

Anxiety: Diagnosis and Treatment of Four Common Disorders

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ABSTRACT

Anxiety is a universal human emotion, one that need not be crippling before coming to medical attention. Anxiety disorders are the most common psychiatric disorders in the United States, affecting 13.3% of the adult population. The primary care physician should bear in mind that anxiety is not always pathologic and that it may be challenging to differentiate anxiety disorders from normal worrying. While anxiety disorders may be complex, they respond to a wide range of treatments. This paper reviews the appropriate approaches to diagnosing and treating generalized anxiety disorder, panic disorder, social anxiety disorder, and obsessive-compulsive disorder in the primary care setting.

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EPIDEMIOLOGY

With 19.1 million (13.3%) of the adult population (ages 18 to 54 years) affected, anxiety disorders are the most common psychiatric disorders in the United States.¹ As a result of the September 11, 2001, terrorist attacks on the United States and the political, military, and economic turbulence that has ensued, anxiety has been the psychiatric disorder most commonly reported in the news media. Indeed, during a single week (February 24, 2003), *Time* and *Newsweek* both ran cover stories about anxiety in the United States.

Four of the most prevalent anxiety disorders are generalized anxiety disorder (GAD), panic disorder (PD), social phobia or social anxiety disorder (SAD), and obses-

sive-compulsive disorder (OCD). The widespread nature of anxiety disorders makes it likely that primary care physicians will be called upon to diagnose anxiety disorders and treat patients who have them.

OVERVIEW OF ANXIETY DISORDERS

It is important for the primary care physician to bear in mind that anxiety is universal and not always pathologic (see Glossary, page 261). A vital component of human temperament, anxiety motivates one to show up for appointments, pay attention to detail, improve one's status or education, and so on. Anxiety is probably an evolutionary necessity—an adaptive coping mechanism with both psychic components (eg, worry, avoidance of danger) and somatic

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Off-Label Product Discussion: The author of this article includes information on off-label use of buspirone hydrochloride, citalopram, escitalopram, fluoxetine, fluvoxamine, gabapentin, moclobemide, monoamine oxidase inhibitors, nefazodone, risperidone, sertraline hydrochloride, tramadol hydrochloride, and venlafaxine.

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components (eg, hyperarousal, “fight or flight”). As a result, anxiety disorders may blend imperceptibly into a wide range of normal behaviors. For example, the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* acknowledges that performance anxiety, stage fright, and shyness in unfamiliar social settings can be common, nonpathologic reactions.² Given these observations, it is understandable that investigators have had difficulty agreeing on the threshold that differentiates certain anxiety disorders from both normal worrying and other forms of psychopathology.³

Distinct from the normal anxiety response, pathologic anxiety is characterized by disruption of daily activities, impairment of normal functioning, and a lack of connection to an appropriate anxiogenic stimulus. Pathologic anxiety, in short, is more intense than normal anxiety and is seemingly unrelated to daily events. Moreover, pathologic anxiety is disturbing, is out of proportion to the situation at hand, and can be overwhelming. In fact, it may not even be situational.

A patient's chief complaint, which is usually behavioral, can help the primary care physician differentiate one anxiety disorder from the others. Isolating the behavioral component is frequently the key to accurate diagnosis. Examples of these behaviors include panic attacks, ritualistic behaviors, or avoidance of social situations.

CULTURAL DIFFERENCES

The patient's cultural background and environment should be taken into consideration when evaluating whether anxiety is pathologic, because there is considerable cultural variation in the expression of anxiety. For instance, in certain cultures, rather than developing extreme fear of being embarrassed in social situations, individuals with SAD may develop extreme fear of offending others. In other cultures, certain ritual behaviors are culturally prescribed and should not be considered indicative of OCD unless they exceed cultural norms. Panic attacks may be linked to a fear of witchcraft, or anxiety may be expressed through somatic symptoms.

ROLE OF GENETICS

Anxiety disorders have a genetic component. The chance of developing PD is 4 to 7 times greater when a first-degree relative has the condition. Twin studies have indicated the presence of a genetic component for PD and OCD.² The genetic component and cultural differences in the expression of an anxiety disorder underscore the importance of taking a careful family history, which will facilitate diagnosis and treatment. For

example, when a patient's family member has been treated for the same disorder, the physician should ask which pharmacologic therapies were effective for the family member and should consider beginning treatment with the same medication.

PHARMACOLOGIC THERAPY

Selective serotonin reuptake inhibitors (SSRIs), when used as a first-line treatment for anxiety disorders, should be initiated in low doses, as patients with anxiety disorders are very susceptible to side effects. Because of their heightened sensitivity and concern about their bodies, they are likely to notice and be upset by side effects and other bodily sensations. Nevertheless, dosage levels should not be kept low, since anxiety disorders frequently do not respond to routine low doses of antidepressants in general and SSRIs in particular. Rather, patients with anxiety disorders typically require relatively high doses over a long period of time to achieve symptomatic relief.

For geriatric patients, regardless of the anxiety disorder, physicians are advised to prescribe drugs in low doses, to avoid benzodiazepines, and to consider buspirone for treating aggressive behavior in people with dementia. For women with premenstrual exacerbation of symptoms, it is wise to chart symptom changes and to increase the dose of antidepressant or benzodiazepine during the premenstrual week. Individuals with severe personality disorders and anxiety symptoms may respond extremely well to very small doses of an antipsychotic such as risperidone.

NONPHARMACOLOGIC THERAPY

In addition to pharmacologic therapy, the primary care physician should consider a number of other treatment strategies, particularly psychotherapy, in the initial phases of treatment. Patients may improve clinically with drugs, but they are unlikely to have a durable recovery without psychotherapy. Cognitive-behavioral therapy (CBT) is the most helpful type of psychotherapy for patients with anxiety disorders. An enduring response—either following a successful medication trial or without medication—is most likely to occur in patients who have participated in psychotherapy.⁴

COMORBIDITY

Pathologic anxiety tends to overlap with other psychiatric disorders. This has led to widely variable assessments of the incidence and prevalence of anxiety disorders in the 1990s National Comorbidity Survey⁵ and the 1980s Epidemiological Catchment Area Study.⁶ The reason is

straightforward: one rarely encounters a patient with an uncomplicated anxiety disorder. A study published in 2000 found a comorbidity rate of 66.3% current and 90.4% lifetime of GAD with other psychiatric disorders.⁷

A 2001 study examined the comorbidity of anxiety and mood disorders; researchers found the current and lifetime prevalence of additional disorders in principal anxiety and mood disorders to be 57% and 81%, respectively.⁸ Generalized anxiety disorder was one of the diagnostic categories associated with the highest comorbidity rates. In particular, a high rate of lifetime comorbidity was found between the anxiety and mood disorders; the lifetime association was particularly strong for GAD and obsessive-compulsive disorder.

Therefore, making an accurate diagnosis may involve distinguishing anxiety and anxiety disorder from other symptoms and conditions. For example, anxiety is a prominent symptom of the following: depression; bipolar disorder (especially mixed states); personality disorders (especially borderline, dependent, and avoidant); abuse of alcohol, hypnotics, and sedatives; substance intoxication; substance withdrawal; and the use of stimulants, cannabis, and hallucinogens. Anxiety symptoms also may be present in patients with psychosis or dementia and may affect the course of these conditions.

ANXIETY AND DEPRESSION

Often, anxiety disorders occur together with depression. The most common symptoms of anxiety in depressed patients are worry and subthreshold panic (ie, panic with limited symptoms [fewer than 4]). It also can be difficult to distinguish symptoms of anxiety from symptoms of other mood disorders, eg, obsessive thinking from ruminative thinking. Rumination is a hallmark of depression, obsessive thinking of OCD.

Other mood disorders that can occur with anxiety disorders include anxious depression, agitated depression, and mixed anxiety depressive disorder.⁹ When comorbid anxiety is present with any condition or disorder, the severity of 1 or both disorders may increase. Although anxious depression is not a *DSM-IV* category, it can be a useful model. There is increased severity of anxiety symptoms and functional impairment, and increased likelihood of chronicity when patients are simultaneously anxious and depressed. For example, PD occurring with another psychiatric condition, such as depression, is more common than PD alone, and this comorbidity increases the severity of both the anxious and depressive symptoms; it also is linked to a higher rate of suicide attempts and a delayed or poorer response to

both psychotherapy and medications.¹⁰

Another comorbid condition that is especially common in geriatric patients is agitated depression, which is a combination of major depression and intense anxiety. Patients are tense and despondent with symptoms of extreme psychomotor agitation, such as rocking or hand-wringing. They usually meet the *DSM-IV* criteria for “melancholic subtype.” It can be difficult, however, to differentiate this condition from psychotic depression. Mixed anxiety depressive disorder, which is included in the appendix of the *DSM-IV*, is commonly seen in primary care settings. A combination of mild anxiety and mild depression, it involves symptoms of subthreshold anxiety plus subthreshold depression.

BIPOLAR DISORDER, PSYCHOSIS, AND ALCOHOLISM

Other comorbid conditions that can complicate the task of diagnosing anxiety disorders include bipolar disorder (BPD), psychosis, and alcoholism. A lifetime history of PD has been found in 20% of patients with BPD. In a community sample of patients with BPD, the prevalence of PD is twice as high as in those with unipolar depression. Patients with BPD who are anxious or have panic attacks take up to 4 times longer to respond to treatment than patients with BPD who do not have these symptoms. A recent study showed that among patients with BPD and panic symptoms, there was not only an increased incidence of severe depression and suicidal ideation, but also a 6-month delay in treatment response, compared with patients with BPD without a history of panic symptoms.¹¹ In patients with psychoses such as schizophrenia, anxiety frequently accompanies delusions and paranoia; it is important to distinguish persistent anxiety in schizophrenia from medication side effects such as akathisia, which is debilitating and can be treated with propranolol or a benzodiazepine. Because patients often inappropriately self-medicate with alcohol, sedatives, or hypnotics, alcoholism and substance abuse frequently occur comorbidly with anxiety disorders.

GENERALIZED ANXIETY DISORDER

DIAGNOSIS

The most prominent symptom of GAD is worrying, which explains why GAD can be difficult to differentiate from the “normal” worries of everyday life. However, people with GAD do not suffer from “normal” worry. Rather, their spectrum of symptoms is more profound. In 1894, Freud described the symptoms of “anxiety neurosis,” the precursor of the term “generalized anxiety disorder,” in a way that remains accurate: general irritability, anxious expect-

tation, hypochondria, pangs of conscience, and a quantum of anxiety in a free-floating condition.¹² Typically, people with GAD are tired, grumpy, and easily distracted and are more likely to be unmarried, divorced, or receiving disability insurance.

Compounding the difficulty of diagnosing GAD is that it may be a component of major depression. People with GAD have the same cognitive set as depressed individuals, with negative expectations of the future, themselves, and others. However, patients with GAD lack the neurovegeta-

Generalized Anxiety Disorder (GAD): Key Points

- Differentiate GAD from depression.
- Target worry, insomnia, and irritability.
- Pharmacologic therapy: benzodiazepines and antidepressants
- Psychotherapy: cognitive-behavioral therapy, progressive muscle relaxation, and other psychotherapies

tive symptoms of depression; they are still able to function and do not have difficulty getting out of bed in the morning, going to work, or taking care of their children. One-year and lifetime prevalence data from twin studies suggest that the same genetic factors influence the development of both GAD and major depressive disorder (MDD).^{13,14} In a study of female twins, if the indexed twin had MDD, the odds ratio for the other twin's having GAD was 8.9. For twins with phobias or with other anxiety disorders, a comparable odds ratio was not observed.

TREATMENT

Approaches to treatment for GAD include differentiating the disorder from depression and targeting worry, insomnia, and irritability—all of which are difficult to treat. Treatment should be both pharmacologic and psychotherapeutic, and it should be conceptualized in terms of the chronic nature of the illness.^{15,16}

Pharmacotherapy. Although many primary care physicians are concerned about dependence with benzodiazepines, they are a mainstay of treatment in GAD and can be prescribed safely in most instances without abuse (Table). Appropriate doses for a brief period of time are unlikely to lead to habituation and abuse in most patients. Discontinuation symptoms are typically not a problem if brief, low-dose regimens are prescribed. When doses are tapered rather than abruptly dis-

continued, there is a lower risk of rebound anxiety.^{17,41} Researchers have found that taking benzodiazepines tends not to induce relapse in former abusers of other substances, including alcohol. Benzodiazepines should not be prescribed, however, for patients who are currently abusing other substances. Patients with antisocial personalities are at highest risk for benzodiazepine abuse.

Benzodiazepines should typically be taken for about 6 weeks. Continued use has the attendant risk of cognitive impairment, slowed psychomotor performance, and habituation with rebound anxiety. Treatment for GAD requires a standing dose of benzodiazepines, not dosing as needed. The benzodiazepines recommended for treating GAD and the optimal doses are listed in the Table. It is important to bear in mind that GAD is a chronic disorder and that additional medication—usually an SSRI—will also be required.

Buspirone is very efficacious for treating patients with GAD. It is indicated when there has been no prior benzodiazepine treatment or when the patient has failed to respond to benzodiazepines. Treatment for GAD requires a higher dosage of buspirone than has generally been recommended, often at least 60 mg per day and as high as 90 mg per day in divided doses. Buspirone has a relatively slow onset of action, similar to that of antidepressants, and is thus less useful for treating intense and acute symptoms; otherwise, buspirone is a very effective monotherapy for GAD alone.³⁹

Antidepressants are an excellent treatment for the chronic anxiety of GAD. Overall, they tend to lead to a more complete remission of symptoms. Moreover, they are more effective than benzodiazepines for targeting the psychic symptoms as well as the physical symptoms of generalized anxiety, such as muscle tension and headache. Patients with GAD who take antidepressants continue to improve with prolonged treatment. Several long-term randomized controlled studies have shown that both venlafaxine 75 to 150 mg daily and paroxetine 20 to 40 mg daily are efficacious. Sertraline, trazodone, and imipramine are also useful. However, nefazodone ought not to be considered a first-line agent because of the risk of hepatotoxicity.^{22,27,36,37,42}

Psychotherapy. Medication alone, however, is insufficient for treating GAD. Although psychotherapy is less well documented as a treatment option for GAD than for other anxiety disorders, it is highly recommended in conjunction with medication. Specifically, CBT—with a focus on minimizing catastrophic thoughts, using thought-stopping techniques, and setting

aside worry—is very likely to provide relief of GAD symptoms.

In addition, relaxation may play an important role in treating GAD. Applied relaxation (or progressive muscle relaxation) techniques may be efficacious, especially when used in conjunction with CBT. A review of 12 psychotherapy studies involving 225 subjects with a GAD diagnosis showed very high response rates to CBT (42%–62%), which mirror the average response rates to antidepressants in patients with a mood and/or anxiety disorder. Indeed, in terms of the degree of clinical improvement, CBT is significantly more effective than comparison treatments, such as benzodiazepines, behavioral therapy, nondirective therapy, progressive relaxation, applied relaxation, and anxiety management training.³⁴

Other psychotherapies likely to be beneficial for the patient with GAD include analytic psychotherapy and self-control desensitization.

The main difficulty with all of these psychotherapeutic approaches involves finding competent practitioners. For this reason, the author advises primary care physicians to seek out qualified professionals in their communities who are capable of providing psychotherapy for patients with GAD and other anxiety disorders.

PANIC DISORDER

DIAGNOSIS

A diagnosis of PD is fairly straightforward, requiring that a patient experience panic attacks. These attacks are usually spontaneous and may even occur during sleep. There may be an obvious precipitant or cue for the attack; however, if such a cue is invariably present with every attack, then an alternative anxiety diagnosis ought to be considered.⁴³ If the physician finds that he or she has to interpret a patient's symptoms as panic, then the patient probably did not have a panic attack, making a diagnosis of PD unlikely. *DSM-IV* diagnostic criteria differentiate between PD with and without agoraphobia.²

TREATMENT

When treating the patient with PD, the primary care physician is treating 2 conditions, panic attacks and anticipatory anxiety about future attacks. The major focus of treatment in the patient with PD is not the panic attacks per se but rather the patient's fear of having another panic attack—and this fear is more difficult to treat. The problem becomes even more debilitating if this fear eventually increases and the patient avoids leaving home altogether (agoraphobia).⁴⁴

Pharmacotherapy. PD is a chronic illness that

requires the patient continue taking medication for at least 1 year. However, continued improvement is possible with prolonged treatment.⁴⁵ The primary care physician should be cautious when decreasing the dose of medication and undertake very gradual reductions to avoid rebound and relapse.

The most effective initial pharmacotherapy for PD is a combination of benzodiazepines and antidepressants. Starting doses should be low, because patients with PD are highly sensitive to bodily changes and report feelings such as, “My heart skipped a beat; I’m going to have a heart attack,” or, “I feel dizzy so I must be about to have a stroke.” This is in fact a component of the disorder—hypervigilance and a heightened sensitivity to normal physiologic variations.

Antidepressants overall are more effective than benzodiazepines for treating panic attacks, anticipatory anxiety about future attacks, and agoraphobia. However, benzodiazepines have a more rapid onset of action than antidepressants; they can serve as a “bridge” treatment early in the course of therapy—before the antidepressant begins to act—and then be discontinued. Prior benzodiazepine treatment does not influence the patient's response to antidepressants.

Antidepressants that are successful in the treatment of PD include the following SSRIs: sertraline, paroxetine, fluvoxamine, citalopram, escitalopram, and fluoxetine (Table). Other antidepressant medications efficacious for PD are venlafaxine, nefazodone (the physician is cautioned to monitor for the side effect of hepatotoxicity), and the tricyclic antidepressants imipramine, nortriptyline, and clomipramine (Table).^{19,23,24,29,30,38}

Panic Disorder: Key Points

- Early intervention can be critical.
- Target panic attacks, anticipatory anxiety.
- Target agoraphobia, if present: Get the patient out of the house, focus attention on teaching the patient to correctly identify physiologic cues.
- Pharmacologic therapy: benzodiazepines and antidepressants
- Psychotherapy: cognitive-behavioral therapy

It is important to note that benzodiazepine therapy for PD requires a standing therapeutic regimen, not dosing as needed, to prevent panic attacks. The latter strategy is not only ineffectual but delaying taking medication until symptoms are noticeable may actually foster dependence.

Efficacious benzodiazepines include alprazolam or lorazepam. Clonazepam (0.5 mg twice daily) is also excellent for both acute treatment and maintenance. Buspirone has not been found effective in the treatment of PD.^{18,20,21,31,46}

Psychotherapy Psychotherapy for PD is a crucial component and may contribute to the patient's

Table. Medications for Anxiety Disorders

Medication	Dose	Uses FDA-Approved Indication(s) [Unapproved use]	Side Effects	Monitoring
Benzodiazepines ^{25,17 *}		GAD*	Sedation, cognitive impairment, habituation	None necessary
Alprazolam ¹⁸	0.5 mg tid	GAD*		
Clonazepam ^{19,21}	0.5 mg bid	GAD* [OCD]		
Lorazepam	1 mg tid	GAD*		
SSRI Antidepressants ²²			Headache, nausea, diarrhea, sexual dysfunction, insomnia, weight gain, irritability	None necessary
Citalopram ^{23,24 *}	20-60 mg qd	[PD, GAD, SAD, OCD]		
Escitalopram	10-20 mg qd	[PD, GAD, SAD, OCD]		
Fluoxetine ²⁵	10-60 mg qd	OCD, PD [GAD, SAD]		
Fluvoxamine ²⁶	150 mg qd	OCD [PD, GAD, SAD]		
Paroxetine ^{27,28}	20-40 mg qd	PD, GAD, SAD, OCD		
Sertraline ^{19,29-33}	150-200 mg qd	PD, OCD [GAD, SAD]		
Other Antidepressants ³⁴				
Clomipramine ³⁵	50-250 mg qd	OCD	Dry mouth, constipation, weight gain, sedation, arrhythmia, fatal in overdose	Blood levels >200 ng/dL ECG pretreatment, then periodically for AV block
Nefazodone	400 mg qd	No approved uses [PD]	Sedation, weight gain, headache, dizziness, hepatic failure	Liver function tests periodically
Venlafaxine ³⁶⁻³⁸	75-225 mg qd	GAD [PD]	Similar to SSRIs, increased diastolic BP	Monitor BP pretreatment and periodically
Other agents				
Buspirone ³⁹	20-30 mg tid	GAD [Aggressive behavior in patients with dementia]	GI upset, headache, dizziness, dry mouth	None necessary
Gabapentin ⁴⁰	900-3600 mg qd	No approved uses [SAD]	Sedation, dizziness, GI upset, leukopenia (rare)	None necessary

*FDA approval for benzodiazepines predates the DSM-classified anxiety disorders.
 FDA = US Food & Drug Administration; GAD = generalized anxiety disorder; OCD = obsessive-compulsive disorder; PD = panic disorder; SAD = social anxiety disorder; SSRIs = selective serotonin reuptake inhibitors; BP = blood pressure; ECG = electrocardiogram; AV = atrioventricular; GI = gastrointestinal; DSM = Diagnostic and Statistical Manual.

achieving sustained remission; in fact, the efficacy of psychotherapy for PD rivals that of medications. During CBT, the best-studied psychotherapy for controlling panic attacks, patients are taught to tolerate the bodily sensations they experience.⁴⁷

Early intervention after the patient reports having his or her first panic attack can be critical. One study of the efficacy of a single-session prevention program for PD was conducted at University of California, Los Angeles, Student Health Services. Individuals who had reported having a single panic attack but had not yet been diagnosed with PD were randomized either to be treated in a 5-hour workshop or to be put on a waiting list. At the 6-month follow-up visit, only 1.8% of workshop participants had developed PD, compared to 13.6% of the wait-list control group.⁴⁸

Other efficacious treatments include in vivo exposure homework exercises to be completed by the patient. The primary care provider should encourage the patient to undertake various activities (eg, to get the patient out of the house, suggest attempting feared activities in a gradual and safe manner, and doing exercises to practice measured breathing), read self-help guides, and attend support groups.

SOCIAL ANXIETY DISORDER

DIAGNOSIS

Diagnosing SAD can be difficult, especially when the patient reports both panic attacks and social avoidance. While panic attacks can be symptomatic of SAD, a key distinction is the following: if the patient's only social fear involves having a panic attack, the diagnosis is probably PD, not SAD. A patient with SAD avoids social situations for fear of numerous types of humiliation and does not experience panic attacks when alone. However, for the patient with PD, panic attacks are not limited to social situations; they can occur when the patient is alone.³

TREATMENT

A combination of medication and psychotherapy is particularly appropriate for treating SAD. Because SAD is an interpersonal condition, medications alone are unlikely to be sufficient. It is best to maintain treatment for at least 1 year and to focus on the same symptoms targeted in PD: anticipatory anxiety, panic attacks, and chronic social avoidance. This last symptom of social avoidance can be the most entrenched and difficult aspect of the disorder. Studies by Kagan et al and others have shown, however, that the type of anxiety associated with SAD is temperamental, most likely heritable,

and manifest in very young children.^{49,50} Unfortunately, there are limited data on the feasibility of early-life intervention for SAD, a disorder for which the patient may benefit from early diagnosis and treatment.

Pharmacotherapy. Recommended medications include benzodiazepines, SSRIs, monoamine oxidase inhibitors (MAOIs), and beta blockers (Table). SSRI antidepressants are very effective for treating SAD. Paroxetine is the SSRI for which the most data are available.²⁸ Other SSRI options include sertraline, which was the subject of a recent Canadian study yielding positive results; fluvoxamine; fluoxetine; and bupropion, for which there has been 1 small open-label study with positive results.^{32,33,51} Clonazepam is one of the most effective treatments. Phenelzine, while not a first-line treatment, has also been shown to be highly effective. Reversible inhibitors of monoamine oxidase, such as moclobemide, are not available in the United States but are commonly used in other countries. They may be useful in the treatment of SAD, particularly because they do not require dietary changes or cause hypertension.⁵²

Beta blockers may play a role in treating performance anxiety, but have been shown to be no better than placebo in treating generalized SAD. For artists, musicians, public speakers, and others subject to performance anxiety, beta blockers such as propranolol and atenolol are effective, especially when taken as needed. Additionally, gabapentin, a very widely prescribed medication for epilepsy, has been shown in a double-blind study to be effective for SAD.⁴⁰

Psychotherapy. Psychotherapy is essential in treating the patient with SAD. Social effectiveness training combines CBT and social exposure and has been shown to be extremely effective. Because individuals with SAD need to learn how to function in the presence of others, cognitive-behavioral group therapy is a preferred modality; the success rates are extraordinary. Other useful techniques include role-playing,

Social Anxiety Disorder (SAD) Treatment Approaches

- An interpersonal condition, SAD is unlikely to respond to medications alone.
- Pharmacologic therapy: benzodiazepines and antidepressants (MAOIs, SSRIs, RIMAs), beta blockers for performance anxiety
- Psychotherapy: social effectiveness training combines CBT and social exposure; cognitive-behavioral group therapy for social interaction; also role playing, membership in organizations, and exposure to social situations

MAOIs = monoamine oxidase inhibitors; SSRIs = selective serotonin reuptake inhibitors; RIMAs = reversible inhibitors of monoamine oxidase; CBT = cognitive-behavioral therapy.

membership in organizations such as Toastmasters International, and homework assignments that include exposure to social situations.⁵³

OBSESSIVE-COMPULSIVE DISORDER

DIAGNOSIS

Diagnosing OCD can be relatively straightforward, requiring that the physician determine whether a patient engages in ritualistic behavior. The primary care physician should keep in mind that OCD can be extremely difficult to treat. Like alcoholism or bulimia, OCD often goes unrecognized unless the patient brings it to the doctor's attention. Unfortunately, people with these conditions tend to be too embarrassed or ashamed to reveal them. A physician who suspects a patient has OCD should therefore encourage that individual to discuss the disorder openly.

TREATMENT

OCD is, in effect, a patient's "home-grown" anxiety remedy; the patient engages in ritualistic behavior designed to alleviate anxiety. Treatment goals for the patient with OCD include eliminating anticipatory anxiety and intrusive thoughts, and decreasing the time spent on rituals and obsessions. To counter OCD, the primary care physician should encourage active exposure to and patient participation in educational, self-help, and Internet-based activities (eg, online bulletin boards, chat rooms). These can help decrease the patient's shame and serve as motivation to improve. The physician should also explain that rituals make the patient's life more, not less, difficult. When treating patients with OCD, the physician must be firm, directive, and confident in making recommendations—even to the point of being paternalistic. This is because patients with OCD tend to doubt all treatment options and have a disabling difficulty making decisions.⁵⁴⁻⁵⁶

Obsessive-Compulsive Disorder Treatment Approaches

- Encourage the patient to discuss the condition openly.
- Target anticipatory anxiety, intrusive thoughts, and time spent on rituals and obsessions.
- A directive approach is needed with patients.
- Pharmacologic therapy: benzodiazepines and antidepressants (high doses)
- Psychotherapy: encourage early consultation with psychiatrist; behavioral therapy is standard; patients are reluctant to participate; patients who do participate make outstanding progress
- Experimental approaches: intravenous clomipramine; neurosurgical treatments such as cingulotomy, deep brain stimulation, repetitive transcranial magnetic stimulation

Pharmacotherapy. Medication can help the patient with OCD. Although patients with anxiety disorders have a notoriously high placebo response rate (as high as 60% in some control groups), patients with OCD typically show a placebo response rate as low as 4% in some studies. In addition, patients with OCD tend to require the highest medication doses of all patients with anxiety disorders.⁵⁷

Antidepressants were the first medications shown to be effective for treating OCD (Table). This is distinctive, as all of the other anxiety disorders discussed here were historically treated with and responsive to benzodiazepines. Early on, the disorder was shown to respond well to the tricyclic clomipramine. This medication is still considered by many to be the gold standard in OCD treatment, although its effectiveness is supported by some, but not all, meta-analyses. In addition, intravenous clomipramine has been successfully used in research involving patients with refractory OCD.³⁵

SSRIs are efficacious, especially at high doses, (Table). Because of the risk of serotonin syndrome and the increased incidence of all side effects, the prescribing physician is advised to proceed cautiously with these medications at high doses.^{25,26}

For refractory cases of OCD, it is advisable to augment antidepressant therapy with benzodiazepine such as clonazepam, an atypical antipsychotic such as risperidone, MAOI antidepressants, or tramadol. Data supporting these augmentation strategies are limited; however, most evidence currently supports the use of adjunctive benzodiazepines and atypical antipsychotics.⁵⁸ Recently, researchers have adopted experimental approaches to treating OCD, especially for patients who are extremely ill. These approaches include neurosurgical treatment such as cingulotomy, deep brain stimulation, and repetitive transcranial magnetic stimulation, the latter proving not useful in a recent study.^{59,60}

Psychotherapy. Of all the anxiety disorders, OCD is the one for which the primary care physician is most strongly urged to consult a psychiatrist early in the course of treatment. Even with aggressive pharmacotherapy, the remission rate for patients with OCD is low. Thus, as with other anxiety disorders, psychotherapy used in combination with medication is vital for treating patients with OCD.

Behavioral psychotherapy is the standard treatment for OCD and is more effective than any medication, although it tends to terrify most

Glossary

Agoraphobia – anxiety about, or avoidance of, places or situations from which escape might be difficult or embarrassing or in which help may not be available in the event of a panic attack or panic-like symptoms

Anxiety – apprehensive anticipation of future danger (internal or external) or misfortune, accompanied by a feeling of dysphoria or somatic symptoms of tension

Compulsions – repetitive behaviors (eg, as hand washing, ordering, checking) or mental acts (eg, praying, counting, repeating words silently) that one feels driven to perform in response to an obsession or according to rules that must be applied rigidly. The behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive.

Generalized anxiety disorder (GAD) – a disorder characterized by 6 or more months of persistent and excessive anxiety and worry

Obsessive-compulsive disorder (OCD) – a disorder characterized by obsessions (see definition below), which cause marked anxiety or distress, and/or compulsions (see definition above), which serve to neutralize anxiety

Obsessions – recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress. The thoughts, impulses, or images are not simply excessive worries about real-life problems. The person attempts to ignore or suppress such thoughts, impulses, or images or to neutralize them with some other thought or action. The person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion).

Panic attack – a discrete period of sudden onset of intense apprehension, fearfulness, or terror, often associated with feelings of impending doom. Symptoms may include shortness of breath, palpitations, chest pain or discomfort, choking or smothering sensations, and fear of “going crazy” or losing control.

Panic disorder (PD) with agoraphobia – a disorder characterized by recurrent unexpected panic attacks and agoraphobia and by persistent concern about both

Panic disorder (PD) without agoraphobia – a disorder characterized by recurrent unexpected panic attacks about which there is persistent concern

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patients, who are extremely reluctant to undertake and continue it. Those who do, however, make dramatic progress; some studies suggest that up to 90% of patients with OCD benefit from behavioral psychotherapy, with up to 70% experiencing a reduction in symptoms.⁶¹

CONCLUSION

Anxiety disorders are common, complex, and yet responsive to a wide range of treatments. Therefore, thoughtful management of anxiety disorders can help improve health outcomes and healthcare utilization. Research into anxiety disorders continues, accompanied by a burgeoning literature on neuroimaging (using functional magnetic resonance imaging and positron emission tomography scanning) and on new transgenic mouse models of anxiety states. In addition, new research is focusing on the genetics and pharmacogenomics of these complex illnesses.

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