Anxiety Disorders
(6 Hours/ Units)

Course Objectives: This course is designed to help you:

1. Define various anxiety disorders
2. Evaluate and diagnose various anxiety disorders
3. Identify common causes of various anxiety disorders
4. Distinguish between different anxiety disorders
5. Implement and utilize effective treatment approaches and techniques

Table of Contents:
1. Definitions
2. Causes
3. Types of Anxiety Disorders
4. Treatment
5. Anxiety Disorders in Children and Adolescents
6. Anxiety and the Elderly
7. Anxiety and Trauma
8. Additional Resources
9. References
1. Definitions

“Anxiety disorder” is a general term including several different forms of abnormal, pathological anxieties, fears, and phobias. For clinical purposes, "fear", "anxiety" and "phobia" have distinct meanings. Anxiety is distinctive from fear because fear occurs in the presence of an external threat. Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioral components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, fear, or worry. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable. Anxiety is a normal reaction to stress. It may help a person to deal with a difficult situation, for example at work or at school, by prompting one to cope with it (American Psychiatric Association. 2000. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington DC: American Psychiatric Association).

The anxiety disorders are the most common, or frequently occurring, mental disorders. They encompass a group of conditions that share extreme or pathological anxiety as the principal disturbance of mood or emotional tone. Anxiety, which may be understood as the pathological counterpart of normal fear, is manifest by disturbances of mood, as well as of thinking, behavior, and physiological activity.

Prevalence of Anxiety
Anxiety symptoms and syndromes are important but understudied conditions in older adults. Overall, community-based prevalence estimates indicate that about 11.4 percent of adults aged 55 years and older meet criteria for an anxiety disorder in 1 year (Flint, 1994; Table 5-1). Phobic anxiety disorders are among the most common mental disturbances in late life according to the ECA study (Table 5-1). Prevalence studies of panic disorder (0.5 percent)
and obsessive-compulsive disorder (1.5 percent) in older samples reveal low rates (Table 5-1) (Copeland et al., 1987a; Copeland et al., 1987b; Bland et al., 1988; Lindesay et al., 1989). Although the National Comorbidity Study did not cover this age range, and the ECA did not include this disorder, other studies showed a prevalence of generalized anxiety disorder in older adults ranging from 1.1 percent to 17.3 percent higher than that reported for panic disorder or obsessive-compulsive disorder (Copeland et al., 1987a; Skoog, 1993). Worry or “nervous tension,” rather than specific anxiety syndromes, may be more important in older people. Anxiety symptoms that do not fulfill the criteria for specific syndromes are reported in up to 17 percent of older men and 21 percent of older women (Himmelfarb & Murrell, 1984).

In addition, some disorders that have received less study in older adults may become more important in the near future. For example, post-traumatic stress disorder (PTSD) is expected to assume increasing importance as Vietnam veterans age. At 19 years after combat exposure, this cohort of veterans has been found to have a PTSD prevalence of 15 percent (cited in McFarlane & Yehuda, 1996). As affected patients age, there is a continuing need for services. In addition, research has shown that PTSD can manifest for the first time long after the traumatic event (Aarts & Op den Velde, 1996), raising the specter that even more patients will be identified in the future.

2. Causes

Etiology of Anxiety Disorders

The etiology of most anxiety disorders, although not fully understood, has come into sharper focus in the last decade. In broad terms, the likelihood of developing anxiety involves a combination of life experiences, psychological traits, and/or genetic factors. The anxiety disorders are so heterogeneous that the relative roles of these factors are likely to differ. Some anxiety disorders, like panic disorder, appear to have a stronger genetic basis than others (National Institute of Mental Health [NIMH], 1998), although actual genes have not been identified. Other anxiety disorders are more rooted in stressful life events.

It is not clear why females have higher rates than males of most anxiety disorders, although some theories have suggested a role for the gonadal steroids. Other research on women’s responses to stress also suggests that
women experience a wider range of life events (e.g., those happening to friends) as stressful as compared with men who react to a more limited range of stressful events, specifically those affecting themselves or close family members (Maciejewski et al., 1999).

What the myriad of anxiety disorders have in common is a state of increased arousal or fear (Barbee, 1998). Anxiety disorders often are conceptualized as an abnormal or exaggerated version of arousal. Much is known about arousal because of decades of study in animals and humans of the so-called “fight-or-flight response,” which also is referred to as the acute stress response. The acute stress response is critical to understanding the normal response to stressors and has galvanized research, but its limitations for understanding anxiety have come to the forefront in recent years, as this section later explains.

In common parlance, the term “stress” refers either to the external stressor, which can be physical or psychosocial in nature, as well as to the internal response to the stressor. Yet researchers distinguish the two, calling the stressor the stimulus and the body’s reaction the stress response. This is an important distinction because in many anxiety states there is no immediate external stressor. The following paragraphs describe the biology of the acute stress response, as well as its limitations, in understanding human anxiety. Emerging views about the neurobiology of anxiety attempt to integrate and understand psychosocial views of anxiety and behavior in relation to the structure and function of the central and peripheral nervous system.

**Acute Stress Response**
When a fearful or threatening event is perceived, humans react innately to survive: they either are ready for battle or run away (hence the term “fight-or-flight response”). The nature of the acute stress response is all too familiar. Its hallmarks are an almost instantaneous surge in heart rate, blood pressure, sweating, breathing, and metabolism, and a tensing of muscles. Enhanced cardiac output and accelerated metabolism are essential for mobilizing fast action. The host of physiological changes activated by a stressful event are unleashed in part by activation of a nucleus in the brain stem called the locus ceruleus. This nucleus is the origin of most norepinephrine pathways in the brain. Neurons using norepinephrine as their neurotransmitter project bilaterally from the locus ceruleus along distinct pathways to the cerebral cortex, limbic system, and the spinal cord, among other projections.
Normally, when someone is in a serene, unstimulated state, the “firing” of neurons in the locus ceruleus is minimal. A novel stimulus, once perceived, is relayed from the sensory cortex of the brain through the thalamus to the brain stem. That route of signaling increases the rate of noradrenergic activity in the locus ceruleus, and the person becomes alert and attentive to the environment. If the stimulus is perceived as a threat, a more intense and prolonged discharge of the locus ceruleus activates the sympathetic division of the autonomic nervous system (Thase & Howland, 1995). The activation of the sympathetic nervous system leads to the release of norepinephrine from nerve endings acting on the heart, blood vessels, respiratory centers, and other sites. The ensuing physiological changes constitute a major part of the acute stress response. The other major player in the acute stress response is the hypothalamic-pituitary-adrenal axis, which is discussed in the next section.

In the 1980s, the prevailing view was that excess discharge of the locus ceruleus with the acute stress response was a major contributor to the etiology of anxiety (Coplan & Lydiard, 1998). Yet over the past decade, the limitations of the acute stress response as a model for understanding anxiety have become more apparent. The first and most obvious limitation is that the acute stress response relates to arousal rather than anxiety. Anxiety differs from arousal in several ways (Barlow, 1988; Nutt et al., 1998). First, with anxiety, the concern about the stressor is out of proportion to the realistic threat. Second, anxiety is often associated with elaborate mental and behavioral activities designed to avoid the unpleasant symptoms of a full-blown anxiety or panic attack. Third, anxiety is usually longer lived than arousal. Fourth, anxiety can occur without exposure to an external stressor.

Other limitations of this model became evident from a lack of support from clinical and basic research (Coplan & Lydiard, 1998). Furthermore, with its emphasis on the neurotransmitter norepinephrine, the model could not explain why medications that acted on the neurotransmitter serotonin (the selective serotonin reuptake inhibitors, or SSRIs) helped to alleviate anxiety symptoms. In fact, these medications are becoming the first-line treatment for anxiety disorders (Kent et al., 1998). To probe the etiology of anxiety, researchers began to devote their energies to the study of other brain circuits and the neurotransmitters on which they rely. The locus ceruleus still participates in anxiety but is understood to play a lesser role.
New Views About the Anatomical and Biochemical Basis of Anxiety

An exciting new line of research proposes that anxiety engages a wide range of neurocircuits. This line of research catapults to prominence two key regulatory centers found in the cerebral hemispheres of the brain—the hippocampus and the amygdala. These centers, in turn, are thought to activate the hypothalamic-pituitary-adrenocortical (HPA) axis (Goddard & Charney, 1997; Coplan & Lydiard, 1998; Sullivan et al., 1998). Researchers have long established the contribution of the HPA axis to anxiety but have been perplexed by how it is regulated. They are buoyed by new findings about the roles of the hippocampus and the amygdala.

The hippocampus and the amygdala govern memory storage and emotions, respectively, among their other functions. The hippocampus is considered important in verbal memory, especially of time and place for events with strong emotional overtones (McEwen, 1998). The hippocampus and amygdala are major nuclei of the limbic system, a pathway known to underlie emotions. There are anatomical projections between the hippocampus, amygdala, and hypothalamus (Jacobson & Sapolsky, 1991; Charney & Deutch, 1996; Coplan & Lydiard, 1998).

Studies of emotional processing in rodents (LeDoux, 1996; Rogan & LeDoux, 1996; Davis, 1997) and in humans with brain lesions (Adolphs et al., 1998) have identified the amygdala as critical to fear responses. Sensory information enters the lateral amygdala, from which processed information is passed to the central nucleus, the major output nucleus of the amygdala. The central nucleus projects, in turn, to multiple brain systems involved in the physiologic and behavioral responses to fear. Projections to different regions of the hypothalamus activate the sympathetic nervous system and induce the release of stress hormones, such as CRH. The production of CRH in the paraventricular nucleus of the hypothalamus activates a cascade leading to release of glucocorticoids from the adrenal cortex. Projections from the central nucleus innervate different parts of the periaqueductal gray matter, which initiates descending analgesic responses (involving the body's endogenous opioids) that can suppress pain in an emergency, and which also activates species-typical defensive responses (e.g., many animals freeze when fearful).

Anxiety differs from fear in that the fear-producing stimulus is either not present or not immediately threatening, but in anticipation of danger, the same arousal, vigilance, physiologic preparedness, and negative affects and
cognitions occur. Different types of internal or external factors or triggers act to produce the anxiety symptoms of panic disorder, agoraphobia, post-traumatic stress disorder, specific phobias, and generalized anxiety disorder, and the prominent anxiety that commonly occurs in major depression. It is currently a matter of research to determine whether dysregulation of these fear pathways leads to the symptoms of anxiety disorders. It has now been established, using noninvasive neuroimaging, that the human amygdala is also involved in fear responses. Fearful facial expressions have been shown to activate the amygdala in MRI studies of normal human subjects (Breiter et al., 1996). Functional imaging studies in anxiety disorders, such as PET studies of brain activation in phobias (Rauch et al., 1995), are also beginning to investigate the precise neural circuits involved in the anxiety disorders.

What is especially exciting is that neuroimaging has furnished direct evidence in humans of the damaging effects of glucocorticoids. In people with post-traumatic stress disorder, neuroimaging studies have found a reduction in the size of the hippocampus. The reduced volume appears to reflect the atrophy of dendrites—the receptive portion of nerve cells—in a select region of the hippocampus. Similarly, animals exposed to chronic psychosocial stress display atrophy in the same hippocampal region (McEwen & Magarinos, 1997). Stress-induced increases in glucocorticoids are thought to be responsible for the atrophy (McEwen, 1998). If the hippocampus is impaired, the individual is thought to be less able to draw on memory to evaluate the nature of the stressor (McEwen, 1998).

**Neurotransmitter Alterations**

There are many neurotransmitter alterations in anxiety disorders. In keeping with the broader view of anxiety, at least five neurotransmitters are perturbed in anxiety: serotonin, norepinephrine, gamma-aminobutyric acid (GABA), corticotropin-releasing hormone (CRH), and cholecystokinin (Coplan & Lydiard 1998; Rush et al., 1998). There is such careful orchestration between these neurotransmitters that changes in one neurotransmitter system invariably elicit changes in another, including extensive feedback mechanisms. Serotonin and GABA are inhibitory neurotransmitters that quiet the stress response (Rush et al., 1998). All of these neurotransmitters have become important targets for therapeutic agents either already marketed or in development (as discussed in the section on treatment of anxiety disorders).
Psychological Views of Anxiety

There are several major psychological theories of anxiety: psychoanalytic and psychodynamic theory, behavioral theories, and cognitive theories (Thorn et al., 1999). Psychodynamic theories have focused on symptoms as an expression of underlying conflicts (Rush et al., 1998; Thorn et al., 1999). Although there are no empirical studies to support these psychodynamic theories, they are amenable to scientific study (Kandel, 1999) and some therapists find them useful. For example, ritualistic compulsive behavior can be viewed as a result of a specific defense mechanism that serves to channel psychic energy away from conflicted or forbidden impulses. Phobic behaviors similarly have been viewed as a result of the defense mechanism of displacement. From the psychodynamic perspective, anxiety usually reflects more basic, unresolved conflicts in intimate relationships or expression of anger.

More recent behavioral theories have emphasized the importance of two types of learning: classical conditioning and vicarious or observational learning. These theories have some empirical evidence to support them. In classical conditioning, a neutral stimulus acquires the ability to elicit a fear response after repeated pairings with a frightening (unconditioned) stimulus. In vicarious learning, fearful behavior is acquired by observing others’ reactions to fear-inducing stimuli (Thorn et al., 1999). With general anxiety disorder, unpredictable positive and negative reinforcement is seen as leading to anxiety, especially because the person is unsure about whether avoidance behaviors are effective.

Cognitive factors, especially the way people interpret or think about stressful events, play a critical role in the etiology of anxiety (Barlow et al., 1996; Thorn et al., 1999). A decisive factor is the individual’s perception, which can intensify or dampen the response. One of the most salient negative cognitions in anxiety is the sense of uncontrollability. It is typified by a state of helplessness due to a perceived inability to predict, control, or obtain desired results (Barlow et al., 1996). Negative cognitions are frequently found in individuals with anxiety (Ingram et al., 1998). Many modern psychological models of anxiety incorporate the role of individual vulnerability, which includes both genetic (Smoller & Tsuang, 1998) and acquired (Coplan et al., 1997) predispositions. There is evidence that women may ruminate more about distressing life events compared with men, suggesting that a cognitive risk factor may predispose them to higher rates of anxiety and depression (Nolen-Hoeksema et al., in press).
Clinical and animal studies suggest a correlation between anxiety disorders and difficulty in maintaining balance. A possible mechanism is malfunction in the parabrachial nucleus, a structure in the brain that among other functions, coordinates signals from the amygdala with input concerning balance. The amygdala is involved in the emotion of fear. The basolateral amygdala has been implicated in anxiety generation. A relationship between anxiety and dendritic arborization of the amygdaloid neurons is well known. SK2 potassium channels mediate inhibitory influence on action potentials and reduces arborization. By over expressing SK2 in basolateral amygdala anxiety was reduced and stress-induced corticosterone secretion at a systemic level lowered, in a test model. Mutations in related SK3 are suspected to be a possible underlying cause for several neurological disorders, including anxiety. A low level of GABA, a neurotransmitter that reduces over activity in the central nervous system, contributes to anxiety. A number of anxiolytics achieve their effect by modulating the GABA receptors (The role of GABA in anxiety disorders. J Clin Psychiatry. 2003. PMID : 12662130).

Selective serotonin reuptake inhibitors, the drugs most commonly used to treat depression, are also frequently considered as a first line treatment for anxiety disorders. A recent study using functional brain imaging techniques suggests that the effects of SSRIs in alleviating anxiety may result from a direct action on GABA neurons rather than as a secondary consequence of mood improvement (The role of GABA in anxiety disorders. J Clin Psychiatry. 2003. PMID : 12662130).

It is estimated that approximately half of all patients receiving mental health services for anxiety disorders such as panic disorder or social phobia are the result of alcohol or benzodiazepine dependence. Sometimes anxiety pre-existed alcohol or benzodiazepine dependence but the alcohol or benzodiazepine dependence act to keep the anxiety disorders going and often progressively making them worse. Many people who are addicted to alcohol or prescribed benzodiazepines when it is explained to them they have a choice between ongoing ill mental health or quitting and recovering from their symptoms decide on quitting alcohol and/or their benzodiazepines. It was noted that every individual has an individual sensitivity level to alcohol or sedative hypnotic drugs and what one person can tolerate without ill health another will suffer very ill health and that even moderate drinking can cause rebound anxiety syndromes and sleep disorders. A person who is suffering the toxic effects of alcohol or
benzodiazepines will not benefit from other therapies or medications as they do not address the root cause of the symptoms which is a "poisoned brain". Recovery from benzodiazepines tends to take a lot longer than recovery from alcohol but people can regain their previous good health. Symptoms may temporarily worsen however, during alcohol withdrawal or benzodiazepine withdrawal. There is some evidence that prolonged exposure to organic solvents in the work environment may be associated with anxiety disorders. Painting, varnishing and carpet laying are some of the jobs in which significant exposure to organic solvents may occur.

3. Types of Anxiety Disorders

The anxiety disorders include panic disorder (with and without a history of agoraphobia), agoraphobia (with and without a history of panic disorder), generalized anxiety disorder, specific phobia, social phobia, obsessive-compulsive disorder, acute stress disorder, and post-traumatic stress disorder (DSM-IV). In addition, there are adjustment disorders with anxious features, anxiety disorders due to general medical conditions, substance-induced anxiety disorders, and the residual category of anxiety disorder not otherwise specified (DSM-IV).

Anxiety disorders not only are common in the United States, but they are ubiquitous across human cultures (Regier et al., 1993; Kessler et al., 1994; Weissman et al., 1997). In the United States, 1-year prevalence for all anxiety disorders among adults ages 18 to 54 exceeds 16 percent (Table 4-1), and there is significant overlap or comorbidity with mood and substance abuse disorders (Regier et al., 1990; Goldberg & Lecrubier, 1995; Magee et al., 1996). The longitudinal course of these disorders is characterized by relatively early ages of onset, chronicity, relapsing or recurrent episodes of illness, and periods of disability (Keller & Hanks, 1994; Gorman & Coplan, 1996; Liebowitz, 1997; Marcus et al., 1997). Although few psychological autopsy studies of adult suicides have included a focus on comorbid conditions (Conwell & Brent, 1995), it is likely that the rate of comorbid anxiety in suicide is underestimated. Panic disorder and agoraphobia, particularly, are associated with increased risks of attempted suicide (Hornig
Anxiety disorders range from feelings of uneasiness to immobilizing bouts of terror. This fact sheet briefly describes the different types of anxiety disorders. This fact sheet is not exhaustive, nor does it include the full range of symptoms and treatments. Keep in mind that new research can yield rapid and dramatic changes in our understanding of and approaches to mental disorders. If you believe you or a loved one has an anxiety disorder, seek competent, professional advice or another form of support.

**Separation anxiety**

Separation anxiety disorder is the feeling of excessive and inappropriate levels of anxiety due to separation from an attachment figure or from a person or place that provides feelings of safety. Separation anxiety disorder affects approximately 7% of adults and 4% of children, but the childhood cases are often more severe, in that even a brief separation can produce panic. Separation anxiety can be an age appropriate aspect of development in babies or children. It is only when this feeling is excessive or inappropriate that it can be considered a disorder (*Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L., 2001. Abnormal psychology, 4th ed. New York: W.W. Norton & Company, Inc)*.

**Panic Attacks and Panic Disorder**

The following includes a summary of diagnostic criteria for panic disorder with (or without) agoraphobia:

- recurrent panic attacks
- A minimum of one attack is followed by at least one month of at least one of the following:
  - Ongoing concern about having more and/or future attacks
  - Concern about the attack’s consequences
  - Noticeable behavioral change directly related to the attacks
• The presence (or absence) of agoraphobia
  The attacks are not caused by substance use/dependence or a medical condition
  Other relevant disorders have been ruled out such as social phobia (e.g., occurring on exposure to feared social situations), specific phobia (e.g., on exposure to a specific phobic situation), obsessive-compulsive disorder (e.g., on exposure to dirt in someone with an obsession about contamination), post-traumatic stress disorder (e.g., in response to stimuli associated with a severe stressor), or separation anxiety disorder (e.g., in response to being away from home or close relatives).


An individual suffering from panic Disorder may experience brief attacks of intense terror and apprehension that cause trembling and shaking, confusion, dizziness, nausea, difficulty breathing, and feelings of impending doom or a situation that would be embarrassing. One who is often plagued by sudden bouts of intense anxiety might be said to be afflicted by this disorder. The American Psychiatric Association (2000) defines a panic attack as fear or discomfort that arises abruptly and peaks in 10 minutes or less, and can last for several hours.

Although panic attacks sometimes appear to develop instantaneously, they generally happen after a trigger including frightening experiences, prolonged stress, or even exercise. Many people who have panic attacks believe that they are having a heart attack and often end up at the doctor or emergency room. Even following normal test results, the person will still worry, with the physical manifestations of anxiety only reinforcing their fear that something is wrong with their body. Hypervigilance related to any change in the normal function of the human body will be interpreted as a possible life threatening illness. Normal changes in heartbeat, such as when climbing a
flight of stairs will be noticed by a panic sufferer and lead them to think something is wrong with their heart or they are about to have another panic attack. Some begin to worry excessively and even quit jobs or refuse to leave home to avoid future attacks. Panic disorder can be diagnosed when several apparently spontaneous attacks lead to a persistent concern about future attacks (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L. (2001). Abnormal psychology, (4th ed.) New York: W.W. Norton & Company, Inc).

A panic attack is a discrete period of intense fear or discomfort that is associated with numerous somatic and cognitive symptoms (DSM-IV). These symptoms include palpitations, sweating, trembling, shortness of breath, sensations of choking or smothering, chest pain, nausea or gastrointestinal distress, dizziness or lightheadedness, tingling sensations, and chills or blushing and “hot flashes.” The attack typically has an abrupt onset, building to maximum intensity within 10 to 15 minutes. Most people report a fear of dying, “going crazy,” or losing control of emotions or behavior. The experiences generally provoke a strong urge to escape or flee the place where the attack begins and, when associated with chest pain or shortness of breath, frequently results in seeking aid from a hospital emergency room or other type of urgent assistance. Yet an attack rarely lasts longer than 30 minutes. Current diagnostic practice specifies that a panic attack must be characterized by at least four of the associated somatic and cognitive symptoms described above. The panic attack is distinguished from other forms of anxiety by its intensity and its sudden, episodic nature. Panic attacks may be further characterized by the relationship between the onset of the attack and the presence or absence of situational factors. For example, a panic attack may be described as unexpected, situationally bound, or situationally predisposed (usually, but not invariably occurring in a particular situation). There are also attenuated or “limited symptom” forms of panic attacks.

Panic attacks are not always indicative of a mental disorder, and up to 10 percent of otherwise healthy people experience an isolated panic attack per year (Barlow, 1988; Klerman et al.,
Panic attacks also are not limited to panic disorder. They commonly occur in the course of social phobia, generalized anxiety disorder, and major depressive disorder (DSM-IV).

Panic disorder is diagnosed when a person has experienced at least two unexpected panic attacks and develops persistent concern or worry about having further attacks or changes his or her behavior to avoid or minimize such attacks. Whereas the number and severity of the attacks varies widely, the concern and avoidance behavior are essential features. The diagnosis is inapplicable when the attacks are presumed to be caused by a drug or medication or a general medical disorder, such as hyperthyroidism.

Lifetime rates of panic disorder of 2 to 4 percent and 1-year rates of about 2 percent are documented consistently in epidemiological studies (Kessler et al., 1994; Weissman et al., 1997) (Table 4-1). Panic disorder is frequently complicated by major depressive disorder (50 to 65 percent lifetime comorbidity rates) and alcoholism and substance abuse disorders (20 to 30 percent comorbidity) (Keller & Hanks, 1994; Magee et al., 1996; Liebowitz, 1997). Panic disorder is also concomitantly diagnosed, or co-occurs, with other specific anxiety disorders, including social phobia (up to 30 percent), generalized anxiety disorder (up to 25 percent), specific phobia (up to 20 percent), and obsessive-compulsive disorder (up to 10 percent) (DSM-IV). As discussed subsequently, approximately one-half of people with panic disorder at some point develop such severe avoidance as to warrant a separate description, panic disorder with agoraphobia.

Panic disorder is about twice as common among women as men (American Psychiatric Association, 1998). Age of onset is most common between late adolescence and midadult life, with onset relatively uncommon past age 50. There is developmental continuity between the anxiety syndromes of youth, such as separation anxiety disorder. Typically, an early age of onset of panic disorder carries greater risks of comorbidity, chronicity, and impairment. Panic disorder is a familial condition and can be distinguished from depressive disorders by family studies.
Specific Phobias
These common conditions are characterized by marked fear of specific objects or situations (DSM-IV). Exposure to the object of the phobia, either in real life or via imagination or video, invariably elicits intense anxiety, which may include a (situationally bound) panic attack. Adults generally recognize that this intense fear is irrational. Nevertheless, they typically avoid the phobic stimulus or endure exposure with great difficulty. The most common specific phobias include the following feared stimuli or situations: animals (especially snakes, rodents, birds, and dogs); insects (especially spiders and bees or hornets); heights; elevators; flying; automobile driving; water; storms; and blood or injections.

Approximately 8 percent of the adult population suffers from one or more specific phobias in 1 year (Table 4-1). Much higher rates would be recorded if less rigorous diagnostic requirements for avoidance or functional impairment were employed. Typically, the specific phobias begin in childhood, although there is a second "peak" of onset in the middle 20s of adulthood (DSM-IV). Most phobias persist for years or even decades, and relatively few remit spontaneously or without treatment.

The specific phobias generally do not result from exposure to a single traumatic event (i.e., being bitten by a dog or nearly drowning) (Marks, 1969). Rather, there is evidence of phobia in other family members and social or vicarious learning of phobias (Cook & Mineka, 1989). Spontaneous, unexpected panic attacks also appear to play a role in the development of specific phobia, although the particular pattern of avoidance is much more focal and circumscribed.

A common companion of panic disorder is agoraphobia, anxiety about being in a place or situation where escape is difficult or embarrassing (Craske, 2000; Gorman, 2000). The definition of the word has expanded to refer to avoidance behaviors that sufferers often develop. For example, if one suffers a panic attack while driving, then he or she may avoid driving, which
relieves the anxiety, and subsequently makes future driving more difficult, as a result of behavioral reinforcement. Another common scenario involves the afflicted, in a restaurant or other compacted social setting, needing to be seated or otherwise in view of a door or other escape route in order for the situation to be tolerable enough to withstand (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L. (2001). Abnormal psychology, (4th ed.) New York: W.W. Norton & Company, Inc).

**Agoraphobia**

The ancient term agoraphobia is translated from Greek as fear of an open marketplace. Agoraphobia today describes severe and pervasive anxiety about being in situations from which escape might be difficult or avoidance of situations such as being alone outside of the home, traveling in a car, bus, or airplane, or being in a crowded area (DSM-IV).

Most people who present to mental health specialists develop agoraphobia after the onset of panic disorder (American Psychiatric Association, 1998). Agoraphobia is best understood as an adverse behavioral outcome of repeated panic attacks and the subsequent worry, preoccupation, and avoidance (Barlow, 1988). Thus, the formal diagnosis of panic disorder with agoraphobia was established. However, for those people in communities or clinical settings who do not meet full criteria for panic disorder, the formal diagnosis of agoraphobia without history of panic disorder is used (DSM-IV).

The 1-year prevalence of agoraphobia is about 5 percent (Table 4-1). Agoraphobia occurs about two times more commonly among women than men (Magee et al., 1996). The gender difference may be attributable to social-cultural factors that encourage, or permit, the greater expression of avoidant coping strategies by women (DSM-IV), although other explanations are possible.

**Social Phobia**

Social phobia, also known as social anxiety disorder, describes people with marked and persistent anxiety in social situations, including performances and public speaking (Ballenger et al.,
The critical element of the fearfulness is the possibility of embarrassment or ridicule. Like specific phobias, the fear is recognized by adults as excessive or unreasonable, but the dreaded social situation is avoided or is tolerated with great discomfort. Many people with social phobia are preoccupied with concerns that others will see their anxiety symptoms (i.e., trembling, sweating, or blushing); or notice their halting or rapid speech; or judge them to be weak, stupid, or “crazy.” Fears of fainting, losing control of bowel or bladder function, or having one’s mind going blank are also not uncommon. Social phobias generally are associated with significant anticipatory anxiety for days or weeks before the dreaded event, which in turn may further handicap performance and heighten embarrassment.

The 1-year prevalence of social phobia ranges from 2 to 7 percent (Table 4-1), although the lower figure probably better captures the number of people who experience significant impairment and distress. Social phobia is more common in women (Wells et al., 1994). Social phobia typically begins in childhood or adolescence and, for many, it is associated with the traits of shyness and social inhibition (Kagan et al., 1988). A public humiliation, severe embarrassment, or other stressful experience may provoke an intensification of difficulties (Barlow, 1988). Once the disorder is established, complete remissions are uncommon without treatment. More commonly, the severity of symptoms and impairments tends to fluctuate in relation to vocational demands and the stability of social relationships. Preliminary data suggest social phobia to be familial (Rush et al., 1998).

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) is an anxiety disorder which results from a traumatic experience. Post-traumatic stress can result from an extreme situation and/or trauma, such as being involved in combat, rape, hostage situations, or involvement in a serious accident. It can also result from chronic exposure to a severe stressor. For example soldiers who endure individual battles but cannot cope with an unceasing

**Generalized Anxiety Disorder**

Generalized anxiety disorder is a common disorder that affects twice as many women as men and may potentially lead to considerable impairment (Brawman-Mintzer & Lydiard, 1996, 1997). Generalized anxiety disorder is characterized by prolonged anxiety that is unspecific or free-floating. People with this disorder feel afraid but are unable to identify the specific fear. They are often constantly worried and experience difficulty managing excessive worry. Due to persistent muscle tension and autonomic fear reactions, they may develop headaches, heart palpitations, dizziness, insomnia, and chest pain. These physical symptoms, combined with the intense, long-term anxiety, make it difficult to cope with normal daily activities.

Generalized anxiety disorder is defined by a protracted (≥ 6 months’ duration) period of anxiety and worry, accompanied by multiple associated symptoms (DSM-IV). These symptoms include muscle tension, easy fatigability, poor concentration, insomnia, and irritability. In youth, the condition is known as overanxious disorder of childhood. In DSM-IV, an essential feature of generalized anxiety disorder is that the anxiety and worry cannot be attributable to the more focal distress of panic disorder, social phobia, obsessive-compulsive disorder, or other conditions. Rather, as implied by the name, the excessive worries often pertain to many areas, including work, relationships, finances, the well-being of one’s family, potential misfortunes, and impending deadlines. Somatic anxiety symptoms are common, as are sporadic panic attacks.

Generalized anxiety disorder occurs more often in women, with a sex ratio of about 2 women to 1 man (Brawman-Mintzer & Lydiard, 1996). The 1-year population prevalence is about 3 percent (Table 4-1). Approximately 50 percent of cases begin in
childhood or adolescence. The disorder typically runs a fluctuating course, with periods of increased symptoms usually associated with life stress or impending difficulties. There does not appear to be a specific familial association for general anxiety disorder. Rather, rates of other mood and anxiety disorders typically are greater among first-degree relatives of people with generalized anxiety disorder (Kendler et al., 1987).

**Obsessive-Compulsive Disorder**

Obsessions are recurrent, intrusive thoughts, impulses, or images that are perceived as inappropriate, grotesque, or forbidden (DSM-IV). The obsessions, which elicit anxiety and marked distress, are termed “ego-alien” or “ego-dystonic” because their content is quite unlike the thoughts that the person usually has. Obsessions are perceived as uncontrollable, and the sufferer often fears that he or she will lose control and act upon such thoughts or impulses. Common themes include contamination with germs or body fluids, doubts (i.e., the worry that something important has been overlooked or that the sufferer has unknowingly inflicted harm on someone), order or symmetry, or loss of control of violent or sexual impulses.

Compulsions are repetitive behaviors or mental acts that reduce the anxiety that accompanies an obsession or “prevent” some dreaded event from happening (DSM-IV). Compulsions include both overt behaviors, such as hand washing or checking, and mental acts including counting or praying. Not uncommonly, compulsive rituals take up long periods of time, even hours, to complete. For example, repeated hand washing, intended to remedy anxiety about contamination, is a common cause of contact dermatitis.

Although once thought to be rare, obsessive-compulsive disorder has now been documented to have a 1-year prevalence of 2.4 percent (Table 4-1). Obsessive-compulsive disorder is equally common among men and women.

Obsessive-compulsive disorder typically begins in adolescence to young adult life (males) or in young adult life (females) (Burke et al., 1990; DSM-IV). For most, the course is
fluctuating and, like generalized anxiety disorder, symptom exacerbations are usually associated with life stress. Common comorbidities include major depressive disorder and other anxiety disorders. Approximately 20 to 30 percent of people in clinical samples with obsessive-compulsive disorder report a past history of tics, and about one-quarter of these people meet the full criteria for Tourette’s disorder (DSM-IV). Conversely, up to 50 percent of people with Tourette’s disorder develop obsessive-compulsive disorder (Pitman et al., 1987).

Obsessive-compulsive disorder has a clear familial pattern and somewhat greater familial specificity than most other anxiety disorders. Furthermore, there is an increased risk of obsessive-compulsive disorder among first-degree relatives with Tourette’s disorder. Other mental disorders that may fall within the spectrum of obsessive-compulsive disorder include trichotillomania (compulsive hair pulling), compulsive shoplifting, gambling, and sexual behavior disorders (Hollander, 1996). The latter conditions are somewhat discrepant because the compulsive behaviors are less ritualistic and yield some outcomes that are pleasurable or gratifying. Body dysmorphic disorder is a more circumscribed condition in which the compulsive and obsessive behavior centers around a preoccupation with one’s appearance (i.e., the syndrome of imagined ugliness) (Phillips, 1991).

Obsessive compulsive disorder is an anxiety disorder primarily characterized by obsessions and/or compulsions. Obsessions are distressing, repetitive, intrusive thoughts or images that the individual often realizes are senseless. Compulsions are repetitive behaviors that the person feels forced or compelled into doing often with the purpose of relieving anxiety. The OCD thought pattern may be likened to superstitious thoughts and beliefs. An example of this type of behavior would be obsessing that one's door is unlocked, which may lead to compulsive constant checking and rechecking of doors. However, frequently the compulsion is inexplicable, simply an urge to complete a ritual triggered by nervousness. Light switches and other household items are also common objects of obsession (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L., 2001).
Acute and Post-Traumatic Stress Disorders

Acute stress disorder refers to the anxiety and behavioral disturbances that develop within the first month after exposure to an extreme trauma. Generally, the symptoms of an acute stress disorder begin during or shortly following the trauma. Such extreme traumatic events include rape or other severe physical assault, near-death experiences in accidents, witnessing a murder, and combat. The symptom of dissociation, which reflects a perceived detachment of the mind from the emotional state or even the body, is a critical feature. Dissociation also is characterized by a sense of the world as a dreamlike or unreal place and may be accompanied by poor memory of the specific events, which in severe form is known as dissociative amnesia. Other features of an acute stress disorder include symptoms of generalized anxiety and hyperarousal, avoidance of situations or stimuli that elicit memories of the trauma, and persistent, intrusive recollections of the event via flashbacks, dreams, or recurrent thoughts or visual images.

If the symptoms and behavioral disturbances of the acute stress disorder persist for more than 1 month, and if these features are associated with functional impairment or significant distress to the sufferer, the diagnosis is changed to post-traumatic stress disorder. Post-traumatic stress disorder is further defined in DSM-IV as having three subforms: acute (< 3 months’ duration), chronic (≥ 3 months’ duration), and delayed onset (symptoms began at least 6 months after exposure to the trauma).

By virtue of the more sustained nature of post-traumatic stress disorder (relative to acute stress disorder), a number of changes, including decreased self-esteem, loss of sustained beliefs about people or society, hopelessness, a sense of being permanently damaged, and difficulties in previously established relationships, are typically observed. Substance abuse often develops, especially involving alcohol, marijuana, and sedative-
hypnotic drugs.

About 50 percent of cases of post-traumatic stress disorder remit within 6 months. For the remainder, the disorder typically persists for years and can dominate the sufferer’s life. A longitudinal study of Vietnam veterans, for example, found 15 percent of veterans to be suffering from post-traumatic stress disorder 19 years after combat exposure (cited in McFarlane & Yehuda, 1996). In the general population, the 1-year prevalence is about 3.6 percent, with women having almost twice the prevalence of men (Kessler et al., 1995) (Table 4-1). The highest rates of post-traumatic stress disorder are found among women who are victims of crime, especially rape, as well as among torture and concentration camp survivors (Yehuda, 1999). Overall, among those exposed to extreme trauma, about 9 percent develop post-traumatic stress disorder (Breslau et al., 1998).

The acute subform of post-traumatic stress disorder is distinct from acute stress disorder because the latter resolves by the end of the first month, whereas the former persists until 3 months. If the condition persists after 3 months duration, the diagnosis is again changed to the chronic post-traumatic stress disorder subform (DSM-IV).

Post-traumatic stress disorder (PTSD) is an anxiety disorder which results from a traumatic experience. Post-traumatic stress can result from an extreme situation and/or trauma, such as being involved in combat, rape, hostage situations, or involvement in a serious accident. It can also result from chronic exposure to a severe stressor. For example soldiers who endure individual battles but cannot cope with an unceasing sequence of battles. The sufferer may experience flashbacks, avoidant behavior, and other symptoms (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L., 2001. Abnormal psychology, 4th ed. New York: W.W. Norton & Company, Inc).

**Generalized Anxiety Disorder:** Most people experience anxiety at some point in their lives and some nervousness in anticipation of a real situation.
However if a person cannot shake unwarranted worries, or if the feelings are jarring to the point of avoiding everyday activities, he or she most likely has an anxiety disorder.

**Symptoms:** Chronic, exaggerated worry, tension, and irritability that appear to have no cause or are more intense than the situation warrants. Physical signs, such as restlessness, trouble falling or staying asleep, headaches, trembling, twitching, muscle tension, or sweating, often accompany these psychological symptoms.

**Formal diagnosis:** When someone spends at least six months worried excessively about everyday problems. However, incapacitating or troublesome symptoms warranting treatment may exist for shorter periods of time.

**Treatment:** Anxiety is among the most common, most treatable mental disorders. Effective treatments include cognitive behavioral therapy, relaxation techniques, and biofeedback to control muscle tension. Medication, most commonly anti-anxiety drugs, such as benzodiazepine and its derivatives, also may be required in some cases. Some commonly prescribed anti-anxiety medications are diazepam, alprazolam, and lorazepam. The non-benzodiazepine anti-anxiety medication buspirone can be helpful for some individuals.

**Panic Disorder:** People with panic disorder experience white-knuckled, heart-pounding terror that strikes suddenly and without warning. Since they cannot predict when a panic attack will seize them, many people live in persistent worry that another one could overcome them at any moment.

**Symptoms:** Pounding heart, chest pains, lightheadedness or dizziness, nausea, shortness of breath, shaking or trembling, choking, fear of dying, sweating, feelings of unreality, numbness or tingling, hot flashes or chills, and a feeling of going out of control or going crazy.

**Formal Diagnosis:** Either four attacks within four weeks or one or more attacks followed by at least a month of persistent fear of having another attack. A minimum of four of the symptoms listed above developed during at least one of the attacks. Most panic attacks last only a few minutes, but they occasionally go on for ten minutes, and, in rare cases, have been known to last for as long as an hour. They can occur at any time, even during sleep.

**Treatment:** Cognitive behavioral therapy and medications such as high-potency anti-anxiety drugs like alprazolam. Several classes of antidepressants (such as paroxetine, one of the newer selective serotonin reuptake inhibitors) and the older tricyclics and monoamine oxidase inhibitors (MAO inhibitors) are considered "gold standards" for treating panic disorder. Sometimes a combination of therapy and medication is the
most effective approach to helping people manage their symptoms. Proper
treatment helps 70 to 90 percent of people with panic disorder, usually
within six to eight weeks.

**Phobias:** Most of us steer clear of certain, hazardous things. Phobias
however, are irrational fears that lead people to altogether avoid specific
things or situations that trigger intense anxiety. Phobias occur in several
forms, for example, agoraphobia is the fear of being in any situation that
might trigger a panic attack and from which escape might be difficult. Social
phobia is a fear of being extremely embarrassed in front of other people. The
most common social phobia is fear of public speaking.

**Symptoms:** Many of the physical symptoms that accompany panic attacks -
such as sweating, racing heart, and trembling - also occur with phobias.

**Formal Diagnosis:** The person experiences extreme anxiety with exposure
to the object or situation; recognizes that his or her fear is excessive or
unreasonable; and finds that normal routines, social activities, or
relationships are significantly impaired as a result of these fears.

**Treatment:** Cognitive behavioral therapy has the best track record for
helping people overcome most phobic disorders. The goals of this therapy
are to desensitize a person to feared situations or to teach a person how to
recognize, relax, and cope with anxious thoughts and feelings. Medications,
such as anti-anxiety agents or antidepressants, can also help relieve
symptoms. Sometimes therapy and medication are combined to treat
phobias.

**Post-traumatic Stress Disorder:** Researchers now know that anyone, even
children, can develop PTSD if they have experienced, witnessed, or
participated in a traumatic occurrence-especially if the event was life
threatening. PTSD can result from terrifying experiences such as rape,
kidnapping, natural disasters, or war or serious accidents such as airplane
crashes. The psychological damage such incidents cause can interfere with a
person's ability to hold a job or to develop intimate relationships with others.

**Symptoms:** The symptoms of PTSD can range from constantly reliving the
event to a general emotional numbing. Persistent anxiety, exaggerated startle
reactions, difficulty concentrating, nightmares, and insomnia are common.
People with PTSD typically avoid situations that remind them of the
traumatic event, because they provoke intense distress or even panic attacks.

**Formal Diagnosis:** Although the symptoms of PTSD may be an appropriate
initial response to a traumatic event, they are considered part of a disorder
when they persist beyond three months.

**Treatment:** Psychotherapy can help people who have PTSD regain a sense
of control over their lives. They also may need cognitive behavior therapy to
change painful and intrusive patterns of behavior and thought and to learn relaxation techniques. Support from family and friends can help speed recovery and healing. Medications, such as antidepressants and anti-anxiety agents to reduce anxiety, can ease the symptoms of depression and sleep problems. Treatment for PTSD often includes both psychotherapy and medication.

**For more information**, as well as referrals to specialists and self-help groups in your State, contact:

Anxiety Disorders Association of America  
8730 Georgia Avenue - Suite 600  
Silver Spring, MD 20910  
Telephone: 240-485-1001  
Fax: 240-485-1035  
[www.adaa.org](http://www.adaa.org)

Mental Help Net  
CenterSite, LLC  
570 Metro Place  
Dublin, OH 43017  

National Mental Health Association  
2001 Beauregard Street, 12th Floor  
Alexandria, VA 22311  
Telephone: 800-969-6642  
Fax: 703-684-5968  
(TDD): 800-433-5959  
[www.nmha.org/infoctr/factsheets/index.cfm](http://www.nmha.org/infoctr/factsheets/index.cfm)

*The National Institute of Mental Health's toll-free information line is 1-866-615-6464; their web address is [www.nimh.nih.gov/healthinformation/anxietymenu.cfm](http://www.nimh.nih.gov/healthinformation/anxietymenu.cfm).*

Note: These are suggested resources. This is not meant to be a complete list.
Phobias

Phobias are characterized by intense irrational fear and avoidance of a feared object or situation. Although there is an awareness that fear is irrational, the anxiety persists. Phobic disorders differ from generalized anxiety disorders and panic disorders because there is an identifiable stimulus or situation that evokes an intense fear response. For example, a person suffering from a phobia of spiders might feel so frightened by a spider that he or she would try to jump out of a speeding car to get away from one. Those who suffer from phobias may have especially powerful imaginations, so they vividly anticipate terrifying consequences from encountering such feared objects as knives, bridges, blood, enclosed places, certain animals or situations. These individuals generally recognize that their fears are excessive and unreasonable but are often unable to control their anxiety (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L., 2001. Abnormal psychology, 4th ed. New York: W.W. Norton & Company, Inc).

Social anxiety disorder

Social anxiety disorder is also referred to as “social phobia”. This disorder may cause an experience of intense fear of being negatively evaluated by others or of being publicly embarrassed resulting from impulsive acts. Many people experience stage fright when speaking or performing in front of a group. People with a social anxiety disorder can become so anxious that public performance is not an option. Their fear of public scrutiny and potential humiliation becomes so pervasive that functional social life can become impossible (Den Boer 2000; Margolis & Swartz, 2001). Another social phobia is fear of intimacy, or "love-shyness", which most adversely affects certain men. Those afflicted find themselves unable to initiate intimate adult relationships (Gilmartin 1987).

4. Treatment

Various treatments include psychotherapy (such as cognitive behavioral therapy) or pharmaceutical therapy (Beck, A., 1993). Cognitive Therapy and the Emotional Disorders. NY: Penguin). Mainstream treatment for anxiety consists of the prescription antidepressants or referral to a mental health professional. Treatment controversy arises because some studies indicate that a combination of the medications and behavioral therapy can be more effective than either one alone (Beck, A., 1993. Cognitive Therapy and the
Emotional Disorders. NY: Penguin). Other studies suggest pharmacological interventions may actually interfere with successful therapy. Meta-analysis indicates that psychotherapeutic interventions have superior long-term efficacy when compared to pharmacotherapy. The appropriate treatment may be dependent upon the individual's genetic and environmental factors. A variety of medications may be prescribed to treat these disorders including benzodiazepines (such as Xanax), antidepressants (such as SSRI, TCAs, MAOIs), Atarax and sometimes Quetiapine (Taylor, C. B., & Arnow, B., 1988. The Nature and Treatment of Anxiety Disorders. New York: The Free Press).

The anxiety disorders are treated with some form of counseling or psychotherapy or pharmacotherapy, either singly or in combination (Barlow & Lehman, 1996; March et al., 1997; American Psychiatric Association, 1998; Kent et al., 1998).

Counseling and Psychotherapy
Anxiety disorders are responsive to counseling and to a wide variety of psychotherapies. More severe and persistent symptoms also may require pharmacotherapy (American Psychiatric Association, 1998).

During the past several decades, there has been increasing enthusiasm for more focused, time-limited therapies that address ways of coping with anxiety symptoms more directly rather than exploring unconscious conflicts or other personal vulnerabilities (Barlow & Lehman, 1996). These therapies typically emphasize cognitive and behavioral assessment and interventions.

The hallmarks of cognitive-behavioral therapies are evaluating apparent cause and effect relationships between thoughts, feelings, and behaviors, as well as implementing relatively straightforward strategies to lessen symptoms and reduce avoidant behavior (Barlow, 1988). A critical element of therapy is to increase exposure to the stimuli or situations that provoke anxiety. Without such therapeutic assistance, the sufferer typically withdraws from anxiety-inducing situations, inadvertently reinforcing avoidant or escape behavior.

The therapist provides reassurance that the feared situation is not deadly and introduces a plan to enhance mastery. This plan may include approaching the feared situation in a graduated or stepwise hierarchy or teaching the patient to use responses that dampen anxiety, such as deep muscle relaxation.
or coping. One fundamental principle is that prolonged exposure to a feared stimulus reliably decreases cognitive and physiologic symptoms of anxiety (Marks, 1969; Barlow, 1988). With such experience generally comes greater self-efficacy and a greater willingness to encounter other feared stimuli. For panic disorder, interoceptive training (a type of conditioning technique) and breathing exercises are often employed to help the sufferer become more capable of recognizing and coping with the social cues, antecedents, or early signs of a panic attack. Cognitive interventions are used to counteract the exaggerated or catastrophic thoughts that characterize anxiety. For treatment of obsessive-compulsive disorder, the strategy of response prevention must be added to exposure to ensure that compulsions are not performed (Barlow, 1988).

There is now extensive evidence that cognitive-behavioral therapies are useful treatments for a majority of patients with anxiety disorders (Chambless et al., 1998). Poorer outcomes are observed, however, in more complicated patient groups. With obsessive-compulsive disorder, approximately 20 to 25 percent of patients are unwilling to participate in therapy (March et al., 1997). Another major limitation of cognitive-behavioral therapies is not their effectiveness but, rather, the limited availability of skilled practitioners (Ballenger et al., 1998).

It is possible that more traditional forms of therapy based on psychodynamic or interpersonal theories of anxiety also may prove to be effective treatments (Shear, 1995). However, these therapies have not yet received extensive empirical support. As a result, more traditional therapies are generally deemphasized in evidence-based treatment guidelines for anxiety disorders.

**Pharmacotherapy**

The medications typically used to treat patients with anxiety disorders are benzodiazepines, antidepressants, and the novel compound buspirone (Lydiard et al., 1996). In light of increasing awareness of numerous neurochemical alterations in anxiety disorders, many new classes of drugs are likely to be developed, expressly targeting CRH and other neuroactive agents (Nemeroff, 1998).

**Benzodiazepines**

The benzodiazepines are a large class of relatively safe and widely prescribed medications that have rapid and profound antianxiety and sedative-hypnotic effects. The benzodiazepines are thought to exert their
therapeutic effects by enhancing the inhibitory neurotransmitter systems utilizing GABA. Benzodiazepines bind to a site on the GABA receptor and act as receptor agonists (Perry et al., 1997). Benzodiazepines differ in terms of potency, pharmacokinetics (i.e., elimination half-life), and lipid solubility.

The four benzodiazepines currently widely prescribed for treatment of anxiety disorders are diazepam, lorazepam, clonazepam, and alprazolam. Each is now available in generic formulations (Davidson, 1998). Among these agents, alprazolam and lorazepam have shorter elimination half-lives—that is, are removed from the body more quickly—while diazepam and clonazepam have a long period of action (i.e., up to 24 hours). Diazepam also has multiple active metabolites, which increase the risk of “carryover” effects such as sedation and “hangover.” Benzodiazepines that undergo conjugation appear to have longer elimination time in women, and oral contraceptive can decrease clearance (Dawlans, 1995). Since Asians are more likely to metabolize diazepam more slowly, they may require lower doses to achieve the same blood concentrations as Caucasians (Lin et al., 1997).

Benzodiazepines have the potential for producing drug dependence (i.e., physiological or behavioral symptoms after discontinuation of use). Shorter acting compounds have somewhat greater liability because of more rapid and abrupt onset of withdrawal symptoms.

Because the benzodiazepines do not have strong antiobsessional effects, their use in obsessive-compulsive disorder and post-traumatic stress disorder is generally viewed as palliative (i.e., relieving, but not eliminating symptoms). Rather, obsessive-compulsive disorder and post-traumatic stress disorder are more effectively treated by antidepressants, especially the SSRI (as discussed below). When effective, benzodiazepines should be tapered after several months of use, although there is a substantial risk of relapse. Many clinicians favor a combined treatment approach for panic disorder and generalized anxiety disorder, in which benzodiazepines are used acutely in tandem with an antidepressant. The benzodiazepines are subsequently tapered as the antidepressant’s therapeutic effects begin to emerge (American Psychiatric Association, 1998).

The effectiveness of benzodiazepines in reducing acute anxiety has been demonstrated in younger and older patients, and no differences in the
effectiveness have been documented among the various benzodiazepines. Some research suggests that benzodiazepines are marginally effective at best in treating *chronic* anxiety in older patients (Smith et al., 1995).

The half-life of certain benzodiazepines and their metabolites may be significantly extended in older patients (particularly for the compounds with long half-life). If taken over extended periods, even short-acting benzodiazepines tend to accumulate in older individuals. Thus, it is generally recommended that any use of benzodiazepines be limited to discrete periods (less than 6 months) and that long-acting compounds be avoided in this population. On the other hand, use of short-acting compounds may predispose older patients to withdrawal symptoms (Salzman, 1991).

Side effects of benzodiazepines may include drowsiness, fatigue, psychomotor impairment, memory or other cognitive impairment, confusion, paradoxical reactions, depression, respiratory problems, abuse or dependence problems, and withdrawal reactions. Benzodiazepine toxicity in older patients includes sedation, cerebellar impairment (manifested by ataxia, dysarthria, incoordination, or unsteadiness), cognitive impairment, and psychomotor impairment (Salzman, 1991). Psychomotor impairment from benzodiazepines can have severe consequences, leading to impaired driver skills and motor vehicle crashes (Barbone et al., 1998) and falls (Caramel et al., 1998).

Buspirone is an anxiolytic (antianxiety) agent that is chemically and pharmacologically distinct from benzodiazepines. Controlled studies with younger patients suggest that the efficacy of buspirone is comparable to that of the benzodiazepines. It also has proven effective in studies of older patients (Napoliello, 1986; Robinson et al., 1988; Bohm et al., 1990). On the other hand, buspirone may require up to 4 weeks to take effect, so initial augmentation with another antianxiety medication may be necessary for some acutely anxious patients (Sheikh, 1994). Significant adverse reactions to buspirone are found in 20 to 30 percent of anxious older patients (Napoliello, 1986; Robinson et al., 1988). The most frequent side effects include gastrointestinal symptoms, dizziness, headache, sleep disturbance, nausea/vomiting, uneasiness, fatigue, and diarrhea. Still, buspirone may be less sedating than benzodiazepines (Salzman, 1991; Seidel et al., 1995).
Although the efficacy of antidepressants for the treatment of anxiety disorders in late life has not been studied, current patterns of practice are informed by the efficacy literature in adults in midlife (see Chapter 4).

Clinically, a phobia is defined in the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV-TR)* as a "persistent or irrational fear." Clinically, fear is defined as an emotional and physiological response to a recognized external threat. Anxiety is an unpleasant emotional state, the sources of which are less readily identified. Distinguishing among different anxiety disorders is important, since accurate diagnosis is more likely to result in effective treatment and a better prognosis. Some surveys have indicate that as many as 18% of Americans may be affected by anxiety disorders. Anxiety disorders are frequently accompanied by physiological symptoms that may lead to fatigue or even exhaustion. Anxiety can be accompanied by headache, sweating, muscle spasms, palpitations, and hypertension. Clinical depression is frequently comorbid with anxiety disorders. Anxiety disorders are often debilitating chronic conditions, which can be present from an early age or begin suddenly after a triggering event. They are prone to flare up at times of high stress (*American Psychiatric Association. 2000. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington DC: American Psychiatric Association*).

Thorough assessment is essential for the initial diagnosis of an anxiety disorder, preferably using a standardized interview or questionnaire and a mental status exam. A medical examination is recommended in order to identify possible medical conditions that may produce anxiety symptoms. A family history of anxiety disorders increases the likelihood of an anxiety disorder. Clients with an anxiety disorder may exhibit symptoms of clinical depression and vice-versa (*American Psychiatric Association. 2000. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington DC: American Psychiatric Association*).

**Antidepressants**

Most antidepressant medications have substantial antianxiety and antipanic effects in addition to their antidepressant action (Kent et al., 1998). Moreover, a large number of antidepressants have antiobsessional effects (Perry et al., 1997). The observation that the tricyclic antidepressant
Imipramine had a different anxiolytic profile than diazepam helped to differentiate panic disorder from generalized anxiety disorder and, subsequently, social phobia.

Clomipramine, a tricyclic antidepressant (TCA) with relatively potent reuptake inhibitory effects on serotonin (5-HT) neurons, subsequently was found to be the only TCA to have specific antiobsessional effects (March et al., 1997). The importance of this effect on 5-HT was highlighted when the SSRIs became available. By the late 1990s, it became clear that all of the SSRIs have antiobsessional effects (Greist et al., 1995; Kent et al., 1998).

Current practice guidelines rank the TCAs below the SSRIs for treatment of anxiety disorders because of the SSRIs’ more favorable tolerability and safety profiles (March et al., 1997; American Psychiatric Association, 1998; Ballenger et al., 1998). Nevertheless, there are patients who respond to the TCAs after failing to respond to one or more of the newer agents. Similarly, although relatively rarely used, the monoamine oxidase inhibitors (MAOIs) have significant antiobsessional, antipanic, and anxiolytic effects (Sheehan et al., 1980; American Psychiatric Association, 1998). In the United States, the MAOIs phenelzine, tranylcypromine, and isocarboxazid (which has not been consistently marketed this decade) are seldom used unless simpler medication strategies have failed (American Psychiatric Association, 1998).

The five drugs within the SSRI class—fluoxetine, sertraline, paroxetine, fluvoxamine, and citalopram—have emerged as the preferred type of antidepressant for treatment of anxiety disorders (Westenberg, 1996; Kent et al., 1998). In addition to well-established efficacy in obsessive-compulsive disorder, there is convincing and growing evidence of antipanic and broader anxiolytic effects (American Psychiatric Association, 1998; Kent et al., 1998). Treatment of panic disorder often requires lower initial doses and slower upward titration. By contrast, treatment for obsessive-compulsive disorder ultimately may entail higher doses (for example, 60 or 80 mg/day of fluoxetine or 200 mg per day of sertraline) and longer durations to achieve desired outcomes (March et al., 1997). As all of the SSRIs are currently protected by patents, there are no generic forms yet available. This adds to the direct costs of treatment. Cost may be offset indirectly, however, by virtue of need for fewer treatment visits and fewer concomitant medications, and cost likely will abate when these agents begin to lose patent protection in a few years.
Other newer antidepressants, including venlafaxine, nefazodone, and mirtazapine, also may have significant antianxiety effects, for which clinical trials are under way (March et al., 1997; American Psychiatric Association, 1998). Paroxetine has been approved by the Food and Drug Administration (FDA) for social phobia, and sertraline is being developed for post-traumatic stress disorder. Nefazodone, which also is being studied in post-traumatic stress disorder, and mirtazapine may possess lower levels of sexual side effects, a problem that complicates longer term treatment with SSRIs, venlafaxine, TCAs, and MAOIs (Baldwin & Birtwistle, 1998).

When effective in treating anxiety, antidepressants should be maintained for at least 4 to 6 months, then tapered slowly to avoid discontinuation-emergent activation of anxiety symptoms (March et al., 1997; American Psychiatric Association, 1998; Ballenger et al., 1998). Although less extensively researched than depression, it is likely that many patients with anxiety disorders may warrant longer term, indefinite treatment to prevent relapse or chronicity.

**Buspirone**

This azopyrine compound is a relatively selective 5-HT_{1A} partial agonist (Stahl, 1996). It was approved by the FDA in the mid-1980s as an anxiolytic. However, unlike the benzodiazepines, buspirone is not habit forming and has no abuse potential. Buspirone also has a safety profile comparable to the SSRIs, and it is significantly better tolerated than the TCAs.

Buspirone does not block panic attacks, and it is not efficacious as a primary treatment of obsessive-compulsive disorder or post-traumatic stress disorder (Stahl, 1996). Buspirone is most useful for treatment of generalized anxiety disorder, and it is now frequently used as an adjunct to SSRIs (Lydiard et al., 1996). Buspirone takes 4 to 6 weeks to exert therapeutic effects, like antidepressants, and it has little value for patients when taken on an “as needed” basis.

**Combinations of Psychotherapy and Pharmacotherapy**

Some patients with anxiety disorders may benefit from both psychotherapy and pharmacotherapy treatment modalities, either combined or used in sequence (March et al., 1997; American Psychiatric Association, 1998). Drawing from the experiences of depression researchers, it seems likely that such combinations are not uniformly necessary and are probably more cost-
effective when reserved for patients with more complex, complicated, severe, or comorbid disorders. The benefits of multimodal therapies for anxiety need further study.

2 Anxiety is one of the few mental disorders for which animal models have been developed. Researchers can reproduce some of the symptoms of human anxiety in animals by introducing different types of stressors, either physical or psychosocial.

3 Hypothalamus and the pituitary gland, and then the cortex, or outer layer, of the adrenal gland. Upon stimulation by the pituitary hormone ACTH, the adrenal cortex releases glucocorticoids into the circulation.

4 Also known as corticotropin-releasing factor.

5 CRH may act as a neuromodulator, a neurotransmitter, or a neurohormone, depending on the pathway.

**Systematic Desensitization**

Systematic desensitization is a behavioral therapy designed to assist in managing and overcoming phobias and other anxiety disorders. It is a type of Pavlovian therapy and classical conditioning therapy developed by a South African psychiatrist, Joseph Wolpe. Prior to using systematic desensitization techniques, the client should be taught relaxation skills thereby increasing control of the fear and anxiety responses to specific phobias. Once the client has been taught these skills, he or she must use them to react towards and overcome situations in an established hierarchy of fears. The goal of this process is that a client will learn to cope and overcome the fear in each step of the hierarchy, which will lead to overcoming the last step of the fear in the hierarchy. Systematic desensitization is sometimes also called graduated exposure therapy (*Wolpe, J., 1958. Psychotherapy by reciprocal inhibition. Stanford: Stanford University Press*).

Phobias are often treated through the behavior therapy or cognitive-behavioral process of systematic desensitization. Since escaping from the phobic object often reduces client’s anxiety, behavior to reduce fear is reinforced through negative reinforcement. The goal of Systematic
Desensitization is to overcome this avoidance pattern by gradually exposing patients to the phobic object until it can be tolerated. It may be initially challenging for the client to cope with the fear, but gradually, most will overcome this fear. In classical and operant conditioning terms the elicitation of the fear response is extinguished to the stimulus (Wolpe, J., 1958. *Psychotherapy by reciprocal inhibition. Stanford: Stanford University Press*).

**Anti-Anxiety Medications**

<table>
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<tr>
<th>Generic name</th>
<th>Brand names</th>
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<tbody>
<tr>
<td>Alprazolam</td>
<td>Alplax, Alviz, Alzolam, Alprax, Apo-Alpraz, Constan, Kalma, Ralozam, Restyl, Solanax, Tranax, Trankimazin, Tranquinal, Tafil, Xanax, Xanor, Zamhexal, Zolarem</td>
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<tr>
<td>Buspirone</td>
<td>Ansial, Ansiced, Anxiron, Axoren, Bespar, Buspar, Buspimen, Buspinol, Buspatal, Narol</td>
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<tr>
<td>Chlordiazepoxide</td>
<td>Librium</td>
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<td>Clonazepam</td>
<td>Klonopin, Rivotril</td>
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<td>Diazepam</td>
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<td>Escitalopram</td>
<td>Cipralex, Lexaprin, Lexapro, Seroplex, and Sipralexa</td>
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<td><strong>Fluoxetine</strong></td>
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<td><strong>Fluvoxamine</strong></td>
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<td><strong>Lorazepam</strong></td>
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<td><strong>Reboxetine</strong></td>
<td>Edronax, Norebox, Prolift, Solvex, Vestra</td>
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**EMDR**

Eye movement desensitization and reprocessing (EMDR) is a form of psychotherapy that was pioneered by Francine Shapiro, PhD. It was developed to resolve symptoms resulting from disturbing and unresolved life experiences and to resolve the development of trauma-related disorders as resulting from exposure to a traumatic or distressing event. It uses a structured approach to address past, present, and future aspects of disturbing memories. EMDR's efficacy in the treatment of post-traumatic stress disorder (PTSD) has been evaluated through various clinical trials. In some studies it has been shown to be equivalent to cognitive behavioral therapy and exposure therapies, and more effective than some alternative treatments (see effectiveness sections below). However, the effectiveness of the mechanisms behind EMDR have been questioned, with most leading researchers concluding that cognitive restructuring (which is common in most therapies for PTSD), rather than the eye movements, are responsible for change. Although some clinicians may use EMDR for various problems, its research support is primarily for disorders stemming from distressing life experiences (Shapiro, Francine, 1995. *Eye movement desensitization and reprocessing: basic principles, protocols, and procedures. New York: Guilford Press*).

**REBT**
Rational Emotive Behavior Therapy (REBT) focuses on resolving emotional and behavioral problems. It can be described as a comprehensive, active-directive, philosophically and empirically based psychotherapy which enables people to lead happier and more fulfilling lives. REBT was pioneered by Albert Ellis and is one of the foremost forms of cognitive behavior therapy (CBT). Although it was first developed by Ellis in the mid-1950s, it continues its development to present day (Ellis, A., 2001. Overcoming Destructive Beliefs, Feelings, and Behaviors: New Directions for Rational Emotive Behavior Therapy. Prometheus Books).

Albert Ellis describes three major insights of REBT:

**Insight 1** - People seeing and accepting the reality that their emotional disturbances at point C only partially stem from the activating events or adversities at point A that precede C. Although A contributes to C, and although strong negative As (such as being assaulted or raped) are much more likely to be followed by disturbed Cs (such as feelings of panic and depression) than they are to be followed by weak As (such as being disliked by a stranger), the main or more direct cores of extreme and dysfunctional emotional disturbances (Cs) are people’s irrational beliefs — the absolutistic musts and their accompanying inferences and attributions that people strongly believe about their undesirable activating events.

**Insight 2** - No matter how, when, and why people acquire self-defeating or irrational beliefs (i.e. beliefs which are the main cause of their dysfunctional emotional-behavioral consequences), if they are disturbed in the present, they tend to keep holding these irrational beliefs and continue upsetting themselves with these thoughts. They do so not because they held them in the past, but because they still actively hold them in the present, though often unconsciously, while continuing to reaffirm their beliefs and act as if they are still valid. In their minds and hearts they still follow the core "musturbatory" philosophies they adopted or invented long ago, or ones they recently accepted or constructed.

**Insight 3** - No matter how well they have achieved insight 1 and insight 2, insight alone will rarely enable people to undo their emotional disturbances. They may feel better when they know, or think they know, how they became disturbed - since insights can give the impression of being useful and curative. But, it is unlikely that they will actually get better and stay better unless they accept insights 1 and 2, and then also go on to strongly apply
insight 3: There is usually no way to get better and stay better but by: continual work and practice in looking for, and finding, one’s core irrational beliefs; actively, energetically, and scientifically disputing them; replacing one’s absolutist musts with flexible preferences; changing one's unhealthy feelings to healthy, self-helping emotions; and firmly acting against one’s dysfunctional fears and compulsions. Only by a combined cognitive, emotive, and behavioral, as well as a quite persistent and forceful attack on one's serious emotional problems, is one likely to significantly ameliorate or remove them — and keep them removed.


CBT

Cognitive behavioral therapy (or cognitive behavior therapy, CBT) is a “psychotherapeutic approach that is designed to influence dysfunctional emotions, behaviors and cognitions through a goal-oriented, systematic procedure”. CBT is now a general term for therapies that share a theoretical basis in behavioristic learning theory and cognitive psychology. Many CBT approaches have received empirical support for efficient treatment of a variety of clinical and non-clinical problems, including mood disorders, anxiety disorders, personality disorders, eating disorders, substance abuse disorders, and psychotic disorders. CBT is appealing to many people because it is often brief and time-limited. It is used in individual therapy as well as group settings. Some CBT therapies emphasize cognitive interventions while others emphasize behavioral interventions. In cognitive oriented therapies, the objective is typically to identify and monitor thoughts, assumptions, beliefs and behaviors that are related and accompanied to debilitating negative emotions and to identify those which are dysfunctional, inaccurate, or simply unhelpful. This is done in an effort to replace or transcend them with more realistic and useful ones (Beck, A. 1993, Cognitive Therapy and the Emotional Disorders. NY: Penguin).

The Beck Anxiety Inventory (BAI), created by Dr. Aaron T. Beck, is a 21-question multiple-choice self-report inventory that is used for measuring the severity of an individual's anxiety. The BAI consists of twenty-one questions about how the subject has been feeling in the last week, expressed as common symptoms of anxiety. Each question has the same set of four
possible answer choices, which are arranged in columns and are answered by marking the appropriate one with a cross (Beck, A., 1993. Cognitive Therapy and the Emotional Disorders. NY: Penguin). These are:

- NOT AT ALL
- MILDLY: It did not bother me much.
- MODERATELY: It was very unpleasant, but I could stand it.
- SEVERELY: I could barely stand it.

The BAI has a maximum score of 63.

- 0-7: minimal level of anxiety
- 8-15: mild anxiety
- 16-25: moderate anxiety
- 26-63: severe anxiety

*Note: women with anxiety disorders tend to score 4 points higher then men with anxiety disorders*

Evidence suggests the scale is effective in identifying panic symptomology and has been used in a variety of different patient groups, including adolescents and elderly patients. A 1999 review found that it was the third most used research measure of anxiety, behind the State-Trait Anxiety Inventory and the Fear Survey Schedule.

**Relaxation Techniques**

Relaxation techniques (also known as relaxation training) are any methods, processes, procedures, or activities that assist a person in achieving relaxation. Relaxation techniques are often used as one element of a wider stress management program and can decrease muscle tension, lower the blood pressure and slow heart and breathing rates, among other health benefits.

Relaxation techniques are used for some of the following reasons:

- Anger management
- Anxiety attacks
- Cardiac health
- Depression
- Headache
- High blood pressure
- Immune system support
- Insomnia
• General well-being  • Pain management
• Stress management

Many different techniques may be used to increase relaxation. Some techniques can be used alone while others require the assistance of a professional. Relaxation techniques referred to as "formal and passive relaxation exercises" are generally performed while sitting or lying quietly, with minimal movement and involve "a degree of withdrawal" (Lehrer, Paul M.; David H. FRW Barlow, Robert L. Woolfolk, Wesley E. Sime, 2007. Principles and Practice of Stress Management, Third Edition).

These include:

• Autogenic training
• Biofeedback
• Deep breathing
• Meditation
• Progressive Muscle Relaxation
• Pranayama
• Visualization


5. Anxiety Disorders in Children and Adolescents

Anxiety Disorders

The combined prevalence of the group of disorders known as anxiety disorders is higher than that of virtually all other mental disorders of childhood and adolescence (Costello et al., 1996). The 1-year prevalence in children ages 9 to 17 is 13 percent (Table 3-1). This section furnishes brief overviews of several anxiety disorders: separation anxiety disorder, generalized anxiety disorder, social phobia, and obsessive-compulsive disorder. Treatments for all but the latter are grouped together below.

Separation Anxiety Disorder
Although separation anxieties are normal among infants and toddlers, they are not appropriate for older children or adolescents and may represent symptoms
of separation anxiety disorder. To reach the diagnostic threshold for this disorder, the anxiety or fear must cause distress or affect social, academic, or job functioning and must last at least 1 month (DSM-IV). Children with separation anxiety may cling to their parent and have difficulty falling asleep by themselves at night. When separated, they may fear that their parent will be involved in an accident or taken ill, or in some other way be “lost” to the child forever. Their need to stay close to their parent or home may make it difficult for them to attend school or camp, stay at friends’ houses, or be in a room by themselves. Fear of separation can lead to dizziness, nausea, or palpitations (DSM-IV).

Separation anxiety is often associated with symptoms of depression, such as sadness, withdrawal, apathy, or difficulty in concentrating, and such children often fear that they or a family member might die. Young children experience nightmares or fears at bedtime.

About 4 percent of children and young adolescents suffer from separation anxiety disorder (DSM-IV). Among those who seek treatment, separation anxiety disorder is equally distributed between boys and girls. In survey samples, the disorder is more common in girls (DSM-IV). The disorder may be overdiagnosed in children and teenagers who live in dangerous neighborhoods and have reasonable fears of leaving home.

The remission rate with separation anxiety disorder is high. However, there are periods where the illness is more severe and other times when it remits. Sometimes the condition lasts many years or is a precursor to panic disorder with agoraphobia. Older individuals with separation anxiety disorder may have difficulty moving or getting married and may, in turn, worry about separation from their own children and partner.

The cause of separation anxiety disorder is not known, although some risk factors have been identified. Affected children tend to come from families that are very close-knit. The disorder might develop after a stress such as death or illness in the family or a move. Trauma, especially physical or sexual assault, might bring on the disorder (Goenjian et al., 1995). The disorder sometimes runs in families, but the precise role of genetic and environmental factors has not been established. The etiology of anxiety disorders is more thoroughly discussed in Chapter 4.

Generalized Anxiety Disorder
Children with generalized anxiety disorder (or overanxious disorder of childhood) worry excessively about all manner of upcoming events and occurrences. They worry unduly about their academic performance or sporting activities, about being on time, or even about natural disasters such as earthquakes. The worry persists even when the child is not being judged and has always performed well in the past. Because of their anxiety, children may be overly conforming, perfectionist, or unsure of themselves. They tend to redo tasks if there are any imperfections. They tend to seek approval and need constant reassurance about their performance and their anxieties (DSM-IV). The 1-year prevalence rate for all generalized anxiety disorder sufferers of all ages is approximately 3 percent. The lifetime prevalence rate is about 5 percent (DSM-IV).

About half of all adults seeking treatment for this disorder report that it began in childhood or adolescence, but the proportion of children with this disorder who retain the problem into adulthood is unknown. The remission rate is not thought to be as high as that of separation anxiety disorder.

**Social Phobia**
Children with social phobia (also called social anxiety disorder) have a persistent fear of being embarrassed in social situations, during a performance, or if they have to speak in class or in public, get into conversation with others, or eat, drink, or write in public. Feelings of anxiety in these situations produce physical reactions: palpitations, tremors, sweating, diarrhea, blushing, muscle tension, etc. Sometimes a full-blown panic attack ensues; sometimes the reaction is much more mild. Adolescents and adults are able to recognize that their fear is unreasonable or excessive, although this recognition does not prevent the fear. Children, however, might not recognize that their reaction is excessive, although they may be afraid that others will notice their anxiety and consider them odd or babyish.

Young children do not articulate their fears, but may cry, have tantrums, freeze, cling, appear extremely timid in strange social settings, shrink from contact with others, stay on the side during social events, and try to stay close to familiar adults. They may fall behind in school, avoid school completely, or avoid social activities among children their age. The avoidance of the fearful situations or worry preceding the feared event may last for weeks and interferes with the individual’s daily routine, social life, job, or school. They may find it impossible to speak in social situations or in the presence of unfamiliar people (for review of social phobia, see DSM-IV; Black et al., 1997).
Social phobia is common, the lifetime prevalence ranging from 3 to 13 percent, depending on how great the fear is and on how many different situations induce the anxiety (DSM-IV; Black et al., 1997). In survey studies, the majority of those with the disorder were found to be female (DSM-IV). Often the illness is lifelong, although it may become less severe or completely remit. Life events may reassure the individual or exacerbate the anxiety and disorder.

Treatment of Anxiety
Although anxiety disorders are the most common disorder of youth, there is relatively little research on the efficacy of psychotherapy (Kendall et al., 1997). For childhood phobias, contingency management was the only intervention deemed to be well-established, according to an evaluation by Ollendick and King (1998), which applied the American Psychological Association Task Force criteria (noted earlier). Several psychotherapies are probably efficacious for treating phobias: systematic desensitization; modeling, based on research by Bandura and colleagues, which capitalizes on an observational learning technique (Bandura, 1971; see also Chapter 2); and several cognitive-behavioral therapy (CBT) approaches (Ollendick & King, 1998).

CBT, as pioneered by Kendall and colleagues (Kendall et al., 1992; Kendall, 1994), is deemed by the American Psychological Association Task Force as probably efficacious. It has four major components: recognizing anxious feelings, clarifying cognitions in anxiety-provoking situations, developing a plan for coping, and evaluating the success of coping strategies. A more recent study in Australia added a parent component to CBT, which enhanced reduction in post-treatment anxiety disorder significantly compared with CBT alone (Barrett et al., 1996). However, none of the interventions identified above as well-established or probably efficacious has, for the most part, been tested in real-world settings.

In addition, psychodynamic treatment to address underlying fears and worries can be helpful, and behavior therapy may reduce the child’s fear of separation or of going to school; however, the experimental support for these approaches is limited.

Preliminary research suggests that selective serotonin reuptake inhibitors may provide effective treatment of separation anxiety disorder and other anxiety disorders of childhood and adolescence. Two large-scale randomized controlled trials are currently being undertaken (Greenhill, 1998a, 1998b). Neither
tricyclic antidepressants nor benzodiazepines have been shown to be more effective than placebo in children (Klein et al., 1992; Bernstein et al., 1998).

**Obsessive-Compulsive Disorder**

Obsessive-compulsive disorder (OCD), which is classified in DSM-IV as an anxiety disorder, is characterized by recurrent, time-consuming obsessive or compulsive behaviors that cause distress and/or impairment. The obsessions may be repetitive intrusive images, thoughts, or impulses. Often the compulsive behaviors, such as hand-washing or cleaning rituals, are an attempt to displace the obsessive thoughts (DSM-IV). Estimates of prevalence range from 0.2 to 0.8 percent in children, and up to 2% of adolescents (Flament et al., 1998).

There is a strong familial component to OCD, and there is evidence from twin studies of both genetic susceptibility and environmental influences. If one twin has OCD, the other twin is more likely to have OCD if the children are identical twins rather than fraternal twin pairs. OCD is increased among first-degree relatives of children with OCD, particularly among fathers (Lenane et al., 1990). It does not appear that the child is simply imitating the relative’s behavior, because children who develop OCD tend to have symptoms different from those of relatives with the disease (Leonard et al., 1997). Many adults with either childhood- or adolescent-onset of OCD show evidence of abnormalities in a neural network known as the orbitofrontalstriatal area (Rauch & Savage, 1997; Grachev et al., 1998).

Recent research suggests that some children with OCD develop the condition after experiencing one type of streptococcal infection (Swedo et al., 1995). This condition is referred to by the acronym PANDAS, which stands for Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections. Its hallmark is a sudden and abrupt exacerbation of OCD symptoms after a strep infection. This form of OCD occurs when the immune system generates antibodies to the streptococcal bacteria, and the antibodies cross-react with the basal ganglia of a susceptible child, provoking OCD (Garvey et al., 1998). In other words, the cause of this form of OCD appears to be antibodies directed against the infection mistakenly attacking a region of the brain and setting off an inflammatory reaction.

The selective serotonin reuptake inhibitors appear effective in ameliorating the symptoms of OCD in children, although more clinical trials have been done with adults than with children. Several randomized, controlled trials revealed SSRIs to be effective in treating children and adolescents with OCD (Flament
et al., 1985; DeVeaugh-Geiss et al., 1992; Riddle et al., 1992, 1998). The appropriate duration of treatment is still being studied. Side effects are not inconsequential: dry mouth, somnolence, dizziness, fatigue, tremors, and constipation occur at fairly high rates. Cognitive-behavioral treatments also have been used to treat OCD (March et al., 1997), but the evidence is not yet conclusive.

10 Contingency management attempts to alter behavior by manipulating its consequences through the behavioral principles of shaping, positive reinforcement, and extinction.

11 A technique that trains people to “unlearn” fears by presentation of fearful stimuli along with nonfearful stimuli.

12 This refers to understanding how cognitions are being distorted.

13 Basal ganglia are groups of neurons responsible for motor and impulse control, attention, and regulation of mood and behavior.

Mental Illness Exacts Heavy Toll, Beginning in Youth

Researchers supported by the National Institute of Mental Health (NIMH) have found that half of all lifetime cases of mental illness begin by age 14, and that despite effective treatments, there are long delays - sometimes decades - between first onset of symptoms and when people seek and receive treatment. The study also reveals that an untreated mental disorder can lead to a more severe, more difficult to treat illness, and to the development of co-occurring mental illnesses.

The landmark study is described in four papers that document the prevalence and severity of specific mental disorders. The papers provide significant new data on the impairment - such as days lost from work - caused by specific disorders, including mood, anxiety, and substance abuse disorders. These measures will allow researchers to determine the degree of disability and the economic burden caused by mental illness, as well as trends over time.

The papers are reported in the June 6 issue of the Archives of General Psychiatry by Ronald Kessler, Ph.D., and colleagues. The study was a collaborative project between Harvard University, the University of Michigan, and the NIMH Intramural Research Program.

This study, called the National Comorbidity Survey Replication (NCS-R), is a
household survey of 9,282 English-speaking respondents, age 18 and older. It is an expanded replication of the 1990 National Comorbidity Survey, which was the first to estimate the prevalence of mental disorders (using modern psychiatric standards) in a nationally representative sample. The expansion includes detailed measures that will significantly improve estimates of the severity and persistence of mental disorders, and the degree to which they impair individuals and families, and burden employers and the U.S. economy.

"These studies confirm a growing understanding about the nature of mental illness across the lifespan," says Thomas Insel, M.D., Director of the National Institute of Mental Health. "There are many important messages from this study, but perhaps none as important as the recognition that mental disorders are the chronic disorders of young people in the U.S."

Prevalence and Age-of-Onset of Mental Disorders Unlike most disabling physical diseases, mental illness begins very early in life. Half of all lifetime cases begin by age 14; three quarters have begun by age 24. Thus, mental disorders are really the chronic diseases of the young. For example, anxiety disorders often begin in late childhood, mood disorders in late adolescence, and substance abuse in the early 20's. Unlike heart disease or most cancers, young people with mental disorders suffer disability when they are in the prime of life, when they would normally be the most productive.

The risk of mental disorders is substantially lower among people who have matured out of the high-risk age range. Prevalence increases from the youngest group (age 18-29) to the next-oldest age group (age 30-44) and then declines, sometimes substantially, in the oldest group (age 60 +). Females have higher rates of mood and anxiety disorders. Males have higher rates of substance use disorders and impulse disorders.

The survey found that in the U.S., mental disorders are quite common; 26 percent of the general population reported that they had symptoms sufficient for diagnosing a mental disorder during the past 12 months. However, many of these cases are mild or will resolve without formal interventions.

It is likely, however, that the prevalence rates in this paper are underestimated, because the sample was drawn from listings of households and did not include homeless and institutionalized (nursing homes, group homes) populations. In addition, the study did not assess some rare and clinically complex psychiatric disorders, such as schizophrenia and autism, because a household survey is not
the most efficient study design to identify and evaluate those disorders.

Failure and Delay in Initial Treatment Contact The study documents the long delays between the onset of a mental disorder and the first treatment contact, as well as the accumulated burden and hazards of untreated mental disorders.

These pervasive delays in getting treatment tend to occur for nearly all mental disorders, though they vary according to specific diagnostic categories. The median delay across disorders is nearly a decade; the longest delays are 20-23 years, for social phobia and separation anxiety disorders. This is possibly due to the relatively early age of onset and fears of therapy that involve social interactions.

Shorter delays between onset of disorder and treatment seeking - still a protracted 6-8 years - are seen for mood disorders, and are likely attributable to public awareness campaigns, the marketing of newer therapies directly to consumers, and expanded insurance coverage.

While approximately 80 percent of all people in the U.S. with a mental disorder eventually seek treatment, there are public health implications from such long delays in treatment. Untreated psychiatric disorders can lead to more frequent and more severe episodes, and are more likely to become resistant to treatment. In addition, early-onset mental disorders that are left untreated are associated with school failure, teenage childbearing, unstable employment, early marriage, and marital instability and violence.

"The pattern appears to be that the earlier in life the disorder begins, the slower an individual is to seek therapy, and the more persistent the illness," said Dr. Kessler, a professor of health care policy at Harvard Medical School. "It's unfortunate that those who most need treatment are the least likely to get it."

Treating cases early could prevent enormous disability, before the illness becomes more severe, and before co-occurring mental illnesses develop, which only become more difficult to treat as they accumulate, according to the researchers.

Severity and Comorbidity of Mental Disorders The second paper reports that even though mental disorders are widespread throughout the population, the main burden of illness is concentrated in those with a severe disorder - about 6 percent. A "serious" disorder involves a substantial limitation in daily activities
or work disability, or a suicide attempt with serious lethal intent, or psychosis. The serious group reported a mean of 88.3 days - nearly 3 months of the year - when they were unable to carry out their normal daily activities.

Unfortunately, say the researchers, individuals with one mental disorder are at a high risk for also having a second one (comorbidity). Nearly half (45 percent) of those with one mental disorder met criteria for two or more disorders, with severity strongly related to comorbidity. This finding supports the suggestion by a growing portion of researchers that the boundaries between some diagnostic categories may be less discrete than previously believed.

Use of Mental Health Services
The study indicates that the U.S. mental health care system is not keeping up with the needs of consumers and that improvements are needed to speed initiation of treatment as well as enhance the quality and duration of treatment. For instance, over a 12-month period, 60 percent of those with a mental disorder got no treatment at all.

The good news is that the proportion of people who reported 12-month mental health service use is higher now - at 17 percent - than a decade ago in the baseline NCS survey, at 13 percent. The expansion was mainly in the general medical sector, with more primary care physicians providing psychiatric services.

People with mental or substance abuse disorders were more likely to get treatment from a primary care physician/nurse or other general medical doctor (22.8 percent), or from a non-psychiatrist mental health specialist (16 percent), such as a psychologist, social worker, or counselor, than from a psychiatrist (12 percent), though the survey did show that the adequacy of treatment - measured by number of visits - is best when provided by mental health practitioners. About 9.7 percent sought help from a counselor or spiritual advisor outside of a mental health setting; and 6.9 percent used a complementary-alternative source, such as a chiropractor or self-help group. This held true even for those with severe mood disorders. Traditionally underserved groups, such as the elderly, racial/ethnic minorities and those with low income or without insurance, had the greatest unmet need for treatment.

Future and Ongoing Efforts
The NIMH epidemiological research portfolio contains several related projects that are focused on mental disorders among adolescents and ethnic subgroups.
These include 1) an arm of the NCS-R that is studying 10,000 youths; 2) the National Study of African American Life, with 6,000 participants; and 3) the National Study of Latino and Asian Americans, with 5,000 participants. Each of these, like the NCS-R, will provide information on diagnosis, medications, disability/impairment, and service use, drawing from nationally based samples.

An international perspective on these findings is also becoming available, as the study is part of a global initiative on the epidemiology of mental disorders in 28 countries, coordinated through the World Health Organization.

**Helping Children Cope With Fear & Anxiety**

The *Caring for Every Child's Mental Health Campaign* offers these pointers for parents and other caregivers:

- **Encourage children to ask questions.** Listen to what they say. Provide comfort and assurance that address their specific fears. It's okay to admit you can't answer all of their questions.
- **Talk on their level.** Communicate with your children in a way they can understand. Don't get too technical or complicated.
- **Be honest.** Tell them exactly what has happened. For example, don't say that someone who has died has "gone to sleep;" children may become afraid of going to bed.
- **Find out what frightens them.** Encourage your children to talk about fears they may have. They may worry that someone will harm them at school or that someone will try to hurt you.
- **Focus on the positive.** Reinforce the fact that most people are kind and caring. Remind your child of the heroic actions taken by ordinary people to help victims of tragedy.
- **Pay attention.** Your children's play and drawings may give you a glimpse into their questions or concerns. Ask them to tell you what is going on in the game or the picture. It's an opportunity to clarify any misconceptions, answer questions and give reassurance.
- **Develop a plan.** Establish a family emergency plan for the future, such as a meeting place where everyone should gather if something unexpected happens in your family or neighborhood. It can help you and your child feel safer.

If you are concerned about your child's reaction to stress or trauma, call your physician or a community mental health center.
Children and Adolescents with Anxiety Disorders

What are anxiety disorders?

Children and adolescents with anxiety disorders typically experience intense fear, worry, or uneasiness that can last for long periods of time and significantly affect their lives. If not treated early, anxiety disorders can lead to:

- Repeated school absences or an inability to finish school;
- Impaired relations with peers;
- Low self-esteem;
- Alcohol or other drug use;
- Problems adjusting to work situations; and
- Anxiety disorder in adulthood.

What are the types and signs of anxiety disorders?

Many different anxiety disorders affect children and adolescents. Several disorders and their signs are described below:

**Generalized Anxiety Disorder:** Children and adolescents with generalized anxiety disorder engage in extreme, unrealistic worry about everyday life activities. They worry unduly about their academic performance, sporting activities, or even about being on time. Typically, these young people are very self-conscious, feel tense, and have a strong need for reassurance. They may complain about stomachaches or other discomforts that do not appear to have any physical cause.
**Separation Anxiety Disorder:** Children with separation anxiety disorder often have difficulty leaving their parents to attend school or camp, stay at a friend's house, or be alone. Often, they "cling" to parents and have trouble falling asleep. Separation anxiety disorder may be accompanied by depression, sadness, withdrawal, or fear that a family member might die. About one in every 25 children experiences separation anxiety disorder.¹

**Phobias:** Children and adolescents with phobias have unrealistic and excessive fears of certain situations or objects. Many phobias have specific names, and the disorder usually centers on animals, storms, water, heights, or situations, such as being in an enclosed space. Children and adolescents with social phobias are terrified of being criticized or judged harshly by others. Young people with phobias will try to avoid the objects and situations they fear, so the disorder can greatly restrict their lives.

**Panic Disorder:** Repeated "panic attacks" in children and adolescents without an apparent cause are signs of a panic disorder. Panic attacks are periods of intense fear accompanied by a pounding heartbeat, sweating, dizziness, nausea, or a feeling of imminent death. The experience is so scary that young people live in dread of another attack. Children and adolescents with the disorder may go to great lengths to avoid situations that may bring on a panic attack. They also may not want to go to school or to be separated from their parents.

**Obsessive-Compulsive Disorder:** Children and adolescents with obsessive-compulsive disorder, sometimes called OCD, become trapped in a pattern of repetitive thoughts and behaviors. Even though they may recognize that the thoughts or behaviors appear senseless and distressing, the pattern is very hard to stop. Compulsive behaviors may include repeated hand washing, counting, or arranging and rearranging objects. About two in every 100 adolescents experience obsessive-compulsive disorder (U.S. Department of Health and Human Services, 1999).
Post-traumatic Stress Disorder: Children and adolescents can develop post-traumatic stress disorder after they experience a very stressful event. Such events may include experiencing physical or sexual abuse; being a victim of or witnessing violence; or living through a disaster, such as a bombing or hurricane. Young people with post-traumatic stress disorder experience the event over and over through strong memories, flashbacks, or other kinds of troublesome thoughts. As a result, they may try to avoid anything associated with the trauma. They also may overreact when startled or have difficulty sleeping.

How common are anxiety disorders?

Anxiety disorders are among the most common mental, emotional, and behavioral problems to occur during childhood and adolescence. About 13 of every 100 children and adolescents ages 9 to 17 experience some kind of anxiety disorder; girls are affected more than boys. About half of children and adolescents with anxiety disorders have a second anxiety disorder or other mental or behavioral disorder, such as depression. In addition, anxiety disorders may coexist with physical health conditions requiring treatment.

Who is at risk?

Researchers have found that the basic temperament of young people may play a role in some childhood and adolescent anxiety disorders. For example, some children tend to be very shy and restrained in unfamiliar situations, a possible sign that they are at risk for developing an anxiety disorder. Research in this area is very complex, because children's fears often change as they age.

Researchers also suggest watching for signs of anxiety disorders when children are between the ages of 6 and 8. During this time, children generally grow less afraid of the dark and imaginary creatures and become more anxious about school performance and social relationships. An excessive amount of anxiety in children this age may be a warning sign for the development of anxiety disorders later in life.

Studies suggest that children or adolescents are more likely to have an anxiety disorder if they have a parent with anxiety disorders. However, the studies do not prove whether the disorders are caused by biology, environment, or both.
More data are needed to clarify whether anxiety disorders can be inherited.

**What help is available for young people with anxiety disorders?**

Children and adolescents with anxiety disorders can benefit from a variety of treatments and services. Following an accurate diagnosis, possible treatments include:

- Cognitive-behavioral treatment, in which young people learn to deal with fears by modifying the ways they think and behave;
- Relaxation techniques;
- Biofeedback (to control stress and muscle tension);
- Family therapy;
- Parent training; and
- Medication.

While cognitive-behavioral approaches are effective in treating some anxiety disorders, medications work well with others. Some people with anxiety disorders benefit from a combination of these treatments. More research is needed to determine what treatments work best for the various types of anxiety disorders.

**What can parents do?**

If parents or other caregivers notice repeated symptoms of an anxiety disorder in their child or adolescent, they should:

- Talk with the child's health care provider. He or she can help to determine whether the symptoms are caused by an anxiety disorder or by some other condition and can also provide a referral to a mental health professional.
- Look for a mental health professional trained in working with children and adolescents, who has used cognitive-behavioral or behavior therapy and has prescribed medications for this disorder, or has cooperated with a physician who does.
- Get accurate information from libraries, hotlines, or other sources.
- Ask questions about treatments and services.
- Talk with other families in their communities.
- Find family network organizations.

People who are not satisfied with the mental health care they receive should discuss their concerns with the provider, ask for information, and/or seek help from other sources.

This is one of many fact sheets in a series on children's mental health disorders. All the fact sheets listed below are written in an easy-to-read style. Families, caretakers, and media professionals may find them helpful when researching particular mental health disorders. To obtain free copies, call 1-800-789-2647 or visit [http://mentalhealth.samhsa.gov/child](http://mentalhealth.samhsa.gov/child).

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<td>CA-0000</td>
<td>Caring for Every Child's Mental Health Campaign Products Catalog</td>
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<tr>
<td>CA-0004</td>
<td>Child and Adolescent Mental Health</td>
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<tr>
<td>CA-0005</td>
<td>Child and Adolescent Mental Health: Glossary of Terms</td>
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<tr>
<td>CA-0006</td>
<td>Children and Adolescents With Mental, Emotional, and Behavioral Disorders</td>
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<td>CA-0008</td>
<td>Children and Adolescents With Attention-Deficit/Hyperactivity Disorder</td>
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<td>CA-0009</td>
<td>Children and Adolescents With Autism</td>
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<td>CA-0010</td>
<td>Children and Adolescents With Conduct Disorder</td>
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<tr>
<td>CA-0011</td>
<td>Children and Adolescents With Severe Depression</td>
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<tr>
<td>CA-0014</td>
<td>Facts About Systems of Care for Children's Mental Health</td>
</tr>
</tbody>
</table>

**Important Messages About Children's and Adolescents' Mental Health**

- Every child's mental health is important.
- Many children have mental health problems.
- These problems are real and painful and can be severe.
• Mental health problems can be recognized and treated.
• Caring families and communities working together can help.

**Mental Health Resources on the Internet**

Centers for Disease Control and Prevention  
[www.cdc.gov](http://www.cdc.gov)

ClinicalTrials.gov, National Institutes of Health  

Substance Abuse and Mental Health Services Administration  
[http://mentalhealth.samhsa.gov](http://mentalhealth.samhsa.gov)

National Institute of Mental Health  
[www.nimh.nih.gov](http://www.nimh.nih.gov)

For information about children's mental health, contact SAMHSA's National Mental Health Information Center:

Toll-free: 800-789-2647  
Fax: 240-747-5470  
TDD: 866-889-2647

**Systems of Care**

Individual help is available for children diagnosed with severe anxiety through community-based systems of care. Systems of care help children with serious emotional disturbances and their families overcome obstacles associated with difficult mental health, emotional, and behavioral problems. To learn more about systems of care, call 301-443-1333, or to request a free fact sheet on systems of care, call 1-800-789-2647.

6. Anxiety and the Elderly

Other Mental Disorders in Older Adults
Anxiety Disorders

Prevalence of Anxiety
Anxiety symptoms and syndromes are important but understudied conditions in older adults. Overall, community-based prevalence estimates indicate that about 11.4 percent of adults aged 55 years and older meet criteria for an anxiety disorder in 1 year (Flint, 1994; Table 5-1). Phobic anxiety disorders are among the most common mental disturbances in late life according to the ECA study (Table 5-1). Prevalence studies of panic disorder (0.5 percent) and obsessive-compulsive disorder (1.5 percent) in older samples reveal low rates (Table 5-1) (Copeland et al., 1987a; Copeland et al., 1987b; Bland et al., 1988; Lindesay et al., 1989). Although the National Comorbidity Study did not cover this age range, and the ECA did not include this disorder, other studies showed a prevalence of generalized anxiety disorder in older adults ranging from 1.1 percent to 17.3 percent higher than that reported for panic disorder or obsessive-compulsive disorder (Copeland et al., 1987a; Skoog, 1993). Worry or “nervous tension,” rather than specific anxiety syndromes, may be more important in older people. Anxiety symptoms that do not fulfill the criteria for specific syndromes are reported in up to 17 percent of older men and 21 percent of older women (Himmelfarb & Murrell, 1984).

In addition, some disorders that have received less study in older adults may become more important in the near future. For example, post-traumatic stress disorder (PTSD) is expected to assume increasing importance as Vietnam veterans age. At 19 years after combat exposure, this cohort of veterans has been found to have a PTSD prevalence of 15 percent (cited in McFarlane & Yehuda, 1996). As affected patients age, there is a continuing need for services. In addition, research has shown that PTSD can manifest for the first time long after the traumatic event (Aarts & Op den Velde, 1996), raising the specter that even more patients will be identified in the future.

Treatment of Anxiety
The effectiveness of benzodiazepines in reducing acute anxiety has been demonstrated in younger and older patients, and no differences in the effectiveness have been documented among the various benzodiazepines. Some research suggests that benzodiazepines are marginally effective at best in treating chronic anxiety in older patients (Smith et al., 1995).

The half-life of certain benzodiazepines and their metabolites may be
significantly extended in older patients (particularly for the compounds with long half-life). If taken over extended periods, even short-acting benzodiazepines tend to accumulate in older individuals. Thus, it is generally recommended that any use of benzodiazepines be limited to discrete periods (less than 6 months) and that long-acting compounds be avoided in this population. On the other hand, use of short-acting compounds may predispose older patients to withdrawal symptoms (Salzman, 1991).

Side effects of benzodiazepines may include drowsiness, fatigue, psychomotor impairment, memory or other cognitive impairment, confusion, paradoxical reactions, depression, respiratory problems, abuse or dependence problems, and withdrawal reactions. Benzodiazepine toxicity in older patients includes sedation, cerebellar impairment (manifested by ataxia, dysarthria, incoordination, or unsteadiness), cognitive impairment, and psychomotor impairment (Salzman, 1991). Psychomotor impairment from benzodiazepines can have severe consequences, leading to impaired driver skills and motor vehicle crashes (Barbone et al., 1998) and falls (Caramel et al., 1998).

Buspirone is an anxiolytic (antianxiety) agent that is chemically and pharmacologically distinct from benzodiazepines. Controlled studies with younger patients suggest that the efficacy of buspirone is comparable to that of the benzodiazepines. It also has proven effective in studies of older patients (Napoliello, 1986; Robinson et al., 1988; Bohm et al., 1990). On the other hand, buspirone may require up to 4 weeks to take effect, so initial augmentation with another antianxiety medication may be necessary for some acutely anxious patients (Sheikh, 1994). Significant adverse reactions to buspirone are found in 20 to 30 percent of anxious older patients (Napoliello, 1986; Robinson et al., 1988). The most frequent side effects include gastrointestinal symptoms, dizziness, headache, sleep disturbance, nausea/vomiting, uneasiness, fatigue, and diarrhea. Still, buspirone may be less sedating than benzodiazepines (Salzman, 1991; Seidel et al., 1995).

Although the efficacy of antidepressants for the treatment of anxiety disorders in late life has not been studied, current patterns of practice are informed by the efficacy literature in adults in midlife.

7. Anxiety and Trauma

For Mental Health and Human Services Workers
in Major Disasters

POTENTIAL RISK GROUPS

Each disaster-affected community has its own demographic composition, prior experience with disasters or other traumatic events, rural or urban setting, and cultural representation. Consideration should be given to the following groups, as well as additional groups with particular needs residing in the disaster-affected area:

Age Groups

Cultural and Ethnic Groups

People with Serious and Persistent Mental Illness

People in Group Facilities

Human Service and Disaster Relief Workers

AGE GROUPS

Each age group is vulnerable in unique ways to the stresses of disaster. Different issues and concerns become relevant during the progression of phases in the post-disaster period. Some disaster stress reactions listed below may be experienced immediately, while others may appear months later. The following table describes possible disaster reactions of the different age groups and helpful responses to them.

Disaster Reactions and Intervention Suggestions

Ages

Behavioral Symptoms

Physical Symptoms

Emotional Symptoms

58
**Intervention Options**

1-5

- Resumption of bed-wetting, thumb sucking, clinging to parents
- Fears of the dark
- Avoidance of sleeping alone
- Increased crying
- Loss of appetite
- Stomach aches
- Nausea
- Sleep problems, nightmares
- Speech difficulties
- Tics
- Anxiety
- Fear
- Irritability
- Angry outbursts
- Sadness
- Withdrawal
- Give verbal assurance and physical comfort
- Provide comforting bedtime routines
- Avoid unnecessary separations
- Permit the child to sleep in parents' room temporarily
- Encourage expression regarding losses (i.e., deaths, pets, toys)
- Monitor media exposure to disaster trauma
- Encourage expression through play activities

6-11

- Decline in school performance
- Aggressive behavior at home or school
- Hyperactive or silly behavior
- Whining, clinging, acting like a younger child
- Increased competition with younger siblings for parents' attention
- Change in appetite
- Headaches
- Stomach aches
- Sleep disturbances, nightmares
- School avoidance
• Withdrawal from friends, familiar activities
• Angry outbursts
• Obsessive preoccupation with disaster, safety
• Give additional attention and consideration
• Relax expectations of performance at home and at school temporarily
• Set gentle but firm limits for acting out behavior
• Provide structured but undemanding home chores and rehabilitation activities
• Encourage verbal and play expression of thoughts and feelings
• Listen to the child's repeated retelling of a disaster event
• Involve the child in preparation of family emergency kit, home drills
• Rehearse safety measures for future disasters
• Coordinate school disaster program for peer support, expressive activities, education on disasters, preparedness planning, identifying at-risk children

12-18

• Decline in academic performance
• Rebellion at home or school
• Decline in previous responsible behavior
• Agitation or decrease in energy level, apathy
• Delinquent behavior
• Social withdrawal
• Appetite changes
• Headaches
• Gastrointestinal problems
• Skin eruptions
• Complaints of vague aches and pains
• Sleep disorders
• Loss of interest in peer social activities, hobbies, recreation
• Sadness or depression
• Resistance to authority
• Feelings of inadequacy and helplessness
• Give additional attention and consideration
• Relax expectations of performance at home and school temporarily
• Encourage discussion of disaster experiences with peers, significant adults
• Avoid insistence on discussion of feelings with parents
• Encourage physical activities
• Rehearse family safety measures for future disasters
• Encourage resumption of social activities, athletics, clubs etc.
• Encourage participation in community rehabilitation and reclamation work
• Coordinate school programs for peer support and debriefing, preparedness planning, volunteer community recovery, identifying at-risk teens

ADULTS

• Sleep problems
• Avoidance of reminders
• Excessive activity level
• Crying easily
• Increased conflicts with family
• Hypervigilance
• Isolation, withdrawal
• Fatigue, exhaustion
• Gastrointestinal distress
• Appetite change
• Somatic complaints
• Worsening of chronic conditions
• Depression, sadness
• Irritability, anger
• Anxiety, fear
• Despair, hopelessness
• Guilt, self doubt
• Mood swings
• Provide supportive listening and opportunity to talk in detail about disaster experiences
• Assist with prioritizing and problem-solving
• Offer assistance for family members to facilitate communication and effective functioning
• Assess and refer when indicated
• Provide information on disaster stress and coping, children's reactions and families
• Provide information on referral resources

OLDER ADULTS
• Withdrawal and isolation
• Reluctance to leave home
• Mobility limitations
• Relocation adjustment problems
• Worsening of chronic illnesses
• Sleep disorders
• Memory problems
• Somatic symptoms
• More susceptible to hypo- and hyperthermia
• Physical and sensory limitations (sight, hearing) interfere with recovery
• Depression
• Despair about losses
• Apathy
• Confusion, disorientation
• Suspicion
• Agitation, anger
• Fears of institutionalization
• Anxiety with unfamiliar surroundings
• Embarrassment about receiving "hand outs"
• Provide strong and persistent verbal reassurance
• Provide orienting information
• Use multiple assessment methods as problems may be under reported
• Provide assistance with recovery of possessions
• Assist in obtaining medical and financial assistance
• Assist in reestablishing familial and social contacts
• Give special attention to suitable residential relocation
• Encourage discussion of disaster losses and expression of emotions
• Provide and facilitate referrals for disaster assistance
• Engage providers of transportation, chore services, meal programs, home health, and home visits as needed.

CULTURAL AND ETHNIC GROUPS

Workers must respond specifically and sensitively to the various cultural groups affected by a disaster. Ethnic and racial minority groups may be especially hard hit, because of socioeconomic conditions that force the community to live in housing that is particularly vulnerable. Language barriers, suspicion of governmental programs due to prior experiences, rejection of outside interference or assistance, and differing cultural values can present
challenges for workers in gaining access and acceptance.

Cultural sensitivity is conveyed when disaster information and application procedures are translated into primary spoken languages and available in non-written forms. Cultural groups have considerable variation regarding views of loss, death, home, the family, spiritual practices, grieving, celebrating, mental health, and helping. It is essential that workers learn about the cultural norms, traditions, local history, and community politics from leaders and social service workers indigenous to the groups they are serving. Establishing working relationships with trusted organizations, service providers, and community leaders often facilitates increased acceptance. It is especially important for workers to be respectful, well-informed, and to dependably follow through on stated plans.

PEOPLE WITH SERIOUS AND PERSISTENT MENTAL ILLNESS

Many disaster survivors with mental illness function fairly well following a disaster, if most essential services have not been interrupted. They have the same capacity to "rise to the occasion" and perform heroically as the general population during the immediate aftermath of the disaster. However, for others who may have achieved only a tenuous balance before the disaster, additional mental health support services, medications, or hospitalization may be necessary to regain stability. For survivors diagnosed with Post-traumatic Stress Disorder (PTSD), disaster stimuli (e.g., helicopters, sirens) may trigger an exacerbation due to associations with prior traumatic events.

The range of disaster mental health services designed for the general population is equally beneficial for survivors with mental illness; disaster stress affects all groups. Workers need to be aware of how people with mental illness are perceiving disaster assistance and services and build bridges that facilitate access where necessary.

PEOPLE IN GROUP FACILITIES

People who are in group facilities or nursing homes during a disaster are susceptible to anxiety, panic, and frustration as a consequence of their limited mobility and dependence on caretakers. The impact of evacuation and relocation on those with health or functional impairments can be tremendous. Dependence on others for care or on medical resources for survival contributes to heightened fear and anxiety. Change in physical surroundings, caregiving
personnel, and routines can be extremely difficult.

Both the staff and patients/residents of evacuated or disaster-impacted group facilities are in need of support services. Interventions for these groups include reestablishing familiar routines, including residents in recovery and housekeeping activities when appropriate, providing supportive opportunities to talk about disaster experiences, assisting with making contact with loved ones, and providing information on reactions to disaster and coping.

HUMAN SERVICE AND DISASTER RELIEF WORKERS

Workers in all phases of disaster relief, whether law enforcement, local government, emergency response, or survivor support, experience considerable demands to meet the needs of the survivors and the community. Depending on the nature of the disaster and their role, relief workers may witness human tragedy, fatalities, and serious physical injuries. Over time, workers may show the physical and psychological effects of work overload and exposure to human suffering. They may experience physical stress symptoms or become increasingly irritable, depressed, over-involved or unproductive, and/or show cognitive effects like difficulty concentrating or making decisions. Mental health workers may intervene by suggesting or using some of the strategies described in the next section.


Things to Remember When Trying to Understand Disaster Events

Signs that Adults Need Stress Management Assistance

Ways to Ease the Stress

Things to Remember When Trying to Understand Disaster Events

- No one who sees a disaster is untouched by it.
- It is normal to feel anxious about you and your family's safety.
- Profound sadness, grief, and anger are normal reactions to an abnormal event.
- Acknowledging our feelings helps us recover.
- Focusing on our strengths and abilities will help you to heal.
- Accepting help from community programs and resources is healthy.
• We each have different needs and different ways of coping.
• It is common to want to strike back at people who have caused great pain. However, nothing good is accomplished by hateful language or actions.

**Signs that Adults Need Stress Management Assistance**

- Difficulty communicating thoughts
- Difficulty sleeping
- Difficulty maintaining balance
- Easily frustrated
- Increased use of drugs/alcohol
- Limited attention span
- Poor work performance
- Headaches/stomach problems
- Tunnel vision/muffled hearing
- Colds or flu-like symptoms.
- Disorientation or confusion
- Difficulty concentrating
- Reluctance to leave home
- Depression, sadness
- Feelings of hopelessness
- Mood-swings
- Crying easily
- Overwhelming guilt and self-doubt
- Fear of crowds, strangers, or being alone

**Ways to Ease the Stress**

- Talk with someone about your feelings—anger, sorrow, and other emotions—even though it may be difficult.
- Don't hold yourself responsible for the disastrous event or be frustrated because you feel that you cannot help directly in the rescue work.
- Take steps to promote your own physical and emotional healing by staying active in your daily life patterns or by adjusting them. This healthy outlook will help yourself and your family. (i.e. healthy eating, rest, exercise, relaxation, meditation.)
- Maintain a normal household and daily routine, limiting demanding responsibilities of yourself and your family.
- Spend time with family and friends.
• Participate in memorials, rituals, and use of symbols as a way to express feelings.
• Use existing supports groups of family, friends, and church.
• Establish a family emergency plan. Feeling that there is something that you can do can be very comforting.

* When to Seek Help: If self help strategies are not helping or you find that you are using drugs/alcohol in order to cope, you may wish to seek outside or professional assistance with your stress symptoms.

Featured Publications - Disaster/Trauma

Please Note: All Publications are Free.

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<th>Status</th>
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<tbody>
<tr>
<td>In stock &amp; Online</td>
<td>SMA05-4113</td>
<td>Booklet</td>
<td><a href="#">A Guide to Managing Stress in Crisis Response Professionals</a></td>
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Crisis response workers and managers—which include first responders, public health workers, construction workers, transportation workers, utilities workers, and volunteers—are unique in that they are repeatedly exposed to extraordinarily stressful events. This easy-to-use pocket guide focuses on general principles of stress management and offers simple, practical strategies that can be incorporated into the daily routine of managers and workers. It also provides a concise orientation to the signs and symptoms of stress.

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<tr>
<td>On-line Only</td>
<td>KEN01-0097</td>
<td>Fact Sheet</td>
<td><a href="#">After a Disaster: Self-Care Tips for Dealing With Stress</a></td>
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 Covers things to remember when trying to understand disaster events, signs that adults need stress management assistance, and ways to ease stress.

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<tr>
<td>In stock &amp; On-line</td>
<td>KEN01-0092</td>
<td>Brochure</td>
<td><a href="#">After a Disaster: What Teens Can Do</a></td>
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Provides information for teens to help understand some of their reactions as well as others, to the terrorist events. Suggestions are also provided to help ease the unfamiliar feelings related to the event.

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Note: All Publications are Free.
Anniversary Reactions to a Traumatic Event: The Recovery Process Continues describes common anniversary reactions among victims of traumatic events and explains how these reactions can be a significant part of the recovery process.

Anxiety disorders range from feelings of uneasiness most of the time to immobilizing bouts of terror. This fact sheet briefly describes generalized anxiety disorder, panic disorder, phobias, and post-traumatic stress disorder. It is intended only as a starting point for gaining an understanding of anxiety disorders.

This fact sheet explains the role of the Emergency Services and Disaster Relief Branch in helping to safeguard the mental health of people affected by disasters, especially those in high-risk groups. Discusses the relationship between the Branch and Federal, State, and local agencies. 1998.1 pp.

Communicating in a Crisis: Risk Communications Guidelines for Public Officials is a brief, readable primer that describes basic skills and techniques for clear, effective crisis communications and information dissemination, and provides some of the tools of the trade for media relations.

En situaciones en que las tragedias afectan a su familia de modo personal o llegan a su hogar por medio de la prensa o televisión, usted puede ayudar a los niños a controlar la ansiedad causada por situaciones de violencia, muerte o desastres.
Developing Cultural Competence in Disaster Mental Health Programs

Designed to supplement information already available through CMHS, SAMHSA, and other sources, Developing Cultural Competence in Disaster Mental Health Programs highlights important common issues relating to cultural competence and to disaster mental health. Disaster mental health providers and workers can use and adapt the guidelines set forth in this document to meet the unique characteristics of individuals and communities affected directly or indirectly by a full range of natural and human-made disasters.

Disaster counseling involves both listening and guiding. Survivors typically benefit from both talking about their disaster experiences and being assisted with problem-solving and referral to resources. The following section provides "nuts-and-bolts" suggestions for workers.

The Emergency Services and Disaster Relief Branch (ESDRB) of the Center for Mental Health Services (CMHS) works in partnership with the Federal Emergency Management Agency in overseeing national efforts to provide emergency mental health services to survivors of Presidentially declared disasters.

For mental health workers and other human service providers who assist survivors following a disaster. This pocket reference provides the basics of disaster mental health, with numerous specific and practical suggestions for workers.

This bookmark lists ways that parents can help their children cope with fear and anxiety after a tragic event.

Helping Your Child With: Anxiety
### Disorders (CA-0007)

This fact sheet defines anxiety disorders, identifies warning signs, discusses risk factors, describes types of help available, and suggests what parents or other caregivers can do. 1997. 3 pp.

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<tr>
<td>On-line Only</td>
<td>CA-0022</td>
<td>Article</td>
<td>• How Families Can Help Children Cope With Fear and Anxiety(CA-0022)</td>
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This reproducible drop-in article provides tips for parents to keep the lines of communication with their children open and alerts parents and other caregivers to common signs of fear and anxiety. 2002. 1 p.

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<td>In stock &amp; On-line</td>
<td>KEN01-0104</td>
<td>Brochure</td>
<td>• How to Deal with Grief(KEN01-0104)</td>
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This short brochure provides information on grief and how to deal with it.

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<tr>
<td>On-line Only</td>
<td>CA-0011</td>
<td>Fact Sheet</td>
<td>• Major Depression in Children and Adolescents(CA-0011)</td>
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This fact sheet describes depression and its signs, identifies types of help available, and suggests what parents or other caregivers can do. 1997. 2 pp.

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<td>On-line Only</td>
<td>KEN01-0095</td>
<td>Brochure</td>
<td>• Mental Health Aspects on Terrorism(KEN01-0095)</td>
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Describes typical reactions to terrorist events and provides suggestions for coping and helping others.

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<tr>
<td>On-line Only</td>
<td>KEN98-0049</td>
<td>Fact Sheet</td>
<td>• Mood Disorders(KEN98-0049)</td>
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This fact sheet provides basic information on the symptoms, formal diagnoses, and treatment for bipolar disorder (also known as manic depressive illness) and depression. 1998. 3 pp.

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<td>On-line Only</td>
<td>KEN01-0094</td>
<td>Brochure</td>
<td>• Older Adults(KEN01-0094)</td>
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Provides suggestions for older adults attempting to understand the recent terrorist events.

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<tr>
<td>In stock &amp; On-line</td>
<td>ADM86</td>
<td>Booklet</td>
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The materials discussed in this booklet will give crisis response workers essential information about the impact of disasters on individuals, how the trauma associated with such events impacts children, the unique world of children, and the diversity of family structures in which children reside.

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<tr>
<td>In stock &amp; Online</td>
<td>SMA99-3323</td>
<td>Booklet</td>
<td>• Psychosocial Issues for Older Adults in Disasters(SMA99-3323)</td>
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This guide to caring for the elderly who survive disasters defines “elderly” and describes what makes older adults vulnerable to disasters. Covers the nature of disasters and human responses to them. Includes a list of resources and a glossary of terms. 1999. 68 pp.

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<tr>
<td>On-line Only</td>
<td>KEN01-0101</td>
<td>Fact Sheet</td>
<td>• Reaction of Children to a Disaster(KEN01-0101)</td>
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This fact sheet, which is broken down by age, describes the ways in which children react to a disaster and what adults can do to help.

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<tr>
<td>In stock &amp; Online</td>
<td>SMA-3717</td>
<td>Booklet</td>
<td>• Recovering Your Mental Health: Dealing With the Effects of Trauma - A Self-Help Guide(SMA-3717)</td>
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This is one of seven mental health self-help booklets. It focuses on helping individuals cope with traumatic events and makes suggestions of how they can take charge of their own recovery. It also provides a list of additional resources.

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<tr>
<td>In stock &amp; Online</td>
<td>SMA96-3077</td>
<td>Booklet</td>
<td>• Responding to the Needs of People With Serious and Persistent Mental Illness in Times of Major Disasters(SMA96-3077)</td>
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This manual addresses the need for specialized strategies to ensure that persons with serious mental illness who experience disasters receive services. Designed for State and local mental health administrators, planners, and care providers, it presents practical suggestions for disaster preparedness. Discusses the basic principles of disaster recovery programs and community support systems. 1996. 65 pp.

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<tr>
<td>On-line Only</td>
<td>KEN01-0098</td>
<td>Fact Sheet</td>
<td>• Self-Care Tips for Emergency &amp; Disaster Response Workers(KEN01-0098)</td>
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</table>
Provides suggestions for those who are at the scene. It outlines facts, indicators of stress, and stress management strategies.

**On-line Only**

KEN01-0112  Fact Sheet  • **Stress Prevention and Management Approaches For Rescue Workers in the Aftermath of Terrorist Acts**

This fact sheet provides information for rescue workers on recovering from working at the site of terrorist acts. It also provides a hotline for more information.

**In stock & On-line**

SVP05-0126SP  Card  • **Suicide Prevention: National Suicide Prevention Lifeline wallet card (Spanish)**

**Señales de Suicidio**

NMH02-0139  Fact Sheet  • **Tips for Survivors of a Traumatic Event: What to Expect in Your Personal, Family, Work, and Financial Life**

The Long-term Impact of a Traumatic Event: What to Expect in Your Personal, Family, Work, and Financial Life cites examples of personal uncertainties, family relationship changes, work disruptions, and financial worries that may contribute to the long-term impact of a traumatic event. Also includes tips on how to survive the road to recovery from a traumatic event.

**On-line Only**

KEN01-0091  Fact Sheet  • **Tips for Talking to Children After a Disaster: A Guide for Parents and Teachers**

Offers tips to parents on how to talk to children about the terrorist events.

**In stock & On-line**

KEN01-0093  Brochure  • **Tips for Talking to Children After a Disaster: A Guide for Parents and Teachers**

Explains how preschool age, early childhood, and adolescent children may respond to the terrorist events.
8. Additional Resources

**After the Disaster: A Children’s Mental Health Checklist**
A checklist to assess a child’s mental health status, following a disaster or traumatic experience.

**Agoraphobics Building Independent Lives (ABIL)**
Agoraphobics Building Independent Lives is a non-profit organization for persons dealing with anxiety and panic disorders, incorporated in the State of Virginia. It has support groups nationwide.

**American Red Cross - Disaster Services**
Each year, the American Red Cross responds immediately to more than 67,000 disasters, including house or apartment fires (the majority of disaster responses), hurricanes, floods, earthquakes, tornadoes, hazardous materials spills, transportation accidents, explosions, and other natural and man-made disasters.

**Anxiety & Panic: Gaining Control Over How You’re Feeling**
This brochure is part of the “AAFP Family Health Facts” series.

**Anxiety and Panic Disorder Center of Los Angeles**
The Anxiety and Panic Disorder Center of Los Angeles offers specialized treatment for anxiety.
and panic disorder, and agoraphobia in a safe and empathic environment. director@panicla.com

**Anxiety Coach**
Information about anxiety disorders and how to treat them is found here. This site includes links and reading list.

**Anxiety Disorder Association of America**
The Anxiety Disorder Association of America promotes the prevention and cure of anxiety disorders and works to improve the lives of all people who suffer from them.

**Casey Family Programs, National Center for Resource Family Support**
The National Center for Resource Family Support is a one-stop source of information, technical assistance, written materials, and referrals to both families and child welfare professionals who work with them. Look at the section on Terrorism and Trauma.

**CDC: What is Stress?**
This fact sheet explains stress and includes a checklist that will give you a clue about how you handle stress.

**Factsforhealth.org**
Factsforhealth.org was created by the not-for-profit Madison Institute of Medicine to increase the understanding of mental health disorders. Helps people identify, understand and find treatment for social anxiety disorder and post-traumatic stress disorder. Provides clinician referrals and free online CME courses for PTSD and PMDD.

**Families and Work Institute: What is 9/11 as History?**
This site offers a multi-dimensional program and resources to help youth, parents and educators address the anniversary of September 11th. The educational initiative offers web based tools, including curricula, resources, and tips to help adults and youth of all ages reflect on and be intentional in their response to the anniversary.” It is highly recommended for resources on the 9/11 anniversary.

**International Society for Traumatic Stress Studies**
The International Society for Traumatic Stress Studies provides a forum for the sharing of research, clinical strategies, public policy concerns, and theoretical formulations on trauma. It is dedicated to the discovery and dissemination of knowledge and to the stimulation of policy, program and service initiatives that seek to reduce traumatic stressors and their immediate and long-term consequences.

**Mental Health America of Wisconsin**
The National Mental Health Association
(NMHA) is the country’s oldest and largest nonprofit organization addressing all aspects of mental health and mental illness - working to improve the mental health of all Americans, especially the 54 million individuals with mental disorders, through advocacy, education, research and service.

**National Anxiety Foundation**
Information on anxiety disorders for professionals and the general public can be found here. An international directory of anxiety health care professionals is also available on this site.

**National Association of School Psychologists**
NASP has made these materials available free of charge to the public in order to promote the ability of children and youth to cope with the anniversary of September 11. The materials may be adapted, reproduced, reprinted, or posted on websites without specific permission as long as the integrity of the content is maintained and NASP is given proper credit. A great resource for parents, caregivers and other nonprofessionals. Helpful do's and don't's.

**National Center for Child Traumatic Stress - National Resource Center**
The mission of the National Child Traumatic Stress Network (NCTSN) is to raise the standard of care and improve access to services for traumatized children, their families, and communities throughout the United States. This site includes an article on school planning for disasters and the aftermath of September 11, 2001.

**National Center for Post-Traumatic Stress Disorder**
National Center for Post-Traumatic Stress Disorder’s mission is to advance the clinical care and social welfare of America’s veterans through research, education, and training in the science, diagnosis, and treatment of PTSD and stress-related disorders. This website is an educational resource concerning PTSD and other enduring consequences of traumatic stress.

**NIMH Mood and Anxiety Disorders Program**
This is NIMH's website on current research projects studying mood and anxiety disorders. Offers information about symptoms, diagnosis and treatment of mental illnesses (including medication and mental illness) is available here.

**NIMH: Anxiety Disorders**
This site provides information on anxiety disorders for professionals and the general public.

**NIMH: Reliving Trauma**
A summary of post traumatic stress disorder (PTSD) that includes statistics, treatment, and research findings is located on this site.

**Safe Horizon**
Safe Horizon is an organization in New York City with much experience in helping people through disasters after the September 11, 2001 attack. It is a member of the National Child Traumatic Stress Network.

**The Anxiety-Panic Internet Resource**
The Anxiety-Panic Internet Resource is a self-help network dedicated to the overcoming and curiosity of overwhelming anxiety.
The Sweeney Alliance
The Sweeney Alliance is a nationally recognized non-profit organization that provides help to families and professionals coping with grief and stress. Since 1990, we have developed and facilitated specialized programs that teach children and adults how to reinvest in life and living following a life-altering event such as the death of someone loved, divorce, violence, neglect or disability.
peggy@sweeneyalliance.org

The Trauma Center
Since the September 11th attacks, the Trauma Center has added several resources concerning responses to such events. This site is a member of the National Child Traumatic Stress Network.

Anxiety Disorders Association of America
8730 Georgia Avenue - Suite 600
Silver Spring, MD 20910
Telephone: 240-485-1001
Fax: 240-485-1035
www.adaa.org

Mental Help Net
CenterSite, LLC
570 Metro Place
Dublin, OH 43017
http://mentalhelp.net/poc/center_index.php?id=1

National Mental Health Association
2001 Beauregard Street, 12th Floor
Alexandria, VA 22311
Telephone: 800-969-6642
Fax: 703-684-5968
(TDD): 800-433-5959
www.nmha.org/inforctr/factsheets/index.cfm

The National Institute of Mental Health's toll-free information line is 1-866-615-6464; their web address is www.nimh.nih.gov/healthinformation/anxietymenu.cfm.

Mental Health Links - Stress and Anxiety

Organizations

- **NIMH: Anxiety Disorders**
  
  http://www.nimh.nih.gov/healthinformation/anxietymenu.cfm
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• **Mental Health America of Wisconsin**

http://www.mhawisconsin.org/
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• **National Association of School Psychologists**

http://www.nasponline.org/
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• **National Center for Child Traumatic Stress - National Resource Center**

http://www.nctsnet.org/
The mission of the National Child Traumatic Stress Network (NCTSN) is to raise the standard of care and improve access to services for traumatized children, their families, and communities throughout the United States. This site includes an article on school planning for disasters and the aftermath of September 11, 2001.

• **Facts about Generalized Anxiety Disorder**

http://www.nimh.nih.gov/Publicat/gadfacts.cfm

• **National Center for Post-Traumatic Stress Disorder**

http://www.ncptsd.org/
National Center for Post-Traumatic Stress Disorder's mission is to advance the
clinical care and social welfare of America's veterans through research, education, and training in the science, diagnosis, and treatment of PTSD and stress-related disorders. This website is an educational resource concerning PTSD and other enduring consequences of traumatic stress.

- **Anxiety and Panic Disorder Center of Los Angeles**
  
  http://www.panicla.com/
  The Anxiety and Panic Disorder Center of Los Angeles offers specialized treatment for anxiety and panic disorder, and agoraphobia in a safe and empathic environment.

- **Anxiety Coach**
  
  http://www.anxietycoach.com/
  Information about anxiety disorders and how to treat them is found here. This site includes links and reading list.

- **Anxiety Disorder Association of America**
  
  http://www.adaa.org/
  The Anxiety Disorder Association of America promotes the prevention and cure of anxiety disorders and works to improve the lives of all people who suffer from them.

- **Agoraphobics Building Independent Lives (ABIL)**
  
  http://www.anxietysupport.org
  Agoraphobics Building Independent Lives is a non-profit organization for persons dealing with anxiety and panic disorders, incorporated in the State of Virginia. It has support groups nationwide.

- **CDC: What is Stress?**
  
  http://www.cdc.gov/nasd/docs/d000001-d000100/d000008/d000008.html
  This fact sheet explains stress and includes a checklist that will give you a clue about how you handle stress.

- **Safe Horizon**
  
  http://www.safehorizon.org/
  Safe Horizon is an organization in New York City with much experience in helping people through disasters after the September 11, 2001 attack. It is a member of the National Child Traumatic Stress Network.

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- **The Trauma Center**
  
  http://www.traumacenter.org
  Since the September 11th attacks, the Trauma Center has added several resources concerning responses to such events. This site is a member of the National Child Traumatic Stress Network.

- **William Wendt Center for Loss and Healing**
  
  http://www.lossandhealing.org/
  The Wendt Center has many resources for people who are dealing with loss and grief, and has a section that deals with September 11 issues. This site is a member of the National Child Traumatic Stress Network.

**Online Resources**

- **NIMH: Reliving Trauma**
  
  http://www.nimh.nih.gov/publicat/reliving.cfm
  A summary of post traumatic stress disorder (PTSD) that includes statistics, treatment, and research findings is located on this site.

- **National Anxiety Foundation**
  
  http://lexington-on-line.com/naf.html
  Information on anxiety disorders for professionals and the general public can be found here. An international directory of anxiety health care professionals is also available on this site.

- **Factsforhealth.org**
  
  http://www.factsforhealth.org/
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• **After the Disaster: A Children’s Mental Health Checklist**
  
  http://www.fema.gov/kids/tch_mntl.htm
  
  A checklist to assess a child’s mental health status, following a disaster or traumatic experience.

• **Casey Family Programs, National Center for Resource Family Support**
  
  http://www.hunter.cuny.edu/socwork/nrcfcpp/
  
  The National Center for Resource Family Support is a one-stop source of information, technical assistance, written materials, and referrals to both families and child welfare professionals who work with them. Look at the section on Terrorism and Trauma.

• **American Red Cross - Disaster Services**
  
  http://www.redcross.org/services/disaster/0,1082,0,319,.00.html
  
  Each year, the American Red Cross responds immediately to more than 67,000 disasters, including house or apartment fires (the majority of disaster responses), hurricanes, floods, earthquakes, tornadoes, hazardous materials spills, transportation accidents, explosions, and other natural and man-made disasters.

• **Families and Work Institute: What is 9/11 as History?**
  
  http://www.familiesandwork.org/911ah/911ashistory.html
  
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  http://www.algy.com/anxiety
  
  The Anxiety-Panic Internet Resource is a self-help network dedicated to the overcoming and curiosity of overwhelming anxiety.

• **NIMH Mood and Anxiety Disorders Program**
  
  http://intramural.nimh.nih.gov/mood/
  
  This is NIMH’s website on current research projects studying mood and anxiety disorders. Offers information about symptoms, diagnosis and treatment of mental illnesses (including medication and mental illness) is available here.
**Anxiety Disorders Association of America**
The Anxiety Disorders Association of America (ADAA) is a nonprofit organization whose mission is to promote the prevention, treatment and cure of anxiety disorders and to improve the lives of all people who suffer from them. www.adaa.org

**Freedom from Fear**
Freedom From Fear is a national not-for-profit mental health advocacy association founded in 1984. The organization's mission is to impact, in a positive way, the lives of all those affected by anxiety, depressive and related disorders through advocacy, education, research and community support. www.freedomfromfear.org

**National Institute of Mental Health**
The National Institute of Mental Health (NIMH) is the lead Federal agency for research on mental and behavioral disorders. Its public health mission mandates a focus on those with the most serious mental illness. NIMH works to improve mental health through biomedical research on mind, brain, and behavior. www.nimh.nih.gov

**National Mental Health Association**
The National Mental Health Association is the country's oldest and largest nonprofit organization addressing all aspects of mental health and mental illness. With more than 340 affiliates nationwide, NMHA works to improve the mental health of all Americans, especially the 54 million people with mental disorders, through advocacy, education, research and service. www.nmha.org

**Screening for Mental Mental Health Inc.**
Screening for Mental Health Inc. (SMH) is the non-profit organization that first introduced the concept of large-scale mental health screenings with its flagship program National Depression Screening Day in 1991. SMH programs now include both in-person and online programs for depression, bipolar disorder, generalized anxiety disorder, post-traumatic stress disorder, eating disorders, alcohol problems, and suicide prevention.
9. References


*The role of GABA in the pathophysiology and treatment of anxiety disorders*. *Psychopharmacol Bull.*