Commentary
Commentaire

Unmasking social anxiety disorder

Murray B. Stein, MD; Jack M. Gorman, MD

Stein — Department of Psychiatry, University of California, San Diego, Calif.; Gorman — New York State Psychiatric Institute and Columbia University, New York, NY

"Man is the only animal that blushes … or needs to."
—*Mark Twain*

Introduction

Shyness and self-consciousness are related constructs describing a tendency for some people to fear and avoid the scrutiny of others. In some cases, these characteristics are so pronounced that the individual shuns most forms of interpersonal contact or endures these encounters only with intense discomfort. Such people suffer from what is alternately referred to as "social anxiety disorder" or "social phobia." Once largely neglected by the medical community,[1] social anxiety disorder is now garnering increased attention and recognition as a serious but treatable condition.[2–4]

Clinical picture

People with social anxiety disorder are typically shy, timid, quiet in groups and uncomfortable being the centre of attention. They are not strange or "schizoid" — the Unabomber was not socially phobic. They crave the company of others but fear being found out as unlikable, stupid or boring. Accordingly, they avoid speaking in public, expressing opinions or even "hanging out" with peers; as a result, they are often mistakenly labelled as "snobs." Many social phobics lack self-esteem, find it difficult to deal with people in authority, and are unable to speak or perform in front of even small groups of people. In its most pervasive form — when it interferes with the individual's functioning in a wide range of social situations — the term "generalized" social anxiety disorder is applied. It is this generalized form of the disorder that accounts for most cases seen by psychiatric and general medical practitioners.

Social anxiety disorder begins early in life and often manifests in childhood.[5–7] Approximately 50% of those with the disorder report the onset before adolescence, many recalling that they have "always been this way." The others report the onset during or shortly after adolescence.[8–10] As an early-onset disorder, social anxiety disorder is frequently complicated over time by the occurrence of other comorbid conditions, most prominent among them being substance abuse disorders (particularly alcoholism) and major depression.[10,11]

Social anxiety disorder is the most common anxiety disorder among depressed patients.[12] Most people with social anxiety disorder will at some point experience one or more depressive episodes;[13] this is especially true of people with the generalized form of social anxiety disorder.[10,14] Several studies suggest

Correspondence to: Dr. Murray B. Stein, Department of Psychiatry (0985), University of California, San Diego, 9500 Gilman Dr., La Jolla CA 92093-0985; fax 858 450-1491; mstein@ucsd.edu

Medical subject headings: anxiety disorders; cognitive therapy; comorbidity; cost of illness; drug therapy; quality of life

J Psychiatry Neurosci 2001;26(3):185-9.

Submitted Jan. 25. 2001
Revised Feb. 22, 2001
Accepted Mar. 6, 2001

that social phobia is a risk factor for early-onset depression,[15,16] perhaps through a shared genetic diathesis,[17,18] though this remains to be proven. In some studies, the presence of comorbid social phobia has been associated with a more malevolent course of depressive illness.[19,20]

Epidemiology

When prevalence estimates were based on the examination of psychiatric clinic samples, social anxiety disorder was thought to be a relatively rare disorder.[21] We now know that patients with social anxiety disorder in the community seldom seek or receive psychiatric care,[9] leading to a gross underestimation of the prevalence of the disorder. This is analogous to the situation 10 years ago with regard to obsessive–compulsive disorder (OCD): "rare" when viewed from the perspective of clinical samples because patients did not seek treatment, but common in the general population. It was not until community surveys were undertaken that the extent of this "hidden epidemic" of OCD became known.[22] And it was not until these data were publicized that patients with OCD began to seek treatment and to be more frequently diagnosed by their physicians.[23]

Similarly, it was not until community surveys were conducted that the true prevalence of social anxiety disorder became apparent. Data from one of the first of these North American surveys, the Epidemiologic Catchment Area (ECA) survey,[8] found an approximate 1% point-prevalence of social anxiety disorder, with a lifetime prevalence in the range of 2%–3%.[8,24] This was newsworthy at the time but, as it turns out, the ECA study surveyed only a limited range of social situations and therefore missed many cases of social anxiety disorder.[25] A more recent study, the National Comorbidity Survey,[9] found 12-month and lifetime prevalence rates of social anxiety disorder of 7.9% and 13.3%, respectively. Similar findings have come from contemporaneous Canadian and European epidemiologic surveys, with even the most conservative of these placing the point prevalence of the disorder in the range of 4%–5%.[26–28] Studies of social anxiety disorder in primary care settings find the disorder to be common in patients, but only a fraction of cases are diagnosed by general practitioners.[29,30] Thus, from all reports, social anxiety disorder appears to be a remarkably common — albeit largely unrecognized — disorder.

Functional disability and quality of life

In addition to being prevalent, social anxiety disorder is associated with substantial functional impairment.[31] Patients exhibit a wide range of educational, occupational and social disabilities.[32–34] This is a disorder of lost opportunities — individuals make major life choices to accommodate their illness. For example, they drop out of school early because of their fears of speaking in front of groups, or they take jobs that permit them to avoid interacting with others. They often do not date at all, and many become lonely and isolated.

If and when they eventually present for treatment, patients with generalized social anxiety disorder report tremendous dissatisfaction with their lives. They perceive their quality of life to be poor and report extensive illness intrusiveness (i.e., the extent to which an illness interferes with functioning) comparable to that reported by patients with other chronic illnesses such as multiple sclerosis, rheumatoid arthritis and end-stage renal disease.[35,36] Even in the general population, the burden of illness associated with social phobia is astonishing, rivaling that of its oft-present companion, major depression.[37]

Etiologic factors

As in other areas of psychiatry, the etiologic nature of social anxiety disorder remains obscure. Although there might be reason to expect that particular childhood adversities or developmental experiences might confer an increased risk for the disorder, this has yet to be demonstrated. The disorder is familial,[38,39] particularly in its generalized form where the risk to first-degree relatives is 5–10 times that of the general population.[40] These findings do not, of course, distinguish family environmental from genetic contributions to risk, both of which are presently active areas of research.[41]

Several biological models of social anxiety disorder are currently being investigated;[42] one of the most intriguing is the theory that the disorder involves dysfunction in brain dopaminergic systems. In support of this possibility, a single-photon emission computed tomography (SPECT) study from Finland[43] found that patients with generalized social anxiety disorder had significantly lower binding to the striatal dopamine transporter than a comparison group of healthy subjects. Reduced striatal dopamine D_2 receptor binding potential on SPECT has also been found in patients

with generalized social anxiety disorder compared with healthy control subjects.[44]

Treatment

A mere decade ago, a review of the treatment of social anxiety disorder would have been limited to a statement that monoamine oxidase inhibitors were possibly efficacious.[45] We now know from a number of randomized, controlled trials that social anxiety disorder is a treatable disorder and that several pharmacotherapeutic choices are available to the treating physician. We also know that a psychotherapy known as cognitive behavioural therapy, which is directed at changing patients' views about themselves and their expectations in social interactions, in concert with gradual exposure to and practice in feared social situations, leads to improvement in many patients. Although cognitive behavioural therapy may be as efficacious as pharmacotherapy,[46] providing this form of treatment to the vast number of patients with social anxiety disorder will require availability of and access to a cadre of highly trained therapists, a situation that does not currently exist in most localities. Most patients will, however, have access to pharmacotherapy through either a psychiatrist or their primary care physician.

Although the efficacy of monoamine oxidase inhibitors (e.g., phenelzine) in the treatment of social anxiety disorder has been confirmed,[47,48] their unfavourable side-effect profile and the need for a special low-tyramine diet has relegated them to second- or third-line status. A newer class of drugs, the reversible inhibitors of monoamine type A (e.g., moclobemide) — which carry no dietary restrictions at therapeutic doses — were hoped to be a safer, better-tolerated alternative to the monoamine oxidase inhibitors.[48,49] A series of subsequent clinical trials, however, has been disappointing,[50,51] leaving up-in-the-air the role of moclobemide in treating this disorder.

High-potency benzodiazepines (e.g., clonazepam) are efficacious for social anxiety disorder,[52] although their potential for abuse remains of some concern and may limit their use by some practitioners. β-Adrenergic blockers (e.g., propranolol, atenolol), although of some use on an as-needed basis to treat isolated performance anxiety, are probably of no benefit in the treatment of generalized social anxiety disorder.[47] This message will need to get out to physicians, many of whom equate social phobia with public speaking anxiety and, accordingly, prescribe β-blockers because of their familiarity with this class of drugs. Similarly, another medication frequently used to treat anxiety in primary care settings, buspirone, has been shown to be inefficacious in the treatment of social anxiety disorder.[53]

The efficacy of the selective serotonin reuptake inhibitors (SSRIs) for social anxiety disorder has been confirmed in several double-blind, placebo-controlled, randomized multicentre clinical trials. In the first of these,[54] the SSRI paroxetine was shown to result in clinically meaningful improvement in 55% of patients with generalized social anxiety disorder, compared with 24% of those taking placebo. Other SSRIs such as fluvoxamine and sertraline have subsequently also been proven efficacious,[55,56] (and it is likely that other newer antidepressants will follow as ongoing clinical trials programs are completed). In all of these studies, response rates peak at around 55%, meaning that further research is required to determine how to help patients who do not respond to these therapies. Newer pharmacotherapies must be tested, and the possibility of combining pharmacologic and psychotherapeutic modalities should be explored.

Conclusions

Social anxiety disorder is not just shyness,[2] nor for most sufferers does it consist merely of an inability to speak in public. For most patients with social anxiety disorder, it is a pervasive, disabling condition that steals away opportunities for a richer, fuller life. Combining high prevalence rates with serious negative effects on functioning and quality of life, social anxiety disorder is a public health problem of considerable magnitude.[57] Whether it is addressed as such will depend, in part, on health care professionals' awareness of its seriousness, and, in the United States, on the willingness of insurers to pay for its treatment.[58]

References

1. Liebowitz MR, Gorman JM, Fyer AJ, Klein DF. Social phobia: review of a neglected anxiety disorder. *Arch Gen Psychiatry* 1985; 42:729-36.
2. Stein MB. How shy is too shy? *Lancet* 1996;347:1131-2.
3. den Boer JA. Social phobia: epidemiology, recognition, and treatment. *BMJ* 1997;315:796-800.
4. Stein MB. Coming face-to-face with social phobia [editorial; comment]. *Am Fam Physician* 1999;60:2244;2247.
5. Hayward C, Killen JD, Kraemer HC, Taylor CB. Linking self-

reported childhood behavioral inhibition to adolescent social phobia. *J Am Acad Child Adoles Psychiatry* 1998;37:1308-16.

6. Dummit ESI, Klein RG, Tancer NK, Asche B, Martin J, Fairbank JA. Systematic assessment of 50 children with selective mutism. *J Am Acad Child Adolesc Psychiatry* 1997;36:653-60.
7. Beidel DC, Turner SM, Morris TL. Psychopathology of childhood social phobia. *J Am Acad Child Adolesc Psychiatry* 1999;38: 643-50.
8. Schneier FR, Johnson J, Hornig CD, Liebowitz MR, Weissman MM. Social phobia: comorbidity and morbidity in an epidemiological sample. *Arch Gen Psychiatry* 1992;49:282-8.
9. Magee WJ, Eaton WW, Wittchen HU, McGonagle KA, Kessler RC. Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Arch Gen Psychiatry* 1996;53:159-68.
10. Kessler RC, Stein MB, Berglund PA. Social phobia subtypes in the National Comorbidity Survey. *Am J Psychiatry* 1998;155:613-9.
11. Wittchen HU, Stein MB, Kessler RC. Social fears and social phobia in a community sample of adolescents and young adults: prevalence, risk factors and co-morbidity. *Psychol Med* 1999;29: 309-23.
12. Pini S, Cassano GB, Simonini E, Savino M, Russo A, Montgomery SA. Prevalence of anxiety disorders comorbidity in bipolar depression, unipolar depression and dysthymia. *J Affect Dis* 1997;42:145-53.
13. Kessler RC, Stang P, Wittchen HU, Stein MB, Walters EE. Lifetime comorbidities between social phobia and mood disorders in the U.S. National Comorbidity Survey. *Psychol Med* 1999;29: 555-67.
14. Stein MB, Chavira DA. Subtypes of social phobia and comorbidity with depression and other anxiety disorders. *J Affect Dis* 1998;50(Suppl):S11-6.
15. Alpert JE, Fava M, Uebelacker LA, Nierenberg A, Pava JA, Worthington JJ, et al. Patterns of Axis I comorbidity in early-onset versus late-onset major depressive disorder. *Biol Psychiatry* 1999;46:202-11.
16. Parker G, Wilhelm K, Mitchell P, Austin MP, Roussos J, Gladstone G. The influence of anxiety as a risk to early onset major depression. *J Affect Dis* 1999;52:11-7.
17. Wickramaratne PJ, Weissman MM. Onset of psychopathology in offspring by developmental phase and parental depression. *J Am Acad Child Adolesc Psychiatry* 1998;37:933-42.
18. Nelson EC, Grant JD, Bucholz KK, Glowinski A, Madden PAF, Reich W, et al. Social phobia in a population-based female adolescent twin sample: co-morbidity and associated suicide-related symptoms. *Psychosom Med* 2000;30:797-804.
19. Gaynes BN, Magruder KM, Burns BJ, Wagner HR, Yarnall KSH, Broadhead WE. Does a coexisting anxiety disorder predict persistence of depressive illness in primary care patients with major depression? *Gen Hosp Psychiatry* 1999;21:158-67.
20. Stein MB, Fuetsch M, Muller N, Höfler M, Lieb R, Wittchen HU. Social anxiety disorder and the risk of depression: a prospective community study of adolescents and young adults. *Arch Gen Psychiatry* 2001;58:251-6.
21. Amies PL, Gelder MG, Shaw PM. Social phobia: a comparative clinical study. *Br J Psychiatry* 1983;142:174-9.
22. Jenike MA. Obsessive–compulsive and related disorders: a hidden epidemic. *N Engl J Med* 1989;321:539-41.
23. Stoll AS, Tohen M, Baldessarini RJ. Increasing frequency of the diagnosis of obsessive–compulsive disorder. *Am J Psychiatry* 1992;149:638-40.
24. Robins LN, Helzer JE, Weissman MM, Orvaschel H, Gruenberg E, Burke JD Jr, et al. Lifetime prevalence of specific psychiatric disorders in three sites. *Arch Gen Psychiatry* 1984;41:949-58.
25. Stein MB, Walker JR, Forde DR. Setting diagnostic thresholds for social phobia: considerations from a community survey of social anxiety. *Am J Psychiatry* 1994;151:408-12.
26. Offord DR, Boyle MH, Campbell D, Goering P, Lin E, Wong M, et al. One-year prevalence of psychiatric disorder in Ontarians 15 to 64 years of age. *Can J Psychiatry* 1996;41:559-63.
27. Lepine JP, Lellouch J. Classification and epidemiology of social phobia. *Eur Arch Psychiatry Clin Neurosci* 1995;244:290-6.
28. Wittchen HU, Nelson CB, Lachner G. Prevalence of mental disorders and psychosocial impairments in adolescents and young adults. *Psychol Med* 1998;28:109-26.
29. Stein MB, McQuaid JR, Laffaye C, McCahill ME. Social phobia in the primary care medical setting. *J Fam Pract* 1999;48:514-9.
30. Weiller E, Bisserbe JC, Boyer P, Lepine JP, Lecrubier Y. Social phobia in general health care: an unrecognized undertreated disabling disorder. *Br J Psychiatry* 1996;168:169-74.
31. Mendlowicz MV, Stein MB. Quality of life in individuals with anxiety disorders. *Am J Psychiatry* 2000;157:669-82.
32. Davidson JRT, Hughes DL, George LK, Blazer DG. The epidemiology of social phobia: findings from the Duke Epidemiologic Catchment Area Study. *Psychol Med* 1993;23:709-18.
33. Schneier FR, Heckelman LR, Campeas R, Fallon BA, Gitow A, Street L, et al. Functional impairment in social phobia. *J Clin Psychiatry* 1994;55:322-31.
34. Wittchen HU, Beloch E. The impact of social phobia on quality of life. *Int Clin Psychopharmacol* 1996;11:15-23.
35. Antony MM, Roth D, Swinson RP, Huta V, Devins GM. Illness intrusiveness in individuals with panic disorder, obsessive–compulsive disorder, or social phobia. *J Nerv Ment Dis* 1998;186:311-5.
36. Safren SA, Heimberg RG, Brown EJ, Holle C. Quality of life in social phobia. *Depress Anxiety* 1997;4:126-33.
37. Stein MB, Kean Y. Disability and quality of life in social phobia. *Am J Psychiatry* 2000;157:1606-13.
38. Cooper PJ, Eke M. Childhood shyness and maternal social phobia: a community study. *Br J Psychiatry* 1999;174:439-43.
39. Lieb R, Wittchen HU, Höfler M, Fuetsch M, Stein MB, Merikangas KR. Parental psychopathology, parenting styles and the risk of social phobia in offspring: a prospective-longitudinal community study. *Arch Gen Psychiatry* 2000;57:859-66.
40. Stein MB, Chartier MJ, Hazen AL, Kozak MV, Tancer ME, Lander S, et al. A direct-interview family study of generalized social phobia. *Am J Psychiatry* 1998;155:90-7.
41. Morris TL. Social phobia. In: Vasey MW, Dadds MR, editors. *The developmental psychopathology of anxiety*. New York: Oxford University Press; 2000. p. 435-58.
42. Stein MB. Neurobiological perspectives on social phobia: from Affiliation to Zoology. *Biol Psychiatry* 1998;44:1277-85.
43. Tiihonen J, Kuikka J, Bergstrom K, Lepola U, Koponen H, Leinonen E. Dopamine reuptake site densities in patients with social phobia. *Am J Psychiatry* 1997;154:239-42.
44. Schneier FR, Liebowitz MR, Abi-Dargham A, Zea-Ponce Y, Lin SH, Laruelle M. Low dopamine D_2 receptor binding

potential in social phobia. *Am J Psychiatry* 2000;157:457-9.

45. Solyom L, Ledwidge B, Solyom C. Delineating social phobia. *Br J Psychiatry* 1986;149:464-70.
46. Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, Holt CS, Welkowitz LA, et al. Cognitive behavioral group therapy vs phenelzine therapy for social phobia: 12-week outcome. *Arch Gen Psychiatry* 1998;55:1133-41.
47. Liebowitz MR, Schneier FR, Campeas R, Hollander E, Hatterer J, Fyer AJ, et al. Phenelzine vs atenolol in social phobia. *Arch Gen Psychiatry* 1992;49:290-300.
48. Versiani M, Nardi AE, Mindim FD, Alves AB, Liebowitz MR, Amrein R. Pharmacotherapy of social phobia: a controlled study with moclobemide and phenelzine. *Br J Psychiatry* 1992; 161:353-60.
49. Katschnig H, Stein MB, Buller R, on behalf of the International Multicenter Clinical Trial Group on Moclobemide in Social Phobia. Moclobemide in social phobia: a double-blind, placebo-controlled study. *Eur Arch Psychiatry Clin Neurosci* 1997;247:71-80.
50. Noyes RJ, Moroz G, Davidson JRT, Liebowitz MR, Davidson A, Siegel J, et al. Moclobemide in social phobia: a controlled dose–response trial. *J Clin Psychopharmacol* 1997;17:247-54.
51. Schneier FR, Goetz RR, Campeas R, Fallon B, Marshall R, Liebowitz MR. Placebo-controlled trial of moclobemide in social phobia. *Br J Psychiatry* 1998;172:70-7.
52. Davidson JRT, Potts NL, Richichi E, Krishnan KR. Treatment of social phobia with clonazepam and placebo. *J Clin Psychopharmacol* 1993;13:423-8.
53. van Vliet IM, den Boer JA, Westenberg HGM, Ho Pian KL. Clinical effects of buspirone in social phobia: a double-blind, placebo-controlled study. *J Clin Psychiatry* 1997;58:164-8.
54. Stein MB, Liebowitz MR, Lydiard RB, Bushnell W, Gergel IP. Paroxetine treatment of generalized social anxiety disorder (social phobia): a randomized controlled trial. *JAMA* 1998; 280:708-13.
55. Stein MB, Fyer AJ, Davidson JRT, Pollack MH, Wiita B. Fluvoxamine in social phobia (social anxiety disorder): a double-blind, placebo-controlled clinical study. *Am J Psychiatry* 1999; 156:756-60.
56. Van Ameringen M, Lane RM, Walker JR, Bowen RC, Chokka PR, Goldner EM, et al. Sertraline treatment of generalized social phobia: a 20-week, double-blind, placebo-controlled study. *Am J Psychiatry* 2001;158:275-81.
57. Lipsitz JD, Schneier FR. Social phobia. Epidemiology and cost of illness. *Pharmacoeconomics* 2000;18:23-32.
58. Olfson M, Guardino M, Struening E, Schneier FR, Hellman F, Klein DF. Barriers to the treatment of social anxiety. *Am J Psychiatry* 2000;157:521-7.