for the drug (van den Brink et al., 2003). An old adage states that "no one ever dies of heroin withdrawal—they just wish they did" (McDowell & Spitz, 1999).

Stimulants

Stimulant is the general name given to psychoactive substances that increase CNS activity; stimulants have essentially the opposite effect of depressants (Fisher & Harri-



Historical relativism Heroin was a legal cough remedy at one time, as seen here in an advertisement for Bayer Heroin.

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Narcotics Another term for opioids.

Analgesia Pain relief.

Endogenous Internal or natural.

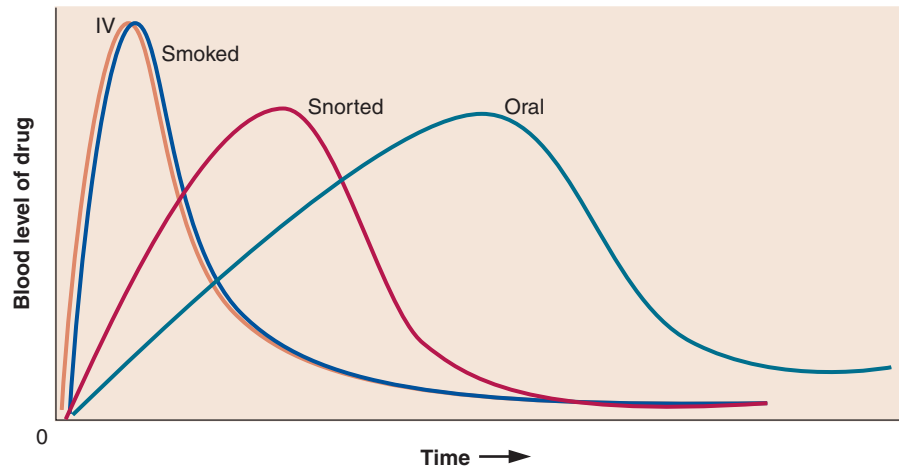
Enkephalins The first endogenous opioids to be discovered.

Endorphins A class of endogenous opioids known as the cause of "runner's high."

Stimulants Substances that increase CNS functions.

Figure 9.1 Route of drug administration and blood levels This figure shows that administering drugs intravenously or by smoking speeds absorption and results in higher blood levels compared to other routes of administration.

From McDowell & Spitz, 1999



son, 1997). Stimulants enhance arousal, alertness, and energy. Mild stimulants, such as nicotine and caffeine, have relatively subtle effects, such as relief from fatigue and improved concentration (Leon, 2000). Stronger stimulants, such as amphetamines and cocaine, can produce powerful feelings of euphoria and dramatically increase energy level. Stimulants have safe and appropriate medical uses, but when misused recreationally they can cause psychosis and even death.

As with other psychoactive substances already discussed, stimulants have a long history of use. Humans have always been interested in substances that could relieve fatigue, enhance performance, and produce ecstatic feelings. For example, ancient Chinese cultures used a medicinal herbal tea known as Mahuang over 5000 years ago (Jacobs & Hirsch, 2000). The active ingredient in Mahuang is ephedrine, a stimulant still used medically for bronchodilation in asthma and as a treatment for urinary incontinence (Vernon et al., 2000). Cocaine was cultivated by the Incas in South America 4000 years ago, and spread rapidly through Europe in the 1800s (McDowell & Spitz, 1999). Nicotine, present in tobacco, was cultivated by Native Americans for many centuries before being exported to Europe. Finally, caffeine, found in coffees and teas, has long been the world's most popular stimulant (Ray & Ksir, 2002; Wilson, 2000). Let's take a closer look at each of these stimulants.

Cocaine A powerful stimulant derived from the leaves of the coca plant.

Cocaine (Coke, Rock, Snow) Cocaine, perhaps the most powerful known stimulant, has had a long and interesting history (see Table 9.10). It is derived from the leaves of the coca plant, which grows mostly in South America. The effects of cocaine are rapid and intense. Cocaine appears to block the reuptake of the neurotransmitters dopamine, norepinephrine, and serotonin, causing increased transmission of these chemicals in the brain (Sizemore, Co, & Smith, 2000), resulting in powerful feelings of euphoria, confidence, energy, and excitement that last a relatively brief time (Ray & Ksir, 2002; Regan, 2001). Unfortunately, cocaine use can lead to addiction and withdrawal syndromes, causing numerous physical, psychological, and social problems (Lex, 2000; O'Brien et al., 2005).

Recreational cocaine use involves the ingestion of the drug through chewing, snorting, smoking (after conversion of cocaine into crack), or IV administration. Inhaling the heated vapors of pure cocaine, a technique known as freebasing, was also briefly popular in the 1970s until the dangers of heating the volatile chemicals involved became widely known. The comedian Richard Pryor, for example, was severely burned while freebasing cocaine.

The effects of cocaine begin within minutes, especially after IV use, smoking, or snorting, all of which lead to rapid absorption. Some experts believe that cocaine is the most reinforcing of all drugs (Wilcox et al., 2000). Laboratory animals offered cocaine