Chapter 1

PANIC ATTACKS, PANIC DISORDER, AND AGORAPHOBIA

'When I was a kid I was stung by a wasp while playing in the back yard. My face puffed up like a balloon and my eyelids swelled until I couldn't see. My throat closed up till I could hardly breathe. My mother rushed me to the hospital where they gave me adrenaline. The doctor told me I was lucky to be alive. Ever since I've worried about my health, and particularly about allergic reactions. This morning the air was so humid and smoggy that I had trouble catching my breath. I started to worry that I might be allergic to smog. My mouth went dry and I felt a lump in my throat. That really scared me. I started to breathe faster so I would get enough air. But things only got worse. I felt dizzy, my face went numb, and my heart started pounding. My chest was so tight that I could hardly catch my breath. I was paralyzed with fear and sure I was going to die. Frantically, I grabbed my cell phone and called for an ambulance. By the time it arrived I felt better. It wasn't an allergic reaction. Just my nerves. Next time I might not be so lucky.'

This description provided by a panic sufferer clearly shows that panic attacks can be terrifying experiences. Panic disorder[1] is a common and debilitating condition. It often co-occurs with other psychiatric disorders, as in the above-mentioned example, which was a case of panic disorder and hypochondriasis. The purpose of this book is to describe the nature of panic disorder, and to describe specific treatment strategies. We will review treatments of uncomplicated panic disorder, as well as strategies for treating comorbid cases. The latter are common in clinical practice and present special challenges to the clinician. The present chapter begins by providing some background into the nature, costs, and course of panic disorder.

[1] Throughout this volume, the term *panic disorder* will be used to refer to panic disorder with or without agoraphobia.

THE COSTS OF PANIC DISORDER

Social and Economic Costs

In the United States, anxiety disorders account for an estimated 32% of the total economic costs of psychiatric disorders, exceeding the costs of schizophrenia (21%) and mood disorders (22%) (Rice & Miller, 1993). These costs include lost productivity, social welfare expenditures, and direct health-care expenses. Similar findings are likely to be found in Britain, Australia, and other Western countries. Compared to other psychiatric disorders, panic disorder is a leading cause for seeking emergency department consultations (Weissman, 1991). It is also a leading cause for seeking mental health services, surpassing schizophrenia and mood disorders (Boyd, 1986). Panic disorder exceeds the costs associated with many other anxiety disorders such as social phobia, generalized anxiety disorder, and obsessive-compulsive disorder (Greenberg *et al.*, 1999; Kennedy & Schwab, 1997; Rees *et al.*, 1998). Boyd (1986) observed that 'anxiety disorders are often referred to as mild psychiatric disorders . . . but the high rates of treatment for panic disorder suggest that it might be better viewed as a severe psychiatric disorder' (p. 1573). Indeed, panic disorder is associated with impaired occupational and social functioning and poor overall quality of life (Edlund & Swann, 1987; Katerndahl & Realini, 1997; Leon *et al.*, 1995; Markowitz *et al.*, 1989).

The high costs are partly because panic disordered patients—particularly those in the early stages of the disorder—are most likely to present to their primary care physician or hospital emergency departments, thinking they are in imminent danger of dying or 'going crazy' (Katerndahl & Realini, 1995). In these settings patients may undergo a series of extensive and expensive medical tests before panic disorder is finally diagnosed. Ruling out serious organic conditions is good clinical practice, but substantially contributes to the costs that panic disorder places on health-care systems. This is especially true when panic disorder is mistaken for some other disorder. Unfortunately, this sometimes happens.

Physical Costs

People with panic disorder, compared to people in the general population, report poorer physical health (Markowitz *et al.*, 1989). Panic disorder is associated with high cholesterol levels, compared to population norms adjusted for age and gender (Hayward *et al.*, 1989). There is sug-

gestive evidence that panic disorder is associated with heightened risk of morbidity and mortality due to cardiovascular and cerebrovascular diseases (Coryell *et al.*, 1982, 1986; Fleet & Beitman, 1998; Martin *et al.*, 1985; Weissman *et al.*, 1990). The cause(s) of these associations have yet to be established. They may be a result of maladaptive attempts by panic sufferers to dampen their hyperarousal, such as by smoking, consuming excessive amounts of alcohol, or overeating. Maladaptive coping may be compounded by a sedentary lifestyle, which is common in people whose lives are severely restricted by panic attacks and agoraphobia.

PANIC DISORDER

Diagnosis, Prevalence, and Course

According to DSM-IV (American Psychiatric Association, 1994), panic disorder is defined by recurrent, unexpected panic attacks, followed by at least a month of either (1) persistent concern about having more attacks, (2) worry about the possible implications or consequences of the attacks, or (3) a marked change in behaviour as a result of the attacks (e.g., avoiding situations associated with attacks, such as quitting a stressful job).

Panic disorder has a bimodal age of onset, typically developing either between ages 15 and 19 or 25 and 30 years (Ballenger & Fyer, 1996). It has a lifetime prevalence of 1.5–3.5%, making it one of the most common psychiatric disorders (Eaton *et al.*, 1991; Kessler *et al.*, 1994). Clinical features of panic disorder are similar across genders (Oei *et al.*, 1990), although the disorder is diagnosed more than twice as often in women as men (Kessler *et al.*, 1994; Weissman *et al.*, 1997). The disorder can be chronic if untreated (Breier *et al.*, 1986; Uhde *et al.*, 1985). The prevalence, course, gender distribution, and age of onset of panic disorder appear to be generally consistent throughout the world (Weissman *et al.*, 1997).

Panic Attacks

Defining Features

Panic attacks are discrete episodes of intense fear or discomfort, accompanied by four or more of the 13 symptoms shown in Table 1.1. Panic attacks tend to occur suddenly, reaching peak intensity within 10 min (American Psychiatric Association, 1994), and typically lasting for about 20 min (Barlow & Craske, 1988). Attacks with fewer than four symptoms are called *limited symptom attacks*.

To illustrate the frequency of symptoms during panic attacks, data from 62 panic disordered patients are shown in Table 1.1 (Rapee *et al.*, 1990). Panics were assessed by two weeks of prospective monitoring using a panic attack diary, and also retrospectively assessed by asking patients to recall symptoms of their typical attacks. Although the findings differ to some extent with the different methods of assessment, both methods indicate that the most common symptoms were palpitations, dizziness, fear of losing control or going crazy, and trembling. Similar findings have been reported in other studies (e.g., Barlow & Craske, 1988).

The symptoms listed in Table 1.1 provide only a hint of the cognitive events that take place during panic attacks. During the attacks, catastrophic thoughts fill the person's mind, unchallenged and uncontrolled. The person has difficulty thinking clearly, including difficulty in questioning whether the symptoms are really dangerous (Beck, 1988). As we

Table 1.1 Prevalence of symptoms during panic attacks

	Prospective monitoring (2 weeks): % of patients reporting symptoms during any of their attacks	Retrospective report: % of patients reporting symptoms during their typical attacks
Palpitations	87	82
Fear of losing control or going crazy	82[a]	69
Feeling dizzy, unsteady, lightheaded, or faint	71	90
Trembling or shaking	71	74
Sweating	64	68
Shortness of breath or smothering sensations	62	66
Chest pain or discomfort	56	50
Derealization or depersonalization	49	58
Chills or hot flushes	49	58
Fear of dying	44	69
Paresthesias (numbness or tingling sensations)	42	47
Nausea or abdominal distress	33	50
Choking	18	36

From *Journal of Anxiety Disorders*, 4, Rapee, R. M., Craske, M. G., & Barlow, D. H., Subject-described features of panic attacks using self-monitoring, 171–184. Copyright (1990), with permission from Elsevier Science.

[a] For the prospective monitoring, fear of losing control was assessed separately from fear of going crazy. A total of 82% reported fear of losing control, and 33% reported fear of going crazy.

will see in later chapters, a thorough cognitive assessment is important for understanding panic disorder and for planning treatment.

Symptom Definitions and Descriptions

Some symptoms—such as hot flushes or chills—are easily described and understood by clinicians and patients alike. Other symptoms are either more difficult to describe or are described in many different ways. To avoid confusion, the following are definitions and descriptions of these symptoms.

When patients describe *fear of losing control* they often mean that they are frightened of going crazy during a panic attack. This is why fear of going crazy and fear of losing control are grouped together as a single symptom in DSM-IV. However, these fears are not always synonymous. Fear of losing control can refer to a number of other feared consequences, including fear of doing something embarrassing such as trembling in public, or fear of fleeing in a dramatic fashion when panic strikes (e.g., dropping one's groceries and bolting from a supermarket). Fear of losing control can also refer to fear of striking out and attacking someone. Fear of harming others may occur during a panic attack if the sufferer's path to safety is obstructed when they are attempting to escape a panic-provoking situation, such as a crowded department store.

Palpitations refer to an uncomfortable or abnormal awareness of heart beats. Symptoms include heavy beating of the heart, fluttering in the chest, skipped beats, rapid heart beating, irregular or 'extra' heartbeats, or feeling one's pulse pounding in the neck (Fiengo & Michelson, 1996). *Choking* sensations include a sense of throat tightness or constriction. Another choking sensation is known as globus (Kellner, 1991), which is a sensation of having a ball or lump in one's throat or a feeling that something is stuck in the throat.

Chest pain during panic attacks most commonly occurs in the left inframammary region. It also may occur on the right or left side in other locations, such as the pectoral or central regions. The pain may be sharp or stabbing in quality. Occasionally, it is constricting and cramplike, and may be difficult to distinguish from angina (Bass, 1990).

Paresthesias refer to numbing, prickling, or tingling sensations that typically occur in the hands, but also occur in the lips and face, and sometimes in the feet.

Dizziness refers to the illusion that the person or the person's environment is spinning (giddiness or vertigo). Patients sometimes confuse dizziness with *depersonalization* and *derealization*. As defined in DSM-IV, deperson-

alization is an alteration in the perception or experience of the self, characterized by feeling detached from one's mental processes or body. This is sometimes described as feeling like an outside observer of oneself, or like being in a dream. Derealization is an altered perception or experience of the world; things seem strange or unreal, and people seem unfamiliar or mechanical. The sufferer may describe feeling dazed, detached, and confused, with emotions muted in intensity. Objects may appear distorted in colour or size, or otherwise unfamiliar. Sounds may appear muffled or appear to come from a distance. Colours appear dull or washed out, and body sensations, thoughts, and the external world may seem to be somehow fading away (Fewtrell & O'Connor, 1995).

Does DSM-IV Describe All the Major Panic Symptoms?

Case reports of panic attacks typically describe combinations of the various symptoms listed in Table 1.1. Apart from Sigmund Freud, few authors have mentioned other panic symptoms. Freud (1894/1949) described many of the DSM-IV panic symptoms in his description of 'anxiety attacks'. He observed that along with feelings of anxiety there may be

> an accompanying disturbance of any one or more of the bodily functions, such as respiration, heart's action, vasomotor innervation, or glandular activity. The patient lays stress on one or other of these symptoms, and complains of 'heart spasms', 'difficulty breathing', 'drenching sweats', 'ravenous hunger' and the like. (p. 80)

'Ravenous hunger' is rarely seen in contemporary descriptions of panic attacks (Cox & Taylor, 1999). Yet, Freud (1894/1949) referred to this sensation several times in his descriptions of panic. He also observed that hunger was often associated with giddiness. This raises the question of whether attacks characterized by ravenous hunger were true panics, or whether they were actually hypoglycemic episodes. DSM-IV appears to cover the most common symptoms of panic attacks, although the cognitive symptoms (fears of dying, going crazy, or losing control) are only summary descriptions of the many forms that these fears can take.

How Do Episodes of Panic End?

Episodes of panic come to end for a variety of reasons, including escape or avoidance behaviours, such as taking PRN (as needed) medications, distracting oneself, doing breathing exercises, or fleeing a feared situation (Radomsky *et al.*, 1998). Panic attacks also come to an end because of factors associated with physical exhaustion; it becomes increasingly difficult for the body to maintain an extremely high level of arousal for an extended period of time. Some patients describe a refractory period

following their attacks, during which time panics are unlikely to occur. Retrospective self-reports from panic patients suggest that the refractory period can last from minutes to weeks (Radomsky *et al.*, 1998).

DSM-IV Panic Typology

Unexpected Panic Attacks

DSM-IV specifies three different types of panic attacks. This distinction is based on the relationship between the probability of panic and the presence or absence of cues (triggers) for the attacks. Unexpected (uncued) panics are attacks that the sufferer perceives as occurring spontaneously or 'out of the blue'. These characterize panic disorder, although they occasionally occur in other disorders (Barlow *et al.*, 1985), and occasionally occur in people without any psychiatric disorder (Norton *et al.*, 1992). People who occasionally experience unexpected panic attacks are at risk for developing full-blown panic disorder (von Korff & Eaton, 1989).

One form of unexpected panic are *nocturnal panic attacks*, in which the person awakens from sleep in a state of panic. These attacks typically occur during non-REM sleep and are not usually precipitated by dreams (Craske & Barlow, 1989). They occur in about 69% of people with panic disorder (Mellman & Uhde, 1989), and are phenomenologically very similar to daytime panics (Craske & Rowe, 1997). People with panic disorder typically report that most of their panic attacks occur during waking hours. However, for some people the attacks are mostly nocturnal, as the following case shows. This case also illustrates some of the subtle avoidance associated with panic disorder.

Mrs V. described a long-standing history of unexpected panic attacks. These occurred either as she was falling asleep or while asleep. The attacks were not associated with nightmares or other dreams, and an evaluation at a sleep clinic failed to reveal an organic cause. Often the attacks would wrench her out of a deep sleep. Symptoms included intense palpitations, dyspnea, dizziness, and fear that she was dying. During some attacks she was unable to move her arms or legs for a few moments (isolated sleep paralysis). This was especially frightening. Mrs V. rarely had daytime panic attacks. During the day she attempted to avoid all sources of stress, and also avoided activities and situations that produced body sensations. This included the avoidance of rich foods, sexual intercourse, and all forms of physical exertion. Mrs V. even tried not to walk too fast, fearing that tachycardia could be bad for her heart.

Situationally Bound Panic Attacks

The second type of panic attack consists of situationally bound (cued) panics, which are defined as attacks that are almost invariably triggered by specific situations. For example, a person with panic disorder might always panic in crowded elevators. Situationally bound panics also occur in other disorders, particularly other anxiety disorders. People with specific phobia or social phobia, for example, might panic if suddenly exposed to an intensely feared stimulus.

Situationally Predisposed Panic Attacks

These are often but not invariably triggered by a given situation. Being in a supermarket line-up, for example, may increase the probability that a panic-disordered person will panic. Situationally predisposed attacks occur in panic disorder and occasionally in other disorders. The probability of panic is influenced by a variety of factors, including crowding, heat, humidity, and other contextual variables. A detailed assessment, as described in later chapters, is often needed to identify all the relevant panic cues.

Strengths and Limitations of the DSM-IV Typology

The DSM-IV distinction among unexpected, situationally bound, and situationally predisposed panic attacks serves as a useful reminder that panics can differ in the extent that they are perceived (by the patient) as being cued by specific stimuli. The panic typology also can be useful in making differential diagnoses (see below). Yet, it has important limitations, especially for understanding and treating panic disorder. The main shortcoming is that the DSM-IV typology describes only some of the parameters of panic; the typology simply describes how panic attacks may vary in terms of the relationship between cues (identified by the patient) and the probability of panic.

Panic attacks—regardless of whether they are unexpected, situationally bound, or situationally predisposed—can vary in many other ways, such as duration, frequency, number of panic symptoms occurring during the attack, intensity of symptoms, types of catastrophic thoughts, and ways the attacks end (e.g., whether they are terminated by performing particular escape behaviours). Later chapters will show how these variables are important in understanding the factors that exacerbate or ameliorate panic attacks.

The Protean Nature of Panic Disorder

The frequency and severity of a person's panic attacks typically fluctuate over time and circumstance. The attacks are typically frequent during episodes of stress, although this is not invariably the case. Sometimes the attacks are initially unexpected and then become more predictable, and sometimes less frequent as the person learns to identify and avoid panic-evoking stimuli (American Psychiatric Association, 1998). Some sufferers report that their panics vary simply in terms of intensity and predictability, while other panic patients describe having many different 'types' of panic, characterized by distinctly different symptom profiles. One day a person might have an attack characterized by intense palpitations and fear of dying. The next day the attacks might be characterized by intense depersonalization and fear of insanity.

People with panic disorder often describe having a mix of full-blown and limited symptom attacks. Examples of the latter include discrete episodes of dizziness or episodes of intense nausea, often accompanied by fears of impending catastrophe (e.g., fear of physical collapse). A question of theoretical and clinical interest is why full-blown attacks are experienced on some occasions and limited symptom attacks on others. Does this reflect differences in the nature or strength of catastrophic beliefs, or does it reflect other factors, such as escape or distraction from the triggering stimuli? As these questions imply, to understand panic disorder it is important to assess limited symptom panic attacks, as well as episodes where the patient 'comes close' to panicking.

Precipitating Factors

Stressful Life Events

Initial panic attacks typically occur in 'agoraphobic' situations, such as driving alone or traveling on a city bus, and often in the context of some form of stressor (Breier *et al.*, 1986; Faravelli *et al.*, 1992; Lelliott *et al.*, 1989; Shulman *et al.*, 1994). Commonly reported stressors include separation, loss, or illness of a significant other, being the victim of sexual assault or other forms of interpersonal violence, and financial or occupational stressors (Faravelli, 1985; Faravelli *et al.*, 1985; Finlay-Jones & Brown, 1981; Katon, 1984; Kendler *et al.*, 1992; Michelson *et al.*, 1998; Murrey *et al.*, 1993; Pribor & Dinwiddie, 1992; Saunders *et al.*, 1992; Stein *et al.*, 1989; Tweed *et al.*, 1989; Uhde *et al.*, 1985; Walker *et al.*, 1992).

Although recent studies provide useful information on the types of stressors associated with the onset of panic disorder, the role of stressful life events has been noted for over a century. Freud (1895a/1949), for example, described the role of stressors in the development and exacerbation of panic disorder:

> 'A man of forty-five . . . first had an anxiety attack . . . on receiving the news of the death of his aged father; from that time onwards a complete and typical anxiety-neurosis with agoraphobia developed; further, a young man who fell a victim to the same neurosis on account of disagreements between his young wife and his mother, and developed agoraphobia afresh after every domestic quarrel; a student who was rather an idler and had his first anxiety-attacks during a period of hard cramming under the spur of paternal displeasure.' (pp. 111–112)

Other disorders—such as other anxiety disorders, mood disorders, and personality disorders—also have been linked to stressful life events (American Psychiatric Association, 1994; Murrey *et al.*, 1993; Pribor & Dinwiddie, 1992; Zlotnick *et al.*, 1996). This suggests that stressful life events play a nonspecific role in the development of psychopathology; stressors do not invariably lead to panic disorder.

Other Precipitants

In about 30% of patients, the initial (and typically unexpected) panic attack occurs while the person is intoxicated with, or in withdrawal from, a psychoactive substance such as marijuana, cocaine, or anesthetic (Aronson & Craig, 1986; Ballenger & Fyer, 1996; Last *et al.*, 1984). Preliminary research suggests that seasonality also plays a role in panic onset. Lelliott *et al.* (1989) found that of 57 patients with panic disorder, more had their first panic in late spring and summer than in fall and winter, and in warm weather than cold.

Precipitants of Panic: What are the Common Elements?

An important question is why various factors—such as weather conditions, psychoactive drugs, and stressful life events—increase the risk for developing panic attacks and panic disorder. Why are these factors associated with panic attacks in some people but not others? And why do panic attacks persist after stressful events have passed, or after psychoactive substances have long been metabolized?

Various vulnerability factors have been postulated. According to Freud (1895a/1949), stressors were provoking or contributory factors that are neither necessary or sufficient, but can interact with *specific* predisposing factors to produce *specific* forms of psychopathology. Similar views predominate today, although the hypothesized specific factors are far different from Freud's proposition that libidinal energy is transformed into anxiety (and panic) because of faulty sexual practices or lack of appropriate sexual outlet.

Stressors, agoraphobic situations, and hot or humid weather conditions all can cause arousal-related body sensations, which may be catastrophically misinterpreted, thereby producing panic attacks. Drugs that sometimes precipitate panic disorder also cause a variety of body sensations. Marijuana, for example, increases heart rate (Beaconsfield *et al.*, 1972). Panic attacks may occur because the person catastrophically misinterprets these sensations. These cognitive factors are discussed in Chapter 3.

Precipitants and Age of Onset

Why does panic disorder typically develop between the ages of 15 and 30? Major life changes typically occur during this period, such as leaving the security of the parental home, starting a new job, starting a family, and other changes in role functioning. Similarly, experimental use of psychotropic drugs is most likely to occur between adolescence and early adulthood. Thus, panic disorder may develop in adolescence or early adulthood because the precipitating events are most likely to be experienced during this period.

Differential Diagnosis

Panic disorder is not diagnosed if the attacks are the direct physiologic result of acute intoxication or withdrawal from a substance (e.g., intoxication of caffeine, amphetamines, or cocaine; withdrawal from alcohol, barbiturates, or benzodiazepines). Panic disorder also is not diagnosed if panic attacks are entirely due to a general medical condition (e.g., entirely due to hyperthyroidism, hyperparathyroidism, pheochromocytoma, vestibular dysfunctions, seizure disorders, or cardiac conditions such as supraventricular tachycardia) (American Psychiatric Association, 1994). Panics arising from these sources may be best treated with approaches other than those described in this book. Accordingly, differential diagnosis plays an important role for planning appropriate treatment.

Panic disorder is diagnosed if the attacks continue even when the precipitant is no longer present (e.g., when the patient is no longer intoxicated with, or in withdrawal from, a psychoactive substance) (American Psychiatric Association, 1994). Panic disorder is also diagnosed if the attacks cannot be entirely explained by the effects of a drug or a general medical condition. Drugs or medical conditions can be precipitants or exacerbators of panic disorder, as illustrated by the following case.

Mr E. was a middle-aged diabetic man who had experienced a number of hypoglycemic episodes in which he lost consciousness. As a result of these experiences he acquired an intense fear of having further hypoglycemic episodes, and developed recurrent panic attacks and widespread agoraphobic avoidance. His diabetes appeared to contribute to his panic attacks in that his hypoglycemic episodes led him to acquire an intense fear of arousal-related sensations, including fears of dizziness, faintness, sweating, and palpitations. Whenever he experienced these sensations—regardless of whether or not they were due to hypoglycemia—he catastrophically misinterpreted them as indications of impending syncope, and therefore panicked.

Panic disorder is not diagnosed if the attacks are better accounted for by another disorder, such as another anxiety disorder. To illustrate, a person might seem to have recurrent, unexpected panic attacks. But on further inquiry it might be found that the person has a specific phobia and is victim to recurrent, unexpected exposures to the phobic stimulus (e.g., a person with spider phobia who has repeated, unexpected exposure to large spiders). Here, the attacks only appear unexpected; the attacks are actually cued panics triggered by unexpected exposure to the phobic object.

AGORAPHOBIA

Description and Diagnosis

In 1871, Carl F. O. Westphal coined the term agoraphobia. His description bears much resemblance to the syndrome as currently defined:

> For a few years now patients have come to me with the peculiar complaint that it is not possible for them to walk across open spaces and through certain streets and that, due to the fear of such paths, they are troubled in their freedom and movement. . . . They gave me hints, or spoke candidly,

> that they might be laughed at or considered to be insane due to the peculiarity of the matter. This fear of walking through spaces, e.g., streets, described the major phenomenon to such an extent, that I composed the term Agoraphobia, fear of spaces. Though, in addition, the fear was related to certain other situations, and therefore the selected term . . . is not entirely exhaustive. . . . Without any exceptions, all patients mentioned that they absolutely do not know the reasons for this fear. It comes by itself; a sudden occurrence, strange thing, that appears when attempting to cross a square, or while even thinking about it. . . . [The patient's] perception (observation) of a monstrous width of a square and also the thought of it, makes him believe that something will happen to him while being in a state of fear and confusion. . . . The condition can be lessened or forced to disappear through an escort, especially while engaging in a conversation; at the sight of a vehicle going in the same direction, or seeing an open door in one of the houses located on abandoned streets, and so forth. Furthermore, the pleasurable stimulation of alcohol makes it easier to overcome the painful condition. (Westphal, 1871, translated by Knapp & Schumacher, 1988, pp. 59–74)

Westphal noted that his agoraphobic patients experienced unexpected panic attacks and situational panics, along with anticipatory anxiety and 'anxiety about their anxiety' (Kuch & Swinson, 1992). Westphal did not make the connection emphasized today, between panic attacks and agoraphobia (Boyd & Crump, 1991). This is a curious omission, given the prominence of panic in his case descriptions. It was not until Freud that the link between panic attacks and agoraphobia became apparent. Freud (1895b, 1949) observed that 'in the case of agoraphobia, etc., we often find the recollection of a state of *panic*; and what the patient actually fears is a repetition of such an attack under those specific conditions in which he believes he cannot escape it' (p. 136, emphasis in original).

Today, agoraphobia is defined as 'anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having a panic attack . . . or panic-like symptoms (e.g., fear of having a sudden attack of dizziness or a sudden attack of diarrhea)' (American Psychiatric Association, 1994, p. 396). Agoraphobia usually develops as a consequence of full or subclinical panic disorder (Ballenger & Fyer, 1996). People with agoraphobia tend to fear and avoid a wide range of situations, including being alone outside the home, being at home alone, crowds, bridges, elevators, and traveling by car, bus, train, or airplane. Often the person is better able to endure these situations when with a trusted companion such as a parent or spouse.

In clinical settings, over 95% of people with agoraphobia also have a current or past history of panic disorder (American Psychiatric Association, 1994). Accordingly, the focus of this book is on panic disorder with

or without agoraphobia rather than on agoraphobia without panic. Those rare cases of agoraphobia without a history of panic disorder respond to treatments similar to those used for panic disorder with agoraphobia.

Varieties of Agoraphobia

Dimensions

Factor analytic studies reveal that agoraphobia is composed of several distinct but correlated factors (dimensions), which are hierarchically organized. Starting at the top of the hierarchy, agoraphobia forms a factor distinct from other phobias, such as social phobia, animal phobia, and blood/injury/illness phobia (Arrindell *et al.*, 1991a, 1991b). In turn, the agoraphobia factor is composed of several correlated lower-order factors (subfactors), including fear of public places, fear of open spaces, and claustrophobia (Arrindell *et al.*, 1995; Cox *et al.*, 1993; Hamann & Mavissakalian, 1988; Johnston *et al.*, 1984; Kwon *et al.*, 1990). In turn, each of these factors are composed of distinct but correlated sets of factors. For example, claustrophobia is composed of fear of physical restriction and fear of suffocation (Rachman & Taylor, 1993). Thus, agoraphobia consists of a multi-layered hierarchical arrangement of factors. Factor analytic studies indicate that if each factor represents a discrete set of causal mechanisms (Cattell, 1978), then agoraphobia arises from a mix of mechanisms that range from specific (e.g., those pertaining to fear of suffocation) to general (e.g., those influencing all agoraphobic fears; see Taylor, 1998, for details). Each factor may need to be targeted in order to produce comprehensive and enduring reductions in agoraphobia. The causes of these factors remain unknown. Each factor may arise from maladaptive beliefs about particular stimuli.

Subtle Agoraphobia

If agoraphobia is defined by the fear of situations associated with panic or panic-like experiences, then fears of a variety of other stimuli can be regarded as forms of agoraphobia. People with panic disorder often fear and avoid activities, substances, and situations that evoke arousal-related sensations. These include physical exercise, emotionally evocative movies, humid or stuffy environments, sexual intercourse, drinking coffee, and so on (see Barlow & Craske, 1994, for a comprehensive list). Fear and avoidance of these stimuli are not adequately measured by exist-

ing agoraphobia scales, and during clinical interviews panic disordered patients often neglect to report these fears. Accordingly, the fears represent a form of subtle agoraphobia. Little is known about the prevalence or factorial structure (dimensions) of subtle agoraphobia.

Clinical Course

Not all people with panic disorder develop agoraphobia. For those who do become agoraphobic, this usually occurs within the first year of the onset of recurrent panic attacks (American Psychiatric Association, 1994). Breier *et al.* (1986) found that patients who misperceive their first panic attack as a sign of catastrophe (e.g., heart attack, brain tumor, or impending insanity), compared to patients who recognized their first panic as simply an anxiety reaction, developed agoraphobia more rapidly.

Although agoraphobia typically develops as a consequence of full-blown or subsyndromal panic disorder, exceptions have been documented. Agoraphobia sometimes develops after the occurrence of panic-like episodes, such as attacks of diarrhea in people with irritable bowel syndrome.

As agoraphobia worsens, the sufferer may become increasingly dependent on significant others, demanding that they accompany them when they have to leave home or enter social situations. There may be considerable changes in the family system, with multiple family members being affected by the patient's increasing dependency and avoidance of agoraphobic situations. Significant others may be compelled to take over many of the patient's responsibilities, such as earning wages, shopping, and child rearing responsibilities such as attending school meetings (Katon, 1994).

Differential Diagnosis

Agoraphobia can be distinguished from other disorders characterized by avoidance behaviour. This is done by assessing the person's *focus of apprehension* or reasons for avoiding (Craske, 1991). Agoraphobic avoidance is characterized by fear of having panic or panic-like attacks. Avoidance in other disorders is associated with different concerns. This was demonstrated by McNally and Louro (1992), who examined the reasons for fear of flying in people with agoraphobia and in people with a specific phobia of flying. Both groups feared and avoided flying, but did so for different

reasons. Agoraphobics avoided flying for fear of having a panic attack, whereas specific phobics avoided flying for fear that the plane might crash.

Although many agoraphobic situations are social situations (e.g., shopping malls), agoraphobia and social phobia can be distinguished by examining the foci of apprehension; people with agoraphobia are frightened mostly of panic (or panic-like) episodes, whereas people with social phobia are frightened mostly of ridicule or rejection by others. Sometimes the distinction between the two can be difficult, such as when the person is frightened of having a panic attack *because* it would be embarrassing. Here, the two disorders are distinguished by identifying the main source of apprehension. If the person is primarily concerned about panic attacks (including attacks in nonsocial situations), then avoidance behaviour would be conceptualized as agoraphobia. In some cases, however, both social phobia and agoraphobia would be diagnosed. For further discussion on the distinction between these disorders see Mannuzza *et al.* (1990).

In cases of *space phobia* (Marks & Bebbington, 1976), the person presents with agoraphobic avoidance, but the focus of apprehension is typically on fear of falling in the absence of nearby visual support (i.e., absence of a nearby object that they can fix their gaze upon, such as a wall). People with space phobia have neurological soft signs and appear to suffer from disturbed integration of vestibulo-ocular reflexes as a result of diverse neurologic lesions (Marks, 1987). Sufferers may be unable to travel across rooms without crawling on their hands and knees. Unlike agoraphobia, space phobia does not respond well to situational exposure therapy, and is not characterized by the fear of panic or panic-like episodes (Marks 1987). To complicate this differential diagnosis, it is not uncommon for people with panic disorder and agoraphobia to have mild vestibular abnormalities (see Chapter 4). These can exacerbate agoraphobic avoidance, but are not sufficient to account for agoraphobia because similar abnormalities are commonly found in the general population (Jacob *et al.*, 1996b). In contrast to the treatment refractory nature of space phobia, it appears that milder vestibular abnormalities can be treated with exposure therapy, particularly exposure to movements or stimuli that induce dizziness (Yardley, 1994).

With regard to differential diagnosis from general medical conditions, DSM-IV states that if an associated medical condition is present (e.g., a cardiac condition), agoraphobia is diagnosed when the fear of being incapacitated or embarrassed by the development of symptoms (e.g., fainting) is clearly in excess of that usually associated with the medical condition (American Psychiatric Association, 1994).

SUMMARY AND CONCLUSIONS

Panic disorder (with or without agoraphobia) is common, costly, and often debilitating. Agoraphobia typically develops as a consequence of recurrent panic attacks or panic-like symptoms. Panic attacks and agoraphobia are heterogeneous, and may arise from multiple pathogenic processes. The heterogeneity has important implications for treatment; it underscores the importance of developing an individualized understanding of the patient's problems in order to plan treatment.