Financial worries. Lack of job security. These are just two of the stressors that can make anyone feel anxious. Anxiety is a normal part of living—it's how we react to stress in our environment, activating our coping mechanisms for maintaining a balanced body system and making us more alert to make better decisions. However, in today's world of economic insecurity and many businesses in crisis mode, anxiety can become maladaptive and interrupt activities of daily living.

When anxiety is a constant companion, the person may be suffering from an anxiety disorder. Yet, the majority of these disorders go undetected. The nurse can play a vital role in ensuring identification of an anxiety disorder and proper treatment for patients who are experiencing one. In this article, I'll show you how.

Living in fear
Anxiety has many physical manifestations, including increased respiration, heart rate, and BP; restlessness; pacing; diaphoresis; dizziness; and tremors. These physical manifestations are why anxiety is one of the most common reasons for which people seek medical attention. A student feeling anxious about an upcoming exam may experience a racing heart and dizziness. An elderly person may become short of breath as she tries to figure out how to pay for her monthly medications. In either example, the person may seek medical attention for the physical symptoms she's experiencing.

So when is anxiety a mental disorder? Normal anxiety disappears when the danger or stressor is gone. Abnormal anxiety remains when the stressor is no longer present, causing a disruption in the person's daily functions, such as job performance, relationships, or other areas of importance. According to the National Comorbidity Survey, anxiety disorders affect about 18% of American adults age 18 and older, with women two times more likely than men to suffer from an anxiety disorder. In fact, anxiety disorders are the most common of all psychiatric disorders and the most prevalent.
mental illness in older adults and children. Almost 13% of children experience some disruption in daily functioning from anxiety disorders and over 17% of children experience mild symptoms (see Assessing anxiety in children).

Anxiety disorders manifest differently in various ethnic and cultural groups. For example, African Americans experience phobias at a higher rate than Caucasians. And different cultures respond to anxiety according to their beliefs, customs, and health practices. For example, what a person living in New York considers normal anxiety is different from what a person in South Africa does. Remember, it’s important to include cultural differences in the assessment and diagnosis of anxiety disorders.

The mind-body connection
External events, genetics, and biochemical alterations are all thought to be contributing factors to anxiety disorders, often in combination. Because anxiety is an important aspect of human nature, it’s hard to find one reason why a person develops an anxiety disorder. Also, each type of anxiety disorder may exhibit different etiologies. So when looking at what causes a person to experience an anxiety disorder, we can look at the general similarities of each type of disorder.

There’s a strong genetic component to anxiety disorders. One person may be more sensitive to stress and, so, experiences more anxiety. This sensitivity to anxiety may cause problems in daily living, diagnosed as an anxiety disorder. An anxiety disorder may also develop if there’s a family history, indicating a biologic vulnerability. Having close
relatives who’ve had an anxiety disorder puts a person at increased risk for experiencing the illness. For example, if one identical twin suffers from an anxiety disorder, the second twin is likely to also be diagnosed with one.

An imbalance of certain chemicals in the brain can cause anxiety disorders (see *What’s happening in the brain?*). These neurotransmitters are the chemical vehicles that allow smooth transmission of electrochemical impulses in the neurons. The major neurotransmitter systems involved in anxiety disorders are gamma-aminobutyric acid (GABA), norepinephrine, and serotonin. Neurotransmitters are produced in the neuron and stored in the synaptic vesicles until release. After release, any neurotransmitter that isn’t utilized for impulse transmission is sent back to storage through a reuptake mechanism. In an anxiety disorder, an individual may not be releasing enough serotonin, which contributes to increased anxious feelings. GABA is a neurotransmitter that plays a role in modulating or decreasing the release of norepinephrine. Sufficient levels of GABA decrease neuron excitability, causing a decrease in anxious feelings. Decreased levels of GABA result in more activity in the neurons and, thus, more anxiety symptoms.

DSM-IV-TR classification of anxiety disorders

- Panic disorder
- Generalized anxiety disorder
- Posttraumatic stress disorder
- Obsessive-compulsive disorder
- Social phobia
- Specific phobia

All anxiety disorders have the following in common: extreme fear when there’s no real danger, emotional distress that interferes with everyday life, and avoidance of situations that cause anxiety. Yet each type of anxiety disorder has unique characteristics as well. Also, treatment approaches that work for one type of anxiety disorder may not work for another type. Let’s break it down.

You’re just not my type

The *Diagnostic and Statistical Manual, 4th edition, Text Revision* (DSM-IV-TR) outlines the different types of anxiety disorders as follows:

- panic disorder
- generalized anxiety disorder
- posttraumatic stress disorder
- obsessive-compulsive disorder
- social phobia
- specific phobia.

Assessing anxiety in children

Assessment of anxiety disorders in children is often difficult because many other psychiatric disorders share similar symptoms. Restlessness, difficulty concentrating, and increased aggression are some of the symptoms present in a child experiencing an anxiety disorder, but these may also be indicative of anxious depression or attention deficit disorder. Diagnostic tools available to aid in the proper diagnosis of anxiety disorders in children include the Revised Children’s Manifest Anxiety Scale, the Children’s Assessment Scale, and the Yale-Brown Obsessive Compulsive Scale.

Over 17% of children experience mild symptoms of anxiety.
will experience the symptoms of a panic attack. These symptoms include shortness of breath, increased heart rate, diaphoresis, chest pain, and feelings of doom. However, in panic disorder the symptoms come on suddenly and don’t occur before exposure to a specific situation such as flying. For a diagnosis of panic disorder, at least four of the five symptoms must be present. If less than four symptoms are present, the person may be experiencing an isolated panic attack, not an anxiety disorder emerging as panic.

The average age for the diagnosis of panic disorder is in the third decade of life. The severity of symptoms can range from mild, with little effect on a person’s daily living, to paralyzing panic that stops a person from experiencing a normal life. Panic disorder may become so disabling that the person avoids places where she has experienced previous attacks. These panic attacks can take place several times a day or one every few months. Panic disorder may occur with or without agoraphobia—the fear of going into situations or places where no escape is available (for example, being in a crowd or crossing a bridge). This fear often causes a person to stay indoors and not leave the safety of her home.

A person with generalized anxiety disorder is described as a constant worrier, even when things are going smoothly. But how is normal worrying distinguished from an anxiety disorder? In generalized anxiety disorder, a pervasive, uncontrollable worrying is present, even about minor daily events. The most frequent symptoms include nervousness, restlessness, tachycardia, shortness of breath, insomnia, and agitation. Generalized anxiety disorder usually starts in the second decade of life and is chronic. Depression is often present with this disorder.

Posttraumatic stress disorder is described by the DSM-IV-TR as continually reliving a traumatic event that involved real or threatened harm to the person or others. Triggers include war, mugging, rape, natural disasters, and other terrifying experiences that cause the person to have flashbacks—painful images and feelings—months or even years later. Symptoms include insomnia, nightmares, emotional numbness, heightened alertness, or increased anxiety. Because of these symptoms, the person may not be able to maintain healthy relationships or hold a job. Posttraumatic stress disorder not only occurs in adults, but may also occur in children.

Obsessive-compulsive disorder usually begins in adolescence or early adulthood. It’s a chronic problem that affects men and women equally. Single people have an increased incidence of this disorder. Obsessions are intrusive recurrent thoughts, impulses, or images that cause distress. The person experiencing these thoughts uses compulsions—recurrent, persistent behaviors or rituals—to control the anxiety they produce. Common themes include contamination, need for order, ritualistic or frequent hand washing, stealing, and somatic complaints. Many people have some obsessive-compulsive tendencies; however, obsessive-compulsive disorder is diagnosed when these tendencies interfere with daily functioning or cause great distress.

Phobic disorder can occur as a generalized social phobia (also known as social anxiety disorder) or a specific phobia. Social phobia is described as the persistent fear and avoidance of situations that expose the person to being watched or judged by others. Onset for social anxiety disorder can begin in childhood, and it may continue into adulthood. Social anxiety disorder affects approximately 15 million American adults.

### Physical manifestations of anxiety

- Increased respiration
- Increased heart rate
- Increased BP
- Increased alertness
- Restlessness
- Pacing
- Diaphoresis
- Dizziness
- Tremors
A person with social phobia may avoid life or work situations that she dreads and may have trouble making and keeping friends.

Specific phobias are characterized by a marked persistent, irrational, and intense fear in the presence of a specific situation or object. This fear may be applied to a certain situation or object that doesn’t pose a danger, or the fear may be out of proportion to the threat. Dogs, spiders, snakes, and blood are common focuses of specific phobias. The person with this disorder will experience the physical symptoms of anxiety and avoid the feared situation or object in every possible way.

**Sorting it all out**

Medications are effective in treating the symptoms of anxiety disorders. Benzodiazepines, the antianxiety medication buspirone, the beta-blocker propranolol, and some antidepressants may be used (see *Medications used to manage anxiety*). Different medications manage certain symptoms more effectively, so drug selection is based on the patient’s symptoms and response to treatment. Psychotherapy, such as cognitive-behavioral therapy, psychodynamic therapy, and group therapy may also be beneficial. Guided exposure therapy may be used to treat a specific phobia, and eye

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### What's happening in the brain?

#### Major neurotransmitters

<table>
<thead>
<tr>
<th>Neurotransmitter</th>
<th>Source</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serotonin</td>
<td>Brain stem, hypothalamus, dorsal horn of the spinal cord</td>
<td>Inhibitory; helps control mood and sleep, inhibits pain pathways</td>
</tr>
<tr>
<td>Dopamine</td>
<td>Substantia nigra and basal ganglia</td>
<td>Usually inhibitory; affects behavior (attention, emotions) and fine movement</td>
</tr>
<tr>
<td>Norepinephrine</td>
<td>Brain stem, hypothalamus, postganglionic neurons of the sympathetic nervous system</td>
<td>Usually excitatory; affects mood and overall activity</td>
</tr>
<tr>
<td>GABA</td>
<td>Spinal cord, cerebellum, basal ganglia, some cortical areas</td>
<td>Excitatory</td>
</tr>
</tbody>
</table>

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**Dendrites**

Dendrites receive impulses from other cells and conduct them toward the cell body.

**Axon**

The axon conducts impulses away from the cell.
Movement desensitization and reprocessing (EMDR) may be used to treat posttraumatic stress disorder.

**Benzodiazepines**, such as alprazolam, chlordiazepoxide, clonazepam, diazepam, and lorazepam, are used to treat transient anxiety symptoms and manage acute symptoms of panic attacks. These medications act on the GABA system, helping to decrease neuronal excitability, and are available in short- and long-acting formulations. Common adverse reactions include drowsiness, sedation, amnesia, and possible abuse and addiction. Withdrawal symptoms can occur, so it’s important to discontinue these medications slowly. Tell your patient not to drink alcohol while on this therapy. Caution her about slowed cognition and tell her to avoid activities that require alertness or good coordination, such as driving, until she knows her response. Women should avoid becoming pregnant while taking a benzodiazepine.

**Buspirone** is an antianxiety medication that isn’t structurally related to benzodiazepines, but exerts a similar effect to help decrease anxiety. It’s hypothesized that it acts directly on receptors in the limbic system—the part of the brain that deals with emotions. It doesn’t produce

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**How neurotransmission occurs**

When an impulse reaches the end of the axon, it stimulates synaptic vesicles in the presynaptic axon terminal.

A neurotransmitter substance is then released into the synaptic cleft between neurons.

This substance diffuses across the synaptic cleft and binds to receptors on the postsynaptic membrane. This stimulates or inhibits stimulation of the postsynaptic neuron.

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**did you know?**

### Medications used to manage anxiety

<table>
<thead>
<tr>
<th>Medication</th>
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<th>Nursing considerations</th>
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<tr>
<td><strong>Benzodiazepines</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Alprazolam</td>
<td>Help decrease neuronal excitability</td>
<td>Drowsiness, sedation, amnesia, Abuse and addiction potential</td>
<td>Tell a woman she should avoid becoming pregnant while taking one of these drugs</td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>Available in short- and long-acting formulations</td>
<td></td>
<td>She should take the drug as prescribed and not stop it abruptly; discontinuing slowly prevents withdrawal symptoms</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>Used to treat transient anxiety symptoms and manage acute symptoms of panic attacks</td>
<td></td>
<td>She should avoid hazardous activities that require alertness or good coordination until she knows her response</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Possibility acts on receptors in the limbic system, a part of the brain that deals with emotions</td>
<td>Doesn’t lead to tolerance or dependence and doesn’t relax muscles, so relieves anxiety without some of the dangerous effects of benzodiazepines</td>
<td>Tell the patient she won’t experience the drug’s full effect for 1 to 2 weeks</td>
</tr>
<tr>
<td></td>
<td>Acts similarly to benzodiazepines to help decrease anxiety</td>
<td></td>
<td>Teach her to take the drug every day as prescribed to ensure a therapeutic response</td>
</tr>
<tr>
<td><strong>Antianxiety agent</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buspirone</td>
<td>Possibly acts on receptors in the limbic system, a part of the brain that deals with emotions</td>
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<tr>
<td><strong>Beta-blocker</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propranolol</td>
<td>Used to prevent signs and symptoms of certain anxiety disorders</td>
<td>Hypotension, fatigue, bradycardia, bronchospasm, dizziness</td>
<td>Teach the patient not to stop the drug suddenly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Remember that propranolol masks common signs and symptoms of hypoglycemia</td>
</tr>
<tr>
<td><strong>SSRIs</strong></td>
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<tr>
<td>Citalopram</td>
<td>Increase serotonin, gastrointestinal upset, mild sedation, restlessness</td>
<td>Sexual dysfunction, confusion, hallucinations, agitation, change in BP, nausea/vomiting, seizures</td>
<td>The patient may need 4 to 6 weeks of therapy before getting the full benefit</td>
</tr>
<tr>
<td>Escitalopram</td>
<td>Used to treat symptoms of anxiety disorders</td>
<td></td>
<td>Tell her that adverse reactions often decrease within 2 to 4 weeks of starting therapy</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>Commonly the first line of treatment because they’re effective and generally cause minimal adverse reactions</td>
<td></td>
<td>Warn her not to stop the drug abruptly; to discontinue, slowly taper the dose to prevent discontinuation syndrome</td>
</tr>
<tr>
<td>Fluvoxamine</td>
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<td></td>
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<tr>
<td>Sertraline</td>
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<tr>
<td>Paroxetine</td>
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<td></td>
<td></td>
<td></td>
<td>Teach older adults to discuss safety and dosing with their healthcare provider</td>
</tr>
</tbody>
</table>

continued...
tolerance or dependence like benzodiazepines and results in no muscle relaxation. This eliminates many of the dangerous adverse reactions of benzodiazepines while still decreasing anxiety. Minor adverse reactions include nausea, light-headedness, headache, and restlessness. Tell your patient that buspirone takes 1 to 2 weeks to take effect and requires daily dosing to ensure a therapeutic response.

The beta-blocker propranolol may be used to treat generalized anxiety disorder and panic disorder, although it isn’t FDA approved for these disorders. This drug blocks the beta-adrenergic receptors in the sympathetic nervous system, causing a relaxation response. Adverse reactions include hypotension, fatigue, bradycardia, bronchospasm, and dizziness. Because of the possibility of hypotension, instruct your patient to rise slowly when changing positions. Tell her not to stop the drug suddenly, and remember that propranolol masks the common signs and symptoms of hypoglycemia.

Selective serotonin reuptake inhibitors (SSRIs) are often the first line of treatment for anxiety because of their effectiveness and low risk of adverse reactions. SSRIs are effective in treating all types of anxiety disorders, including panic disorder, obsessive-compulsive disorder, and posttraumatic stress disorder. The SSRIs used to treat anxiety disorders include fluoxetine, sertraline, paroxetine, and fluvoxamine. Adverse reactions include sexual dysfunction, gastrointestinal upset, mild sedation, and restlessness. Often these adverse reactions decrease after 2 to 4 weeks on the medication. For persistent adverse reactions, switching from one SSRI to another may alleviate them.

Although considered safe, SSRIs do pose these risks:

- **discontinuation syndrome**—the patient may experience such signs and symptoms as dizziness, headache, diarrhea, insomnia, irritability, nausea, and lowered mood if she abruptly stops taking the medication
- **drug interactions**—taking an SSRI with warfarin or certain medications used to treat cardiac disorders or diabetes can increase one medication level and decrease the other
- **serotonin syndrome**—this potentially fatal reaction to medications that elevate serotonin levels can cause tremor, diarrhea, hyperthermia, agitation, tachycardia, labile BP, changes in mental status, and diaphoresis; a patient with severe serotonin syndrome can develop seizures, respiratory failure, and coma.

<table>
<thead>
<tr>
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<th>Action and indications</th>
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<tbody>
<tr>
<td><strong>Tricyclic antidepressants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amitriptyline</td>
<td>Increase concentrations of serotonin, norepinephrine, and dopamine</td>
<td>More adverse reactions than SSRIs</td>
<td>Teach the patient that drinking plenty of fluids and increasing dietary fiber helps prevent constipation</td>
</tr>
<tr>
<td>Clomipramine</td>
<td>Older and less expensive than newer drugs</td>
<td>Dry mouth, dry eyes, constipation, weight gain, sedation, cardiac dysrhythmias</td>
<td>Closely monitor her for potentially fatal cardiac dysrhythmias, especially after an overdose</td>
</tr>
<tr>
<td>Desipramine</td>
<td>Clomipramine is approved by the FDA as a first-line treatment for obsessive-compulsive disorder</td>
<td></td>
<td>Monitor for hypoglycemia and hyperglycemia</td>
</tr>
<tr>
<td>Imipramine</td>
<td></td>
<td></td>
<td>Contraindicated in patients with glaucoma or benign prostatic hyperplasia</td>
</tr>
<tr>
<td>Nortriptyline</td>
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</tr>
</tbody>
</table>
If your patient is prescribed an SSRI, stress that it may take 4 to 6 weeks of therapy before the full benefits are realized. Warn her not to abruptly stop taking the medication to avoid discontinuation syndrome. Pregnant women should avoid paroxetine due to increased risk of birth defects.

**Tricyclic antidepressants**, such as amitriptyline, clomipramine, desipramine, imipramine, and nortriptyline, may be used to treat panic disorder, post-traumatic stress disorder, and phobic disorders. In fact, clomipramine is one of the most effective drugs for relieving symptoms of obsessive-compulsive disorder. These older antidepressants are less expensive than newer agents, but have more adverse reactions, including high anticholinergic effects such as dry mouth, dry eyes, constipation, weight gain, and sedation. Teach your patient to drink plenty of fluids and increase dietary fruit and fiber to avoid constipation. These medications may cause fatal cardiac arrhythmias, especially when taken as an overdose in suicidal patients. The patient should be monitored for hypoglycemia and hyperglycemia. Tricyclic antidepressants are contraindicated in patients with glaucoma or benign prostatic hyperplasia.

**Can we talk?**

Psychotherapy, or talk therapy, is vital in the treatment of anxiety. If a patient is experiencing only mild anxiety, it may be an effective treatment on its own without the need for medication. However, most patients with an anxiety disorder have better outcomes with a combination of psychotherapy and medications. Some of the psychotherapeutic approaches used to treat anxiety disorders include cognitive-behavioral therapy, psychodynamic therapy, and group therapy.

**Cognitive-behavioral therapy** is both cost effective and efficacious in the treatment of anxiety disorders. The goal is to change the automatic thoughts that occur spontaneously and contribute to dysfunctional thinking. Behavioral therapists believe that emotions are a learned response to stressors. A person with an anxiety disorder may have faulty cognitive processes that interpret each event as a catastrophe. For example, a person experiences car trouble on a snowy road. A person with an anxiety disorder starts to think of all the negative things that can occur as a result of the car trouble. These thoughts increase anxious feelings. A person without an anxiety disorder will view the stressor of car trouble realistically, planning how to get help to get the car fixed. The two different conclusions are influenced by each person’s automatic thoughts that influence her conclusions and emotional responses.

The behavioral therapist uses cognitive restructuring to help the patient identify the habitual unhealthy ways in which she reacts to situations. By pointing out errors of thinking and logic that contribute to dysfunctional behavior, the therapist assists the patient to change her thinking about the situation and, thus, her emotional response.

**Psychodynamic therapy** links anxiety to trauma or conflicts that happened in childhood. For example, a person with posttraumatic stress disorder may have been abused as a child and now lacks self-esteem as an adult. The therapist helps the patient establish a link between the abuse and her current feelings. Exploring how past events and traumas affect different aspects of her life is also important in this type of therapy.

**Group therapy** allows a person to meet with others who are also experiencing the same anxiety disorder. Being able to share feelings with others helps the patient to heal, and getting suggestions from people with a similar disorder can help her cope with events or relationships. Knowing that she isn’t the only one feeling anxious is an additional source of support.

**Guided exposure therapy** is commonly used for patients with specific phobias. For example, teaching relaxation and imagery techniques and educating the patient about...
her problem, treatment, and signs of relapse can help her manage panic disorder.

EMDR is a newer short-term therapy for anxiety disorders based on the different functions of the right and left sides of the brain. A therapist gently encourages the patient to pinpoint a problem or event that she’ll focus on during multiple sessions. During each therapy session, she focuses on a distressing image she associates with the event and identifies negative emotions and sensations while shifting her gaze from side to side. As she uncovers thoughts and feelings associated with the event, the therapist works to redirect her eye movements that accompany the recalled experience. Redirecting eye movements helps her release accompanying emotions. The technique is continued until her dysfunctional emotions are neutralized and positive feelings or thoughts replace it. For example, EMDR may help someone suffering from posttraumatic stress disorder who flashes back to the negative feelings associated with the trauma during daily events. The therapy aims to redirect those negative feelings and decrease her symptoms.

**Your role**

Patients with an anxiety disorder can be identified in any healthcare setting. Your nursing interventions include assessing and protecting your patient, administering medications and monitoring their effects and her response to treatment, and teaching her and her family about the disorder.

- Take a health history and perform a thorough physical assessment. The patient’s health history should cover personal and family history of mental illness, suicide, or substance abuse, which is strongly linked to any type of mental illness.
- Perform a mental status exam.
- Evaluate suicide risk and follow facility policy to protect the patient if she has an increased risk.
- Become familiar with the medications used to treat anxiety disorder, including their actions and potential adverse reactions.
- Check for drug interactions if the patient is taking other medications.
- Administer medications and make sure the patient takes them as ordered.
- Teach the patient and her family (with her permission) about the disorder: The nature of the illness, expected effects of medications, signs and symptoms of relapse, and the importance of continuing treatment are key issues to cover. Also teach her not to abruptly stop taking her medication, even if she feels better.
- Suggest resources such as the National Alliance on Mental Illness (http://www.nami.org) where the patient and her family can learn more about the disorder and its treatment and get support.

**Serious but treatable**

Anxiety disorder is a serious illness, but it can be effectively treated with the many therapeutic options available today. By understanding the signs and symptoms of the different types of anxiety disorders and taking appropriate steps to help your patient manage them, you’ll improve her prognosis and help her live a more normal life.

**Learn more about it**


For more than 22 additional continuing education articles related to psychiatric/psychosocial topics, go to Nursingcenter.com/CE.