

When does shyness become a disorder?

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Social anxiety disorder is highly prevalent but often hidden. Early recognition and effective treatment could reduce the risk for additional psychiatric disorders and accompanying morbidities.

Social phobia was accorded official psychiatric diagnostic status in the United States less than 20 years ago, but has been described in the medical literature for centuries. Hippocrates described such a patient: “He dare not come in company for fear he should be misused, disgraced, overshoot himself in gestures or speeches or be sick; he thinks every man observes him.”¹

This observation was made more than 2,000 years ago. Yet social anxiety disorder (SAD) was left largely unstudied until the mid-1980s.² An estimated 20 million people in the U.S. suffer from this disorder.

What causes some people to break into a cold sweat at the thought of the most casual encounter with a checkout clerk, a coworker, or an acquaintance? Limited evidence points to underlying biological abnormalities in SAD, but there have been no conclusive findings.

Two main subtypes of SAD exist (*Box 1*). Roughly 25% of sufferers have discrete or nongeneralized SAD, that is, circumscribed social fears limited to one or two situations, such as speaking in public or performing before an audience. The remaining 75% suffer from generalized SAD, the more severe subtype in which all or nearly all interpersonal interactions are difficult.

Generalized SAD often begins early in life, with a mean onset at about age 15, but 35% of the time SAD occurs in individuals before age 10.³ This subtype appears

“The mind is a wonderful thing. It starts working the moment you are born, and never stops until you get up to speak in public.”

—Toastmasters slogan

Box 1

DIFFERENCES AMONG SOCIAL ANXIETY DISORDER SUBTYPES

Generalized

Most social interactions
Early onset
Social skills deficit
High comorbidity

- Depression
- Other anxiety disorders
- Alcoholism
- Suicide attempts

Lower achievement

- Education, income
- Unmarried

Remission rare

Nongeneralized

Limited fears
Later onset
Social skills normal
Less comorbidity
Less Impairment
Remits often



When does shyness become a disorder?

to run in families, while the nongeneralized subtype does not, suggesting that a genetic inheritance is possible. From an etiological perspective, the possible effects of parenting styles of socially anxious parents, or acquisition of social anxiety conditioned by experiencing extreme embarrassment, may also contribute to the development of SAD in some people. Approximately twice as many females as males are affected, and almost all are affected before age 25.^{3,4} When social fears interfere with social, occupational, or family life, the affected individual is not suffering from normal "shyness," but rather a treatable anxiety disorder.

The National Comorbidity Survey (NCS) estimated lifetime prevalence of SAD at 13.3% and 12-month prevalence at 7.6%, making it the third most common psychiatric disorder, following only major depression and alcohol abuse/dependence.⁵ Despite this high rate, SAD remains woefully underdiagnosed.

Anyone who has had to speak in public, play a musical instrument at a recital, or perform in some way under the watchful expectation of an audience has

experienced anxiety as he or she anticipates the "big moment" (Box 2). Once the performance is under way, the anxiety usually lessens to a more manageable level for most people. In fact, nearly one in three Americans will admit to moderate or great fear of speaking in public.

Enough people encounter the fear of public speaking to support the weekly Toastmasters meetings in most U.S. cities. Many people overcome their social anxiety about public speaking or performing with continued practice. However, those with nongeneralized SAD, who are among the most severely affected, may remain so fearful of speaking or performing under scrutiny that they avoid it at any cost—even if it means

passing up a job or promotion or even choosing to change professions.

The majority (75%) of those with SAD—representing approximately 15 million individuals in the U.S.—suffer from generalized SAD, a much more severe, potentially disabling subtype. These unfortunate individuals fear and avoid most or all social interactions outside their home except those with family or close friends. When they encounter or even anticipate entering feared social situations, individuals with generalized SAD experience severe anxiety. Blushing, tremulousness, and sweating can be noticed by others, and thus are particularly distressing to those with SAD.

Recovery without treatment is rare. The typically early age at onset of generalized SAD^{3,4} imposes greater limitations on development of social competence than on those who develop more discrete fear of public speaking or performing later in life—after socialization skills have already developed.

Individuals with SAD frequently suffer from comorbid psychiatric disorders, mostly depression and/or other anxiety disorders.⁶ Figure 1 shows that individuals with SAD are at significantly increased risk for depression, other anxiety disorders, and alcohol and drug abuse. Since generalized SAD usually appears at an earlier age than other anxiety disorders, it represents a risk factor for subsequent depression. The level of functional impairment caused by SAD is similar to that caused by major depression⁷ (Figure 2).

As more comorbid psychiatric disorders

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Box 2

THE CASE OF THE INHIBITED TEACHER

Mr. L, a 40-year-old eighth-grade teacher, consulted a psychiatrist because he was scheduled to be evaluated by a state education accreditation committee while teaching class. Though he had always passed these before, he had been worried sick for weeks and was experiencing panic attacks each time he thought about the accreditation visit.

He lived with his mother, had never dated, and had few friends. He was extremely inhibited outside the classroom, brought cash to stores to avoid being observed while writing a check or signing credit card slips, and avoided social gatherings outside of his church, which he attended with his mother and tolerated with distress.

Further history revealed that he had quit medical school during his third year because he had so much difficulty presenting cases to the attending on ward rounds that he chose to leave the profession in order to avoid feeling sick each morning and afternoon.



Figure 1

HOW PREVALENT IS LIFETIME COMORBIDITY IN SAD?

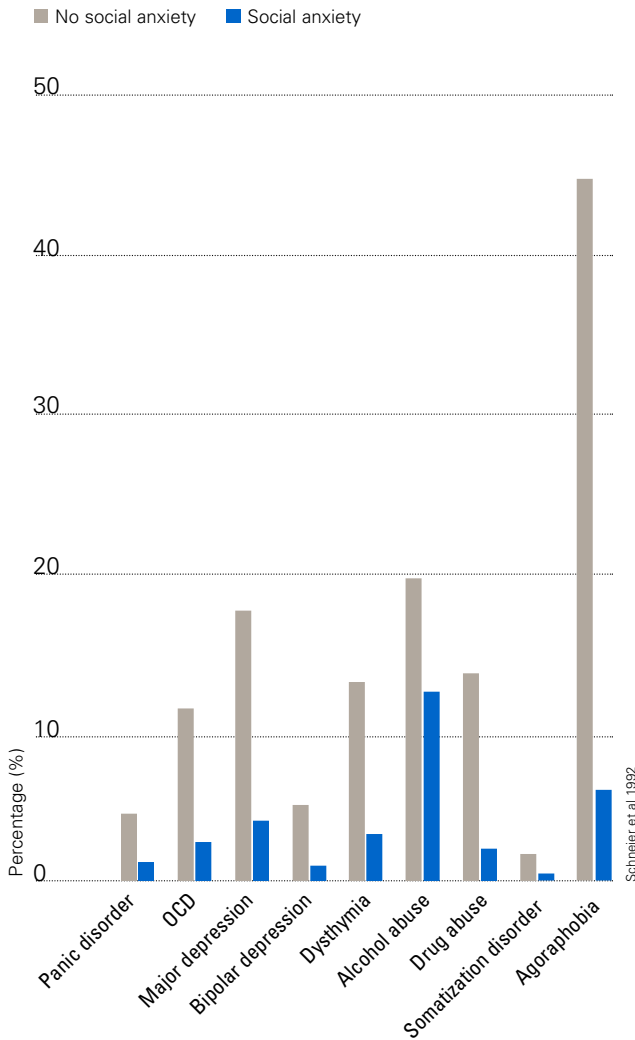
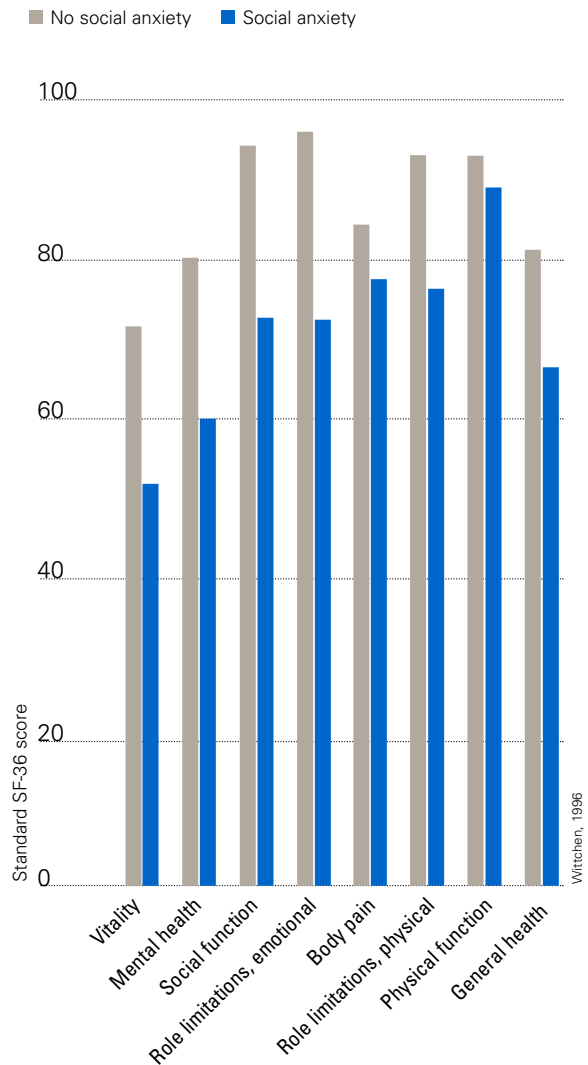


Figure 2

QUALITY OF LIFE IN PATIENTS WITH SOCIAL ANXIETY DISORDER



Box 3

BARRIERS TO RECOGNITION AND TREATMENT

- Inherent avoidance of scrutiny, (e.g., evaluation)
- Uncertain diagnostic threshold
- Acceptance of pathological shyness as 'just my personality'
- Lack of understanding by professionals, family, friends
- Coping strategies that mask disability
- Comorbid psychiatric disorders that mask SAD

accrue, impairment and increased risk for additional disorders may occur. Further, the risk of suicide is increased in those with comorbid SAD vs. those with SAD only. The findings suggest that if social anxiety were detected and treated effectively at an early age, it might be possible to prevent other psychiatric disorders—particularly depression—as well as the predictable morbidity and mortality that accompanies untreated SAD. Given the estimated \$44 billion annual cost



When does shyness become a disorder?

Preventing SAD-related comorbidities and mortality could reduce the estimated annual cost of anxiety disorders in the U.S.

of anxiety disorders in the U.S.,⁸ research targeted at testing this hypothesis would appear to be a good investment.

Seeing the unseen: making the diagnosis quickly

Although SAD is extremely common, a variety of factors may contribute to the low rate of recognition of the disorder (Box 3). Because of their intense discomfort toward scrutiny by authority figures such as their physician, individuals with

als visit their referring physicians at about the same rate as the general population.^{6,9-11} Affected individuals are unlikely to seek psychiatric treatment unless they have a comorbid depression or anxiety.^{6,7}

SAD can be difficult to tease apart from other coexisting conditions. Individuals who present for treatment of other anxiety disorders, depression, or substance abuse disorders should be considered at risk for current but undetected SAD.

SAD may not be willing to discuss their fears. Studies estimating the prevalence in primary care suggest that these individu-

Table 1

DIFFERENTIAL DIAGNOSIS FOR SOCIAL ANXIETY DISORDER

Condition	Diagnostic features
Posttraumatic stress disorder	Temporally follows traumatic event; cues related to trauma, not exclusively to social situations
Panic disorder	Unexpected panic attacks, not exclusively socially mediated anxiety
Agoraphobia	Fearful avoidance of situations in which panic attacks may occur, not limited to social situations
Major depression or atypical depression	Social withdrawal temporally related to mood disturbance, not to fear of humiliation or embarrassment; atypical depression with rejection sensitivity associated with other symptoms (e.g., hypersomnia, hyperphagia, anergy, mood reactivity)
Generalized anxiety disorder	Focus of worry not limited to social situations; social discomfort or avoidance not a key feature
Body dysmorphic disorder	Avoidance of social activity focused on concern over perceived ugliness
Avoidant personality disorder	Often present in generalized social anxiety disorder; may represent more severe end of social anxiety disorder spectrum; social activity desired but avoided
Schizotypal/schizoid personality disorders	Avoidance of social situations is preferred by individual and is not due to fear of embarrassment or humiliation
Normal shyness	Minimal or no interference with social, occupational, or family functioning

Adapted from Lydiard RB. Social anxiety disorder: comorbidity and its implications. *J Clin Psychiatry*. 2001;62(suppl 1):17-23.

Box 4

Key to diagnosis: feared situations

Social

- Attending parties, weddings etc.
- Conversing in a group
- Speaking on the telephone
- Interacting with authority figure (e.g., teacher or boss)
- Making eye contact
- Ordering in a restaurant

Performance

- Public speaking
- Eating in public
- Writing a check
- Using a public toilet
- Taking a test
- Trying on clothes in a store
- Speaking up at a meeting

Many of the symptoms overlap (Table 1). The key diagnostic feature, which leads to the diagnosis of SAD, is that the fear and avoidance specifically are related to being in or anticipating a feared social situation (Box 4).

Many clinicians mistake social anxiety for panic disorder, since panic attacks in people with SAD are often cued by social situations. There can be up to a 40% overlap of SAD with panic disorder.⁴ Without probing carefully into the focus on fear and avoidance, SAD can be easily overlooked. Individuals with panic disorder experience unexpected attacks and are terrified at the prospect of additional attacks, while those with SAD experience attacks linked to social situations and fear scrutiny and embarrassment more than the attacks themselves.

SAD and major depression frequently coexist,^{4,11,12} challenging clinicians to distinguish social reticence and withdrawal accompanying depression from the fearful avoidance that typifies SAD. SAD usually precedes depression. Asking if the patient experienced social anxiety prior to the onset of depression can help

identify SAD with comorbid depression.

Alcohol-related disorders are twice as likely to occur in those affected by SAD as in those not affected. The risk for females increases more than it does for males.²⁻⁴ SAD most often precedes alcohol abuse. Studies show that about 30% of patients receiving treatment for alcohol abuse/dependence have SAD. If it remains undetected, the risk of rapid relapse is high. That's because patients are highly unlikely to participate in psychosocial treatments that help sustain post-treatment abstinence, such as the Alcoholics Anonymous 12-step program. A recent study found that both social anxiety and alcohol abuse disorders improve when SAD in alcoholics is treated.¹³

A substantially higher percentage of adults with SAD, especially women, have histories of prior childhood sexual and/or physical abuse than the general population.¹⁴ Recent studies both in women following rape and in combat veterans with posttraumatic stress disorder (PTSD) suggest that those with perceived life-threatening events are at higher risk for developing secondary SAD than are individuals who experience less severe trauma.^{15,16} We do not yet know if secondary SAD in trauma victims is different in character or response to treatment.

Individuals with certain medical conditions can develop

Many clinicians mistake social anxiety for panic disorder, since panic attacks in people with SAD are often cued by social situations

symptoms resembling SAD. These include stuttering, benign essential tremor,¹⁷ Parkinson's disease, disfiguring burn injuries, and possibly irritable bowel syndrome. Such

Box 5

The critical 3 self-rating screens for generalized SAD

- "Being embarrassed or looking stupid are among my worst fears."
- "Fear of embarrassment causes me to avoid doing things or speaking to people."
- "I avoid activities in which I am the center of attention."

Connor et al, *Depress Anxiety* 2001;14:137



When does shyness become a disorder?

patients are technically excluded from being diagnosed with SAD, though they would meet criteria if the diagnostic rules were suspended. A limited body of literature and clinical experience suggests that symptoms secondary to physical conditions may respond to the same treatment as SAD in medically healthy persons. A treatment trial for selected patients with SAD symptoms associated with medical conditions may provide significant benefits. Clearly more research is needed in this area.

Asking if the patient experienced social anxiety prior to the onset of depression can help identify comorbid SAD

A recently developed self-rating scale, the Social Phobia Inventory (SPIN), assesses the spectrum of cognitive, behavioral, and physiological symptoms associated with SAD.¹⁸ Three of the 17 SPIN items have been found to identify generalized SAD with a high degree of sensitivity (*Box 5*).

The 3 main goals of SAD treatment are

1. Acute reduction and control of pathological anxiety and related phobic avoidance;
2. Adequate treatment of depression or other comorbid conditions;
3. Long-term management of the social phobia.

Significant advances in treatment have emerged over the past 2 decades. We now know that cognitive behavioral therapy (CBT), medication, and their combination are efficacious.

Social situations involving speaking or performance are usually predictable, and nongeneralized SAD is thus amenable to use of a beta-blocker or benzodiazepine (*Box 6*). Beta-blockers are often adequate for control of tremor and increased heart rate. Some patients may also benefit more from judicious use of a benzodiazepine prior to the event.

In contrast, generalized SAD is less predictable, and continual treatment is recommended. Ideally, a medication regimen would be easily tolerated long-term, and would have antidepressant effects and a broad spectrum of efficacy against commonly coexisting disorders. Because of the significant risk for depression in individuals with SAD, first-line antidepressant treatment is preferred when possible over other medications.

The selective serotonin reuptake inhibitors (SSRIs) are now considered the first-line pharmacological treatment for

social phobia. Paroxetine was the first to receive FDA approval for generalized SAD.¹⁹ Large multicenter studies supporting the efficacy of two other SSRIs—sertraline and fluvoxamine—have been reported.¹² The SSRIs also appear to work against the other psychiatric disorders with which SAD commonly co-occurs, such as panic disorder, major depression, generalized anxiety disorder, and PTSD.

The empirical database is very limited, but it appears that SSRI treatment for a significant percentage of patients with SAD may require higher doses (up to twice the amount) than are usually needed for depression.¹⁰ Approximately 50% to 65% of patients with generalized SAD respond to any given SSRI. In our experience, failure to respond to one SSRI does not preclude response to a second SSRI.

The irreversible monoamine oxidase (MAO) inhibitor phenelzine was the first antidepressant shown to be useful for SAD. Tranylcypromine is less well studied, but also appears to be effective. The significant side effects (weight gain, orthostatic hypotension, insomnia) and inconvenience

Box 6

Pharmaceutical approaches to treatment

Nongeneralized

PRN treatment

Beta-blockers

Atenolol

Propranolol

Benzodiazepines

Alprazolam

Lorazepam

Generalized

Continuous treatment

Broad-spectrum

antidepressants

SSRIs: first line

Benzodiazepines

Clonazepam

Alprazolam

MAOIs

Phenelzine

Tranylcypromine

Antiepileptic agents

Gabapentin

of administration have reduced use of these agents.

The tricyclic antidepressants are probably not effective, with the exception of clomipramine (also a potent inhibitor of serotonin reuptake).¹² Clomipramine, while an effective anxiolytic and antidepressant, causes prohibitive side effects

Box 7

Cognitive behavioral treatment of SAD

Key elements for individual or group setting

- Cognitive “restructuring”
 - Identify and self-monitor distorted thoughts
 - Test illogical hypotheses
 - In-session and homework practice
 - Exposure and response prevention
- Social skills enhancement
 - Interactive practice with in-session feedback
 - Homework

in many patients (e.g., sexual dysfunction and weight gain).

The newer antidepressants venlafaxine and nefazodone are less well studied than the SSRIs, but show promise as potential broad-spectrum agents. Bupropion, a novel antidepressant, and the azapirone anxiolytic buspirone do not appear to work against SAD.

The main role of the benzodiazepines in SAD treatment is adjunctive to antidepressants or in some patients intolerant of, or unresponsive to, other treatments. Clonazepam, alprazolam, and probably others are effective for SAD, but they may not effectively treat or prevent depression or other commonly associated disorders.

The anticonvulsant gabapentin has been shown in one controlled study to be effective in treating SAD.²⁰ This agent may be particularly useful for complicated patients such as those with a history of alcohol-related disorders, bipolar-spectrum disorder, or intolerance to SSRIs.

In parallel with the development of effective psychopharmacological treatments, several types of behavioral and cognitive behavioral treatments have been investigated, including imaginal flooding, graduated exposure, social skills training, cognitive-behavior approaches, and combined cognitive restructuring and graduated exposure.²¹ These treatments involve similar elements targeted at the cognitive distortions and avoidance behaviors, which represent core features of SAD (Box 7).

Many clinicians believe that combined pharmacotherapy and CBT treatment are superior to either modality alone for treating SAD. The little empirical information available indicates that acute treatment differences between drug alone

and drug in combination with CBT are not impressive. However, there appears to be a lower rate of relapse following CBT than after medication discontinuation.

Despite our ability to treat this disorder, only a small fraction of sufferers get treatment. If untreated, the risk of comorbidity is extremely high. Routine screening for SAD, especially in younger individuals, could provide for early detection and treatment. Psychiatrists can play an important role in early detection and treatment by educating consumers, teachers, school nurses, psychologists, and pediatricians.

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Patients who present with depression, anxiety disorders, or alcohol-related disorders often suffer from coexisting social anxiety disorder (SAD). Most have the generalized subtype, which often begins early in life and substantially increases the risk for depression, other anxiety disorders, alcohol/substance abuse, and suicidality. Now we can quickly diagnose SAD, institute effective treatment, and possibly prevent progression to comorbidity.

BottomLine

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Related resources

- Lydiard, R.B. Social anxiety disorder comorbidity and its implications *J. Clin. Psychiatry*. 2001;62(suppl):17-23.
- American Psychiatric Association, <http://www.psych.org>
- American Psychological Association, <http://www.apa.org>
- National Institute for Mental Health: Anxiety Disorders, <http://www.nimh.nih.gov/anxiety/>
- Anxiety Disorders Associations of America, <http://www.adaa.org/>

DRUG BRAND NAMES

Alprazolam • Xanax	Lorazepam • Ativan
Atenolol • Tenormin	Nefazodone • Serzone
Bupropion • Wellbutrin	Paroxetine • Paxil
Buspirone • Buspar	Phenelzine • Nardil
Clomipramine • Anafranil	Propranolol • Inderal
Clonazepam • Klonopin	Sertraline • Zoloft
Fluoxetine • Prozac	Tranylcypromine • Parnate
Fluvoxamine • Luvox	Venlafaxine • Effexor
Gabapentin • Neurontin	

DISCLOSURE

The author reports that he has received grant/research support and has served as a consultant to and on the speaker's bureau of Bristol-Myers Squibb Co., GlaxoSmithKline, Pfizer Inc., Eli Lilly and Co., Parke-Davis, and Solvay Pharmaceuticals. He also has received grant/research support and served as a consultant for Forest Pharmaceuticals, Wyeth-Ayerst Pharmaceuticals, and Roche; received grant/research support from Sanofi-Synthelabo; and has served as consultant for Dupont Pharmaceuticals and AstraZeneca.