# The History, Epidemiology, and Differential Diagnosis of Social Anxiety Disorder

## Christine Yu Moutier, M.D., and Murray B. Stein, M.D.

Social anxiety disorder has only recently garnered recognition as a unique anxiety disorder. Although social anxiety disorder is distinguishable from other psychiatric disorders, there are several areas in which this distinction is not straightforward. Furthermore, social anxiety disorder is associated with considerable comorbidity with other disorders, which may render differential diagnosis a challenging endeavor. This article will review those disorders that must be differentiated from social anxiety disorder, including major depression, panic disorder with agoraphobia, generalized anxiety disorder, obsessive-compulsive disorder, and body dysmorphic disorder. In addition, the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) provides specific examples of disorders, e.g., verbal dysfluency (stuttering) and Parkinson's disease, in the context of which social anxiety disorder is not to be diagnosed. Social anxiety disorder is also frequently comorbid with the Axis II avoidant personality disorder. Interestingly, this may present a prime example of "comorbidity by committee," because it is growing increasingly clear that much avoidant personality disorder as defined by DSM-IV merely denotes a subgroup of patients with generalized social anxiety disorder. Because social anxiety disorder has a chronic course and is associated with significant morbidity, it is critical that patients receive an accurate diagnosis and appropriate treatment.

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elative to the history of psychiatry, social anxiety disorder has only recently emerged as a diagnostic entity. The diagnostic criteria for social phobia, now also known as social anxiety disorder, had their beginnings in the first 2 editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), in which all phobias were grouped together and seen as the products of repressed instinctual urges.<sup>1-3</sup> Social phobia, as a distinct entity, was first recognized in the DSM-III<sup>4</sup> and, at that time, biological as well as psychological features and underpinnings were explored. The central feature for the diagnosis of social phobia was excessive fear of observation or scrutiny in discrete performance situations, such as public speaking, writing, or using a urinal in front of other people. Initially, individuals with a more generalized avoidance of social situations were given the diagnosis of

Reprint requests to: Murray B. Stein, M.D., Anxiety and Traumatic Stress Disorders Research Program, University of California, San Diego, 8950 Villa La Jolla Drive, Suite 2243, La Jolla, CA 92037 (e-mail: mstein@ucsd.edu). avoidant personality disorder and actually were excluded from the diagnosis of social phobia. However, it soon was observed that many individuals with social anxiety disorder suffered from anxiety in a wide variety of social situations. Therefore, DSM-III-R introduced the new generalized subtype of social phobia and deleted the exclusion criteria for avoidant personality disorder.<sup>5</sup>

## CLINICAL CHARACTERISTICS OF SOCIAL ANXIETY DISORDER

Specific characteristics outlined in DSM-IV make the diagnosis of social anxiety disorder clearer.<sup>6</sup> However, it is notable that patients often are not willing to discuss symptoms with clinicians and rarely initially seek care from a mental health practitioner.<sup>7</sup> In many settings, social anxiety disorder is not diagnosed. Consequently, social anxiety disorder has been labeled by some authorities as the "neglected anxiety disorder."<sup>8</sup>

#### **Diagnostic Features**

The diagnosis of social anxiety disorder, in its present form, is characterized by excessive fear of scrutiny by others, which may lead to anxiety symptoms such as tremulousness, blushing, palpitations, and diaphoresis. The resultant loss of functioning or marked distress caused by the disorder is a key feature essential to the diagnosis.<sup>6</sup>

From the Anxiety and Traumatic Stress Disorders Research Program, University of California, San Diego, La Jolla.

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Table 1. Social Anxiety Disorder Subtypes	
Generalized	Nongeneralized
Anxious in "most" situations	Anxious in 1 or 2 social situations
Performance	(usually performance-related)
Interactional	Public speaking
Overlaps with avoidant	Other performance
personality disorder in	Writing in front of others
70% to 80% of patients	Eating in front of others

Social anxiety disorder may be viewed as having 2 distinct subtypes, generalized and nongeneralized (Table 1). Generalized social anxiety disorder is the more prevalent subtype, and these patients are anxious in many different social situations. Not surprisingly, patients with the generalized subtype suffer from significantly increased impairment and comorbidity compared with patients who have the nongeneralized subtype.<sup>9</sup> Patients with nongeneralized social anxiety disorder usually are fearful of a specific social situation, such as speaking in public or writing while being observed, and these patients may be less likely to seek treatment.

The degree of morbidity, the all-encompassing nature of the generalized subtype, the physical symptoms, and the typically unremitting course of the illness often are impressive. However, as impressive as these aspects may be, they often are missed, because the patient with social anxiety disorder typically does not spontaneously volunteer details regarding symptoms. Thus, clinicians must be aware of the diagnostic criteria for social anxiety disorder and ask patients specific questions to elicit a complete history.

#### Prevalence and Epidemiology

The overall lifetime prevalence rate of social anxiety disorder, as reported by the National Comorbidity Survey (NCS), is 13.3%.<sup>10</sup> This remarkably high figure was anticipated by other studies and makes social anxiety disorder one of the most prevalent mental disorders in the United States, only surpassed by major depressive episodes and alcohol-related disorders.<sup>11,12</sup> It seems surprising that a disorder with one of the highest lifetime prevalence rates would remain, until recently, largely underrecognized by most clinicians and researchers.

In an analysis by Schneier and associates<sup>7</sup> of the Epidemiologic Catchment Area (ECA) study, certain sociodemographic characteristics were noted regarding patients with social anxiety disorder. In general, social anxiety disorder was found more commonly in individuals who were female, young, unmarried, poorly educated, and of low socioeconomic status. The female-to-male ratio for social anxiety disorder is in the range of 3 to 2.<sup>7,10,11,13</sup> The mean age at onset typically is between 13 and 20 years, and onset after the age of 25 years is rare.<sup>7,13</sup>

Results from the ECA study suggest that patients with social anxiety disorder tend to be less well educated and have a lower income level than those without the disorder. In fact, more than half of persons with social anxiety disorder did not complete high school, more than 70% were in the lowest 2 quartiles in terms of socioeconomic status, and 22% received welfare.7 Among persons with social anxiety disorder, the subgroup with generalized social anxiety disorder tends to have less education and is less likely to be employed than those with public-speaking fears or nongeneralized social anxiety disorder.<sup>14</sup> Epidemiologic findings suggest that persons with social anxiety disorder are less likely to be married compared with control subjects without social anxiety disorder and persons with agoraphobia or simple phobia.<sup>7,13,15,16</sup> In an analysis of the NCS data, Magee and colleagues17 showed a higher degree of perceived impairment for patients with social anxiety disorder compared with patients with other anxiety disorders.

#### **Course and Comorbidity**

The clinical course of social anxiety disorder is that of a chronic, unremitting, lifelong disease with onset prior to adolescence in more than half of patients. Various clinical and epidemiologic studies have reported a mean duration of illness of 20 years.<sup>13,15,18</sup> The predictive value of adolescent social anxiety disorder continuing to adulthood was confirmed in a recent study.<sup>19</sup> Thus, early diagnosis and treatment of social anxiety disorder are critical and may prevent the development of comorbid disorders later in life.

Throughout the life course of patients with social anxiety disorder, there is a high degree of comorbidity with other psychiatric disorders, and the incidence of comorbidity is higher in patients with the generalized subtype.<sup>9</sup> Approximately one third of patients with social anxiety disorder develop comorbid mental disorders or significant substance abuse.7 In most cases, social anxiety disorder precedes the onset of other psychiatric disorders. Findings from the NCS study show a strong association between a variety of comorbid disorders and social anxiety disorder.<sup>10</sup> The odds ratio for lifetime major depressive disorder and dysthymic disorder is 4, i.e., patients with social anxiety disorder are 4 times more likely to develop depression compared with persons without the disorder. The odds ratio for lifetime panic disorder and generalized social anxiety disorder is approximately 9. In a separate study by Lecrubier and Weiller,<sup>20</sup> the highest association for comorbidity was with agoraphobia, with a lifetime odds ratio of 10.4 for patients with social anxiety disorder. For patients with social anxiety disorder, lifetime comorbidity rates are greater than 10% for simple phobia, agoraphobia, major depressive disorder, obsessive-compulsive disorder, alcohol abuse, and drug abuse.7,9,21

Schuckit and colleagues<sup>22</sup> also found an association between alcohol dependence and social anxiety disorder. The lifetime rate of social anxiety disorder in alcoholics is twice that of nonalcoholic controls. Social anxiety disorder preceded the onset of comorbid mental disorders 77% of the time and alcohol abuse 85% of the time.<sup>7</sup> The prognosis of social anxiety disorder is affected greatly by the presence of comorbid illnesses. Social anxiety disorder in its pure form without comorbidity is associated with a lifetime suicide attempt rate of 1.0%, whereas patients with social anxiety disorder comorbid with other psychiatric disorders have a suicide rate of 15.7%.<sup>7</sup>

## DIFFERENTIAL DIAGNOSIS OF SOCIAL ANXIETY DISORDER

When diagnosing, it is important to differentiate between social anxiety disorder and major depression with social withdrawal, panic disorder with social avoidance, agoraphobia, body dysmorphic disorder, and obsessivecompulsive disorder (Table 2). Social anxiety disorder also may be prevalent in patients with certain medical conditions including Parkinson's disease, benign essential tremor, stuttering, obesity, burns, or other disfiguring or socially stigmatizing conditions. Although comorbid conditions may complicate the diagnosis of social anxiety disorder, a careful medical history often will demonstrate the early onset of social anxiety disorder.

#### **Major Depression With Social Withdrawal**

Social isolation and withdrawal certainly can occur within the context of a major depressive episode and, from a superficial view, may resemble the avoidance behavior associated with social anxiety disorder. As in the investigation of any diagnosis, a careful, thorough clinical interview will help clinicians differentiate between social withdrawal associated with depression and discrete social anxiety disorder. Although patients with depression may avoid social interactions, this avoidance usually is not associated with the fear that others are observing their actions in public. When major depression and social anxiety disorder coexist, as is often the case, a chronological history usually will reveal that the onset of social anxiety disorder symptoms predates the onset of depressive episodes.

#### Panic Disorder With Agoraphobia

Agoraphobia can mimic social anxiety disorder because avoidance of certain social situations is observed in both disorders. It is important to investigate the underlying fear behind the avoidance and whether the patient has significant anxiety when alone. For patients with agoraphobia, avoidance is most often associated with fear of having a panic attack or fear of losing control in situations where easy escape may be difficult or impossible. In contrast, patients with social anxiety disorder exhibit the core essential feature of fear of scrutiny and humiliation in many social situations but are not anxious when alone.

#### Table 2. Differential Diagnosis of Social Anxiety Disorder

Major depression with social withdrawal Panic disorder with social avoidance Agoraphobia Generalized anxiety disorder Obsessive-compulsive disorder Body dysmorphic disorder Avoidant personality disorder Concomitant medical conditions

However, social anxiety disorder and panic disorder can coexist; in such cases, a history of social anxiety disorder, preceding by several years the onset of spontaneous panic attacks, is usually found.

There are some group differences that may help to clarify the diagnoses between social anxiety disorder and panic disorder with agoraphobia. The mean age at onset for social anxiety disorder is earlier (mid-teens) compared with panic disorder with agoraphobia (mid-20s).<sup>23</sup> Blushing and muscle twitching are associated more commonly with social anxiety disorder, whereas difficulty breathing, dizziness, palpitations, chest pains, blurry vision, headaches, and tinnitus are seen more frequently in patients with agoraphobia.<sup>24</sup> Patients with social anxiety disorder rarely fear that they will die during an anxiety episode and have lower rates of emergency room visits and use of other medical services compared with patients with panic disorder.<sup>25</sup> Unlike patients with panic disorder, who experience panic attacks spontaneously and may be awakened from sleep during the night in approximately one third of cases, patients with social anxiety disorder rarely have uncued or nocturnal anxiety attacks.<sup>26</sup>

## **Generalized Anxiety Disorder**

The distinction between social anxiety disorder and generalized anxiety disorder can be subtle when anxiety about social situations predominates. To make a separate diagnosis of generalized anxiety disorder, concerns about multiple issues unrelated to social situations, e.g., illness or finances, must be clearly in evidence. Again, the 2 disorders can certainly coexist, but it is important to question patients carefully about the concerns underlying social avoidance, feeling keyed up, and the correlating physical symptoms of anxiety. For example, if anxiety about work or school performance is specifically driven by fear of humiliation or scrutiny by others, the diagnosis of social anxiety disorder would be more probable. However, if fears and worries are all-encompassing and not confined to just the fear of being embarrassed in public, the diagnosis most likely would be generalized anxiety disorder.

There is some research to suggest that certain symptoms are more characteristic of one disorder than of the other. In patients with generalized anxiety disorder, insomnia, headaches, and fear of dying occurred at higher rates than those observed in patients with social anxiety disorder.<sup>24,27</sup> In contrast, sweating, flushing, and dyspnea were more characteristic of social anxiety disorder.<sup>28</sup>

#### **Obsessive-Compulsive Disorder**

Differences in symptomatology between obsessivecompulsive disorder and social anxiety disorder are great enough that the distinction usually is straightforward. However, if the clinician does not ask about complex or embarrassing rituals, it would be possible to mistake obsessive-compulsive disorder for social anxiety disorder. Avoidance of social situations on the basis of embarrassment associated with compulsive rituals is the domain of obsessive-compulsive disorder. However, avoidance based solely on excessive fear of humiliation that is not associated with ritualistic or compulsive behavior is the realm of social anxiety disorder.

#### **Body Dysmorphic Disorder**

As with the differentiation between social anxiety disorder and obsessive-compulsive disorder, the clinical boundary between social anxiety disorder and body dysmorphic disorder would seem overt, but clinical presentation actually is more subtle. The key is thorough investigation of the underlying cause of the avoidance and discomfort in social situations. In body dysmorphic disorder, the defining feature is an imagined defect in appearance that drives the social avoidance.

#### **Avoidant Personality Disorder**

The overlap between social anxiety disorder, particularly the generalized subtype, and avoidant personality disorder is significant and has been the subject of much controversy. Most patients with avoidant personality disorder meet the criteria for social anxiety disorder, which is not surprising given the similarity in diagnostic criteria between the 2 disorders in both DSM-IV and DSM-III-R.5,6 Most researchers now believe that the 2 disorders exist along the same continuum, with the main difference being quantitative rather than qualitative. The Axis II diagnosis seems to signify a more severe illness. Patients with comorbid avoidant personality disorder and social anxiety disorder have more severe anxiety, increased functional impairment, and a higher incidence of comorbidity compared with patients with social anxiety disorder alone.<sup>29,30</sup> This finding was confirmed by Alpert and colleagues,<sup>31</sup> who noted that the coexistence of social anxiety disorder and avoidant personality disorder in depressed patients hailed significantly higher rates of atypical depression, earlier onset of depression, and greater number of other comorbid psychiatric diagnoses.

Social anxiety disorder shares certain features with Axis II diagnoses; onset is usually prior to adolescence, and symptoms tend to be chronic and pervasive. However, unlike traditional views that recommend treating Axis II disorders with intensive psychotherapy, patients with social anxiety disorder respond favorably to pharmacologic interventions, such as monoamine oxidase inhibitors and serotonergic antidepressants, as well as to cognitivebehavioral therapy.<sup>32–35</sup> Thus, when clinicians encounter patients with avoidant personality disorder, it may be advisable to consider applying the pharmacologic treatments that are known to be effective in the management of social anxiety disorder.

#### **Medical Conditions**

It is interesting that social anxiety disorder is one of the few diagnoses in DSM-IV that refers to comorbidity with specific medical conditions and then excludes the diagnosis of social anxiety disorder if fear is mainly focused on symptoms associated with the medical condition.<sup>6</sup> For example, there is a strong association between social anxiety disorder and Parkinson's disease.<sup>36</sup> However, DSM-IV specifically excludes the diagnosis of social anxiety disorder if the fear is primarily related to the exhibition of parkinsonian symptoms, such as trembling, in public situations. Similarly, diagnostic criteria exclude the diagnosis of social anxiety disorder in patients who stutter.37 This is an unfortunate element of the DSM-IV diagnostic criteria for social anxiety disorder that hopefully will be remedied in future editions. By excluding the diagnosis of social anxiety disorder comorbid with these medical conditions, clinicians may inadvertently be discouraged from recognizing and treating severe social anxiety in some patients. Although patients who stutter or tremble because of underlying conditions are excluded from the diagnosis of social anxiety disorder, clinicians should aggressively treat social anxiety in patients whenever it is apparent that the anxiety contributes to distress or impairment.

## Children

Social anxiety disorder certainly may be diagnosed in children, and DSM-IV actually encourages this consideration.<sup>6</sup> There are 2 important criteria to keep in mind when diagnosing children. To prevent the misdiagnosis of social anxiety disorder in an autistic or otherwise developmentally delayed child, the child must show capacity for age-appropriate relationships. Second, anxiety must occur in peer settings, not just with adults.

One specific form of social anxiety disorder that occurs in children is selective mutism. Selective mutism is the consistent failure to speak in specific social situations despite speaking in others. Studies show that this disorder is probably a form of social anxiety disorder, and nearly 100% of children with selective mutism also meet criteria for social anxiety disorder.<sup>38</sup> Additionally, 70% have a first-degree family member with a history of social anxiety disorder.<sup>39</sup> There also are some interesting pilot data that suggest that many children with selective mutism respond to the same treatments used to manage social anxiety disorder in adult patients, e.g., selective serotonin reuptake inhibitors.<sup>38</sup>

#### CONCLUSION

Social anxiety disorder is a mental disorder with one of the highest lifetime prevalence rates. Serious morbidity and the high incidence of comorbidity with other disorders make social anxiety disorder an important area for additional clinical and research attention. Social anxiety disorder occurs more frequently in females, unmarried individuals, and persons with lower education and socioeconomic status. It has an early onset and is associated with a chronic, unremitting course, particularly for patients with the generalized subtype. The high degree of comorbidity with other illnesses such as depression, other anxiety disorders, substance abuse, and certain medical conditions makes differential diagnosis an important consideration.

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