

ASSESSMENT OF SOCIAL PHOBIA BY SELF-REPORT QUESTIONNAIRES: THE SOCIAL INTERACTION AND PERFORMANCE ANXIETY AND AVOIDANCE SCALE AND THE SOCIAL PHOBIA SAFETY BEHAVIOURS SCALE

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Abstract. The present study presents the development and validation of the Social Interaction and Performance Anxiety and Avoidance Scale (SIPAAS), a self-report questionnaire to assess the level of distress and avoidance in a wide range of performance and social interaction situations, and the Social Phobia Safety Behaviours Scale (SPSBS), a self-report questionnaire designed to evaluate in-situation safety behaviours in which social phobics engage to try to prevent social catastrophe. The psychometric adequacy of both scales was evaluated in three different samples: social phobic patients, other anxiety disordered patients, and normal population. Both scales were normally distributed and were shown to possess high levels of internal consistency and temporal stability. They reliably discriminate patients with generalized social phobia from patients with non-generalized social phobia, other anxiety disordered patients, and normal population. Both subscales of the SIPAAS have shown high correlations with other measures of social anxiety (SAD, FNE), whereas the SPSBS has shown low to moderate correlations with SAD and FNE. It appears that these new self-report scales are reliable, valid and useful measures of social phobia for clinical and research purposes.

Keywords: Social phobia, assessment by self-report questionnaires, feared situations, safety behaviours, cognitive therapy.

Introduction

The practice of cognitive behaviour therapy with social phobics requires an integrated assessment of feared social interaction and performance situations, in-situation safety behaviours and beliefs about the self and about others. Nevertheless, very few self-report questionnaires in social phobia assessment are able to assess the vast range of situations that social phobics fear and avoid and, to our knowledge, a self-report questionnaire assessing safety behaviours has not yet been published.

The development of the two scales presented in this paper (SIPAAS and SPSBS) were originally included in an integrated protocol, aiming to study the most frequently feared

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social situations in the Portuguese population, as well as safety behaviours and automatic thoughts occurring in those situations (Pinto-Gouveia, Cunha, & Salvador, 1997). In face of the data resulting from this study and of some limitations presented by the most used self-report questionnaires in social phobia, we decided to take this first study further, developing a self-report scale to assess anxiety and avoidance of social situations, and a self-report questionnaire to assess safety behaviours used once in the feared situations.

We will next discuss the limitations of some of the most used and published questionnaires up to 1996. First, the most used measures of social anxiety – the *Social Avoidance and Distress Scale* (SAD; Watson & Friend, 1969) and the *Fear of Negative Evaluation Scale* (FNE; Watson & Friend, 1969) – have a low discrimination validity when trying to differentiate social phobics from other anxiety disordered patients (Turner & Beidel, 1988; Turner, McCanna, & Beidel, 1987), and the items do not adequately address the most frequent fears of scrutiny and social interaction of social phobics. Furthermore, in the *Fear Questionnaire* (FQ; Marks & Mathews, 1979), the number and type of situations assessed are not sufficiently representative of the vast range of social fears.

The two scales from Mattick and Clarke (1989) are the only ones that try to assess anxiety in both performance and interaction situations. The *Social Interaction Anxiety Scale* (SIAS) assesses anxiety in social interaction situations and the *Social Phobia Scale* (SPS) assesses anxiety in situations involving observation by others. Unfortunately, not until recently did the authors publish data regarding the development of these scales (Mattick & Clarke, 1998), although these scales had already been used in some clinical outcome studies (where they proved to be sensitive to cognitive and behavioural treatment) (Mattick & Peters, 1988; Mattick, Peters, & Clarke, 1989) and some studies regarding their validation in social phobia assessment had already been published (Heimberg, Mueller, Holt, Hope, & Liebowitz, 1992; Brown et al., 1997). Not questioning the validity and utility of the SIAS and of the SPS, we think that they assess not only specific social situations (e.g. ‘‘I become anxious if I have to write in front of other people’’), but also broad social situations (e.g. ‘‘when mixing socially, I am uncomfortable’’), and specific constructs related to social phobia (fear of showing symptoms – e.g. ‘‘I fear I may blush when I am with others’’; other specific fears – e.g. ‘‘I feel I’ll say something embarrassing when talking’’; and self-focused attention – e.g. ‘‘I can suddenly become aware of my own voice and of others listening to me’’). In face of this item formulation, the assessment of specific social situations becomes limited and mixed with the assessment of other constructs, not including many of the social situations usually feared by social phobics. Furthermore, the two scales do not allow fear and avoidance to be assessed separately.

This same argument can be applied to the Social Phobia and Anxiety Inventory (SPAI; Turner, Beidel, Dancu, & Stanley, 1989). In fact, the SPAI assesses somatic (e.g. ‘‘I sweat prior to entering a social situation’’), cognitive and behavioural responses (namely avoidance and escape behaviours; e.g. ‘‘I attempt to avoid social situations where there are strangers’’) in a variety of interaction, performance and observation situations. Although this format and length allows a large amount of information to be elicited (which, in turn, is pointed out as a limitation for being extremely time-consuming), the scale is not specifically or uniquely assessing anxiety and avoidance in social situations and it does not allow for a separate score of anxiety/distress levels and avoidance frequency. Furthermore, being a scale that includes both a social phobia and an agoraphobia scale (besides a total score), there is a current debate as to which of the SPAI scores is the best measure of social phobia

(see, Turner et al., 1989; Herbert, Bellack, & Hope, 1991; Beidel & Turner, 1992; Herbert, Bellack, Hope, & Mueser, 1992; Ries et al., 1998).

For these reasons, we think either the SIAS, the SPS or the SPAI can be complemented with another scale whose only aim is to assess fear and avoidance in specific social situations, given that this kind of assessment can be very useful in the planning of an individualized intervention and to the subsequent assessment of clinical outcomes.

A scale with these characteristics is the *Liebowitz Social Anxiety Scale* (LSAS; Liebowitz, 1987), an interviewer-administrated scale that aims to assess the level of distress and avoidance in 24 social situations (13 performance situations and 11 social interaction situations). However, and in spite of its utility, the LSAS presented, in our view, some limitations. The 24 assessed social situations did not adequately reflect the universe of social situations feared by social phobics, not including situations that provoke high levels of anxiety and distress in some individuals and that we frequently find in our clinical practice. This handicap is even more noticeable when considering interaction situations. Among others, situations like interacting with an individual of the opposite sex (which frequently triggers anxiety in social phobics) are not represented. Another limitation is that the 24 items of the LSAS may not represent an equal distribution of situations that provoke fear in men and women, not including, for instance, the expression of positive feelings. Although a differentiation between performance and social interaction situations may be important, the LSAS was based on this distinction, theoretically assuming a single structure of two factors. Yet, the study of LSAS factorial structure (Slavkin, Holt, Heimberg, Jaccard, & Liebowitz, 1990, cited in Rapee, 1994; Safren et al., 1999) did not empirically confirm the two factor structure, showing that a two factor model is not the most adequate model to explain the global categories of the social fears assessed by the LSAS. Finally, although the author stressed that this instrument should only be used in clinical interview situations, it is common knowledge that the LSAS is frequently used as a self-report measure. However, and in spite of considering that a self-report questionnaire of this nature to assess situations that social phobics most fear would be of great value to clinical and outcome assessment in social phobia, it is important to bear in mind that such a procedure has not been validated, since there are no data of psychometric characteristics of this scale in a self-report version.

Driven by these reasons, we decided to develop a self-report scale that allowed a more thorough assessment of social fears and that solved some of the LSAS limitations, adding new social situations to the 24 situations assessed by the LSAS, followed by a scale to assess safety behaviours used in these situations.

Safety behaviours have been defined as a wide range of behaviours that social phobics carry out when in social situations and through which they try to reduce the risk of negative evaluation, trying to prevent feared outcomes from occurring. These behaviours have quite precise links with specific feared outcomes and can be overt (e.g. putting the hands in the pockets to avoid others from seeing their trembling) or covert (e.g. thinking very carefully about what to say before speaking in order to avoid saying something foolish). Safety behaviours function as important maintenance factors since they prevent disconfirmation from occurring (allowing social phobics to attribute the non-occurrence of the feared catastrophes to the use of these behaviours), can increase their feared symptoms, and can contaminate the social situation (Clark & Wells, 1995; Wells et al., 1995; Clark, 1997; Wells, 1997). Although the identification and change of these safety behaviours are important components of cognitive therapy in social phobia, little attention has been given to the assess-

ment of these safety strategies and, to our knowledge, there is not a single publication of such a scale.

This paper presents the development and psychometric characteristics of two scales: the *Social Interaction and Performance Anxiety and Avoidance Scale* (SIPAAS), a self-report questionnaire to assess the level of distress and avoidance in a wide range of performance and social interaction situations, that we consider sufficiently representative of the kind of social situations commonly feared by social phobics, and the *Social Phobia Safety Behaviours Scale* (SPSBS), a self-report questionnaire designed to evaluate safety behaviours social phobics use in the feared situations.

Method

Development of the Scales:

1. Development of the Social Interaction and Performance Anxiety and Avoidance Scale (SIPAAS)

Initial item selection and scale construction. We have added 34 new situations to the 24 included in the LSAS. These 34 situations were selected from clinical interviews with social phobic patients – 19 items represented social interaction situations and 15 items represented performance situations, which frequently trigger anxiety and avoidance in these patients.

The 34 new situations were placed in a random order after the 24 original situations of the LSAS. For each situation, respondents were asked to indicate both ‘‘the degree of fear or anxiety the situation provokes or would provoke and how frequently they avoid or would avoid that situation. If you have never faced some of the situations presented, imagine the level of distress you would feel if you had to, and how frequently you would avoid them’’. A 4-point (1–4) rating scale was employed. The four anchor points were supplied with verbal descriptors: 1 = None, 2 = Mild, 3 = Moderate, 4 = Severe, for the *distress/anxiety subscale*, and 1 = Never, 2 = Occasionally, 3 = Often, 4 = Usually, for the *avoidance subscale*. The scale was therefore formed by two subscales, the *distress/anxiety subscale* and the *avoidance subscale*. Two blank lines permitted the respondent to add two social situations that provoked high levels of anxiety and were not represented on the scale.

After having completed the scale, respondents were also asked to identify the five situations that would provoke the highest levels of anxiety, and write their number on a designated space.

2. Development of the Social Phobia Safety Behaviours Scale (SPSBS)

Initial item selection and scale construction. Based on clinical interviews with social phobics, we built an initial pool of 22 items, representing safety behaviours most frequently used by these patients. Using a 1 to 4 scale (1 = Never, 2 = Occasionally, 3 = Often, 4 = Usually), subjects were asked to evaluate how frequently they used each safety behaviour once in the feared social situation.

At the end of the scale, through the filling of two blank lines, subjects had the opportunity to add other safety behaviours they considered relevant and which had not been included in the scale.

Item analysis. The 58 original SIPAAS items and the 22 items of the SPSBS were subject

to an item-analysis, using both the general population and the social phobic groups, as described above. To select the final items of the SIPAAS, we used as first criterion the item-total correlation study in the *distress/anxiety subscale* (the correlation between each item and the total score without the respective item). The item-correlation study in the *avoidance subscale* has been used as a secondary criterion but it did not have elimination power; this is to say, any item that in the *distress/anxiety subscale* had a high item-total correlation both in the normal and the social phobic samples was not eliminated if it showed a low item-total correlation in the *avoidance subscale*. These criteria led to the elimination of 14 items (2 of which were original items of the LSAS), thus leaving SIPAAS final version with 44 items. Therefore, the final scale consists in two subscales – the *distress/anxiety subscale* and the *avoidance subscale* – whose total scores may range from 44 to 176. A total score may also be obtained summing up the total scores of both subscales.

In the SPSBS, the item-total correlation study led to the elimination of 7 items, resulting in a final scale of 15 items. Since in the two blank lines at the end of the scale social phobics frequently added two other safety behaviours – “trying to disguise your trembling” and “thinking very carefully about what you are going to say before you speak” – these were added to the 15 items and their item-total correlation is not yet studied. The decision to include these items had to do with our objective of increasing the clinical use of this scale. Future studies will reveal their impact on the internal consistency of the scale.

We will next present the study of the psychometric characteristics of both scales as well as their discriminant and construct validity.

Participants

The data to which this study refers were obtained from three groups of subjects: a group of individuals from the general population, a group of social phobic patients, and a group of other anxiety disordered patients. The general population group (GP) had 534 individuals (mean age = 27.79, $SD = 10.12$), of whom 315 were students (148 males and 167 females; mean age = 21.76, $SD = 2.84$) and 219 (112 males and 107 females; mean age = 36.46, $SD = 10.51$) were community members; both these subgroups volunteered to answer the questionnaire, after being asked to collaborate in an investigation on social fears. The sample of social phobic patients (SP) consisted of 76 individuals (38 males and 38 females; mean age = 25.78, $SD = 6.70$) who sought treatment at the Department of Cognitive-Behaviour Psychotherapy of the Psychiatric Unit of Coimbra University Hospital and who received the diagnosis of social phobia. In the social phobic group 65 subjects were given the diagnosis of generalized social phobia (GSP) and 11 were characterized as non-generalized social phobics (NGSP) (mostly test-anxiety students). From the 65 individuals with GSP, 29 (44.6%) had no additional diagnosis, 23 (35.38%) had additional Axis I diagnosis (11 Major Depressive Disorder, 4 Bulimia Nervosa, 4 OCD, 2 PD and 2 GAD) and 26 (42.46%) had additional Axis II diagnosis (13 APD, 9 OCPD, 1 DPD, 1 BPD and 1 HPD). From the 11 NGSP, only 2 had additional diagnosis – 1 from Axis I (Major Depressive Disorder) and 1 from Axis II (OCPD).

The sample of other anxiety disordered patients (OAD) was composed of 45 subjects (24 males and 21 females; mean age = 29.87, $SD = 8.12$), who also sought treatment at the Department of Cognitive-Behaviour Psychotherapy of the Psychiatric Unit of Coimbra University Hospital. Of these patients, 29 were diagnosed with panic disorder, 13 with obsess-

ive-compulsive disorder, 1 with generalized anxiety disorder and 1 with simple phobia. The diagnoses were given by an experienced clinician, based on clinical interviews, following the ADIS-R (Di Nardo & Barlow, 1988) with minor modifications to adapt to the DSM-IV criteria.

The proportion of men and women did not differ across groups $\chi^2(2, N = 655) = .382, p > .05$. The three groups did not differ on age, $F(2, 652) = 2.66, p > .05$, or on education level, $F(2, 652) = .63, p > .05$.

Measures

Every subject has completed an assessment battery that included several self-report questionnaires. Those examined in this study included the *Social Interaction and Performance Anxiety and Avoidance Scale* (SIPAAS; Pinto-Gouveia, Cunha, & Salvador, 1998b), the *Social Phobia Safety Behaviours Scale* (SPSBS; Pinto-Gouveia, Cunha, & Salvador, 1998a), the *Social Avoidance and Distress Scale* (SAD; Watson & Friend, 1969) and the *Fear of Negative Evaluation Scale* (FNE; Watson & Friend, 1969) and the *Sheehan Disability Scale* (SDS; Sheehan, 1984).

The *Social Avoidance and Distress Scale* (SAD) is a 28-item inventory that assesses distress, discomfort and anxiety in social situations, as well as the deliberate avoidance of those situations. In this study we have used the Portuguese version of the SAD (Pinto-Gouveia et al., 1986), which differs from the original version by the fact that a Likert-like scale from 1 to 5 (1 = Not at all, 5 = Extremely) is used. This modification is in agreement with the critics (Heimberg, 1994) regarding the true-false format of the original version, which limits the scores' variation range, resulting in a less sensitive scale to detect changes derived from treatment. Its total score may range from 28 to 140. In the present study, this scale was used to assess the concurrent validity of the SIPAAS and the SPSBS.

The *Fear of Negative Evaluation Scale* (FNE) is a 30-item inventory that assesses the fear of getting negatively evaluated by others. We have used the Portuguese version of the FNE (Pinto-Gouveia et al., 1986), which again uses a Likert-like scale from 1 to 5 (1 = Not at all, 5 = Extremely). Its total score may range from 30 to 150. In the present study this scale was also used to assess the concurrent validity of the SIPAAS and the SPSBS.

The *Sheehan Disability Scale* (SDS) is a patient-rated measure of disability that comprises three items: disability in work, social life, and affective/family life. Subjects are asked to rate on a 10-point subscale (0 = Not at all, 10 = Very severely) the extent to which the three areas of their life are impaired by their social anxiety difficulties. This scale was translated and adapted to the Portuguese population, its original format being maintained.

Results

SIPAAS and SPSBS distribution characteristics

In the total sample the total score of the *distress/anxiety subscale* of the SIPAAS was normally distributed (skewness = 0.53; kurtosis = -0.12) as was the total score of the *avoid-*

ance subscale of the SIPAAS (skewness = 0.60; kurtosis = 0.01). The total score of the SPSBS was also normally distributed (skewness = 0.47; kurtosis = 0.06).

Scale item characteristics

Means, standard deviations and item-total correlations for individual items of the SIPAAS in the *distress/anxiety* and *avoidance subscales* are presented in Tables 1 and 2. In the *distress/anxiety subscale*, all 44 items of the SIPAAS possess item-total correlations equal to or higher than .35 in the GP sample.

In the SP sample every item, except four, show item-total correlations equal to or higher than .35; item 15 (“testing your capacities, competence or knowledge”), item 16 (“expressing disagreement or disapproval to someone you don’t know very well”), item 18 (“making an oral presentation”) and item 38 (“having an oral test or exam”) have item-total correlations of .31, .34, .30 and .21, respectively. Even so, we decided to maintain these items with item-total correlations under .35 in the SP sample – on one hand their elimination did not increase the internal consistency and on the other hand, they represented relevant situations in the clinical assessment of social phobia. We also have to take into consideration that a social phobic may fear and avoid some situations presented on the scale and not necessarily others, which influences item-total correlations.

In the *avoidance subscale* all the items show correlations equal to or higher than .35 in the GP sample, except item 3 (“drinking in public”), which represents an item-total correlation of .31. In the SP sample three items (38, 39 and 42) present item-total correlations under .30.

Means, standard deviations and item-total correlations for individual items of the SPSBS are presented in Table 3. In the normal sample all the items have correlations equal to or higher than .35, except item 12 (“trying to look at ease”) showing an item-total of .34. In the social phobic sample all the items have correlations equal to or higher than .35 except items 2 (“speeding up your speech, talking quickly and without pauses”), 3 (“shortening your speech, drastically reducing what you have to say”) and 14 (“constantly checking if you are presentable”), which show item-total correlations of .33, .29 and .33 respectively. The low item-total correlation of these three items of the SPSBS may be related with the highly idiosyncratic nature of safety behaviours; in other words, it should be expected that, due to their specific evaluation fears, social phobics use some of the listed safety behaviours and not others.

Internal consistency

The internal consistency of the SIPAAS and the SPSBS was examined through the computation of Cronbach’s alpha and has been studied separately in the GP, the SP and OAD groups. For the *distress/anxiety subscale* of the SIPAAS, the Cronbach’s alpha was .95 in the GP group, .94 in the SP group and .95 in the OAD group. For the *avoidance subscale* of the SIPAAS the Cronbach’s alpha was .94 in the GP group, .92 in the SP group and .95 in the OAD group. Both scales show very high levels of internal consistency, suggesting that the items are appropriated to the evaluation of the disorder.

Table 1. Item means, standard deviations, and item-total correlations for individual items on the sub-scale of *Anxiety/Distress of SIPAAS* for general population and social phobic samples

Item content	General population (N = 534)			Social phobic (N = 76)		
	M	SD	Item-total r	M	SD	Item-total r
1. Participating in small groups	1.58	0.70	0.47	2.46	0.94	0.56
2. Eating in public spaces	1.38	0.64	0.50	2.21	0.88	0.39
3. Drinking with others in public spaces	1.21	0.54	0.38	1.75	0.80	0.38
4. Performing, acting or talking in front of an audience	2.84	0.91	0.57	3.70	0.61	0.40
5. Going to a party	1.73	0.84	0.51	3.01	0.82	0.68
6. Working while being observed	2.30	0.91	0.57	3.32	0.75	0.52
7. Writing while being observed	1.75	0.88	0.43	2.37	1.06	0.39
8. Calling someone you don't know very well	2.14	0.80	0.60	2.80	0.82	0.37
9. Talking with people you don't know very well	1.98	0.75	0.61	2.87	0.77	0.69
10. Meeting strangers	2.29	0.88	0.62	3.01	0.79	0.71
11. Urinating in a public bathroom	1.85	1.01	0.36	2.00	0.95	0.38
12. Entering a room when others are already seated	1.98	0.82	0.62	3.03	0.80	0.65
13. Being the centre of attention	2.71	0.92	0.61	3.62	0.65	0.45
14. Speaking up at a meeting	2.84	0.94	0.63	3.79	0.47	0.41
15. Testing your capacities, competence or knowledge	2.15	0.91	0.52	3.09	0.90	0.31
16. Expressing disagreement or disapproval to people you don't know very well	2.11	0.83	0.58	2.89	0.84	0.34
17. Making eye contact with someone you don't know very well	1.93	0.91	0.54	2.76	1.00	0.36
18. Making an oral presentation	2.57	0.86	0.61	3.59	0.64	0.30
19. Trying to pick up someone	2.66	0.99	0.54	3.53	0.72	0.41
20. Returning goods to a store	1.94	0.91	0.53	2.67	0.93	0.51
21. Giving a party	1.96	0.92	0.57	3.00	1.06	0.52
22. Resisting a high pressure salesperson	1.99	0.93	0.46	2.53	1.04	0.50

Table 1. (cont.)

Item content	General population (N = 534)			Social phobic (N = 76)		
	M	SD	Item-total r	M	SD	Item-total r
23. Going to a job interview	2.66	0.89	0.58	3.24	0.80	0.54
24. Asking a stranger for information (e.g. asking for the time or for an address)	1.35	0.63	0.47	2.03	0.80	0.59
25. In a pub, sitting at a table with a group of colleagues you don't know very well	2.26	0.77	0.60	3.41	0.68	0.62
26. Asking someone for a favour	2.02	0.80	0.49	2.68	0.80	0.43
27. Talking to someone you admire	1.64	0.77	0.53	2.66	0.89	0.51
28. In a party participating in games or dances	1.92	0.89	0.56	3.09	0.87	0.60
29. Asking someone out for the first time	2.45	0.87	0.60	3.26	0.90	0.50
30. A salesperson approaching you in a shop where you were merely browsing	1.72	0.80	0.52	2.42	0.97	0.52
31. Having a conversation with someone of the opposite sex	1.36	0.61	0.52	2.41	1.02	0.66
32. Taking a compliment	1.87	0.79	0.48	2.63	0.91	0.46
33. Taking part in a meeting with persons from different cultures	1.78	0.80	0.53	2.53	0.97	0.72
34. Going out to a disco with a friend	1.39	0.74	0.42	2.34	1.07	0.53
35. Asking someone to change a way of behaving that annoys you	2.41	0.85	0.50	3.12	0.80	0.56
36. To be summoned to the boss's or teacher's office	2.37	0.90	0.65	3.22	0.84	0.49
37. Talking to someone in a foreign language you haven't mastered	2.51	0.94	0.53	2.92	0.88	0.45
38. Having an oral test or exam	2.90	0.93	0.59	3.74	0.60	0.21
39. Complaining when someone tries to jump the queue	2.20	0.92	0.52	2.96	0.87	0.38
40. Being asked to solve a problem on the blackboard	2.41	0.88	0.63	3.46	0.60	0.47
41. Taking the initiative of asking a question or asking for an explanation in a class or meeting	2.15	0.88	0.65	3.36	0.76	0.48
42. Answering a teacher's question during a class	2.17	0.86	0.61	3.38	0.71	0.41
43. Being late or early to a meeting or class	2.10	0.85	0.53	2.82	0.89	0.58
44. Talking to someone of a higher socio-culture level	1.83	0.83	0.66	2.82	1.00	0.68

Table 2. Item means, standard deviations, and item-total correlations for individual items on the sub-scale of *Avoidance of SIPAAS* for general population and social phobic samples

Item content	General population (<i>N</i> = 534)				Social phobic (<i>N</i> = 76)			
	<i>M</i>	<i>SD</i>	Item-total <i>r</i>		<i>M</i>	<i>SD</i>	Item-total <i>r</i>	
1. Participating in small groups	1.61	0.71	0.45		2.36	1.04	0.44	
2. Eating in public spaces	1.36	0.62	0.35		2.00	0.94	0.38	
3. Drinking with others in public places	1.30	0.65	0.31		1.63	0.78	0.40	
4. Performing, acting or talking in front of an audience	2.49	1.02	0.57		3.45	0.90	0.36	
5. Going to a party	1.64	0.79	0.45		2.80	1.06	0.61	
6. Working while being observed	1.95	0.90	0.50		2.87	0.88	0.49	
7. Writing while being observed	1.57	0.83	0.36		2.13	1.04	0.34	
8. Calling someone you don't know very well	1.94	0.86	0.57		2.61	0.92	0.40	
9. Talking to people you don't know very well	1.87	0.73	0.60		2.75	0.79	0.53	
10. Meeting strangers	2.13	0.93	0.63		2.84	0.85	0.57	
11. Urinating in a public bathroom	1.95	1.08	0.36		1.95	0.98	0.41	
12. Entering a room when others are already seated	1.69	0.78	0.54		2.63	0.94	0.63	
13. Being the centre of attention	2.55	0.98	0.55		3.43	0.82	0.30	
14. Speaking up at a meeting	2.75	1.04	0.59		3.70	0.63	0.44	
15. Testing your capacities, competence or knowledge	1.77	0.91	0.51		2.86	1.00	0.35	
16. Expressing disagreement or disapproval to people you don't know very well	2.10	0.88	0.54		2.95	0.86	0.44	
17. Making eye contact with someone you don't know very well	1.94	0.89	0.52		2.62	0.98	0.39	
18. Making an oral presentation	2.13	0.97	0.55		3.30	0.89	0.33	
19. Trying to pick up someone	2.60	1.09	0.48		3.50	0.74	0.43	
20. Returning goods to a store	1.84	0.95	0.50		2.54	1.06	0.51	
21. Giving a party	1.86	0.93	0.47		2.76	1.16	0.46	
22. Resisting a high pressure salesperson	2.11	1.10	0.45		2.58	1.06	0.42	

Table 2. (cont.)

Item content	General population (N = 534)			Social phobic (N = 76)		
	M	SD	Item-total r	M	SD	Item-total r
23. Going to a job interview	1.58	0.83	0.47	2.34	1.20	0.47
24. Asking a stranger for information (e.g. asking for the time or for an address)	1.34	0.58	0.44	1.97	0.85	0.39
25. In a pub, sitting at a table with a group of colleagues you don't know very well	2.22	0.87	0.58	3.26	0.82	0.61
26. Asking someone for a favour	2.13	0.86	0.49	2.75	0.91	0.53
27. Talking to someone you admire	1.43	0.64	0.41	2.16	0.82	0.35
28. In a party participating in games or dances	1.91	0.91	0.56	3.04	0.96	0.52
29. Asking someone out for the first time	2.16	0.93	0.59	3.13	0.98	0.47
30. A salesperson approaching you in a shop where you were merely browsing	1.61	0.82	0.49	2.29	0.95	0.46
31. Having a conversation with someone of the opposite sex	1.34	0.60	0.46	2.25	0.94	0.56
32. Taking a compliment	1.57	0.74	0.40	2.26	0.93	0.41
33. Taking part in a meeting with persons from different cultures	1.55	0.76	0.56	2.22	1.03	0.61
34. Going out to a disco with a friend	1.50	0.85	0.44	2.34	1.03	0.47
35. Asking someone to change a way of behaving which annoys you	2.32	0.89	0.46	2.99	0.84	0.40
36. To be summoned to the boss's or teacher's office	1.84	0.97	0.56	2.55	1.17	0.46
37. Talking to someone in a foreign language you haven't mastered	2.27	1.02	0.56	2.75	0.99	0.41
38. Having an oral test or exam	2.28	1.15	0.50	3.17	1.12	0.17
39. Complaining when someone tries to jump the queue	2.04	0.93	0.42	2.51	1.03	0.22
40. Being asked to solve a problem on the blackboard	2.10	1.01	0.54	3.21	1.00	0.35
41. Taking the initiative of asking a question or asking for an explanation in a class of meeting	2.09	0.95	0.53	3.21	0.94	0.37
42. Answering a teacher's question during a class	1.87	0.83	0.48	2.75	0.99	0.25
43. Being late or early to a meeting or class	2.28	1.11	0.37	2.78	1.07	0.43
44. Talking to someone of a higher socio-cultural level	1.66	0.78	0.60	2.59	1.05	0.66

Table 3. Item means, standard deviations, and item-total correlations for individual items on the *Social Phobia Safety Behaviours Scale (SPSS)* for general population and social phobic samples

Item content	General population (N = 530)			Social phobic (N = 76)		
	M	SD	Item-total r	M	SD	Item-total r
1. Looking away from or avoiding eye contact with the person with whom you are interacting	2.14	0.82	0.42	2.78	0.89	0.35
2. Speeding up your speech, talking quickly and without pauses	1.90	0.82	0.37	2.34	1.00	0.33
3. Shortening your speech, drastically reducing what you have to say	2.21	0.86	0.42	3.00	0.92	0.29
4. Avoiding attracting attention to yourself	2.76	0.96	0.38	3.57	0.81	0.41
5. Getting a seat as hidden as you can	1.96	0.89	0.52	2.92	1.02	0.63
6. Pretending you are not interested or you are distant from what is happening	1.92	0.83	0.52	2.80	0.99	0.49
7. Limiting yourself to being a passive spectator of a situation	2.14	0.84	0.53	3.00	1.06	0.53
8. Pretending you did not see someone	1.91	0.73	0.44	2.45	0.97	0.47
9. Walking with your head down	1.66	0.80	0.40	2.64	1.05	0.58
10. Putting your hands in your pockets	1.94	0.89	0.35	2.38	1.03	0.39
11. Stopping doing what you were doing (e.g. writing, drinking, etc) while being observed	1.76	0.82	0.40	2.68	1.00	0.46
12. Trying to look at ease	2.39	0.87	0.34	3.00	0.91	0.42
13. Laughing to hide the fact that you are nervous	1.96	0.89	0.38	2.50	1.13	0.43
14. Constantly checking if you are presentable	2.00	0.89	0.47	2.70	1.00	0.33
15. Increasing the distance between yourself and the person you are talking to	1.70	0.76	0.53	2.34	0.97	0.45
16. Trying to disguise your trembling	—	—	—	—	—	—
17. Thinking very carefully about what you are going to say before you speak	—	—	—	—	—	—

For the SPSBS the Cronbach's alpha was .82 in the GP group, .82 in the SP group and .87 in the OAD group, showing a good internal consistency.

Test-retest reliability

A four-week test-retest reliability has been studied in 27 subjects of the GP. The test-retest correlation coefficient for *distress/anxiety subscale* of the SIPAAS was .86. The test-retest correlation coefficient for the *avoidance subscale* of the SIPAAS was .83. These test-retest correlation coefficients show a good temporal stability.

The test-retest correlation coefficient for the SPSBS was .69. This result shows that test-retest reliability of safety behaviours evaluated by the SPSBS is not very high, although it is similar to other self-report questionnaires for social phobia evaluation, such as the SAD and the FNE (Watson & Friend, 1969). The fact that test-retest reliability has been examined in a group of normal subjects who would be expected to make less consistent use of safety behaviours when compared to social phobics could have influenced the results. A test-retest reliability study has not been made in the clinical population because there was no waiting list. Future research should examine test-retest reliability of the SPSBS in a group of social phobics.

Discriminant validity

The discriminant validity of the SIPAAS and the SPSBS was examined, assessing its capacity to discriminate social phobic patients from either subjects from the general population and other anxiety disordered individuals. We compared four different groups: a group of generalized social phobics (GSP), a group of non-generalized social phobics (NGSP), a group of other anxiety disordered patients (OAD), and, finally, a group of normal individuals from the general population (GP).

The different groups were compared on the *distress/anxiety* and *avoidance subscales* of the SIPAAS, SPSBS, SAD, FNE and SDS, using one-way analyses of variance (ANOVAs). The results are presented in Table 4.

Significant differences were found for both the *distress/anxiety subscale* of the SIPAAS, $F(3, 651) = 78.13, p < .0001$ and the *avoidance subscale* of the SIPAAS, $F(3, 651) = 70.55, p < .0001$. Tukey unequal n HSD comparisons revealed that patients with generalized social phobia subtype scored higher both in the *distress/anxiety* and *avoidance subscales* of the SIPAAS than did patients with non-generalized social phobia subtype, patients with other anxiety disorders and normal individuals. There was a tendency for the non-generalized social phobics to get higher scores on both subscales than other anxiety disordered patients and normal subjects but that difference did not reach significant levels. There were no differences among patients with other anxiety disorders and normals. The results indicated that both subscales of the SIPAAS discriminate between patients with generalized social phobia and each one of the other three comparison groups (patients with non-generalized social phobia, patients with other anxiety disorder and normals).

Significant differences were also found for the SPSBS, $F(3, 647) = 60.43, p < .0001$. Tukey unequal n HSD comparisons revealed that patients with the generalized subtype of social phobia scored higher in the SPSBS than did patients with the non-generalized social phobia subtype, patients with other anxiety disorder and normals. There were no other

Table 4. Comparison of the diagnostic groups on the Social Interaction and Performance Anxiety and Avoidance Scale (SIPAAS), the Social Phobia Safety Behaviours Scale (SPSBS), the Social Avoidance and Distress Scale (SAD), the Fear of Negative Evaluation Scale (FNE), and the Sheehan Disability Scale (SDS)

	GSP (<i>n</i> = 65)	NGSP (<i>n</i> = 11)	OAD (<i>n</i> = 45)	Normal (<i>n</i> = 534)	<i>F</i> (3, 651)	<i>p</i>
SIPAAS						
Distress/Anxiety						
<i>M</i>	132.77	103.18	94.09	91.36	78.13	.0001
<i>SD</i>	17.00	13.53	19.02	21.30		
Avoidance						
<i>M</i>	122.68	95.82	84.04	84.23	70.55	.0001
<i>SD</i>	18.41	11.08	21.65	20.52		
<hr/>						
	GSP (<i>n</i> = 65)	NGSP (<i>n</i> = 11)	OAD (<i>n</i> = 45)	Normal (<i>n</i> = 530)	<i>F</i> (3, 647)	<i>p</i>
SPSBS						
<i>M</i>	42.42	33.36	31.33	30.35	60.43	.0001
<i>SD</i>	7.51	5.75	7.50	6.71		
<hr/>						
	GSP (<i>n</i> = 65)	NGSP (<i>n</i> = 11)	OAD (<i>n</i> = 45)	Normal (<i>n</i> = 480)	<i>F</i> (3, 597)	<i>p</i>
SAD						
<i>M</i>	100.33	75.36	77.51	71.30	64.18	.0001
<i>SD</i>	13.95	17.08	18.73	15.81		
FNE						
<i>M</i>	118.63	97.45	95.29	92.13	47.27	.0001
<i>SD</i>	15.16	10.68	15.30	17.29		
<hr/>						
	GSP (<i>n</i> = 65)	NGSP (<i>n</i> = 11)	OAD (<i>n</i> = 45)	Normal (<i>n</i> = 527)	<i>F</i> (3, 644)	<i>p</i>
SHEEHAN						
Work						
<i>M</i>	7.89	8.63	4.42	2.85	124.66	.0001
<i>SD</i>	1.50	1.12	2.78	2.22		
Social Life						
<i>M</i>	7.55	5.63	4.02	2.74	88.12	.0001
<i>SD</i>	1.73	1.96	2.86	2.33		
Affective						
<i>M</i>	7.01	3.09	2.51	2.61	45.68	.0001
<i>SD</i>	3.09	3.48	2.41	2.87		

Note: GSP = generalized social phobia subtype; NGSP = non-generalized social phobia subtype; OAD = other anxiety disorder.

differences among patients with non-generalized social phobia, patients with other anxiety disorder and normals. The results show that the SPSBS discriminates between patients with generalized social phobia and non-generalized social phobics, other anxiety disordered patients and normals.

Significant differences were also found for SAD, $F(3, 597) = 64.18, p < .0001$, for FNE, $F(3, 597) = 64.18, p < .0001$, and for the three subscales of SDS: *disability in work* $F(3, 644) = 124.66, p < .0001$; *disability in social life*, $F(3, 644) = 88.12, p < .0001$; *disability in affective/family life*, $F(3, 644) = 45.68, p < .0001$.

Tukey unequal n HSD comparisons revealed the same pattern for SAD and FNE. Patients with generalized social phobia subtype scored higher in SAD and FNE than did patients with non-generalized social phobia subtype, patients with other anxiety disorders and normal individuals. There were no differences among patients with other anxiety disorders and normals, and among non-generalized social phobics and patients with other anxiety disorders and normals.

Tukey unequal n HSD comparisons revealed different patterns for the three items of the SDS. On the *disability in work*, patients with generalized social phobia subtype scored higher than patients with other anxiety disorders and normal individuals. Non-generalized social phobics scored higher than normals and patients with other anxiety disorders. Normals achieved lower scores than did all other groups. On the *disability in social life*, patients with generalized social phobia subtype scored higher than patients with other anxiety disorders and normal individuals. Non-generalized social phobics and patients with other anxiety disorders scored higher than normals. There were no differences among non-generalized social phobics and patients with other anxiety disorders. On the *disability in affective/family life* generalized social phobics scored higher than all other groups. There were no other differences among patients with non-generalized social phobia, patients with other anxiety disorder and normals.

Cut-off scores

Although the SIPPAS is not intended to be used as a diagnostic instrument, conjugating our data with our clinical experience in using the scales, we can suggest cut-off scores that allow to discriminate between generalized social phobics and non-clinical population. Thus, for the *distress/anxiety subscale* and for the *avoidance subscale* of the SIPAAS we suggest cut-off scores of 115 and 105, respectively.

For the SPSBS we suggest a cut-off score of 36. However, we recommend that this score be used with caution, given that only anxiety and avoidance of social situations are taken as DSM-IV criteria, and taking into account the idiosyncratic nature of safety behaviours.

Concurrent validity

The concurrent validity of the SIPAAS and of the SPSBS was examined correlating the total scores of each subscale of the SIPAAS (the *distress/anxiety subscale* and the *avoidance subscale*) and the total score of the SPSBS with the total scores obtained on SAD, FNE, and the three items of SDS, in subjects of the GP and the SP samples. The correlation

Table 5. Correlations between the *distress/anxiety* subscale and the *avoidance* subscale of the Social Interaction and Performance Anxiety and Avoidance Scale (SIPAAS) and the Social Phobia Safety Behaviours Scale (SPSBS) with the *Social Avoidance and Distress Scale* (SAD), the *Fear of Negative Evaluation Scale* (FNE) and the *Sheehan Disability Scale* (SDS) in the general population and in social phobics

	General population (<i>n</i> = 472)							
	SIPAAS					SDS		
	Anxiety	Avoidance	SPSBS	SAD	FNE	Work	Social Life	Affective
SIPAAS								
Anxiety	—							
Avoidance	.82**	—						
SPSBS	.61**	.61**	—					
SAD	.62**	.60**	.49**	—				
FNE	.61**	.52**	.49**	.53**	—			
SDS								
Work	.39**	.41**	.37**	.33**	.36**	—		
Social life	.50**	.50**	.42**	.55**	.43**	.56**	—	
Affective	.37**	.34**	.35**	.41**	.34**	.35**	.60**	—
	Social phobics (<i>n</i> = 76)							
	SIPAAS					SDS		
	Anxiety	Avoidance	SPSBS	SAD	FNE	Work	Social Life	Affective
SIPAAS								
Anxiety	—							
Avoidance	.86**	—						
SPSBS	.42**	.42**	—					
SAD	.67**	.64**	.29*	—				
FNE	.51**	.52**	.27*	.59**	—			
SDS								
Work	.11	.14	-.05	.13	.01	—		
Social life	.34*	.35*	.31*	.31*	.32*	.12	—	
Affective	.42**	.37**	.24*	.31*	.16	.13	.49**	—

p* < .05, *p* < .001

coefficients are shown in Table 5. Both subscales of the SIPAAS showed moderate to high correlations with SAD and FNE in both GP and SP samples.

In the GP sample, the *distress/anxiety* subscale showed correlations of .62 with SAD, and .61 with FNE. The *avoidance* subscale showed slightly lower correlations: .60 with SAD, and .52 with FNE. In the SP group the *distress/anxiety subscale* showed correlations of .67 with SAD and .51 with FNE, and the *avoidance subscale* showed correlations of .64 with SAD and .52 with FNE. As expected, the *distress/anxiety subscale* and the *avoidance subscale* of the SIPAAS were highly correlated in both samples (.82 in the GP group, and .86 in the SP group).

Both subscales of the SIPAAS showed low to moderate correlations with the three SDS items, in the GP sample. The *distress/anxiety* subscale showed correlations of .39, .50 and

.37 with the SDS disability in work, social life, and affective life, respectively. The *avoidance* subscale showed correlations of the same order: .41 with the disability in work, .50 with the disability in social life and .34 with the disability in affective life.

In the SP sample the two subscales of the SIPAAS did not show significant correlation with the disability in work item of SDS, showing only significant correlations with the social and affective life items of SDS. The *distress/anxiety subscale* showed correlations of .34 with the disability in social life, and .42 with disability in affective life. The *avoidance subscale* showed correlations of .35 with the disability in social life and .37 with disability in affective life.

The SPSBS showed moderate correlations of .49 with SAD and .49 with FNE in the GP sample, and low correlations of .29 with SAD and .27 with FNE in the SP sample. The SPSBS also presented positive correlations of .61 with the *distress/anxiety subscale* of the SIPAAS and of .61 with the *avoidance subscale* of SIPAAS in the GP sample. In the SP sample the SPSBS showed a correlation of .42 with both subscales of SIPAAS.

The SPSBS showed also moderate correlations of .37, .42 and .35 with the disability in work, social life and affective life items of SDS, respectively, in GP sample. In SP sample, the SPSBS only showed significant correlations of .31 and .24 with the disability in social life and affective life items of SDS. The moderate to high correlations between the SPSBS and both subscales of the SIPAAS in GP and SP samples indicated a relationship between fear and avoidance in social situations and the use of safety behaviours in those situations.

Discussion

The SIPAAS was developed as a self-report instrument for clinical assessment of fear and avoidance in social situations. A self-report questionnaire to assess situations that social phobics most fear is of great value to clinical and treatment outcome assessment in social phobia and may have advantages over other clinician-administered social fears assessment scales. Two of those advantages are the fact that they save clinician's time and that they are easier to administer in clinical practice (that may later be re-examined during the interview). The SIPAAS was based on items taken from existing assessment instruments for evaluation of the situations feared by social phobics, to which were added new situations in order to obtain a representative sample of those performance and interaction situations usually feared and avoided by social phobics of both sexes. This new scale proved to be internally consistent, to possess a good test-retest reliability, and to reliably discriminate patients with generalized social phobia from patients with non-generalized social phobia, other anxiety disordered patients and normal individuals. As would be expected, the total scores of the *distress/anxiety* and of the *avoidance subscales* of SIPAAS did not discriminate non-generalized social phobics from patients with other anxiety disorders and from the normal population. This finding is understandable since, according to the DSM-IV criteria, generalized social phobia applies to individuals whose fears include most social situations, leaving non-generalized social phobia to be diagnosed in cases in which patients fear one or very few social situations. Therefore, one should not expect non-generalized social phobics to endorse many items of the SIPPAS, which, in turn, leads to scores very similar to the ones from the normal sample. Both subscales of the SIPAAS showed high correlations with SAD and FNE, and moderate correlations with the disability in social and affective life items of the SDS. The mean scores of the generalized social phobics sample on the

three items of SDS indicated that these patients report a marked impairment in their work, social and affective/family life. Non-generalized social phobics show marked impairment in work life and low to moderate impairment in social and affective life. The factor structure of the SIPAAS in the normal population will be reported in a separate paper.

These results suggest that the fear and avoidance that social anxious individuals experience in social situations can be reliably evaluated by a self-report questionnaire. Interestingly, the values of internal consistency and the correlations with the SAD and the FNE are very similar to the ones obtained in the study of the psychometric characteristics of the LSAS by Heimberg et al. (1999), showing that the results from the evaluation of fear and avoidance of social situations by a self-report instrument and by a clinical rating scale are very similar. The SIPAAS is a larger scale and includes social situations that are not included in the LSAS, especially social interaction situations with the opposite sex and situations involving the expression of positive emotions, allowing a wider assessment of social fears. The inter-correlations between the *distress/anxiety* and the *avoidance subscales* of SIPAAS in the normal sample ($r = .82$) and in phobic patients ($r = .86$), although high, are lower than the correlation among the total fear and avoidance subscales of the LSAS ($r = .91$) (Heimberg et al., 1999). A possible explanation is that this difference is due to the different format of the answers – the self-report format may allow social phobics to more easily separate fear from avoidance in social situations. Another alternative explanation is that this difference is related to the greater diversity of social situations assessed by the SIPAAS. Whatever the reason, the correlation between the *distress/anxiety* and the *avoidance subscales* of the SIPAAS, both in the SP group and the GP group, is still very high, which, associated with the fact that the correlation between the two subscales with the SAD and the FNE is one of the same order, points to a great overlap between the construct of fear and the construct of avoidance. Nevertheless, theoretical reasons and the clinical utility of an independent assessment of distress and avoidance justify keeping the two subscales. We decided not to use a total score (summing up the scores of the distress/anxiety and avoidance subscales) in order to simplify the use of the scale, as the total score did not add more information than the independent use of the two subscales. In fact, its correlation with these subscales is very high (.96), both in the GP and the SP groups and the correlation with the other measures of social anxiety was of the same order as the isolated correlation of the two subscales.

The SPSBS was developed to assess the safety behaviours that socially anxious individuals use in social situations they fear and it should be used alongside the SIPAAS, as the evaluation of safety behaviours is crucial in cognitive therapy of social phobia. The SPSBS proved to be internally consistent, to possess an acceptable test-retest reliability in normal population and to reliably discriminate generalized social phobics from non-generalized social phobics, patients with other anxiety disorders and from normal individuals.

Again, non-generalized social phobics did not score significantly different from other anxiety disordered patients or from normal individuals. As we pointed out when the same findings of the SIPAAS were discussed, this was an expected finding. Given the few situations feared by non-generalized social phobics, and considering the fact that safety behaviours have quite precise links to specific fears in specific situations, one should expect non-generalized social phobics to endorse very few safety behaviours. The moderate to high correlations between the SPSBS and both subscales of the SIPAAS in the GP and SP sample

indicated a relationship between fear and avoidance in social situations and the use of safety behaviours in those situations. This is in agreement with the cognitive model of social phobia (Clark & Wells, 1995). As expected because of the highly idiosyncratic nature of safety behaviours, the internal consistency of SPSBS, although good, is lower than that of the SIPAAS.

One limitation of SPSBS is its brevity. In fact, there are a number of other safety behaviours that are not included in the scale. However, as safety behaviours in social phobia are highly idiosyncratic, we feel that any attempt to include all the possible safety behaviours social phobics can use in one single scale would result in an extremely long scale, and it would be very unlikely that the item-total correlation study of such a scale would be acceptable. Furthermore, the two blank lines allow subjects to add other safety behaviours they consider relevant which, in clinical terms, ensure that important information is not discarded (therefore lessening the brevity limitation).

About the SPSBS, we would like to draw the readers attention to the fact that items 16 and 17 have not been evaluated. Therefore, for clinical comparisons and research purposes, their score should be excluded from the total score. Future research should investigate the item-total correlation of items 16 and 17, as well as evaluate its influence in the scales' internal consistency. Furthermore, future studies should also examine the test-retest reliability of the SPSBS in a group of social phobics.

Finally, the present study has two general limitations. First, both scales were developed and evaluated in the same sample. Although we recognize that it would be more appropriate to use two different samples, the difficulty of gathering another significant clinical sample was clearly a set back that prevented us from doing so. Second, OAD and SP groups were not matched for general levels of anxiety and depression. However, it is not probable that the general level of anxiety or depression has had a significant influence on the rating of anxiety/distress and avoidance regarding the very specific social situations evaluated by the SIPAAS, or on the rating of specific behaviours carried out in the feared social situations (safety behaviours) assessed by the SPSBS. Furthermore, since the patients in the control group were panic disorder patients and OCD patients, it is unlikely that their levels of general anxiety were significantly lower than the ones from the social phobic group. Thus, we think that it is highly unlikely that the differences found between the groups on SIPAAS and SPSBS were due to differences in the overall severity of anxiety and depression, although our data cannot disprove this possibility. Additional research is in progress to investigate if the SIPAAS and the SPSBS are sensitive to the effects of treatment.

Thus the SIPAAS and its accompanying scale, the SPSBS, appear promising measures for the assessment of fear and avoidance in social situations and of safety behaviours that socially anxious people use in feared social situations. Although they were initially developed for clinical use, their psychometric characteristics suggest they could also be useful for research purposes.

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