

# Social Phobia: Prevalence and Diagnostic Threshold

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This article reviews the literature on the prevalence and demographic features of social phobia in both community and general medical settings. The age at onset of social phobia is examined, as are comorbid conditions. Important differences between social phobia as it appears in the community and in primary care settings are explored. We conclude that social phobia is common and associated with significant impairment in a number of life areas. We discuss the diagnostic threshold of social phobia and potential difficulties in differentiating this disorder from other mental disorders.

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Social fears are extremely pervasive. Not only do a majority of people express discomfort with at least one type of social situation, but a majority believe that they are more nervous than other people.<sup>1</sup> For some individuals, however, this common area of concern crosses a threshold. In these cases, the social anxiety becomes distressing and disabling, warranting a diagnosis of social phobia. In this article, we review the available literature on the prevalence of social phobia both in the community and in the general medical setting. We go on to discuss common correlates of social phobia and explore the diagnostic threshold and differential diagnosis of the condition.

## PREVALENCE IN THE COMMUNITY

Social phobia is a relatively common disorder, although prevalence estimates vary significantly. In a recent review by Furmark and colleagues,<sup>2</sup> estimates of lifetime prevalence ranged from 0.5% to 16.0%. This variability may be due to a number of factors. The DSM-III-R and DSM-IV criteria for social phobia specify that fear must lead to “interference or marked distress,” which is a broader standard than the DSM-III requirement of “significant distress.”<sup>2</sup> Therefore, older studies that used DSM-III criteria for diagnosis of social phobia tend to have lower estimates than

more recent studies. Stein et al.<sup>1</sup> demonstrated the effect of altering the diagnostic threshold on prevalence. When they considered patients with “moderate interference or distress” to be diagnosable, the prevalence was 18.7%. The number dropped to 7.1% when the criterion was changed to “marked interference or distress” and to 1.9% when only “marked interference” was considered. Another change between DSM-III and the later versions is that the later versions allow social phobia and avoidant personality disorder to be diagnosed simultaneously.<sup>2</sup> This, too, broadens the group that may be diagnosed with social phobia.

Prevalence estimates may also differ because of methodological differences between studies. Higher estimates generally result from assessment instruments that inquire about a greater variety of social situations and include fears, such as that of public speaking, that have relatively high prevalence as opposed to those, such as eating in public, that are less common.<sup>3,4</sup> For example, the recent study by Furmark et al.<sup>2</sup> included 14 potentially fear-provoking situations (and DSM-IV criteria) and yielded an overall point prevalence of 15.6%. The National Comorbidity Survey (NCS),<sup>3</sup> on the other hand, included 6 situations (and analogous DSM-III-R criteria) and yielded an overall 30-day prevalence of 4.5%. Differences in estimates also depend on the time period under consideration (e.g., lifetime, 6 months, 1 month). Longer periods cast a broader net. In the NCS data, the estimate for lifetime prevalence was 13.3%,<sup>3</sup> almost 9 points higher than the 30-day estimate. In addition, reported rates can differ depending on the method used to identify cases (e.g., diagnostic interview, telephone survey, self-report questionnaire). Each method has its limitations, including self-report bias, clinician bias, and response style.

## Types of Social Phobia

There are 2 types of social phobia: generalized and specific (also called discrete or nongeneralized). The generalized subtype includes cases in which fear and avoidance

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extend to a wide range of social situations; the specific type involves fear of only one or a few situations. Some authors suggest that accuracy of diagnosis could be improved if 3 types of social phobia were designated: fear of public-speaking situations alone, fear of public speaking plus 1 or 2 additional situations, and fear of multiple social situations.<sup>5</sup> The fear of speaking in front of large groups is by far the most prevalent of social fears. According to results of community surveys, 31% to 34% of respondents described themselves as "much more nervous (uncomfortable) than other people," and an additional 23% to 24% described themselves as "somewhat more nervous than other people."<sup>1,4</sup> Stein et al.<sup>4</sup> found that nearly half (47%) of their sample of people with social phobia met criteria solely in relation to speaking in front of groups (either large or small). Other commonly feared situations include being addressed before a group of people, talking with strangers, interacting with authority figures, and eating or writing in front of others.<sup>1,2</sup> Another community sample found that more than 1 situation was feared by 68.6% of people, with a substantial proportion (39.7%) fearing more than 2 situations. More than 3 situations were feared by 18.3% of the sample, and more than 4 by 8.7%.<sup>1</sup>

Generalized social phobia has been shown to differ from more circumscribed fears in a number of ways. It has been associated with more functional disability, more comorbidity, less reported income, less educational attainment, greater persistence, greater family history of anxiety, and increased likelihood of presenting for treatment.<sup>5,6</sup> Heimberg et al.<sup>7</sup> compared groups with phobias that either were generalized or involved public speaking alone. In their sample, those with generalized fears were judged by clinicians to be more severely impaired and self-reported more overall anxiety, depression, avoidance, and distress. These individuals were also asked to engage in behavioral tasks crafted to simulate situations that were fear provoking for them. Those with the generalized disorder were judged as performing more poorly on these tasks and appearing more anxious while doing so. One interesting aspect of this study is the finding that fears about poor performance are not wholly distorted. In fact, fear of negative evaluation, fear of poor performance, and fear of observable anxiety are mutually reinforcing. Further work in this area would be helpful to better understand the relationship between social skills and anxiety.

### Age at Onset

Social phobia tends to have its onset during adolescence, with a number of studies showing average age at onset between 15 and 18 years.<sup>3,8,9</sup> Many studies report onset very early in life. In the Epidemiologic Catchment Area (ECA) data,<sup>9</sup> the modal responses were between 0 and 5 years and at age 13 years. A recent Canadian study of people with public-speaking fears showed that 50% had onset by age 13 years, 75% by age 17, and 90% by age 19.<sup>4</sup> Fur-

ther, onset after 25 years of age is uncommon.<sup>9</sup> Social phobia tends to be a chronic disorder, with a mean duration of approximately 20 years.<sup>8,10</sup> Good prognostic indicators include higher level of education, later age at onset (after 11 years), and lack of comorbid diagnoses.<sup>11</sup>

### Comorbidity of Social Phobia

Social phobia is very likely to occur with other disorders. In cases where there is more than one disorder, social phobia usually appears first.<sup>3,9</sup> This finding may simply be a reflection of the relatively early age at onset of social phobia. Alternatively, other disorders may develop in response to the distress and impairment caused by social phobia (e.g., becoming depressed as a result of social isolation, using alcohol in an attempt to cope with feared situations). Social phobia may also be one manifestation of several shared predisposing factors.<sup>9</sup> In the NCS,<sup>3</sup> 81.0% of people with social phobia reported at least one other lifetime psychiatric diagnosis, 18.9% of whom had just one other diagnosis, 14.1% reported 2 others, and 48.0% reported 3 others. On the basis of recent findings, the most common comorbid conditions are affective disorders (41.4%), other anxiety disorders (56.9%), and substance abuse disorders (39.6%).<sup>3</sup> Social phobia has also been associated with increased suicidal ideation, even after controlling for demographic factors and comorbid diagnoses.<sup>9,11</sup> Although suicide attempts are more common among those with social phobia, this association may be a function of comorbid diagnoses.<sup>11</sup>

In addition to psychiatric comorbidity, social phobia appears to be associated with increased nonpsychiatric medical difficulties as well. Some increased incidence of medical problems, specifically peptic ulcer disease, has been reported.<sup>11</sup> Those with social phobia are also more likely to rate their health as fair or poor and to make more frequent outpatient medical visits.<sup>11,12</sup>

### Demographics

A number of studies have shown gender differences in social phobia. On the basis of a recent review of the literature,<sup>2</sup> it appears that the male-to-female ratio for social phobia in community samples is approximately 1:1.5. This is in contrast to clinical samples from mental health treatment facilities, which include more men,<sup>5</sup> a fact that suggests that men may be more likely to view themselves as impaired by social phobia and seek help for symptoms. The overall greater prevalence of social phobia in women may, in fact, be less pronounced than that of other anxiety disorders. In the NCS, the male-to-female ratio for social phobia was 1:1.4, compared with 1:2.2 for agoraphobia and 1:2.3 for simple phobias.<sup>3</sup> The reasons for the observed gender differences are unclear and could reflect reporting biases, clinician biases, differences in role/social/situational demands, or gender differences in an underlying vulnerability to fear and anxiety.<sup>2,13</sup> However, none of

these possible reasons provides a satisfying or complete explanation. For example, reporting bias does not explain why the gender ratio differs among anxiety disorders,<sup>13</sup> and clinician biases cannot explain prevalence data from community studies and those based on self-reports. In addition, different role, social, and/or situational demands may have a number of effects on the likelihood of developing an anxiety disorder. For example, men may be encouraged to exhibit approach behavior, thereby diminishing their fears. Many such influences are possible and will require further research.

Other demographic characteristics have been consistently associated with social phobia. A number of studies have shown that social phobia is more prevalent in the young (those in late adolescence and early adulthood).<sup>1-3,9,14</sup> Social phobia is also associated with less educational attainment<sup>1-4,9</sup> and lower levels of current income.<sup>1,3,4</sup> Data from the Duke site of the ECA study suggest that school difficulties may begin early in this population. In comparison with people without social phobia, those with social phobia were more likely to report having repeated a grade and having had poor grades. In addition, they were more likely to have had early behavioral difficulties (e.g., truancy, fighting, lying, stealing, vandalism, running away).<sup>11</sup> Associations with other demographic features, such as occupational status, have been less consistently demonstrated. Although some studies have shown that people with social phobia are more likely to be unemployed,<sup>3,4</sup> others have found no association between social phobia and occupational status.<sup>2</sup> Marital status is another demographic factor that has been inconsistently related to social phobia. Some studies have found higher rates of social phobia among those who never married<sup>3</sup> or those not currently married,<sup>9</sup> but others have failed to find this difference.<sup>1,2</sup>

Many of the demographic characteristics of people with social phobia could be indicators of disorder-related impairment. For example, one could hypothesize that social fears lead to avoidance of and poor performance in school. This could result in less educational attainment, which, in turn, could have an impact on occupational status and available income. However, such conclusions cannot be justified on the basis of correlational data. As a result, researchers have relied on other ways to gauge the impact of the disorder. One approach is to ask people with social phobia to make such appraisals. Studies have found that those with social phobia identify social impairment and inadequate social support<sup>2,11,15,16</sup>; overall role impairment<sup>3</sup>; specific impairment in education, work, and other activities<sup>16</sup>; and interference in their efforts at self-improvement.<sup>15</sup> It is important to note that people with social phobia rated their illness as more intrusive than did patients with a number of medical conditions, including end-stage renal disease, laryngeal cancer, and rheumatoid arthritis.<sup>15</sup>

In summary, community studies have shown that social phobia is one of the most common mental disorders. It is

more often found in women and the young. This disorder tends to have an early onset and affect a substantial portion of the individual's life.

## PREVALENCE IN PRIMARY CARE

Primary care settings have increasingly been viewed as important in the diagnosis and treatment of mental disorders. The majority of mental health care in the United States is delivered in general medical settings,<sup>17</sup> and the majority of individuals who develop a mental disorder will consult a medical provider within 1 year of onset.<sup>18</sup> The prevalence of social phobia among patients in primary care settings ranges from 2.9% to 7.0%.<sup>19-21</sup> The characteristics of this group are very similar to those found in the community. Patients are predominantly female, have a mean age at onset of 15.1 years, and tend to be younger and less educated than other patients with anxiety disorders or than nonanxious, nondepressed controls.<sup>20,21</sup> As in community samples, social phobia in primary care patients commonly occurs with other disorders, most frequently major depressive disorder (33%–58.3%), generalized anxiety disorder (26.8%–30.6%), and substance abuse disorders (23.6%–25%).<sup>20,21</sup> There is also evidence for increased suicidal ideation among people with social phobia and a greater history of suicide attempts with co-occurring social phobia and depression.<sup>21</sup>

Studies conducted in primary care settings provide further evidence of the impairment associated with social phobia. A recent study in California<sup>20</sup> found that, compared with those without mental disorders, patients with social phobia more often missed or curtailed work days because of emotional problems. Patients with social phobia in this study also reported more functional impairment in relation to work, family/home, and social situations.<sup>20</sup> It has been shown in other studies<sup>12,21</sup> that patients with social phobia have a poorer view of their health and physical functioning than controls.

Research has shown that social phobia is fairly common in primary care, but that it goes largely undiagnosed and untreated, even when another mental disorder is recognized in the patient.<sup>21</sup> This phenomenon can be partially explained by the finding that people with social phobia without comorbid depression rarely present with psychological problems.<sup>21</sup> However, they do consult with their primary care providers about various complaints at higher rates than those without mental disorders. It is unclear whether this increased utilization of primary care is attributable to social phobia or is more reflective of comorbid depression.<sup>20</sup>

In summary, social phobia is strongly represented in primary care settings. Because going to the doctor is a social situation, it is possible that the subset of patients who present to primary care physicians are different from those in community samples. The existing research, however,

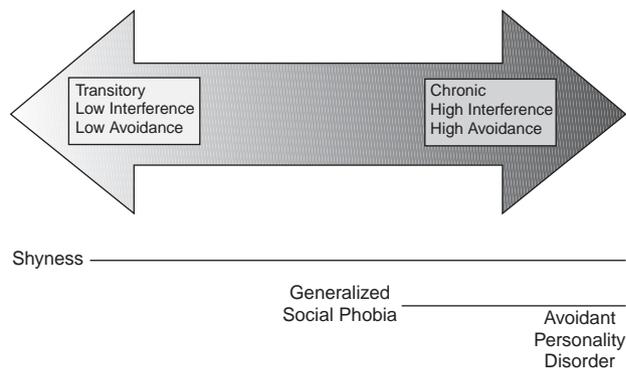
suggests that the 2 groups are very similar in terms of prevalence and associated features. Unfortunately, social phobia tends to go unrecognized by medical providers. Thus, it would be fruitful for future research to address optimal methods of detection and treatment in the primary care setting.

### DIAGNOSTIC THRESHOLD AND DIFFERENTIAL DIAGNOSIS

As has been discussed, prevalence estimates vary greatly depending on the diagnostic threshold of symptoms (e.g., distress and impairment) that are considered to be criteria for the disorder. This idea of a diagnostic threshold implies that the symptoms lie on a continuum. Some researchers think that social phobia represents the severe end of a continuum of shyness<sup>5,22</sup> (Figure 1). Although the relationship between shyness and social phobia has not been adequately researched, there are a number of similarities between the 2 constructs. Both are characterized by the manifestation of symptoms of physiologic arousal and fears of negative evaluation in response to various social situations.<sup>22</sup> Differentiation may be a matter of severity. For example, a shy person may feel nervous and uncertain about what will happen in a social encounter, whereas someone with social phobia may feel certain of a negative outcome.<sup>5</sup> In addition, shyness tends to be transitory and associated with little impairment or avoidance, whereas social phobia is more chronic and often associated with substantial impairment and avoidance.<sup>22</sup> At the far end of the continuum is avoidant personality disorder, which may be best conceptualized as chronic, severe generalized social phobia.<sup>5</sup>

Also as discussed, diagnostic criteria have changed over the years, and alteration of the diagnostic threshold has a significant impact on the reported prevalence of the disorder. This raises the question of where to draw an appropriate line. Davidson et al.<sup>23</sup> attempted to address this issue by comparing 3 groups of patients: those with subthreshold social phobia (with some but not all of the symptoms required for DSM-III diagnosis); nonanxious, non-psychiatrically ill controls; and patients with diagnosed social phobia. The subthreshold group was substantially similar to the diagnosed group. They were more impaired than controls on a number of indices, including past school performance/level of education, income, social support, self-confidence, health status, and health care utilization. The subthreshold group also reported a greater number of negative life events and greater use of prescription medications (most frequently tranquilizers) than did controls (not significantly different from the diagnosed group). However, despite these findings, those in the subthreshold group were less likely to endorse interference. The authors pointed out that there are a number of reasons why this may be so. People may be unaware of the impact

Figure 1. The Spectrum of Social Discomfort<sup>a</sup>



<sup>a</sup>Based on Stein<sup>5</sup> and Chavira and Stein.<sup>22</sup>

of their fear, they may have adapted to the fear, or they may be concerned about stigma. These data suggest that the more inclusive criteria for social phobia in the latest versions of the DSM are appropriate.

A number of other mental disorders may mimic one or more of the features of social phobia. Social phobia involves cognitive, behavioral, and physiologic components. Associated cognitions consist of negative evaluation of one's own performance and predictions of criticism by others. The most common behavioral manifestation of social phobia is avoidance of situations in which scrutiny would be possible. People with social phobia also exhibit symptoms of physiologic arousal, such as blushing, increased heart rate, "butterflies in the stomach," and trembling, when anticipating or encountering a feared situation.

Cognitive mimickers of social phobia include other anxiety and depressive disorders. Differentiating social phobia from other anxiety disorders is a matter of determining the focus of the patient's apprehension. People with agoraphobia, for example, may express considerable concern about the possibility of being embarrassed or negatively judged. In this case, however, the fear is centered on the onset of some physiologic symptom (e.g., a panic attack or diarrhea). They may imagine that if the symptom occurs, it will be humiliating or that their reaction will lead others to conclude that they are "crazy." In differentiating agoraphobia and social phobia, it is often useful to ask, "If I could guarantee that you wouldn't have that symptom, would you still be uncomfortable in social situations?" A negative answer is highly suggestive of agoraphobia.

Generalized anxiety disorder (GAD) is characterized by uncontrollable worry, which may include concerns about social interactions. GAD is the more likely diagnosis if worries about social situations are part of a pattern of worry about multiple life areas. In addition, a person with GAD will worry about a broad array of negative outcomes. For example, in anticipation of a dinner party, the

person may worry, "What if I say something stupid? What if I burn the meal? What if the candles fall over and the table catches on fire?" A person with social phobia, on the other hand, will focus more narrowly on evaluation by others (e.g., "What if I say something stupid and they all see what an idiot I am?").

Cognitions in individuals with depression or social phobia may be similar as well. Persons with either condition may view themselves as a social failure or feel that they never do or say the right thing. In the person with social phobia, however, these cognitions will be limited to social situations, whereas in a person with depression, the negative thoughts will be more global.

Many mental disorders share the behavioral symptom of avoidance of social interactions. Agoraphobia and depression, which have already been discussed, are examples. In addition, individuals with obsessive-compulsive disorder may avoid being around others for fear that their rituals will be observed. The presence of obsessions and/or compulsions, however, makes this disorder readily differentiable from social phobia. Posttraumatic stress disorder can also present with social withdrawal, although in this case the withdrawal is often due to a perceived lack of safety around others or an attempt to reduce stimuli that may lead to the reexperience of a trauma or the arousal of symptoms. Psychotic disorders may also lead to social avoidance, but these are fairly easily differentiable from social phobia by the departure from reality-based thinking. Body dysmorphic disorder can include social avoidance for fear that the perceived defect will be observed. Finally, medical conditions that result in disfigurement or that may be stigmatizing may lead to social avoidance.<sup>10</sup> In each of these cases, good differential diagnosis depends on understanding specifically what is being avoided and why.

Many clinicians are overly reliant on the presence of panic attacks in diagnosing anxiety disorders. Although panic attacks are the hallmark of panic disorder, they occur as part of other anxiety disorders, including social phobia. When an individual describes panic attacks, the clinician should attempt to understand the context in which they occur and the focus of apprehension. For the person with social phobia, panic attacks are likely to occur in performance situations or in situations in which there is perceived scrutiny by others. In someone with panic disorder, attacks may arise "out of the blue" or, in a person with a specific phobia, on encountering the feared object.

## CONCLUSION

In this article, we have reviewed the epidemiology and diagnostic threshold of social phobia and highlighted some areas in need of further research. Fears about social evaluation are a common part of the human experience, and the pathologic form of this anxiety is one of the most common

mental disorders. Social phobia has an onset early in life and persists for many years. The disorder broadly affects the individual's life. It appears that social anxiety contributes to early behavioral difficulties and decreased academic performance, possibly leading to associations in adulthood between social phobia and lower educational level and income. People with social phobia report poorer social support and may be less likely to marry. They tend to perceive their health as poor and present to medical providers more frequently than those without a mental disorder. Social phobia commonly occurs with other disorders. It is worthwhile for clinicians to query patients, in particular those with depressive or substance abuse disorders, about the presence of social fears and to query patients with social fears about depression and substance abuse disorders.

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## Question and Answer Session

**Question:** Your family study<sup>1</sup> presented some of the “cleanest” data separating out generalized social phobia. How would you reconcile these data with the idea that social phobia occurs on a continuum ranging from discrete to generalized?

**Dr. Stein:** Just as the presence of more social fears is associated with more functional disability, it may also denote more genetic loading for social phobia. Therefore, by selecting a generalized group versus a nongeneralized group, you have the highest genetic loading in the generalized group because most of the people in the generalized group have multiple social fears. Even if there were nice clean subtypes, the situation would still be complex. We know that social phobia, like most other psychiatric disorders, probably has risk conferred from multiple genes.

**Question:** In your survey, did you look at what other psychiatric disorders people had? The number of fears might have been related to comorbidity, and the degree of impairment could be related to comorbidities as opposed to more fears.

**Dr. Stein:** We have no data on comorbidity in our survey.<sup>2</sup> The survey looked only at social anxiety and social phobia, and we spent a lot of time identifying functional impairment. Thus, we asked people specifically about how social anxiety and fears interfered with, for example, getting a job done. We had a very narrow focus on social phobia but discovered little about performance disorders. Other community surveys have had a broader scope, gathering data on all disorders. We have “nailed it down” to a specific disorder. Such specificity allows one to do other

things, such as look at family histories; one can develop a testable hypothesis.

**Question:** When you asked about fears, did you request a “yes-no” answer?

**Dr. Stein:** No, we asked for a dimensional answer: “a lot,” “a little,” or “none.”

**Question:** When you look at a sample, some people who have subthreshold social phobia rate themselves as having a lot of impairment. What does that mean?

**Dr. Stein:** Perhaps such an apparent contradiction results from going through the interview. When you ask, “How does this interfere with your functioning?” or “Has this ever caused you extreme distress?” people say, “No.” They say that they don’t have social phobia. Then at the end of the interview we’ll say, “Okay, let’s take a look at how your social fears may or may not have affected you throughout your life. Have they ever caused you to drop out of school, or not take classes, or not go as far in school as you think you could?” Some people say, “Yes, they have, actually.” If the interviewer points out that the earlier answer about impairment or distress was negative, the respondent says, “I didn’t know that’s what you meant.” So maybe more detailed questions are the explanation for variable results among studies.

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