



Anxiety disorders: treatment considerations

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Anxiety disorders are among the most widespread, recurring or chronic, and treatable mental health disorders, with a lifetime prevalence of 25% [1]. These disorders are the primary reason that people seek medical and psychiatric treatment and are often a precursor to or comorbid with mood disorders [2]. Anxiety disorders cause a considerable burden of distress and disability similar to other medical conditions, such as diabetes [3,4]. Anxiety disorders have a predictable debilitating course of anxiety and reduced productivity and interference with functioning. These disorders rarely occur as a single disorder.

Economic and personal cost of anxiety disorders

The cost of anxiety disorders is staggering because of the financial and personal toll they have on individuals and society. The cost of these disorders may be avoidable with increased health education, detection, and appropriate early intervention. In 1990, the estimated annual cost of anxiety disorders was about \$42.3 billion in the United States, of which about 54% (or \$23 billion) was nonpsychiatric treatment costs, 31% (or \$13.3 billion) was psychiatric care costs, and 2% (or \$0.8 billion) was prescription costs. Posttraumatic stress disorder (PTSD) and panic disorder were found to contribute the highest rates of service use. These data also indicate that all anxiety disorders reduced workplace performance and significantly interfered with quality of life [4]. Patients with anxiety disorders are more likely to seek treatment complaining of comorbid disorders, especially depression, with a history of an early onset and more severe symptoms than patients with a single disorder. Anxiety disorders interfere significantly with functioning because of painful distress that is sometimes more agonizing than physical suffering. In addition, depending on the type of anxiety

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disorder, patients may report acute panic and recurrent tormenting and intrusive thoughts or images, feel as if they are dying or going crazy, or experience agonizing obsessions. For these reasons, nurses and other health care providers are challenged to identify symptoms of diverse anxiety disorders and comorbid conditions, such as depression, and initiate evidence-based interventions.

New initiatives have advanced improvements in the understanding and treatment of anxiety disorders. Understanding anxiety disorders requires a brief overview of complex causes and treatment implications. This article discusses several anxiety disorders and treatment planning: panic disorder, generalized anxiety disorder (GAD), social phobia, PTSD, and obsessive-compulsive disorder (OCD).

Causes of anxiety disorders

Most research indicates that anxiety disorders are complex and arise from intricate neurochemical, neuroanatomic, genetic, neuroendocrinologic, and psychoneuroimmunologic factors [5,6]. Cognitive-behavioral and environmental and stress factors also play a role in anxiety disorder.

Neurochemical theories indicate dysregulation of several neurotransmitters, including excitatory, such as norepinephrine and serotonin, and inhibitory, such as γ -aminobutyric acid, neurotransmitters. Additional data indicate neurochemistry alterations in dopamine metabolites in cerebrospinal fluid, lowered sensitivity of postsynaptic dopamine, and dysregulation in opioid systems. Support of the neurochemistry theory is seen in the efficacy of pharmacologic agents, such as benzodiazepines for acute anxiety and various antidepressants, including selective serotonin reuptake inhibitors (SSRIs) (eg, sertraline [Zoloft]).

Neuroanatomic alterations include imprinting emotionally traumatic memories and conditioned fears that are mediated through the dopamine receptors in the amygdala through the hippocampus and avoidance conditioning mediated through the prefrontal cortex [5,6]. Neuroimaging studies also show imprinting from trauma precipitating conditioned fear (amygdala); positron emission tomography studies show decreased striatal dopamine receptor binding and basal ganglia and cortical abnormalities in patients with anxiety disorders (ie, PTSD) [5,6].

Genetic predisposition contributes to anxiety disorders. Family aggregate and twin studies support the role of genetic predisposition and heritability risk of GAD, phobias, and OCD [7,8].

Neuroendocrinologic studies implicate the hypothalamic pituitary adrenal axis, which effects cortisol secretion and modulation of the stress response [9].

Psychoneuroimmunologic research shows that various anxiety disorders, particularly PTSD, may compromise the immune response. The precise basis of this theory is unclear, but early findings show that individuals with

PTSD are more likely to suffer from inflammatory conditions, such as rheumatoid arthritis, irritable bowel syndrome, and cardiovascular disease [10–12].

Cognitive-behavioral theorists assert that anxious individuals hold irrational or distorted beliefs about themselves, others, and the future. They tend to overgeneralize or exaggerate the potential for catastrophic situations and negative consequences (eg, “My son failed his class, thus, I must be a bad mother,” or “If I assert myself, people will not like me”) [13]. Environmental factors and stress issues also contribute to anxiety disorders, particularly acute stress or PTSD, which is associated with an overwhelming traumatic or life-threatening situation or exposure.

Specific anxiety disorders

Panic disorder

Panic disorder is a common anxiety disorder characterized by discrete or unexpected, unprovoked periods of intense fear or dread (cognitive) or physical distress (biologic) or both. It affects 2% to 6% of the general population. Chief symptoms of panic disorder [14] include the following:

- Increased heart rate, blood pressure, and respirations
- Palpitations
- Diaphoresis (sweating)
- Shortness of breath
- Dizziness
- Derealization (environment feels unreal) or depersonalization (“out of body experience”)
- Tremulousness or shakiness
- Gastrointestinal distress (“butterflies,” nausea, diarrhea)
- Numbness or tingling sensations (paresthesias)
- Hot flashes or chills
- Chest pain or discomfort
- Fear of dying, going “crazy,” or being out of control

Characteristically, patients have two to four attacks per week and complain of a sudden, rapid onset of symptoms that peak in 10 minutes and abate within 60 minutes. Patients may report anticipatory anxiety with one or more phobias arising from environmental stimuli, such as open spaces, crowds, or highways. At least four of the above-listed symptoms must be present during at least one of the panic episodes or attacks. Panic disorder produces significant distress, and patients tend to have marked social impairment that interferes with level of functioning. Because patients with panic disorder tend to have comorbid conditions, such as depression or agoraphobia (fears of open spaces and place), these conditions must be ruled out and treated with appropriate interventions [14]. Nurses play a key role in

assessing and treating patients with various anxiety disorders. This process begins by establishing rapport and allaying distress by reassuring and explaining all procedures. Questions such as “what medications are you taking” and “when was your last complete physical examination” are helpful in discerning a differential diagnosis. The psychosocial assessment provides information about symptoms; duration; past treatment; dietary intake, including caffeine; sleeping patterns; and present stressors. In addition, taking vital signs, performing a mental status examination that includes questions about suicide risk, and ordering or reviewing the results of diagnostic tests, such as electrocardiogram and blood work, provide invaluable information. Patients often feel reassured and relieved when they are told their tests are normal and they are not “dying or going crazy.” When an accurate diagnosis is established, appropriate treatment can be initiated.

Treatment considerations

Before initiating any treatment of anxiety disorders, the patient must have a complete and thorough physical examination and mental status examination. These examinations are necessary to rule out other medical and psychiatric conditions, such as diabetes, thyroid disease, cardiovascular disease, and substance-related disorders, including central nervous system stimulants and alcohol withdrawal. When a differential diagnosis is made, treatment can be initiated.

Mainstay treatment of the patient with panic disorders should target several areas and include pharmacologic and nonpharmacologic interventions. The biologic symptoms can be managed with *pharmacologic* interventions, such as benzodiazepines (eg, clonazepam [Klonopin]) for acute anxiety and antidepressants (eg, paroxetine [Paxil]) to reduce frequency of attacks and severity of symptoms. *Nonpharmacologic* interventions include abdominal deep breathing exercises and visualization.

Other treatment considerations are as follows:

- Provide health education. This is a crucial intervention because it provides the patient and family with important information about causative factors, symptoms, evidence-based interventions, and health-promoting activities, such as stress and anger management techniques. Health education is empowering and reassuring to the patient and family concerning symptoms and treatment options.
- Minimize avoidant behaviors. Exposure and cognitive-behavioral therapies assist the patient in desensitization of stressful situations, such as highways and open spaces. Pharmacologic interventions offer biologic relief and reduction of symptoms necessary to improve cognitive functioning. Exposure therapy sessions lasting 2 or more hours are more effective than sessions lasting 1 hour. During this intervention, the patient is asked to imagine his or her worst fear or anxiety-provoking situations for 20 minutes before using cognitive

restructuring (challenging distortions as exaggerations or overestimation). During these sessions, the patient acquires health education that challenges irrational or distorted cognitions or beliefs about the event or situation [13].

- Challenge distorted cognitions (same as “suppress avoidant behaviors”). Cognitive-behavioral therapy also involves using homework assignments to enable the client to keep logs and self-monitor anxiety-provoking situations and ways to challenge distorted cognition [13]. Cognitive-behavioral therapy is an active, problem-solving approach that teaches the patient adaptive coping strategies to alleviate symptoms and distress. This approach also involves using relaxation techniques to reduce biologic arousal.
- Provide long-term monitoring. Long-term monitoring is provided to prevent relapse (pharmacologic and nonpharmacologic interventions to reduce distressful symptoms and relapse and to facilitate a high level of functioning).
- Assess for comorbid disorders, such as depression and substance abuse. When comorbid conditions exist, appropriate treatment should be initiated. In the case of depression, antidepressants are appropriate. In the case of substance abuse (history or active), benzodiazepines should be avoided except in the case of alcohol withdrawal. Buspirone (BuSpar) is more appropriate for these patients; it is not appropriate for acute anxiety, but it is helpful in treating long-term anxiety without the risk of dependence or abuse. Because of the comorbidity of depression, these patients must be assessed continuously for suicide and other high-risk behaviors.

Generalized anxiety disorder

GAD is a relatively prevalent psychiatric disorder that affects about 3% of the general population. Similar to other anxiety disorders, GAD carries a substantial risk of disability and poor quality of life. GAD tends to have an early onset with duration of more than 5 years [15]. Research indicates a high comorbidity is characteristic of the course and nature of GAD. Major depression is a common comorbid condition with GAD and is associated with significant disability and interference with function [16]. The comorbidity of GAD and mood disorders has important clinical implications for its course and treatment outcomes. Studies show that GAD is costly [5] and prevalent in primary care medical settings and one of the most common diagnoses in patients with unexplained physical complaints. Implications for nurses include identification of symptoms, health education, and assessment for comorbid conditions, such as depression and risk of danger to self and others.

An essential feature of GAD is excessive worrying occurring more days than not for at least 6 months. Patients also experience an array of physical

symptoms, such as feeling “keyed up” and sleep disturbances. In addition, the diagnosis of GAD involves at least three of the following:

- Fatigue
- Restlessness
- Impaired concentration
- Irritability
- Muscle tension
- Sleep disturbances
- Gastrointestinal distress
- Feeling “keyed up” or “edgy” [14]

Treatment considerations

As previously mentioned, patients with anxiety disorder must have a complete physical examination and mental status examination to make a differential diagnosis. When a diagnosis of GAD is confirmed, pharmacologic and nonpharmacologic interventions can be initiated. Because GAD is a chronic and recurring psychiatric disorder, the patient requires long-term treatment to prevent relapse.

Pharmacologic interventions for GAD include antidepressant medications, such as SSRIs and venlafaxine (Effexor XR) and nefazodone (Serzone). These drugs also are beneficial for patients with comorbid mood disorders [17]. *Nonpharmacologic* interventions are the same as those used to treat panic disorder and include cognitive-behavioral therapy, relaxation techniques, and stress management. Nurses can encourage patients to identify their strengths, to develop hobbies, and to focus on areas in which they have control. Providing structure and opportunities to succeed increases self-esteem and self-efficacy. Family involvement is also crucial to successful treatment outcomes. Providing health education and referrals to community support groups may allay family members’ anxiety and promote understanding of their loved one’s condition. Because of the high incidence of mood disorders, including major depressive disorder, these patients must be assessed continuously for their level of dangerousness toward self and others.

Social phobia

Social phobia, similar to other anxiety disorders, is a serious and chronic psychiatric disorder with a lifetime prevalence of 10% to 15%. Social phobia produces significant interference with function personally and professionally. Likewise, social phobia often coexists with other psychiatric disorders, such as depression and substance abuse [1]. The onset of social phobia occurs during adolescence when interpersonal relationships are significant and play a role in adult relationships. Clinical features of social phobia arise from exposure to feared social situations and production of

marked and persistent fear and intense anxiety of one or more social or performance situations and scrutiny by others and avoidant behaviors [14].

Treatment considerations

When a differential diagnosis has been made and social phobia is confirmed, *pharmacologic* interventions include short-term benzodiazepines (eg, clonazepam [Klonopin]) and antidepressant agents (eg, SSRIs) [17]. *Nonpharmacologic* interventions are similar to those used to treat patients presenting with panic disorder and GAD and include monitoring the patient for signs of relapse and risk of dangerousness to self and others. Nurses play pivotal roles in helping patients and their families understand and cope with this disorder. Role rehearsal or role playing are excellent tools that promote a sense of competence in dealing with anxiety-provoking events. Teaching assertiveness training and conflict resolution offers the patient an opportunity to deal with stressful situations effectively.

Posttraumatic stress disorder

The lifetime prevalence of PTSD in the United States is high, with estimates ranging from 1% to 14% [18]. There is a higher prevalence of PTSD among women, previously married individuals, combat veterans, and individuals who experience various traumas (eg, child abuse, domestic violence, rape) [1]. PTSD is characterized by responses to an overwhelming and traumatic event with three discrete sets of symptoms, as follows:

1. Intrusive behaviors
 - Intrusive and distressful images or thoughts of event
 - Flashbacks
 - Nightmares and sleep disturbances
2. Avoidance behaviors
 - Avoidance of the situation or reminders of the event
 - Numbness
 - Psychological amnesia
3. Hyperarousal (exaggerated stress response)
 - Startle response
 - Hypervigilance
 - Concentration disturbances
 - Exaggerated stress response (biologic) [14]

Treatment considerations

When a diagnosis of PTSD has been confirmed, treatment must center on the patient's presenting symptoms and reduction of the chronic course. Similar to other psychiatric disorders, PTSD coexists with depression and substance abuse and other anxiety disorders. A thorough history of the event, emergence of symptoms, and duration is crucial to making an

accurate diagnosis of PTSD and initiating evidence-based treatment planning.

Pharmacologic interventions for PTSD include antidepressant medications, such as SSRIs, sertraline (Zoloft), and fluoxetine (Prozac), and mood stabilizers, such as topiramate (Topamax) [17]. *Nonpharmacologic interventions* include cognitive-behavioral therapy, anger management, and relaxation techniques. Group therapy and other support groups are helpful for the patient and for family members. Similar to other anxiety disorders, PTSD places a tremendous burden on the family. The nurse must assess the patient's and family's needs and educate them about pharmacologic and nonpharmacologic symptom management, such as family and marital therapy. Nurses also must assess the client's risk of dangerousness to self and others and monitor for signs of substance abuse disorders.

Obsessive-compulsive disorder

Patients presenting with OCD often complain of persistent, intrusive thoughts and images (obsessions) and the urge to perform repetitive and ritualistic behaviors (compulsions). The patient recognizes that these thoughts and rituals are unrealistic and irrational but feels he or she has no control over them. OCD, similar to other anxiety disorders, is a chronic psychiatric disorder with an unremitting course. The prevalence of OCD exceeds 2%, and men and women are equally likely to be affected. OCD is potentially debilitating, and the degree of functional distress often parallels the nature of the obsessions and rituals and management of symptoms. Similar to other anxiety disorders, OCD has a high comorbidity with depression and substance abuse [14].

Characteristic symptoms of OCD are obsessions and compulsions. If the patient is obsessed about cleanliness, after shaking hands with someone, he or she might have intrusive thoughts of contamination (obsessions) by the hand shake and be driven to wash his or her hands repeatedly to remove germs. The intrusive thoughts generate intense anxiety, biologic symptoms, and concentration disturbances that are relieved only by excessive hand washing (ritualistic behavior) [14].

Treatment considerations

Treatment must center on *pharmacologic* interventions, including antidepressants, such as SSRIs (fluvoxamine [Luvox]) and tricyclic antidepressants (clomipramine [Anafranil]). Relapse rates are high when these medications are discontinued, suggesting that long-term maintenance treatment is necessary to improve symptom management and ultimately the patient's quality of life [17]. *Nonpharmacologic* interventions include interventions previously discussed for other anxiety disorders, such as assessing the patient's level of dangerousness to self and others and signs of substance abuse.

Educating the patient and family about treatment options and symptoms to report is crucial to successful treatment planning.

Summary

Anxiety disorders are among the most prevalent and disabling psychiatric disorders. Today patients have a plethora of treatment options to manage these potentially disabling and costly psychiatric disorders. Anxiety disorders represent a large portion of primary care visits and diverse practice settings. Nurses are in key positions to identify symptoms of various anxiety disorders, initiate appropriate treatment, or refer patients for treatment. Families play a key role in successful treatment planning and must be an integral part of the health care team. Major nursing interventions must focus on making an accurate diagnosis, initiating appropriate treatment, and facilitating a higher level of functioning and quality of life.

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