How Is Recovery From Social Anxiety Disorder Defined?

Julio Bobes, M.D., Ph.D.

Recovery in social anxiety disorder (social phobia) is a poorly defined concept. Since the onset of social anxiety disorder typically occurs during adolescence, a time when social skills and academic attainment are of particular importance, recovery is difficult to assess. Assessment of global improvement over 3 domains—symptoms, functionality, and well-being or overall severity of illness—is needed. This article describes currently available rating scales for social anxiety and uses data from clinical studies to assess whether improvement can be defined quantitatively in terms of scores on these rating scales. The main criteria have changed little over the past few years, with most investigators looking for a prespecified response on a single generic or specific rating scale for clinical severity. A better approach may be to employ a multiaxial system that uses a number of rating scales to measure both global and specific symptoms, disability, and quality of life.

(J Clin Psychiatry 1998;59[suppl 17]:12–16)

Recovery from social anxiety disorder (the term preferred to social phobia) is currently not a well-defined concept. In its literal sense, recovery is defined as a return to health or a normal state. However, social anxiety disorder typically starts during adolescence, a time when development of social skills and academic attainment are of particular importance. Clearly, impedance of this development due to social fear or avoidance leads to inappropriate coping mechanisms and has a high impact on later interpersonal skills and ability to work. In addition, comorbidity with other psychiatric disorders is common. It is therefore difficult to evaluate the normal state and potential for recovery of patients with social anxiety disorder. Assessment of global improvement over a number of domains—symptoms, functionality, and well-being or overall severity of illness—is needed.

In this article, a number of important questions relating to the assessment of improvement in patients with social anxiety disorder are addressed: Which criteria should be evaluated? What rating scales are available to facilitate evaluations? Can improvement be defined quantitatively in terms of scores on rating scales?

CRITERIA FOR IMPROVEMENT

Three types of criteria should be considered when evaluating global improvement in social anxiety disorder: objective, i.e., whether the symptoms and avoidance behavior have disappeared or decreased; adaptive, i.e., whether the patient has achieved a level of functioning that permits complete expression of his or her potential; and subjective, i.e., whether there is a perception of well-being. Various rating scales are available to assess these criteria.

RATING SCALES FOR SOCIAL ANXIETY DISORDER

The rating scales currently available to facilitate assessment of patients with social anxiety disorder are listed in Table 1. The rating scales can be divided into those that assess clinical severity, disability, and quality of life. Some are generic and designed to evaluate a wide range of anxiety disorders, whereas others are specific, designed to examine social anxiety disorder specifically. All are based on questionnaires that are completed by either the clinician or the patient.

Clinical Severity Rating Scales

Generic rating scales for clinical severity can be subdivided into those that allow categorical (global assessment) or dimensional (symptoms assessment) measurement. The categorical scales include the Clinical Global Impressions-Severity of Illness scale (CGI-S) and the Clinical Global Impressions-Improvement scale (CGI-I). The Hamilton Rating Scale for Anxiety (HAM-A) and the Hamilton Rating Scale for Depression (HAM-D) allow dimensional evaluation. All are completed by the clinician.

Table 1. Rating Scales for Social Anxiety

Evaluation	Assessor
Clinical severity	
Generic	
Clinical Global Impressions-Severity of Illness scale	Clinician
Clinical Global Impressions-Improvement scale	Clinician
Hamilton Rating Scale for Anxiety	Clinician
Hamilton Rating Scale for Depression	Clinician
Specific	
Liebowitz Social Anxiety scale	Clinician
Social Avoidance and Distress scale	Clinician
Fear of Negative Evaluation scale	Patient
Fear Questionnaire	Patient
Duke Brief Social Phobia Scale	Patient
Social Phobia and Anxiety Inventory	Patient
Functional disability	
Generic	
Global Assessment of Functioning	Clinician
Social and Occupational Functioning Assessment Scale	Clinician
World Health Organization Disability Assessment, Schedule 2	Clinician
Sheehan Disability Scale	Clinician
Disability Profile	Clinician
Specific	
Liebowitz Self-Rated Disability Scale	Patient
Reilly Work Productivity and Impairment Questionnaire	Patient
Quality of life	
Generic	
World Health Organization Quality of Life-100	Patient
World Health Organization Quality of Life-BREF	Patient
Quality of Life Inventory	Patient
Short Form 36-item scale	Clinician
Short Form 12-item scale	Clinician

Of the rating scales that allow specific, dimensional assessment of the clinical severity of social anxiety disorder, the Liebowitz Social Anxiety Scale (LSAS) is the most widely applied. The LSAS comprises 24 items: 13 items explore performance situations, such as eating in public places and taking a test, whereas the remaining 11 items assess social interaction situations, including talking to people in authority, going to a party, and making eye contact with strangers.[1] Clinicians ask patients how they do or would react if confronted with each situation and use 4-point numerical scales to rate separately their fear or anxiety (none = 1 to severe = 4) and avoidance (never = 1 to usually = 4). Patients can then be classified according to their total score as suffering from mild (≤ 51), moderate (52–81), or severe (> 82) social anxiety disorder. It should be noted that this classification system is for patients with generalized social anxiety disorder; it has yet to be adapted for those with nongeneralized illness.

The LSAS shows good internal consistency, with a Cronbach's alpha reliability coefficient of between 0.82 and 0.92.[2] However, there are some limitations to its use. Although early evidence suggested that the LSAS is sensitive to changes upon pharmacologic or cognitive-behavioral treatment of social anxiety disorder,[1] psychometric data to support the validity of the scale have remained limited.[3] When this scale was initially introduced, it was proposed that the LSAS would enable patients to be subdiagnosed according to 4 factors: social fear, social avoidance, performance fear, and performance avoidance. However, a factor analysis examining LSAS data for 168 patients with social anxiety disorder provided evidence that this 4-factor model is invalid.[4] Although the LSAS is intended as a clinician-rated scale, sometimes errors or misunderstandings arise and patients are asked to self-rate themselves. Interestingly, a study examining the concordance between patient and clinician ratings found a high correlation coefficient of 0.89.[5]

Two of the earliest social anxiety disorder rating scales were devised by Watson and Friend[6] and are complementary: the Social Avoidance and Distress scale is clinician rated and focuses on behavioral aspects of social anxiety, whereas the Fear of Negative Evaluation scale is patient rated and focuses on cognitive aspects. Other patient-rated scales include the Fear Questionnaire, the Duke Brief Social Phobia Scale, and the Social Phobia and Anxiety Inventory.

Disability Scales

Although for a DSM-IV diagnosis of social anxiety disorder, patients' fear or avoidance should significantly interfere with their normal routine, many sufferers regard their symptoms as a way of life and thus their perceived disability is low. Because the level of disability may affect the decision on whether to treat a patient, disability assessments should ideally be independent of symptoms assessments. For this reason, the generic axis V (DSM-IV) Global Assessment of Functioning, which examines both symptoms and disability, should not be used.[7]

Generic rating scales that examine only disability include the axis V (DSM-IV) Social and Occupational Functioning Assessment Scale, the axis II (ICD-10) World Health Organization Disability Assessment, Schedule 2 (DAS-2), the Sheehan Disability Scales, and the Disability Profile developed by Schneier et al.[8] The DAS-2 replaces the earlier DAS and takes into account the new concepts and classifications of disabilities described in the International Classification of Impairments, Activities and Participation, 2.[9] The DAS-2 has 6 domains: cognition, mobility, self-care, getting along-interpersonal, life activities (work/home/school), and participation in society. For each domain, the intensity of difficulties, number of disability days, level of importance, and avertability-intervention are assessed. The Sheehan Disability Sales, made available in 1994 as the first disability scales, examine 3 main areas of life (work, social, and family) and 2 domains (self-perceived stress and social support).

Scales designed specifically to examine disability associated with social anxiety disorder include the Liebowitz

Self-Rated Disability Scale and the Reilly Work Productivity and Impairment questionnaire.

Quality of Life Scales

No scale has been specifically designed to examine quality of life in patients with social anxiety disorder. However, a number of generic scales are available, including the World Health Organization Quality of Life-100 (WHOQOL-100), the WHOQOL-BREF, the Quality of Life Inventory (QOLI), and the Short Form 36-item (SF-36) and 12-item (SF-12) scales. The WHOQOL-100 has 100 items examining overall quality of life and general health in a number of domains, including physical health, psychological, level of independence, social relationships, and environment. The WHOQOL-BREF is shorter, with 26 items and only 4 domains (physical health, psychological, social relationships, and environment).

Quality of life and functional impairment in patients with social anxiety disorder have been assessed in a double-blind study comparing subjects with social anxiety disorder without comorbidities (N = 65) and matched controls (N = 65).[10] Greater impairment in quality of life, as determined using the SF-36, was found in the social anxiety disorder group, with 47.7% severely or significantly impaired, compared with only 4.5% in the matched-control group. Work productivity, assessed for the previous week using the Reilly Work Productivity and Impairment questionnaire, was also lower in the social anxiety disorder group, as indicated by higher rates of unemployment, working hours lost due to social anxiety problems, and impairments in work performance. A slightly higher rate of current (previous 4 weeks) treatment by mental health specialists was found in the social anxiety disorder group (9.2% higher), along with greater lifetime psychotropic medication use (24.6% higher).

The QOLI assesses a person's satisfaction in particular areas that he or she feels are important (e.g., health, self-regard, relationships, work).[11] In a study comparing social anxiety disorder patients (N = 40) with a historical nonclinical control sample, quality of life was judged to be significantly poorer in the social anxiety disorder group.[12] Interestingly, patients showed significant improvement in QOLI scores after cognitive-behavioral group therapy for social anxiety disorder.

EVALUATING RESPONSES TO PHARMACOTHERAPY

The outcome of pharmacotherapy for social anxiety disorder can be evaluated from a number of angles. These include meaningful improvements in anxiety during social encounters or performance events; anticipatory anxiety, avoidance of social encounters or obligations, relationship opportunities, or performance; existence of comorbid disorders, such as secondary depression or alcohol abuse;

Table 2. Examples of Different Measurements of Treatment Response in Social Anxiety Disorder*

Rating Scale	Criterion for Treatment Response	Drug	Responders % Responding	Reference
CGI-S	Score markedly or moderately improved	Phenelzine	64	Liebowitz et al, 1992[13]
		Atenolol	30	
		Placebo	23	
		Paroxetine	55	Gergel et al, 1997[14]
		Placebo	24	
		Moclobemide	17.5	Schneier et al, 1998[15]
		Placebo	13.5	
HAM-A	Score ≤ 10	Brofaromine	73	van Vliet et al, 1992[16]
		Placebo	0	
	Reduction ≥ 50%	Buspirone	20	van Vliet et al, 1997[17]
		Placebo	7	
		Brofaromine	50	Slaap et al, 1996[18]
		Fluvoxamine	50	
FQ	Rating on social phobia subscale of < mean for general population (8.8)	Alprazolam	69	Gelernter et al, 1991[19]
		Phenelzine	38	
LSAS	Reduction on fear or anxiety subscale ≥ 50%	Fluvoxamine	46	van Vliet et al, 1994[20]
		Placebo	7	
		Buspirone	7	van Vliet et al, 1997[17]
		Placebo	7	
	Reduction on fear or anxiety and avoidance subscales ≥ 50%	Difference (brofaromine vs placebo)		Fahlen et al, 1995[21]
		Fear or anxiety	41	
		Avoidance	38	
		Brofaromine		Slaap et al, 1996[18]
		Fear or anxiety	47	
		Avoidance	33	
		Fluvoxamine		
		Fear or anxiety	43	
		Avoidance	21	

*Abbreviations: CGI-S =Clinical Global Impressions-Severity of Illness Scale; FQ=Fear Questionnaire, HAM-A= Hamilton Rating Scale for Anxiety, LSAS =Liebowitz Social Anxiety Scale.

overall functional impairment; and quality of life. Rating scales have been used to evaluate outcomes in pharmacotherapy trials.

The 2 most common criteria used to measure improvement in clinical studies of social anxiety disorder are achieving a rating on the CGI-S of markedly or moderately improved[13–15] and reaching a prespecified level of improvement on a symptom scale (Table 2). Some studies have looked for responders using a generic clinical severity scale, such as the HAM-A,[16–18] whereas others have chosen a specific scale, such as the Fear Questionnaire[19] or LSAS.[17,18,20,21]

One study using CGI-S ratings of markedly or moderately improved as an indicator of improvement in social anxiety disorder severity compared treatment with paroxetine (N = 94) and placebo (N = 93) over a 12-week period.[14] The proportion of responders was significantly higher with paroxetine than with placebo (55% versus 24%, p < .001). This is in contrast to a study comparing moclobemide (N = 40) and placebo (N = 37), in which no

difference in responsiveness was observed (17.5% versus 13.5%, N.S.).[15]

The LSAS is the specific rating scale most widely used to measure outcomes of pharmacotherapy. Some investigators using the LSAS prespecify a level of improvement of 50% or more on only the fear or anxiety subscale,[17,20] whereas others consider both the fear or anxiety and avoidance subscales.[18,20] An example of when both LSAS subscales were used is a placebo-controlled comparison of brofaromine and fluvoxamine in social anxiety disorder patients (both N = 30): with both drugs, higher response rates were seen on the fear or anxiety subscale (47% and 43%, respectively) than on the avoidance subscale (33% and 21%, respectively).[18]

No single rating scale is currently adequate to define recovery. Instead, we need to combine different measurements, to take into account both global and specific improvements in clinical severity and disability.[22] In contrast to other studies to date that used individual scales,[23] Versiani et al.[23] employed a set of scales to assess improvement in a study comparing pharmacotherapy with moclobemide, phenelzine, and placebo (N = 26 for each group) for 16 weeks. Patients were considered to be "almost symptom-free" if their final CGI-S score was moderately or markedly improved compared with baseline, and if they attained global scores on the Sheehan Disability Scales of not at all or mildly disabled and total LSAS score improvement of at least 70%. A clear differentiation between treated and untreated patients was seen: of those who completed the 16 weeks of treatment, 91% taking phenelzine, 82% taking moclobemide, but only 43% taking placebo fulfilled all 3 criteria.

LIMITATIONS OF CURRENT RATING SCALES

Although several rating scales are clearly useful for measuring improvement in patients with social anxiety disorder, no single instrument is at present considered to be a gold standard, although the LSAS may well become this standard. There are a number of limitations in the rating scales currently employed: psychometric validity testing is limited; no scale has been fully validated or adapted to different language or culture situations; and there is no specific scale for quality of life. Further issues that should be considered are the 2 subdiagnoses of generalized and nongeneralized social anxiety disorder, that patients' insight into their disorder tends to be low, and that their level of resignation is often high.

To take into account the current limitations of rating scales, we need to reach a consensus about which rating scales should be used and to define quantitatively what is meant by global improvement. With respect to developing new rating scales, we need scales that are more comprehensive, scales that are more specific, better psychometric support for the scales, and a range of self-rated, clinician-rated, and proxy-rated scales. Efforts should be made to adapt and validate the rating scales for different languages and cultures.

CONCLUSION

The main criteria employed for assessing improvement have changed little over the past few years, with most investigators looking for at least moderate improvement on a global generic scale or attainment of a prespecified level of response on a specific clinical severity rating scale, usually an improvement in score of 50% or more. A better approach may be to employ a multiaxial system using a number of rating scales. The more restrictive measures employed by Versiani et al.,[23] on which patients were considered to be "almost symptom-free" if they fulfilled predefined criteria on both global and specific clinical severity scales and a generic disability scale, are an example of this kind of approach. A major limitation of the currently available rating scales is that psychometric properties to support their validity are limited. Longitudinal studies and appropriate measures of the relevant dimensions of outcome are needed to evaluate long-term outcomes of social anxiety disorder, responses to pharmacotherapy, and the possibilities for improving patients' abilities.

Drug names: alprazolam (Xanax), atenolol (Tenormin), buspirone (BuSpar), fluvoxamine (Luvox), paroxetine (Paxil), phenelzine (Nardil).

REFERENCES

1. Liebowitz MR. Social phobia. Mod Probl Pharmacopsychiatry 1987;22:141–173
2. Horner KJ, Juster HR, Brown EJ, et al. Psychometric properties of the Liebowitz Social Anxiety Scale. Poster presented at the 16th annual meeting of the Anxiety Disorders Association of America; March 28–31, 1996; Orlando, Fla
3. Cox BJ, Swinson RP. Assessment and measurement. In: Stein MB, ed. Social Phobia: Clinical and Research Perspectives. Washington, DC: American Psychiatric Press; 1995:261–291
4. Slavkin SL, Holt CS, Heimberg RG, et al. The Liebowitz Social Anxiety Scale: an exploratory analysis of construct validity. Poster presented at the 24th annual meeting of the Association for Advancement of Behavior Therapy; 1990; San Francisco, Calif
5. Greist JH, Kobak KA, Jefferson JW, et al. The clinical interview. In: Heimberg RG, Liebowitz MR, Hope DA, et al, eds. Social Phobia: Diagnosis, Assessment, and Treatment. New York, NY: Guilford Press; 1995:185–201
6. Watson D, Friend R. Measurement of social-evaluative anxiety. J Consult Clin Psychol 1969;35:448–457
7. Katschnig H. The boundaries of social phobia and its subtypes: workshop report 1. Int Clin Psychopharmacol 1996;11(suppl 3):101–102
8. Schneier FR, Heckelman LR, Garfinkel R, et al. Functional impairment in social phobia. J Clin Psychiatry 1994;55:322–331
9. ICIDH-2. World Health Organization International Classification of Impairments, Activities and Participation, 2: A Manual of Dimensions of Disablement and Health, Beta-1 draft. Geneva, Switzerland: World Health Organization; 1998
10. Wittchen HU, Beloch E. The impact of social phobia on quality of life. Int Clin Psychopharmacol 1996;11(suppl 3):15–23
11. Frisch MB, Cornell J, Villanueva M, et al. Clinical validation of the quality of life inventory: a measure of life satisfaction for use in treatment planning and outcome assessment. Psychological Assess 1992;4:92–101

12. Safren SA, Heimberg RG, Brown EJ, et al. Quality of life in social phobia. Depress Anxiety 1996;4:126–133
13. Liebowitz MR, Schneier F, Campeas R, et al. Phenelzine vs atenolol in social phobia: a placebo-controlled comparison. Arch Gen Psychiatry 1992; 49:290–300
14. Gergel I, Pitts C, Oakes R, et al. Significant improvement in symptoms of social phobia after paroxetine treatment. Biol Psychiatry 1997;42:26S
15. Schneier FR, Goetz D, Campeas R, et al. Placebo-controlled trial of moclobemide in social phobia. Br J Psychiatry 1998;172:70–77
16. van Vliet IM, den Boer JA, Westenberg HG. Psychopharmacological treatment of social phobia: clinical and biochemical effects of brofaromine, a selective MAO-A inhibitor. Eur Neuropsychopharmacol 1992;2:21–29
17. van Vliet IM, den Boer JA, Westenberg HGM, et al. Clinical effects of buspirone in social phobia: a double-blind placebo-controlled study. J Clin Psychiatry 1997;58:164–168
18. Slaap BR, van Vliet IM, Westenberg HG, et al. Responders and non-responders to drug treatment in social phobia: differences at baseline and prediction of response. J Affect Disord 1996;39:13–19
19. Gelernter CS, Uhde TW, Cimbolic P, et al. Cognitive-behavioral and pharmacological treatments of social phobia: a controlled study. Arch Gen Psychiatry 1991;48:938–945
20. van Vliet IM, den Boer JA, Westenberg HGM. Psychopharmacological treatment of social phobia: a double blind placebo controlled study with fluvoxamine. Psychopharmacology (Berl) 1994;115:128–134
21. Fahlen T, Nilsson HL, Borg K, et al. Social phobia: the clinical efficacy and tolerability of the monoamine oxidase-A and serotonin uptake inhibitor brofaromine: a double-blind placebo-controlled study. Acta Psychiatr Scand 1995;92:351–358
22. Janca A, Kastrup MC, Katschnig H, et al. The ICD-10 multiaxial system for use in adult psychiatry: structure and applications. J Nerv Ment Dis 1996;184:191–192
23. Versiani M, Nardi AE, Mundim FD, et al. Pharmacotherapy of social phobia: a controlled study with moclobemide and phenelzine. Br J Psychiatry 1992;161:353–360