

Issues in the Assessment of Social Phobia: A Review

Andrea M. Letamendi, MS,^{1,2} Denise A. Chavira, PhD,² and Murray B. Stein, MD, MPH²

1 Department of Psychology, San Diego State University, San Diego, California, U.S.A.

2 Department of Psychiatry, University of California San Diego, San Diego, California, U.S.A.

Abstract: Since the emergence of social phobia in DSM nomenclature, the mental health community has witnessed an expansion in standardized methods for the screening, diagnosis and measurement of the disorder. This article reviews formal assessment methods for social phobia, including diagnostic interview, clinician-administered instruments, and self report questionnaires. Frequently used tools for assessing constructs related to social phobia, such as disability and quality of life, are also briefly presented. This review evaluates each method by highlighting the assessment features recommended in social phobia literature, including method of administration, item content, coverage, length of scale, type of scores generated, and time frame.

Introduction

Social phobia is an anxiety disorder characterized by excessive and persistent fear provoked by exposure to social or performance situations (1). It is the potential criticism, humiliation or negative evaluation by others that is considered the source of anxiety among individuals with social phobia. Excessive self-consciousness and self-criticism are features which often lead to extreme phobic avoidance, the greatest cause of impairment among those with social phobia (2). Significant distress or interference in functioning is, therefore, key to the diagnosis of social phobia (1, 3).

Social phobia is considered a prevalent, chronic and debilitating psychiatric disorder (4). The U.S. National Comorbidity Survey Replication (NCS-R) found a lifetime and one-year prevalence rate of 12.1% and 7.1%, respectively (5). Non-U.S. international studies demonstrate similarly high lifetime prevalence rates ranging from 7.1% to 16.1% (6, 7). Reports from the Israel National Health Survey (8), which did not examine social phobia, suggest its inclusion would render anxiety disorders as more prevalent than mood disorders.

Rates of social phobia in primary care medical settings are slightly lower (7%) than in the community (9), though these estimates may be a product of the patients' social avoidance and fewer care visits. Community rates are slightly higher among women than men with a 3:2 ratio (10), although these gender differences have not been found in clinical samples. Prospective reports on the course of social phobia evidence an early onset (by age 19 in the majority of cases) with a flattening incidence rate after age 21 (11). Social phobia has a high risk for persistence with rare natural remission; a chronic course is evidenced by individuals in their 30s and 40s who endured either a progressive worsening or persistence of symptoms since onset (12). Social phobia is correlated with impairments spanning relationship, family, employment and educational domains (13). A review on the costs of social phobia found associations between the disorder and lower educational attainment, work impairment and lower wages (4). With regard to social impairment, individuals with social phobia have few friendships, weak social support and increased likelihood to be unmarried or live alone (4).

Address for Correspondence: Andrea M. Letamendi, MS, Anxiety and Traumatic Stress Disorders Research Program, University of California San Diego, 8939 Villa La Jolla Drive, Suite 200, La Jolla, CA 92037–0855, U.S.A. E-mail: aletamen@ucsd.edu

Diagnostic Heterogeneity and Comorbidity

Social phobia first emerged as a diagnostic category in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; 14). The central diagnostic feature differentiating social phobia from other anxiety disorders was the excessive fear of observation, evaluation, or scrutiny of others during a discrete performance situation (14). Thus, the fear surrounding public speaking, stage acting, eating or drinking in front of others or any other performance-oriented situation constituted the core criterion for social phobia. Subsequent DSM revisions, in response to empirical and clinical observation, broadened the definition of social phobia to the marked fear of “one or more” social phobic situations (15, 16). Moreover, the DSM-III-R introduced the “generalized subtype” to denote fears related to “most social situations” (15). Individuals with generalized social phobia experience excessive fear and preoccupation with most social interactions and settings, e.g., initiating conversations, speaking to strangers, and attending parties. The specifier “generalized” is used in the DSM-IV-TR to capture the psychopathology of individuals who fear both public performance situations and social interaction situations (1).

Of the two subtypes identified, the generalized subtype is more persistent, more impairing, and more likely associated with secondary psychiatric illnesses (17). Worth noting is the recent literature establishing evidence for more than two subtypes (5, 18) or a non-discrete continuum of severity (19) among social phobia samples. Therefore, it is unlikely that either the number or the content of feared situations single-handedly characterize the heterogeneity of social phobia, an important issue considered throughout this assessment review.

Social phobia commonly co-occurs with other DSM disorders. The NCS-R found that nearly two-thirds (62.9%) of respondents with social phobia met criteria for at least one other DSM-IV disorder, with higher comorbidity rates associated with higher numbers of social fears (5). The most common secondary Axis I diagnoses include

agoraphobia, substance use disorders, major depression, and body dysmorphic disorder (5, 20, 21). Substantial phenomenological overlap between avoidant personality disorder and generalized social phobia has raised questions about the DSM-IV classification of two distinct disorders on separate axes (22). Indeed, evidence for a common genetic vulnerability suggests that co-occurrence of the two disorders can be explained by shared etiological factors (23). Thus, it may be clinically parsimonious to consider avoidant personality disorder a severe form of generalized social phobia (24).

Formal Assessment

Methodized assessment plays a central role in describing a patient's impairment, informing an intervention method and guiding the ongoing treatment process. Distinct assessment methods provide unique information – an assessor well-informed about measurement tools will better approximate his or her aims. The recommended assessment of social phobia includes diagnostic interviews, self report questionnaires, clinician-administered instruments and behavioral assessment (25, 26). Guided by these recommendations, the following sections focus on commonly used formal techniques for symptomatic assessment of generalized and nongeneralized social phobia in clinical and research settings. Frequently used tools for assessing related constructs (e.g., quality of life) are also briefly presented. Behavioral assessment techniques and physiological measures of social phobia are not described here due to space limitations, but are well reviewed in Hart et al. (26) and McNeil, Ries and Turk (27), respectively. Likewise, child and adolescent versions of assessments mentioned in this review can be found in Hitchcock, Chavira and Stein (28).

Important features of rating scales for social phobia have been proposed (29), and thus guide our evaluation of each instrument's utility; they include method of administration, item content, coverage, length of scale, type of scores generated, and time frame.

Diagnostic Interview

Semi-structured clinical interviews are advantageous in that they utilize patient report, behavioral observation, and clinician's judgement to achieve a comprehensive diagnostic impression. Semi-structured interviews assist with differential diagnosis and evaluation of comorbid conditions, elements important to the assessment of social phobia because fears of social evaluation often co-occur with features such as agoraphobic avoidance, panic attacks, social withdrawal, rumination and dysthymia.

Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)

The ADIS-IV (30) is a commonly used diagnostic interview that assesses major anxiety disorders, mood disorders, substance use disorders, and disorders commonly overlapping with anxiety disorders (e.g., hypochondriasis). A psychotic screening module is also provided. A feature of the ADIS-IV is the Clinician Severity Rating (CSR), which allows the clinician to assign a severity rating for each diagnosis using a 0 (absent) to 8 (very severely disabling) scale. CSRs reflect intensity of symptoms, behavioral avoidance associated with the symptoms, and the interference in social and occupational functioning of the symptoms endorsed (31). ADIS-IV reliability estimates for the diagnosis of social phobia ($Kappa = .64$) are adequate (32). Data has also supported the validity of the CSR as a global measure that reflects the fundamental aspects of social phobia (31).

Strengths of the ADIS-IV include its empirical support, broad coverage of anxiety disorders, clinician severity ratings and its modular format. Limitations of the ADIS-IV include the cost and length of interview, required training to administer the interview, as well as the omission of some psychiatric disorders. Familiarity of DSM Axis I psychiatric nomenclature is a necessary criterion for proficient administration of the ADIS-IV.

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I/P)

The SCID-I/P (33) is a semi-structured clinical interview designed to be administered by a clinician or trained mental health professional with substantial and comprehensive knowledge of the DSM. The modular interview covers DSM-IV-TR Axis I major disorders, subtypes and course specifiers. Screening questions and skip-out items allow the skilled clinician to navigate the sizable interview. Reliability studies from previous DSM-IV versions of the SCID-I/P have demonstrated fair inter-rater agreement ($Kappa = .63$) and test-retest agreement ($Kappa = .59$) for the diagnosis of social phobia (34).

Strengths of the SCID-I/P include flexibility of administration, modification for research purposes and an overview section for obtaining socio-occupational and other background information. Limitations of the SCID-I/P include extensive training (35) as well as length of interview in its entirety.

Clinician-Administered Scales

Clinician-rated psychometric instruments offer the brevity of an itemized scale as well as the flexibility of clinical judgement and qualitative behavioral observation. The two most commonly used clinician-rated instruments are described here.

Liebowitz Social Anxiety Scale (LSAS)

The LSAS (36) is considered the most widely used clinician-administered scale for social phobia assessment. The measure was designed to encompass the full range of the two domains – performance situations and social interactions – persons with social phobia fear and avoid. The scale consists of 24 items: 13 situations that are performance-related (e.g., “participating in a small group”) and 11 situations that are social interactions (e.g., “going to a party”). Each situation is described by the clinician to the examinee, who rates the intensity of anxiety experienced when in the situation (0 = “none” to 3 = “severe”) and the frequency of their avoidance of the situation (0 = “never” to 3 = “usually”).

[67–100%]). Four subscores are obtained: Performance Fear, Performance Avoidance, Social Fear and Social Avoidance. A global score can be obtained by summing fear and avoidance ratings across all situations. Heimberg and colleagues (37) provide support of the internal consistency of the LSAS total score (Cronbach's $\alpha = 0.96$) and six subscales (α ranging from 0.81 to 0.92). Support was also found for the measure's convergent validity; correlations between total LSAS scores and self-report measures of social phobia were highly significant (37).

Factor analytic evaluation of the LSAS has revealed a four-factor solution in one study: (1) social interaction, (2) public speaking, (3) observation by others, and (4) eating and drinking in public (38); and a five-factor solution in another: (1) interpersonal anxiety, (2) formal speaking anxiety, (3) stranger-authority anxiety, (4) eating and drinking while being observed, and (5) anxiety of doing something while being observed (39).

The LSAS was not intended as a diagnostic tool; however, it is often used for screening social phobia in research settings. An LSAS score of 30 or above for nongeneralized social phobia and 60 and above for generalized social phobia optimizes the balance between sensitivity and specificity of the instrument (40). Treatment sensitivity has been demonstrated in pharmacotherapy outcome research (41) as well as cognitive-behavioral treatment of social phobia (42).

The LSAS has been translated into several languages and validated in international samples (43–46). A Hebrew version of the LSAS demonstrated strong test-retest reliability, internal consistency, and discriminant validity (47). The self-report version of the LSAS (LSAS-SR) has demonstrated indistinguishable psychometric properties from the clinician version and thus may be validly employed in social phobia assessment (48).

In sum, the major strength of the LSAS is its broad coverage of both performance and interaction-related anxiety. The total score on the LSAS is often used as an index of current impairment due to social phobia. The LSAS-SR can be utilized efficiently in pharmaceutical trials, which often rely on repeated assessment. A limitation of the measure

is that it does not capture cognitive schemas or physiological complaints characterized among persons with social phobia. Furthermore, the two situational subscales – performance and interaction – have not been supported empirically.

Brief Social Phobia Scale (BSPS)

The BSPS (49) is a symptom rating scale originally developed to assess social phobia severity and symptom change over time with treatment (49). The scale includes 11 checklist items, 7 which describe specific phobia situations that the examinee must rate on a severity scale of fear (0 = “none” to 4 = “extreme”) and a frequency scale of avoidance (0 = “never” to 4 = “always”). Four additional items comprise physiological symptoms associated with experiencing or anticipating feared situations (e.g., blushing) that the examinee must also rate using the same severity scale above. Thus, three subscores are obtained (Fear, Avoidance and Physiology) as well as a total score. Any inconsistencies or ambiguities in patient report are to be queried and reconciled by the assessor (49). Scores range from 0 to 72, with 20 or above the cutoff for generalized social phobia.

Inter-rater and test-retest reliability (49, 50) as well as treatment sensitivity (51) of the BSPS total scale have been well supported.

Strengths of the BSPS are its brevity and its inclusion of the observable physiological markers often reported among persons with social phobia. Limitations include lack of empirical support for its three subscales/factors (50) and poor reliability of the physiological subscale (49).

Self-Report Scales

Self-rating methods are the most time-efficient among assessment options. They are ideal for repeated evaluation and minimize error variance due to multiple assessors. These features are especially advantageous for treatment studies that use multiple sites and frequent symptom monitoring (29). Over the last three decades, the quantity of self-report scales for social phobia has expanded considerably. Table 1 summarizes verbal self-report questionnaires for social phobia, highlighting their key features.

Table 1. *Self-rating Scales for Symptomatic Assessment of Social Phobia (SP)*

Scale	Description	Features	Limitations
Social Phobia and Anxiety Inventory (52, 53)	45 items cover somatic, cognitive, and behavioral symptoms	Agoraphobia subscale	Cumbersome scoring
Social Phobia Scale (54, 55)	20 items assess fears of scrutiny by others	Full coverage of SP symptoms when used in conjunction with SIAS	No avoidance ratings
Social Interaction Anxiety Scale (54, 55)	20 items assess fears of interaction	Full coverage of SP symptoms when used in conjunction with SPS	No avoidance ratings
Social Phobia Inventory (56)	17 items assess fear, avoidance, physiology of SP	SP sensitivity and user-friendly	Lacks strong support for physiological subscale
Mini-SPIN (57)	3-items related to social embarrassment	Brief; excellent SP sensitivity/specificity	Subsequent assessment usually required
Social Avoidance and Distress Scale (58)	28 items measure anxiety, avoidance, distress related to interactions	Reliable among clinical SP samples	Lack of empirical support as a diagnostic aid
Fear Questionnaire Social Phobia Subscale (59)	5 items rated on performance/social avoidance	Brief, useful as diagnostic aid	Limited to avoidance ratings

Social Phobia and Anxiety Inventory (SPAI)

The SPAI (52, 53) was designed to assess social anxiety distress across a broad range of somatic symptoms, cognitions and behavior across fear-producing situations (52). The scale consists of an empirically derived set of 45 items covering social-situation anxiety, somatic symptoms and phobic cognitions. Thirteen items on the SPAI assess agoraphobia symptoms. Each of the situational items includes separate ratings of distress for four specific groups: (a) strangers; (b) authority figures; (c) the opposite sex; and (d) people in general. Among the two cognitive items, examinees are asked to self-rate five types of anticipatory thoughts (e.g., “I will probably make a mistake and look foolish”) and four types of in-vivo thoughts (e.g., “I wish I could leave and avoid the whole situation”). Likewise, each somatic item requires separate ratings for physiological symptoms experienced in the situation: (a) Sweating;

(b) Blushing; (c) Shaking. Thus, the majority of “items” contain sub-components such that the scale requires 109 individual self-ratings, using a seven-point distress scale (1 = “never” to 7 = “always”). Social phobia subscale scores range from 0 to 192, with 60 an adequate screening cutoff for social phobia (52). The agoraphobia scale ranges from 0 to 78. The SPAI difference score is calculated by subtracting the agoraphobia score from the social phobia subscale score. Thus, the SPAI offers the option of factoring out avoidance due to agoraphobia rather than social phobia.

Internal consistency and test-retest reliability for the SPAI are well supported (52, 53). Scores on the SPAI significantly differentiate patients with social phobia and those from other clinic groups such as panic disorder and obsessive-compulsive disorder (52, 60). The SPAI difference score is considered less reliable than the SPAI social phobia subscale score (61) and thus the latter is

considered more parsimonious when evaluating groups of individuals with social phobia. However, the SPAI difference score has demonstrated superior discriminative power relative to the SPAI social phobia subscale (62). Furthermore, both the SPAI difference score and the SPAI social phobia subscale score demonstrated treatment sensitivity following cognitive-behavioral therapy with equivalent effect sizes (61). The SPAI social phobia subscale and the SPAI agoraphobia subscale have been confirmed by factor-analysis using a nonclinical sample (63). Finally, an abbreviated SPAI (SPAI-23) has recently been developed with statistical validation (64).

Strengths of the SPAI include its thorough coverage of social situations, subcomponents to assess the variety of observer contexts, superior discriminant validity over other self reports (60), the optional exclusion of circumscribed agoraphobia symptoms, and inclusion of physiological markers of social phobia. Limitations of the SPAI are its length of administration and cumbersome scoring system relative to other self-report scales. Furthermore, the use of the "opposite sex" term in many items overlooks potential subjects with same-sex attraction, ostensibly attenuating their social phobia scores on the SPAI.

The Social Phobia Scale and the Social Interaction Anxiety Scale (SPS and SIAS)

The SPS and SIAS were developed as separate self-report measures of social anxiety by Mattick and Clarke (54, 55). Often administered together, the SPS pertains to fears of scrutiny during observation by others, whereas the SIAS assesses anxiety experienced during interaction with others. The SPS contains 20 statements that self-reporters must rate the degree of how "characteristic or true" for them (0 = "not at all" to 4 = "extremely"). Items include both worries pertaining to signs of nervousness (e.g., "I fear I may blush when I am with others") as well as to scrutiny of performance (e.g., "I become anxious if I have to write in front of others"). The SIAS also contains 20 statements with the same rating system as the SPS. SIAS items pertain to discomfort in social settings (e.g., "I am tense mixing in a group") including dyadic interactions (e.g., "I tense up if I meet an acquaintance on the street").

A total score from 0 to 80 is derived separately for each scale. Suggested cutoff scores of 34 for the SIAS and 24 for the SPS denote generalized social phobia and nongeneralized social phobia, respectively (65).

Internal consistency and test-retest reliability for the SPS and SIAS are well supported (55). Both scales have demonstrated formal treatment sensitivity following cognitive behavioral therapy with effect sizes for SIAS more robust (61) as well as following pharmacotherapy (42). The SIAS and SPS reliably distinguish patients with social phobia from those with other anxiety disorders (66). They appear to measure different but related constructs; validity studies support the distinction between social interactional anxiety and scrutiny fears (54, 66). However, data reduction analysis of items from both scales revealed three factors: (1) interaction anxiety, (2) anxiety about being observed by others, (3) fear that others will notice anxiety symptoms (67). This finding suggests multifactorial phenomena in nongeneralized anxiety and is consistent with research disconfirming the 2-subtype heterogeneity of social phobia (5, 18).

Strengths of the SPS and SIAS include their combined coverage of social and performance situations; usage of both scales is recommended for patients with generalized social phobia. If only performance-related anxiety is of interest, the SPS is a facile, reliable self-report tool. Coverage of social phobia phenomenology by the SPS and SIAS is limited to thoughts and feelings (i.e., "worry about"; "tense"; "self conscious"). Thus, both scales lack any avoidance ratings which we know to be pertinent to the patient's impairment. Furthermore, the SPS does not query all public speaking situations. Factor analytic findings suggest a conceptual problem with treating the SPS as measuring a unidimensional construct.

Social Phobia Inventory (SPIN) and Mini-SPIN

The SPIN (56) is a recently created scale developed to assess the three important dimensions (fear, avoidance, physiology) of social phobia in a brief format relative to previous self-report scales. The SPIN's 17 items, phrased similarly to those on the BSPS, are rated on a scale (0 = "not at all" to 4 = "extremely"). The SPIN range of scores is 0 to 68; a cutoff score of 19 distinguishes between social phobia and controls (56).

Internal consistency, test-retest reliability, and construct validity of the SPIN has been established by the developers of the measure (56) and confirmed with excellent estimates by others (68). The SPIN has also evidenced treatment sensitivity following cognitive behavioral therapy (68).

Advantages of the SPIN include its brevity, simplicity, social phobia sensitivity, and ease of scoring (56); these facets make the measure popular among treatment outcome trials. A limitation of the SPIN is the relatively modest empirical support for its physiological arousal subscale (68).

The Mini-SPIN (57), a brief self-report scale created from three items of the SPIN, has recently gained attention as an impressive screening tool with excellent sensitivity (89%) and specificity (90%) in identifying generalized social phobia in managed care (57). Its three items ("Fear of embarrassment causes me to avoid doing things and speaking to people"; "I avoid activities in which I am the center of attention"; "Being embarrassed or looking stupid are among my worst fears") evidenced strong internal consistency and support of construct validity (69). The suggested cutoff score of 6 on the Mini-SPIN has been empirically supported (57, 69). Thus, the Mini-SPIN seems a promising assessment tool for social phobia presentations in time-limited settings.

Social Avoidance and Distress Scale (SAD)

The SAD (58), developed before the DSM-III introduction of social phobia, contains 28 items that measure social anxiety, avoidance and distress associated with social interactions (e.g., "Being introduced to people makes me tense and nervous"). The SAD differs from most self-report forms in that its items are rated on a true/false rather than a Likert-type scale. The SAD and Fear of Negative Evaluation Scale (described below) are two of the most debated assessment measures for social phobia; the SAD has been questioned in its usefulness in discriminating social phobia from other anxiety disorders (70, 71) and in evidencing treatment sensitivity (71). Subsequent research demonstrated that the SAD has excellent internal consistency based on clinical samples of patients with anxiety disorders; however, the measure did not significantly differentiate patients with social phobia from those with other anxiety disorders (72).

The SAD is a reliable measure of general worry and avoidance of social interactions. Limitations of the SAD include the absence of specific physiological responses to social interactions and the lack of support for its use as a diagnostic aid for social phobia.

Fear Questionnaire Social Phobia Subscale (FQ-Social)

The FQ-Social is a subscale of the Fear Questionnaire (59), a 15-item scale that assesses the severity of phobias (i.e., agoraphobia, blood-injury phobia, and social phobia). The FQ-Social comprises five items rated on a 0 to 8 scale of avoidance (0 = would not avoid it; 8 = always avoid it). Each item briefly describes a situation involving being observed, being criticized or conversing (e.g., "Being watched or stared at"). The FQ subscale has been empirically supported as a reliable, valid measure of social phobia (55, 59, 73).

Strengths of the FQ-Social include its brevity and simplicity; its five items effectively differentiate between social phobia and other anxiety disorders (74, 75). However, the FQ-Social is limited to avoidance ratings and does not fully cover the breadth of social phobia domains. Furthermore, mixed findings question the utility of the FQ-Social in differentiating between generalized and nongeneralized social phobia (76, 77).

Cognitive self-report measures

Because social phobia is characterized by fears of negative evaluation, cognitive products – or simply, *thoughts* – are a core feature of the disorder (78). Individuals with social phobia judge themselves harshly and assume others judge them negatively; these are often the core schema challenged in cognitive therapy (25). Social anxiety is hypothesized to be activated and maintained by dysfunctional beliefs and biased information-processing; cognitive change may be central to optimal outcomes among individuals with social phobia (79). Table 2 provides an overview of cognitive measures of social phobia. They include the Fear of Negative Evaluation Scale (FNE; 58), the Social Interaction Self-Statement Test (SISST; 80), the Social Thoughts and Beliefs Scale (STABS; 81), and the Appraisal of Social Concerns (ASC; 82).

Table 2. *Self-rating Scales for Cognitive Assessment of Social Phobia (SP)*

Scale	Year	Number of Items	Description and Features
Fear of Negative Evaluation Scale (58)	1969	30	Assesses non-specific but critical cognitive features of SP
The Social Interaction Self-Statement Test (80)	1982	21	Thought-endorsement measure relevant to 1-to-1 interactions
The Social Thoughts and Beliefs Scale (81)	2003	21	Empirically validated to measure cognitions in situational parameters
Appraisal of Social Concerns (82)	2004	20	Measures SP-related threat appraisals; similar but more efficient than thought-listing

Related Variables of Interest

Features associated with social phobia, such as dys-thymic mood, generalized anxiety, and lowered life satisfaction often inform the scope, severity, and disability of patients with social phobia. Antony

(25) suggests the inclusion of self-report scales of depression, anxiety and stress; Safren et al. (83) also highlight the importance of measuring disability, functional impairment, and lowered life satisfaction as part of social phobia assessment. Quality of life scales often used in psychiatric or medical

Table 3. *Assessments of Associated Features of Social Phobia (SP)*

Scale	Description	Scores	Features
Sheehan Disability Scale (84)	4-items assess current levels of impairment across work/school, social, and family domains	Single dimension of global functioning from 0 (unimpaired) to 30 (highly impaired)	Change-over-time in scores frequently used in treatment outcome studies
Liebowitz Self-Rated Disability Scale (13)	Assesses current and lifetime impairment due to "emotional problems" across 11 domains	Mean score of 39 = substantial disability (85)	Includes suicidal behavior domain
Beck Depression Inventory, 2 nd Edition (86)	Self-report of cognitive, behavioral, and somatic symptoms of depression	0 to 10 = Minimal depression 10–18 = Mild depression 19–29 = Moderate to severe depression 30–63 = Severe depression	Efficient format with wide coverage of depression symptomatology
Medical Outcomes Study Health Status Questionnaire-36 item Short Form (87, 88)	Measures general quality of life over a broad range of non-disease-specific health concepts	50 to 70 = Moderately reduced quality of life Below 50 = Markedly reduced quality of life	Validated in Hebrew (89) and other languages

settings, although having little obvious relevance to social phobia, can elucidate impairment caused by excessive behavioral avoidance (i.e., social isolation) and cognitive rumination (83). Table 3 summarizes the recommended, psychometrically sound assessments for measuring associated features of social phobia.

Conclusion

This review highlighted the broad array of instruments available for the assessment of social phobia, as well as the key features and limitations associated with each. Consideration of each assessment approach should be made with the acknowledgement that clinical evaluation is in itself a phobic stimulus for many patients with social phobia (25). Additionally, a skillful assessor maintains multicultural sensitivity when assessing individuals with minority backgrounds, including sexual orientation, such that they are aware of the potential bias(es) of a measurement tool. Therefore, the expertise, skill and professionalism of the clinician will influence the quality of social phobia assessment beyond the abilities of the measure in question.

References

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th edition, rev. Washington, D.C.: American Psychiatric Association, 2000.
2. Heckelman LR, Schneier FR. Diagnostic issues. In: Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, editors. Social phobia: Diagnosis, assessment, and treatment. New York: Guilford, 1995: pp. 3–20.
3. Hazen AL, Stein MB. Clinical phenomenology and comorbidity. In: Stein MB, editor. Social phobia: Clinical and research perspectives. Washington, D.C.: American Psychiatric, 1995: pp. 3–41.
4. Lipsitz JD, Schneier FR. Social phobia: Epidemiology and cost of illness. *Pharmacoeconomics* 2000;18:23–32.
5. Ruscio AM, Brown TA, Chiu WT, Sareen J, Stein MB, Kessler RC. Social fears and social phobia in the USA: Results from the National Comorbidity Survey Replication. *Psychol Med* 2008;38:15–28.
6. Stein MB, Walker JR, Ford DR. Setting diagnostic thresholds for social phobia: Considerations from a community survey of social anxiety. *Am J Psychiatry* 1994;151:408–412.
7. Wacker HR, Mulleijans R, Klein KH, Battegay R. Identification of cases of anxiety disorders and affective disorders in the community according to ICD-10 and DSM-III-R using the Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 1992;2:91–100.
8. Levinson D, Zilber N, Lerner Y, Grinshpoon A, Levav I. Prevalence of mood and anxiety disorders in the community: Results from the Israel National Health Survey. *Isr J Psychiatry Relat Sci* 2007;44:94–103.
9. Stein MB, McQuaid JR, Laffaye C, McCahill ME. Social phobia in the primary care medical setting. *J Fam Pract* 1999;48:514–519.
10. Kessler RC, McGonagle K, Zhao S, Nelson CB, Hughes M, Eshleman S, Wittchen HU, Kendler KS. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Arch Gen Psychiatr* 1994;51:8–19.
11. Wittchen HU, Nelson GB, Lachner G. Prevalence of mental disorders and psychosocial impairments in adolescents and young adults. *Psychol Med* 1998;28:109–126.
12. Wittchen HU. Epidemiology, patterns of comorbidity, and associated disabilities of social phobia. *Psychiatr Clin North Am* 2001;24:617–641.
13. Schneier FR, Heckelman LR, Garfinkel R, Campeas R, Fallon BA, Gitow A, Street L, Del Bene D, Liebowitz MR. Functional impairment in social phobia. *J Clin Psychiatry* 1994;55:322–331.
14. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 3rd edition. Washington, D.C.: American Psychiatric Association, 1980.
15. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 3rd edition, rev. Washington, D.C.: American Psychiatric Association, 1987.
16. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th edition. Washington, D.C.: American Psychiatric Association, 1994.
17. Heimberg RG, Stein MB, Hiripi E, Kessler RC. Trends in the prevalence of social phobia in the United States: A synthetic cohort analysis of changes over four decades. *Eur Psychiatry* 2000;15:29–37.
18. Eng W, Heimberg RG, Coles ME, Schneier FR, Liebowitz MR. An empirical approach to subtype identification in individuals with social phobia. *Psychol Med* 2000;30:1345–1357.
19. Stein MB, Torgurud LJ, Walker JR. Social phobia symptoms, subtypes, and severity: Findings from a community survey. *Arch Gen Psychiatry* 2000;11:1046–52.
20. 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;53:159–168.
21. Coles ME, Phillips KA, Menard W, Pagano ME, Fay C, Weisberg RB, Stout RL. Body dysmorphic disorder and social phobia: Cross-sectional and prospective data. *Depress Anxiety* 2006;23:26–33.

22. Reich J. The relationship of social phobia to avoidant personality disorder: A proposal to reclassify avoidant personality disorder based on clinical empirical findings. *Eur Psychiatry* 2000;15:151–159.
23. Reichborn-Kjennerud T, Czajkowski N, Torgersen S, Neale MC, Orstavik RE, Tambs K, Kendler KS. The relationship between avoidant personality disorder and social phobia: A population-based twin study. *Am J Psychiatry* 2007;164:1722–1728.
24. Chambless DL, Fydrich T, Rodebaugh TL. Generalized social phobia and avoidant personality disorder: Meaningful distinction or useless duplication? *Depress Anxiety* 2008;25:8–19.
25. Antony MM. Assessment and treatment of social phobia. *Can J Psychiatry* 1997;42:826–834.
26. Hart TA, Jack MS, Turk CL, Heimberg RG. Issues for the measurement of social anxiety disorder (social phobia). In: Westenberg HGM, Den Boer JA, editors. *Focus on psychiatry: Social anxiety disorder*. Amsterdam: Synthesis, 1999: pp. 133–155.
27. McNeil DW, Ries BJ, Turk CL. Behavioral assessment: Self-report, physiology, and overt behavior. In: Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, editors. *Social phobia: Diagnosis, assessment, and treatment*. New York: Guilford, 1995: pp. 202–231.
28. Hitchcock CA, Chavira DA, Stein MB. Recent findings of childhood social phobia. *Isr J Psychiatry Relat Sci*, this issue.
29. Lipsitz JD, Liebowitz MR. Assessing social anxiety disorder with rating scales: Practical utility for the clinician. In: Bandelow B, Stein DJ, editors. *Social anxiety disorder*. New York: Marcel Dekker, 2004: pp. 93–115.
30. Brown TA, DiNardo PA, Barlow DH. *Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)*. San Antonio, Texas: Psychological Corporation/Graywind Publications, 1994.
31. Hope DA, Laguna LB, Heimberg RG, Barlow DH. The relationship between ADIS clinician's Severity Rating and self-report measures among social phobics. *Depress Anxiety* 1997;4:120–125.
32. DiNardo PA, Brown TA, Lawton JK, Barlow DH. The anxiety Disorders Interview Schedule for DSM-IV Lifetime Version: Description and initial evidence for diagnostic reliability. Paper presented at the annual meeting of the 29th annual meeting for the Association for the Advancement of Behavior Therapy, Washington, D.C., 1995.
33. First MB, Spitzer RL, Gibbon M, Williams, JWB. *Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition. (SCID-I/P)* New York: Biometrics Research, New York State Psychiatric Institute, November 2002, Revision.
34. Zanarini MC, Skodol AE, Bender D, Dolan R, Sanislow C, Schaefer E, Morey LC, Grilo CM, Shea MT, McGlashan TH, Gunderson JG. The Collaborative Longitudinal Personality Disorders Study: Reliability of axis I and II diagnoses. *J Personal Disord* 2000;14:291–299.
35. Ventura J, Liberman RP, Green MF, Shaner A, Mintz J. Training and quality assurance with the Structured Clinical Interview for DSM-IV (SCID-I/P). *Psychiat Res* 1998;79:163–173.
36. Liebowitz MR. Social phobia. *Mod Probl Pharmacopsychiatry* 1987;22:141–173.
37. Heimberg RG, Horner KJ, Juster HR, Safren SA, Brown EJ, Schneier, Liebowitz MR. Psychometric properties of the Liebowitz Social Anxiety Scale. *Psychol Med*, 1999;29:199–212.
38. Safren SA, Heimberg RG, Horner KJ, Juster HR, Schneier FR, Liebowitz MR. Factor Structure of Social Fears: The Liebowitz Social Anxiety Scale. *J Anxiety Disord* 1999;13:253–270.
39. Perugi G, Nassini S, Marenmani I, Madaro D, Toni C, Simonini E, Akiskal HS. Putative clinical subtypes of social phobia: A factor-analytic study. *Acta Psychiatr Scand* 2001;104:280–288.
40. Mennin DS, Fresco DM, Heimberg RG, Schneier FR, Davies SO, Liebowitz MR. Screening for social anxiety disorder in the clinical setting: Using the Liebowitz Social Anxiety Scale. *J Anxiety Disord* 2000;16:661–673.
41. Stein MB, Liebowitz MR, Lydiard RB, Pitts CD, Bushnell W, Gergel I. Paroxetine treatment of generalized social phobia (social anxiety disorder). *JAMA* 1998;280:708–713.
42. Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, Holt CS, Welkowitz LA, Juster HR, Campeas R, Bruch MA, Cloitre M, Fallon B, Klein DF. Cognitive behavioral group therapy vs. phenelzine therapy for social phobia. *Arch Gen Psychiatry* 1998;55:1133–1141.
43. Yao SN, Note I, Fanget F, Albuissou E, Bouvard M, Jalenques I, Cottraux J. Social anxiety in patients with social phobia: Validation of the Liebowitz Social Anxiety Scale: The French version. *Encephale* 1999;25:429–435.
44. Bobes J, Badia X, Luque A, Garcia M, Gonzalez MP, Dal-Re R. Validation of the Spanish version of the Liebowitz Social Anxiety Scale, Social Anxiety and Distress Scale, and Sheehan Disability Inventory for the evaluation of social phobia. *Med Clin-Barcelona* 1999;112:530–538.
45. Asakura S, Inoue S, Sasaki F, Sasaki Y, Kitagawa N, Inoue T, Denda K, Koyama T, Ito M, Matsubara R. Reliability and validity of the Japanese version of the Liebowitz Social Anxiety Scale. *Seishin Igaku* 2002;44:1077–1084.
46. Soykan C, Ozguven HD, Gencoz T. Liebowitz Social Anxiety Scale: The Turkish version. *Psychol Rep* 2003;93:1059–1069.
47. Levin JB, Marom S, Gur S, Wechter D, Hermesh H. Psychometric properties and the three proposed subscales of a self-report version of the Liebowitz Social Anxiety Scale translated into Hebrew. *Depress Anxiety* 2002;16:143–151.
48. Fresco DM, Coles ME, Heimberg RG, Liebowitz MR, Hami S, Stein MB, Goetz D. The Liebowitz Social Anxiety Scale: A comparison of the psychometric properties of self-report and clinician-administered formats. *Psychol Med* 2001;6:1025–1035.

49. Davidson JR, Potts NL, Richichi EA, Ford SM, Krishnan R, Smith RD, Wilson W. The Brief Social Phobia Scale. *J Clin Psychiatry* 1991; 52:48S-51S.
50. Davidson JR, Miner CM, De Veauugh-Geiss J, Tupler LA, Colket JT, Potts NLS. The Brief Social Phobia Scale: A psychometric evaluation. *Psychol Med* 1997;27:161-166.
51. Stein MB, Fyer AJ, Davidson JRT, Pollack, MH, Wiita B. Fluvoxamine treatment of social phobia (social anxiety disorder): A double-blind, placebo-controlled study. *Am J Psychiatry* 1999;156:756-760.
52. Turner SM, Beidel DC, Dancu C, Stanley MA. An empirically derived inventory to measure social fears and anxiety: The Social Phobia and Anxiety Inventory. *Psychol Assess* 1989;1:35-40.
53. Turner SM, Beidel DC, Dancu C. Social Phobia and Anxiety Inventory Manual. North Tonawanda, N.Y.: Multihealth Systems, 1996.
54. Mattick RP, Clarke JC. Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. Unpublished manuscript, January 1989.
55. Mattick RP, Clarke JC. Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behav Res Ther* 1998;36:455-470.
56. Connor KM, Davidson JRT, Churchill LE, Sherwood A, Foa E, Weisler RH. Psychometric properties of the Social Phobia Inventory. *Br J Psychiatry* 2000;176:379-386.
57. Connor KM, Kobak KA, Churchill LE, Katelnick D, Davidson JRT. Mini-SPIN: A brief screening assessment for generalized social anxiety disorder. *Depress Anxiety* 2001;14:137-140.
58. Watson D, Friend R. Measurement of social evaluative anxiety. *J Consult Clin Psychol* 1969; 33:448-457.
59. Marks IM, Mathews AM. Brief standard self-rating for phobic patients. *Behav Res Ther* 1979;17:263-267.
60. Peters L. Discriminant validity of the Social Phobia and Anxiety Inventory (SPAI), the Social Phobia Scale (SPS) and the Social Interaction Anxiety Scale (SIAS). *Behav Res Ther* 2000;38:943-950.
61. Ries BJ, McNeil DW, Boone ML, Turk CL, Carter LE, Heimberg RG. Assessment of contemporary social phobia verbal report instruments. *Behav Res Ther* 1998;36:983-994.
62. Beidel DC, Turner SM. Scoring the Social Phobia and Anxiety Inventory: Comments on Herbert et al. *J Psychopathol Behav* 1992;14:377-379.
63. Osman A, Barrios FX, Aukes D, Osman JR. Psychometric evaluation of the Social Phobia and Anxiety Inventory in college students. *J Clin Psychol* 1995;51:235-243.
64. Roberson-Nay R, Strong DR, Nay WT, Beidel DC, Turner SM. Development of an abbreviated Social Phobia and Anxiety Inventory (SPAI) using item response theory: The SPAI-23. *Psychol Assess* 2007;19:133-145.
65. Heimberg RG, Mueller GP, Holt CS, Hope DA, Liebowitz MR. Assessment of anxiety in social interaction and being observed by others: The Social Interaction Anxiety Scale and the Social Phobia Scale. *Behav Ther* 1992;23:53-73.
66. Brown EJ, Turovsky J, Heimberg RG, Juster HR, Brown TA, Barlow DH. Validation of the Social Interaction Anxiety Scale and the Social Phobia Scale Across the Anxiety Disorders. *Psychol Assess* 1997;9:21-27.
67. Safren SA, Turk CL, Heimberg RG. Factor structure of the Social Interaction Anxiety Scale and the Social Phobia Scale. *Behav Res Ther* 1998;36:443-453.
68. Antony MM, Coons MJ, McCabe RE, Ashbaugh A, Swinson RP. Psychometric properties of the social phobia inventory: Further evaluation. *Behav Res Ther* 2006;44:1177-1185.
69. Weeks JW, Spokas ME, Heimberg RG. Psychometric evaluation of the mini-social phobia inventory (Mini-SPIN) in a treatment-seeking sample. *Depress Anxiety* 2007;24:382-391.
70. Turner SM, McCanna M, Beidel DC. Validity of the Social Avoidance and Distress and Fear of Negative Evaluation Scales. *Behav Res Ther* 1987;25:113-115.
71. Turner SM, Beidel DC. Some further comments on the measurement of social phobia. *Behav Res Ther* 1988;26:411-413.
72. Oei TPS, Kenna D, Evans L. The reliability, validity, and utility of the SAD and FNE scales for anxiety disorder patients. *Pers Individ Differ* 1991;12:111-116.
73. Herbert JD, Bellack AS, Hope DA. Concurrent validity of the Social Phobia and Anxiety Inventory. *J Psychopathol Behav* 1991;13:357-368.
74. Cox BJ, Swinson RP, Shaw BF. Value of the Fear Questionnaire in differentiating agoraphobia and social phobia. *Brit J Psychiatry* 1991;159:842-845.
75. Oei TPS, Moylan A, Evans L. Validity and clinical utility of the Fear Questionnaire for anxiety-disorder patients. *Psychol Assess* 1991;391-7.
76. Heimberg RG, Hope DA, Dodge CS, Becker RE. DSM-III-R subtypes of social phobia: comparison of generalized social phobics and public speaking phobics. *J Nerv Ment Dis* 1990;178:172-179.
77. Gelernter CS, Stein MB, Tancer ME, Uhde TW. An examination of syndromal validity and diagnostic subtypes in social phobia and panic disorder. *J Clin Psychiatry* 1992;53:23-27.
78. Elting DT, Hope DA. Cognitive assessment. In: Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, editors. Social phobia: Diagnosis, assessment, and treatment. New York: Guilford, 1995: pp. 232-258.
79. Turk CL, Coles MA, Heimberg RG. Psychotherapy for social phobia. In: Stein DJ, Hollander E, editors. Textbook of anxiety disorders. Washington, D.C.: American Psychiatric, 2002: pp. 323-339.
80. Glass CR, Merluzzi TV, Biever JL, Larsen KH. Cognitive assessment of social anxiety: Development and validation of a self-statement questionnaire. *Cognitive Ther Res* 1982;6:37-55.
81. Turner SM, Johnson MR, Beidel DC, Heiser NA, Lydiard

- RB. The Social Thoughts and Beliefs Scale: A new inventory for assessing cognitions in social phobia. *Psychol Assess* 2003;15:384–391.
82. Telch MJ, Lucas RA, Smits JAJ, Powers MB, Heimberg R, Hart T. Appraisal of Social Concerns: A cognitive assessment instrument for social phobia. *Depress Anxiety* 2004;19:217–224.
83. Safren SA, Heimberg RG, Brown EJ, Holle C. Quality of life in social phobia. *Depress Anxiety* 1997;4:126–133.
84. Sheehan D. The anxiety disease. New York: Scribner, 1983.
85. Wittchen HU, Fuetsch M, Sonntag H, Muller N, Liebowitz M. Disability and quality of life in pure and comorbid social phobia: Findings from a controlled study. *Eur Psychiatry* 2000;15:46–58.
86. Beck AT, Steer RA, Brown GK. Beck Depression Inventory manual. 2nd ed. San Antonio: The Psychological Corporation, 1996.
87. Ware JE, Sherbourne CD. The MOS 36-item short form health survey (SF-36): I. Conceptual framework and item selection. *Med Care* 1992;30:473–483.
88. McHorney CA, Ware JE, Raczek AE. The MOS 36-item short form health survey (SF-36): II. Psychometric and clinical tests of validity in measuring physical and mental health constructs. *Med Care* 1993;31:247–263.
89. Lewin-Epstein N, Sagiv-Schifter T, Shabtai EL, Shmueli A. Validation of the 36-Item Short Form Health Survey (Hebrew Version) in the adult population of Israel. *Med Care* 1998;36: 1361–1370.