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# Social Anxiety Disorder, Fear of Public Speaking, and the Use of Assessment Instruments

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## 1. Introduction

### 1.1 Social anxiety disorder

Social anxiety disorder (SAD) is considered to be the third most prevalent psychiatric disorder (Brunello, 2000; Moutier & Stein, 1999). The condition was officially recognized as a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III), in 1980 (American Psychiatric Association [APA], 1980), and currently, in the fourth edition of the manual (DSM-IV, APA, 1994), it is classified among anxiety disorders.

SAD is characterized by the fear and/or avoidance of public exposure and performance, in an attempt to avoid possible humiliation, shame or embarrassment, associated with significant subjective anxiety accompanied mainly by autonomic symptoms such as tachycardia, tremors, and sweating, with substantial psychic suffering and functional impairment (APA, 1994).

The most frequently feared and avoided situations include speaking, eating, drinking, and writing in public, interacting with strangers, people of the opposite sex, and authorities, and being the center of attention and/or the target of criticism (APA, 1994; Crippa et al., 2007). According to the situations avoided, SAD may be clinically classified as generalized (fear/avoidance of several performance situations and social interaction) or circumscribed (fear/avoidance of specific situations and events, the most frequent of which is public speaking) (APA, 1994; Raj & Sheehan, 2001).

The onset of SAD usually occurs in early adolescence (Crippa et al., 2007; Kessler et al., 1998). Although it is not considered a disabling condition, SAD causes severe impairment in such different areas of life as work, academic activities, family and loving relationships, and social and economic life (Furmark, 2000; Schneier et al., 1992; Stein et al., 2005). The level of comorbidity associated with SAD is significant - around 70% - and the most commonly associated conditions are depression, substance abuse (alcohol and drugs), dysthymia, suicidal ideation, and other anxiety disorders (Filho et al., 2010; Mohammadi et al., 2006; Raj & Sheehan, 2001; Wittchen & Fehm, 2003).

Despite its high prevalence rates (5-14%), the recognition of SAD as a pathological condition by patients and even by health professionals is low, around 3% (Davidson et al., 1993; Martin-Santos & Crippa, 2003). In a Brazilian study by Baptista (2006), only 0.8% out of 237

patients with SAD had been previously diagnosed, and none of them was aware, despite their experiences of impairment and limitations, that they suffered from an anxiety disorder. The under-diagnosis of SAD seems to be associated with its intrinsic characteristics, like the fear of seeking help due to the possibility of being criticized or negatively evaluated, as well as with the poor training of professionals in the field of mental health and others to recognize the condition (Crippa et al., 2008).

Although under-recognized, SAD is a treatable condition with good clinical response to pharmacological interventions, especially selective serotonin and noradrenalin reuptake inhibitors (Cordioli, 2011), and to psychotherapy. Therefore, measures that favor the early and systematic recognition of SAD are important because they can bring relief to patients and prevent the onset of comorbid conditions and poor prognosis. In this context, assessment scales have a prominent role.

### **1.2 SAD assessment instruments**

Instruments for the evaluation and measurement of symptoms are of great value for systematic diagnoses in Psychiatry, consisting of an excellent resource for the characterization of clinical signs and symptoms, prognosis, prediction of treatment response, and measurement of disorder severity in clinical and research settings (Ito & Ramos, 2000).

A number of resources to assess SAD are available today, from structured diagnostic interviews such as the Mini International Neuropsychiatric Interview (MINI - Amorin, 2000), the Composite International Diagnostic Interview (World Health Organization [WHO], 1997), the Anxiety Disorders Interview Schedule (ADIS - Di Nardo et al., 1983), and the Structured Clinical Interview for DSM-IV (SCID-IV - First et al., 1997), to self- and hetero-administered scales, of which there are many.

A literature review (Osório et al., 2009) concerning these instruments found 19 self-rated and three hetero-administered scales available in at least seven different languages, designed to assess from general aspects of SAD, such as the main feared and avoided situations (Social Phobia and Anxiety Inventory, Social Interaction Anxiety Scale, Social Phobia Scale, Liebowitz Social Anxiety Scale, Brief Social Phobia Scale), to specific features of the condition, including fear of public speaking (Personal Report of Confidence as a Speaker Questionnaire, Personal Report of Communication Apprehension), safety behaviors (Social Phobia Safety Behaviours Scale), negative beliefs (Social Thoughts and Beliefs Scale), and functional impairment (Liebowitz Self-Rated Disability Scale).

## **2. Studies involving different instruments for the assessment of SAD**

As part of a broader investigation on different aspects of SAD, our research group in Brazil has adapted and assessed the psychometric properties of instruments aimed at improving the recognition of this condition, supporting clinical research on the efficacy of novel drugs for the treatment of SAD and furthering the understanding of its neurobiological substrates. The objective of this chapter is to present studies addressing (i) the adaptation and clinical validation of the module related to the diagnosis of SAD in the Structured Clinical Interview for DSM-IV (SCID-IV); (ii) the validation of the SAD screening instruments Social Phobia Inventory (SPIN) and its brief version (MINI-SPIN); and (iii) the validation of the Self-Statements during Public Speaking (SSPS) scale, used to assess cognitive aspects in SAD,

and its adaptation to be used in the context of an experimental model of anxiety, the Simulated Public Speaking Test. These instruments have proven useful both in clinical practice and research settings. Additionally, they were shown to be easy and quick to apply and to require little training, thus having the potential to be established as important tools for researchers and clinicians involved with the study, diagnosis, and treatment of the many factors associated with SAD.

### **2.1 Structured clinical interview for DSM-IV (SCID-IV)**

The objective of structured clinical interviews is to collect clinical and diagnostic data in a precise and exhaustive manner, especially for research purposes. Their use for the improvement of the validity and reliability of psychiatric diagnoses is also of unquestionable importance.

The SCID-IV was proposed in 1997 by First and colleagues. It is an instrument used for the elaboration of clinical psychiatric diagnoses based on DSM-IV criteria. The interview has a total of 10 modules that can be applied independently or in a combined manner, according to the objectives desired. Module F is the one used for the assessment of anxiety disorders in general and SAD in particular. Module F for SAD comprises 15 questions directed at establishing the diagnosis and five questions related to specificities of the disorder (subtype, onset, etc.). The interview is commonly conducted face-to-face and its duration varies as a function of the presence of symptoms to be investigated.

The accuracy of SAD diagnoses obtained through structured interviews has been evaluated, and the results obtained thus far show that the reliability of SAD diagnoses obtained with the original version of the SCID, as well as with versions adapted and translated into other languages, reaches satisfactory levels (Aziz & Kenford, 2004; Del-Ben et al., 2005; Lyneham & Rapee, 2005).

Although the SCID was developed to be used face-to-face, interviews in research settings (such as screening for epidemiological surveys) have also been carried out by telephone (Aziz & Kenford, 2004; Carlbring et al., 2007). Of the many advantages of telephone over in-person interviews, the following are worth mentioning: (a) cost efficiency, (b) simpler logistics, and (c) higher response rates (Carlbring et al., 2007; Lyneham & Rapee, 2005). As SAD may lead to the avoidance of social situations where there is potential for negative evaluation by others, most patients may indeed prefer telephone-administered diagnostic interviews, which makes them particularly suited for epidemiological surveys. The interviewer may represent authority to SAD patients; therefore, feelings of discomfort concerning exposure and scrutiny may be present, and this could, in turn, lead to refusal to participate, especially in the case of those more severely affected by the condition. Besides the clear implications for research, confirmation of the adequacy of data obtained by telephone may promote clinical advance. The use of telephone interviews for research and clinical purposes relies on the premise that the diagnosis made in such conditions is as valid as that obtained in person.

We have recently conducted a study to check the specific reliability of the SCID-IV for the diagnosis of SAD in face-to-face interviews in a sample of 100 university students (Crippa et al., 2008). Assessments were performed by five raters with different levels of clinical experience, and the agreement rates for positive and negative SAD diagnoses were 86% and 89%, with a Kappa index of 0.80, indicators considered to be excellent. We have also evaluated the reliability of the instrument for the diagnosis of SAD via telephone interviews,

and it also proved valid and reliable. When the reliability of the face-to-face and telephone interviews for the diagnosis of SAD was tested, an agreement of 89% was found for SAD cases, and of 95% for non-SAD cases. The Kappa value was 0.85, demonstrating the high correlation between these two forms of assessment (Crippa et al., 2008) and lending further support to the use of telephone interviews, which can be easily performed in around five minutes and have an excellent rate of acceptance (around 100%).

These findings support the acceptability of diagnostic interviews over the telephone, even when these are carried out by different mental health professionals. Therefore, telephone interviewing seems to be a useful tool for professionals in diagnosing SAD as the first stage of routine screening programs and epidemiological surveys. It allows an interview-based diagnosis to be made in situations where a face-to-face interview at the hospital or outpatient clinic is impossible.

## 2.2 Social phobia inventory (SPIN)

The Social Phobia Inventory (SPIN), elaborated by Connor and colleagues (2000), is a self-administered instrument proposed in order to satisfy the need for a brief and easily applied evaluation that conjointly assesses the physiological symptoms of fear and avoidance related to SAD. It consists of 17 items rated on a five-point Likert scale with a maximum total score of 68 (see Figure 1 for examples of SPIN items).

Social Phobia Inventory (SPIN)					
<i>Instructions: Please indicate how much the following problems have bothered you during the past week. Mark only one box for each problem, and be sure to answer all items</i>					
	not at all	a little	some what	very much	extre mely
2. I am bothered by blushing in front of people	(0)	(1)	(2)	(3)	(4)
10. Talking to strangers scares me	(0)	(1)	(2)	(3)	(4)
12. I would do anything to avoid being criticized	(0)	(1)	(2)	(3)	(4)
14. I am afraid of doing things when people might be watching	(0)	(1)	(2)	(3)	(4)

Fig. 1. Examples of SPIN items (adapted: Connor et al, 2000)

The psychometric qualities of the SPIN, demonstrated in the original study with samples of healthy individuals and subjects with SAD, were quite satisfactory, as indicated by the following properties: test-retest reliability, internal consistency (Cronbach's alpha), and convergent and discriminative validity. Factorial analyses of the instrument for the case sample indicated the extraction of five factors, namely: (1) talking to strangers and social situations; (2) criticism and embarrassment; (3) physiological changes; (4) authority figures; and (5) avoiding being the center of attention and public speaking. The SPIN and its subscales were also sensitive to identify the effects of pharmacological and psychotherapeutic treatments, proving to be an excellent instrument for the quantification of SAD symptoms and of the therapeutic effects of different treatment approaches.

Other studies were later conducted with the SPIN in order to determine its psychometric qualities in different settings. These studies were performed using three versions of the instrument in addition to the original one, applied to clinical and non-clinical samples of adults and to a non-clinical population of adolescents: a Brazilian (Osório et al., 2008a; 2010a), a Finnish (Ranta et al., 2007), and a French (Radomsky et al., 2006) version.

Our group performed a study using the Brazilian version of the SPIN with a sample of 2,314 university students, 88 SAD cases, and 90 SAD non-cases (Osório et al., 2009a; 2010a) to examine different parameters related to the validity of the scale.

Comparatively, SAD cases had significantly higher scores in all the items of the SPIN in relation to the general population sample, which in turn had higher scores than the non-case sample, demonstrating a higher prevalence of fear and avoidance behaviors in SAD cases and the lowest prevalence in non-cases. Among students from the general population and those diagnosed as SAD cases, the highest scores were seen in item 11, relative to the avoidance of public speaking (*"I avoid having to give speeches"*). Among SAD non-cases, the highest scores were found for item 5 (*"Being criticized scares me a lot"*).

In respect to the internal consistency of the SPIN in the three samples, the values obtained were quite similar and satisfactory (above 0.63). The total scale was the one with the best internal consistency, with values around 0.90, followed by the fear subscale, with values around 0.80. The avoidance and physiological symptoms subscales yielded values between 0.63 and 0.78. In general, the items had an adequate correlation with the total scale and contributed to increase its internal consistency.

Concerning the concurrent validity, the SPIN was initially compared to the Beck Anxiety Inventory (BAI), a self-rated instrument to assess general anxiety. For the general population of university students, the correlation between the two instruments was 0.63. For the sample of SAD cases and non-cases, the correlation values between the two scales were lower (0.42 and 0.25, respectively), as well as the correlations between the items. In general, these correlations were poorly defined, suggesting that although the two instruments may share common aspects, they have specificities that become clearer in samples of SAD cases and non-cases, in which diagnostic criteria ensure greater homogeneity.

These data indicate that a correlation exists, although weak and poorly defined, between the SPIN and the BAI, demonstrating the importance of specific instruments for the assessment of SAD. Screening instruments for general anxiety like the BAI are thought to cover some of the symptoms of SAD, but not its specificities, and this may result in the non-detection of the condition. Furthermore, screening with the BAI alone might attribute a prominent value to general anxiety symptoms that are common to many psychiatric disorders.

A concurrent validity analysis assessed the correlation between the SPIN and the Brief Social Phobia Scale (BSPS), a hetero-administered instrument to assess SAD. The values found were moderate (0.59 for SAD cases and 0.82 for non-cases), although the two scales were designed for the same purpose.

An explanation for this may be related to the different forms of assessing SAD. According to previous evidence, subjects completing self-rated instruments may underestimate their difficulties or fail to connect them with the disorder (Brunello et al., 2000; Figueira et al., 1994), whereas assessments performed by clinicians, especially those with specific training, tend to provide a more realistic symptom evaluation. In fact, studies on other anxiety disorders converge to this same point (Taylor et al., 1997). In the case of SAD, however, self-ratings are believed to have greater validity and reliability due to the intrinsic characteristics of the condition, which involve situations of social interaction and exposure.

In respect to the discriminative capacity of the SPIN, scores between 19 and 21 points were the ones that proved most adequate for the screening of SAD, with sensitivity of 0.86, specificity of 0.87, and diagnostic efficiency of 85%.

The factorial analysis also yielded a five-factor solution for the sample of SAD cases, accounting for 69.7% of the data variance, and a three-factor solution for the general population sample, explaining 54.1% of the variance.

The analysis of data related to construct validity revealed that the SPIN has a direct relationship with three of the ICD-10 (WHO, 1993) and DSM-IV (APA, 1994) diagnostic criteria for SAD. However, two other criteria that are also essential for the diagnosis, such as perception that the fear experienced is irrational (criterion C) and presence of significant occupational, social, and professional impairments (criterion E), are not covered by the scale, which further supports its use as a screening instrument but not as a diagnostic tool for SAD. Thus, the use of the SPIN as a diagnostic instrument may over-estimate the presence of SAD, since cases of sub-threshold SAD (presence of fear and avoidance without significant functional impairment [Ranta et al., 2007]) may be rated as SAD cases.

The values detected for all the psychometric qualities studied were quite close to the findings of the original study by Connor et al. (2000), supporting the adequacy of the SPIN for the evaluation of SAD in different languages, countries, and cultures.

### 2.3 Mini social phobia inventory (MINI-SPIN)

The MINI-SPIN is a reduced version of the SPIN proposed by the authors of the original study (Connor et al., 2001). It consists of three items of the original SPIN that proved indicative of SAD under empirical investigation (Figure 2).

Mini Social Phobia Inventory (MINI-SPIN)
1. Fear of embarrassment causes me to avoid doing things or speaking to people
2. I avoid activities in which I am the center of attention
3. Being embarrassed or looking stupid is among my worst fears

Fig. 2. Items of the Mini Social Phobia Inventory (adapted: Connor et al, 2001)

To develop this instrument, the authors identified those items of the SPIN that best discriminated between SAD patients and controls. Out of the 17 items of the original scale, a subset of three items with the highest sensitivity and specificity values for the screening of SAD were selected. This brief version was tested in a sample of 7.165 primary care patients, with a cut-off score of six points resulting in a sensitivity of 88.7%, specificity of 90%, positive predictive value of 52.6%, negative predictive value of 98.5%, and diagnostic efficacy of 89.9% (Connor et al., 2001).

Using the same sample of university students enrolled in the study of the SPIN, we investigated the psychometric properties of the MINI-SPIN (Osório et al., 2007; 2010b).

The study on the main discriminative items of the SPIN, which gave origin to the MINI-SPIN (Connor et al., 2001), was re-applied for the data of the SAD cases and non-cases sample, with significant correlations observed in both groups. To Connor and colleagues (2001), items 6, 9, and 15 were the ones with the highest discriminative power. In the

Brazilian setting, however, the items with the best discriminative capacities were items 11, 15, and 9, with item 6 yielding values quite close to the ones found for these three items.

Considering the information above, it can be stated that no differences were found in relation to the items with the best discriminative power, which shows that the feared situations remain the same regardless of the cultural context and sample studied (clinical or non-clinical). One second aspect to be highlighted is that, given the similarity of the four items in terms of discriminative power, a modification of the MINI-SPIN could be devised considering the inclusion of item 11. This proposition is further justified by the fact that item 11 refers to the fear of public speaking, the most common fear in SAD and the one that most often characterizes the non-generalized subtype of the disorder (Baptista, 2006; Furmark, 2000; Stein et al., 1994). However, the psychometric properties of the brief scale modified as suggested here have not yet been the object of research.

Despite the change proposed, the original form of the MINI-SPIN is adequate from the psychometric standpoint. Taking the SCID-IV as the gold standard, the cut-off score of six was associated with adequate sensitivity, specificity, and positive and negative predictive values. It is worth mentioning that the cut-off score of seven appears to be the most adequate for the sample of Brazilian university students (Osório et al., 2007).

In the sample studied, the MINI-SPIN had significant correlations with the SPIN (0.82 to 0.86) and presented other psychometric qualities that were quite similar to those found for the original scale, which endorses the use of the MINI-SPIN as a brief screening and triage instrument with advantages in relation to the SPIN, such as shorter administration and rating times. These properties favor the large-scale use of the reduced version, especially in primary healthcare settings. Also, the psychometric properties of the MINI-SPIN found in the Brazilian study were similar to those reported in the studies by Connor and colleagues (2001) and Weeks and colleagues (2007), the latter performed in Australia. This underscores the adequacy of the MINI-SPIN in different samples and cultural settings, with excellent indicators of diagnostic efficiency (Connor et al., 2001; Osório et al., 2007; 2010b; Weeks et al., 2007).

#### **2.4 Self statements during public speaking scale (SSPS)**

Epidemiological studies have shown that the fear of public speaking is the most prevalent fear in the general population (Geer, 1965; Furmark et al., 2000), irrespective of gender, ethnicity, or age (Phillips et al., 1997).

In a study performed by Stein and colleagues (1996) with a community sample, one third of the respondents reported that they experienced excessive anxiety when speaking to a large audience. In addition, subjects mentioned having anxious cognitions about public speaking, including the following fears: doing or saying something embarrassing (64%), one's mind going blank (74%), being unable to continue talking (63%), saying foolish things or not making sense (59%), and trembling, shaking, or showing other signs of anxiety (80%). In total, 10% of the respondents reported that public-speaking anxiety had resulted in a marked interference with their work (2%), social life (1%), or education (4%), or had caused them marked distress (8%). Twenty-three subjects (5%) had public-speaking anxiety alone (i.e., without evidence of additional social fears).

Public speaking has also been indicated as the most prevalent fear in the generalized subtype of SAD, and the most common symptom leading to diagnoses of the circumscribed or non-generalized subtype of the condition. In a study by Baptista (2006), 91.6% of subjects with SAD reported having this fear, compared to 24% of non-SAD subjects.

These facts have encouraged studies to examine this specific situation. However, a previous investigation (Osório et al., 2005) reported on the paucity of standardized and validated instruments to assess aspects related to circumscribed SAD or to the cognitive features of the disorder. One important exception is the Self Statements during Public Speaking (SSPS) scale, developed by Hofmann & DiBartolo in 2000. The SSPS is based on cognitive theories that assume that social anxiety is the result of a negative perception of self and of others in relation to self. It is a self-rated instrument comprising two subscales: positive self-assessment and negative self-assessment, each with five items rated on a scale from 0 to 5, with a maximum total score of 50. Figure 3 presents examples of items of this instrument.

Self-Statements During Public Speaking						
<i>Instructions: Please imagine what you have typically thought to yourself during any kind of public speaking situation. Imagining these situations, how much do you agree with the statements given below? Please rate the degree of your agreement on a scale between 0 (if you do not agree at all) to 5 (if you agree extremely with the statement)</i>						
1. What do I have to lose? It's worth a try	(0)	(1)	(2)	(3)	(4)	(5)
4. A failure in this situation would be more proof of my incapacity	(0)	(1)	(2)	(3)	(4)	(5)
8. I'll probably "bomb out" anyway	(0)	(1)	(2)	(3)	(4)	(5)

Fig. 3. Examples of SSPS items (adapted: Hofmann & DiBartolo, 2000)

The psychometric qualities of the SSPS were evaluated in a general population sample of healthy female university and non-university students and in SAD cases by Hofmann & DiBartolo (2000), who found quite adequate validity and reliability parameters. Later, the SSPS was translated and adapted into two languages: German (Gerlach et al., 2007) and Brazilian Portuguese (Osório et al., 2008b).

Our research group has assessed the validity of the Brazilian version of the SSPS (Osório et al., 2008b), which showed adequate internal consistency (Cronbach's alpha = 0.64 - 0.94) and concurrent validity with general (BAI:  $r = 0.22 - 0.53$ ) and specific measures (SPIN:  $r = 0.22 - 0.65$ ) of anxiety and social anxiety. The structure factor of the scale was also examined and found to explain 52% of the data variance.

Furthermore, we found that the scale was able to discriminate between SAD cases and non-cases ( $p < 0.001$ ), and that the higher the positive self-assessment, the fewer were the SAD-related symptoms, and the higher the negative self-assessment, the stronger were the symptoms of SAD. These data agree with the study by Stein and colleagues (1996).

These findings point to the existence of correlations between cognitive mechanisms and the etiology of the fear of public speaking and SAD. Nonetheless, it is important to highlight that such correlations are unspecific, and that the fear of public speaking is only one of the typical symptoms of SAD which, although being the most prevalent, might not be present in all subjects (especially in cases of non-generalized SAD, in which other fears such as drinking and eating in public can predominate).

### 2.5 Self statements during public speaking scale – state version (SSPS-S)

The need for systematic studies on the association between anxiety and public speaking has fostered the design of experimental procedures simulating real-life situations.

One important example of such procedures is described in the study by McNair and colleagues (1982), who developed a clinical-experimental model of anxiety named Simulated Public Speaking Test (SPST), later modified by Guimarães, Zuardi, and Graeff (1987). The test, initially used to measure the anxiolytic effects of diazepam, consists of asking the subject to prepare a speech and present it in front of a video camera that records his performance (see Figure 4).



Fig. 4. Experimental Model: Simulated Public Speaking Test

The performance in the test is measured at seven phases: baseline (B), pre-stress (P), anticipatory (A), performance/speech (S), and post-stress/recovery (F0, F1, F2). Physiological measurements including heart rate, blood pressure, and skin conductance are recorded throughout the test, as well as subjective data related to the degree of tension, anxiety, and fatigue experienced in each phase of the experiment.

A literature review of studies using this experimental model (Osório et al., 2008c) revealed that instruments like the Visual Analogue Mood Scale (Folstein & Luria, 1973) and the State-Trait Anxiety Inventory (Spielberger et al., 1970) are often used to gauge subjective anxiety during the test, but that there are no standardized instruments available to assess cognitions associated with the experience.

Therefore, our group has proposed an adapted version of the SSPS, the Self Statements during Public Speaking Scale – state version (SSPS-S), to be used as a subjective measure of cognitive aspects in experimental models of anxiety, especially the SPST (Osório et al., 2010c).

The modification consisted of asking the subject to imagine what he would think about himself not in a hypothetical public speaking situation, as mentioned in the original instructions of the scale, but in the situation of talking in front of a camera. Therefore, the initial instructions were modified to: *“Imagine the things you are thinking now about yourself in this situation of talking in front of the camera. Keeping in mind this situation, to what extent do you agree with the statements given below? Please assign a note of 0 (if you fully disagree) to 5 (if you fully agree with the statement)”*.

The SSPS-S proved sensitive to discriminate between SAD cases and non-cases throughout all the phases of the procedure, showing that cases make a lower positive assessment and a

higher negative assessment of self and of their performance during public speaking as compared to non-cases. The negative subscale of the SSPS-S was the most sensitive and its indicators are shown in Figure 5.

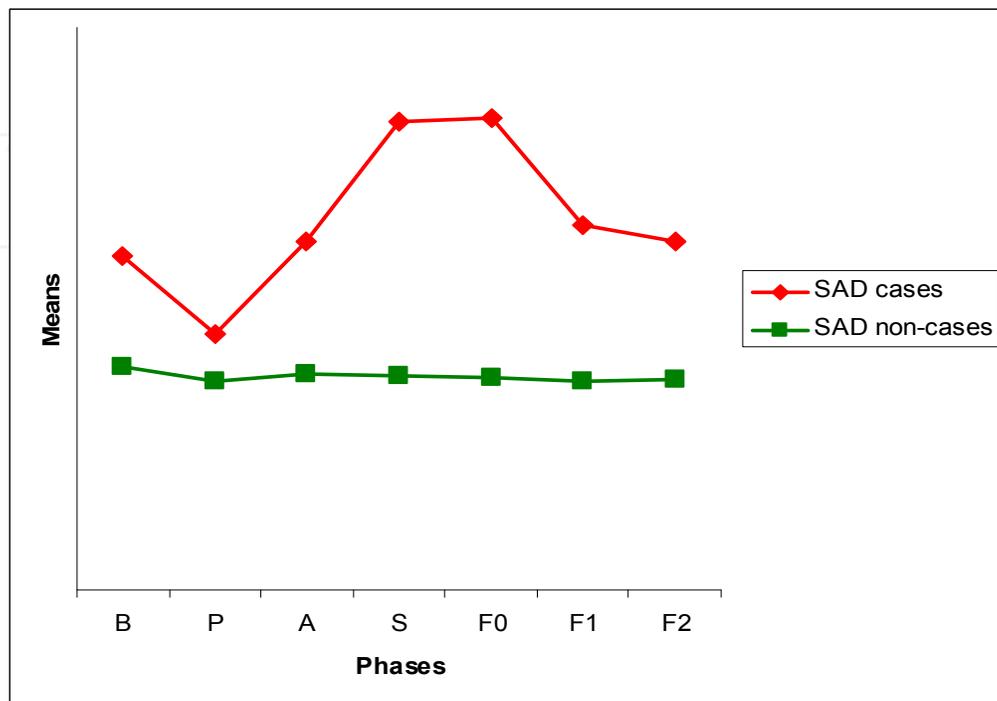


Fig. 5. Distribution of mean scores in the negative subscale of the Self-Statements during Public Speaking Scale - State version during the different phases of the Simulated Public Speaking Test

As the figure shows, the negative subscale bears positive correlations with the SPST for SAD cases, connected with the different levels of anxiety experienced: negative self-assessment decreases from baseline (B) to the pre-stress phase (P), increases from P to the anticipatory phase (A) and from this to the performance phase (S), tending to decrease in the post-stress phases (F0, F1, and F2). The same does not happen with non-cases, to whom measures remain stable during the experiment.

These data show that the SSPS-S is sensitive to assess the cognitive mechanisms associated with public speaking, and therefore with SAD.

### 3. Conclusion

This chapter describes studies concerning SAD screening instruments performed by our research group in Brazil. These studies are based on the premise that systematic assessment instruments have a crucial importance in Psychiatry, and particularly in the context of SAD, where a large percentage of under-diagnosis persists. This points to the need for actively seeking for individuals affected by SAD and for large-scale SAD screening in the community, where the use of scales is particularly valuable.

We have directed our efforts to the transcultural adaptation of previously validated instruments to the Brazilian context, filling an important gap in the national literature where such studies were scarce.

Our findings speak in favor of the adequacy of the instruments evaluated, regardless of the cultural setting in which they are used, which is of great importance especially for scientific research, fostering the conduction of multicenter studies.

The adaptations proposed in the forms of application of previously available instruments, such as the telephone administration of module F of the SCID-IV, might expand the use of the scale and increase its acceptance by subjects, since the contact by telephone is less frightening than face-to-face interactions for many people affected by SAD.

The adaptation of an instrument to assess cognition in an experimental model of anxiety may also foster a greater understanding of SAD and greatly contribute to treatment planning.

It is hoped that these studies shall contribute for the systematic assessment of SAD, especially in the Brazilian setting, encouraging clinicians and researchers to use the instruments now available.

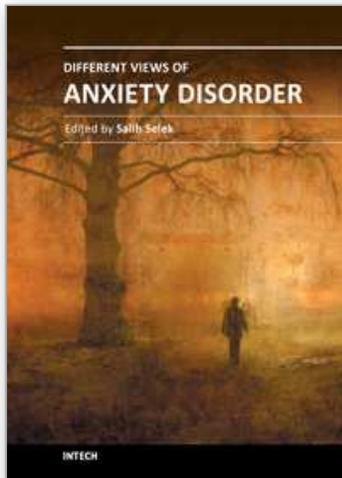
#### 4. References

- American Psychiatric Association (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd Edition), American Psychiatric Association, Washington, DC.
- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4rd Edition), American Psychiatric Association, Washington, DC.
- Amorin, P. (2000). Mini International Neuropsychiatric Interview (MINI): validation of a short structured diagnostic psychiatry interview. *Revista Brasileira de Psiquiatria*, Vol.22, No 3, pp.106-115.
- Aziz, M. A., & Kenford, S. (2004). Comparability of telephone and face-to-face interviews in assessing patients with posttraumatic stress disorder. *Journal of Psychiatric Practice*, Vol. 10, No. 5, pp.307-313.
- Baptista, C.A. (2006). Estudo da prevalência do Transtorno de Ansiedade Social em estudantes universitários. *Dissertação (Mestrado)*, Faculdade de Medicina, Universidade de São Paulo, Ribeirão Preto, 2006
- Brunello, N.; Den Boer, J.A.; Judd, L.L.; Kasper, S.; Kelsey, J.E.; Lader, M.; Lecrubier, Y.; Lepine, J.P.; Lydiard, R.B.; Mendlewicz, J.; Montgomery, S.A.; Racagni, G.; Stein, M.B. & Wittchen, H.U. (2000). Social Phobia: diagnosis and epidemiology, neurobiology and pharmacology, comorbidity and treatment. *Journal of Affective Disorders*, Vol.60, pp.61-74.
- Carlbring, P., Gunnarsdottir, M., Hedensjo, L., Andersson, G., Ekselius, L., & Furmark, T. (2007). Treatment of social phobia: Randomised trial of internet-delivered cognitive-behavioural therapy with telephone support. *British Journal of Psychiatry*, Vol. 190, pp.123-128.
- Connor, K.M.; Davidson J.R.; Churchill, L.E.; Sherwood, A.; Foa, E. & Weisler, R.H. (2000). Psychometric properties of Social Phobia Inventory (SPIN). *British Journal of Psychiatry*, London, Vol.176, pp. 379-386.
- Connor, K.M.; Kobak, K.A.; Churchill, L.E.; Katzelnick, D. & Davidson, J.R. (2001). Mini-Spin: a brief screening assessment for generalized social anxiety disorder. *Depression and Anxiety*, Vol.14, pp. 137-140.
- Cordioli, A.V. (2011). *Psicofármacos: consulta rápida*. Artmed, Porto Alegre.

- Crippa, J.A.; Loureiro, S.R.; Baptista C.A. & Osório, F.L. (2007). Are there differences between early- and late-onset social anxiety disorder?. *Revista Brasileira de Psiquiatria*, Vol. 29, pp. 195-196.
- Crippa, J.A.; Osório, F.L.; Del-Ben, C.M.; Filho, A.S.; Freitas, M.C.S. & Loureiro, S.R. (2008). Comparability Between Telephone and Face-to-Face Structured Clinical Interview for in Assessing Social Anxiety Disorder. *Perspectives in Psychiatric Care*, Vol. 44, pp. 241-247.
- Davidson, J.R.; Hughes, D.L.; George, L.K. & Blazer, D.G. (1993). The epidemiology of social phobia: findings from the Duke Epidemiological Catchment Area Study. *Psychological Medicine*, Vol. 23, No. 3, pp. 709-718.
- Del-Ben, C. M., Hallak, J. E., Sponholz, A. Jr., Marques, J. M., Labate, C. M., Contel, J. O., & Zuardi, A. W. (2005). Accuracy of psychiatric diagnosis performed under indirect supervision. *Revista Brasileira de Psiquiatria*, Vol. 27 , No.1, pp. 58-62.
- Di Nardo, P.A.; Moraes, K.; Barlow, D.H.; Rapee, R.M. & Brow, T.A. (1993). Reliability of DSM-III-R Anxiety Disorder Categories. *Archives of General Psychiatry*, Vol. 50, pp. 251-256.
- Figueira, I.; Coscarell, P.; Nardi, A.E.; Mendlowicz, M.; Marques, C.; Camisão, C.; Andrade, Y. & Versiani, M. (1994). Comparação entre fobia social e transtorno do pânico: psicopatologia geral e qualidade de vida. *Jornal Brasileiro de Psiquiatria*, Vol. 43, No. 5 , pp. 285-289.
- Filho, A.S. ; Hetem, L.A.B. ; Ferrari, M.C.F.; Trzesniak, C. ; Martín-Santos, R. ; Borduqui, T.; Osório, F.L. ; Loureiro, S. R. ; Busatto Filho, G. ; Zuardi, A.W. & Crippa, J.A.S. (2010). Social anxiety disorder: what are we losing with the current diagnostic criteria?. *Acta Psychiatrica Scandinavica*, Vol. 121, pp. 216-226.
- First, M.B.; Spitzer, R.L.; Gibon, M. & Williams, J.B.W. (1997). *Structured Clinical Interview for DSM-IV Axis I Disorders – Clinican Version (SCID-CV)*, American Psychiatric Press, Washington, DC.
- Folstein, M.F. & Luria R. (1973). Reliability, validity and clinical application of the Visual Analogue Mood Scale. *Psychological Medicine* , Vol 3, pp. 479-486.
- Furmark, T. (2000). *Social Phobia – from epidemiology to brain function*. Dissertation (Doctor of Philosophy in Psychology), Uppsala University, 2000
- Geer, J.H. The development of a scale to measure fear. (1965). *Behaviour Research and Therapy*, Vol.3, pp. 416-424.
- Gerlach, A.L.; Heinrichs, N.; Bandl, C. & Zimmermann, T. (2007). SSPS- A German version of the questionnaire to assess the cognitive components of fear of public speaking. *Zeitschrift fur Klinische Psychologie und Psychotherapie: Forschung und Praxis*, Vol. 36, No. 2, pp.112-120.
- Guimarães, F.S.; Zuardi, A.W. & Graeff, F.G. (1987). Effect of chlorimipramine and maprotiline on experimental anxiety in humans. *Journal of Psychopharmacology*, Vol. 1, pp. 184-192.
- Hofmann, S.G. & Dibartolo, P.M. (2000) An instrument to assess self-statements during public speaking: scale development and preliminary psychometric properties. *Behaviour Therapy*, New York, Vol. 31, pp. 499-515.
- Ito, L.M. & Ramos, R.T. (2000) Escalas de Avaliação Clínica Do Transtorno De Pânico. In: *Escalas de avaliação clínica em psiquiatria e psicofarmacologia*, Gorenstein, C.; Andrade, L.H.S.G.; Zuardi, A.W. , pp. 145-156, Lemos Editorial, São Paulo

- Kessler, R.C.; Stein, M.B. & Berglund, P. (1998). Social phobia subtypes in national comorbidity survey. *American Journal of Psychiatry, Hanover*, Vol. 155, No. 5, pp. 613-619, 1998.
- Lyneham, H. J., & Rapee, R. M. (2005). Agreement between telephone and in-person delivery of a structured interview for anxiety disorders in children. *Journal of the American Academy of Child and Adolescent Psychiatry*, Vol. 44, No.3, pp. 274-282.
- Martín-Santos, R. & Crippa, J.A.S. (2003). Transtornos de Ansiedad en Atención Primaria. In: *Abordaje de los problemas de salud mental en el ámbito extrahospitalario*, Solá, V.P., pp. 17-31, Profármaco, Barcelona.
- McNair, D.M.; Frankenthaler, L.M.; Lzerlinsky, T.; White, T.W.; Sasson, S. & Fisher, S. (1982). Simulated public speaking as a model of clinical anxiety. *Psychopharmacology*, Vol. 77, pp. 7-10.
- Mohammadi, M.R.; Ghanizadeh, A.; Mohammadi, M. & Mesgrpour, B. (2006). Prevalence of social phobia and its comorbidity with psychiatric disorders in Iran. *Depression and Anxiety*, Vol.23, No.7, pp.405-411.
- Moutier, C.Y. & Stein, M.B. (1999). The history, epidemiology, and differential diagnosis of social anxiety disorder. *Journal of Clinical Psychiatry*, Vol. 60, pp. 4-8.
- Osório, F.L.; Crippa, J.A.C. & Loureiro, S.R. (2005). Instrumentos de avaliação do Transtorno de ansiedade social. *Revista de Psiquiatria Clínica*, Vol. 32, No. 2, pp. 73-83.
- Osório, F., Crippa, J. A., & Loureiro, S. R. (2007). A study of the discriminative validity of a screening tool (MINI-SPIN) for social anxiety disorder applied to Brazilian university students. *European Psychiatry* Vol.22, No.4, pp.239-243.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2008a). Cross- cultural validation of the Brazilian Portuguese version of the Social Phobia Inventory (SPIN): study of the items and internal consistency. *Revista Brasileira de Psiquiatria*, Vol. 31, pp. 25-29.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2008b). Escala para auto-avaliação ao falar em público (SSPS): adaptação transcultural e consistência interna da versão brasileira. *Revista de Psiquiatria Clínica*, Vol. 35, pp. 207.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2008c). Experimental models for the evaluation of speech and public speaking anxiety: A critical review of the designs adopted. *The Journal of Speech – Language Pathology and Applied Behavior Analysis*, Vol. 2.4 – 3.1, pp. 97-121.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2009). Instruments for the Evaluation of Social Phobia. In: *Social Phobia: Etiology, Diagnoses and Treatment*. Hauppauge, Axelby, C.P., pp. 150-183, Nova Science Publishers.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2010a) Evaluation of the psychometric properties of the Social Phobia Inventory in university students. *Comprehensive Psychiatry*, Vol. 51, pp. 630-640.
- Osório, F.L.; Crippa, J.A.S. & Loureiro, S.R. (2010b). Further Study of the Psychometric Qualities of a Brief Screening Tool for Social Phobia (MINI-SPIN) Applied to Clinical and Nonclinical Samples. *Perspectives in Psychiatric Care*, Vol. 46, pp. 266-278.
- Osório, F.L. ; Crippa, J. A. S. & Loureiro, S. R. (2010c). Validação Transcultural da versão estado de um instrumento de avaliação da ansiedade de falar em público. *Revista Brasileira de Psiquiatria*, Vol. 32, pp. S59.

- Phillips, G.C.; Jones, G.E.; Rieger, E.R. & Snell, J.B. (1997). Normative data for the personal report of confidence as a speaker. *Journal of Anxiety Disorder*, Vol.11, pp. 215-220.
- Radomsky, A.S.; Ashbaugh, A.R.; Saxe, M.L.; Ouimet, A.J.; Golden, E.R.; Lavoie, S.L. & O'Connor, K.P. (2006). Psychometric properties of the French and English versions of the Social Phobia Inventory. *Canadian Journal of Behavioural Science*, Vol. 38, No. 4, pp. 354-360.
- Raj, B.A. & Sheehan, D.V.(2001). Social anxiety disorder. *Medical Clinics of North America*, Vol. 85, No.3, pp. 711-733.
- Ranta, K.; Kaltiala-Heino, R.; Rantanen, P.; Tuomisto, M.T. & Marttunen, M. (2007). Screening social phobia in adolescents from general population: the validity of the Social Phobia Inventory (SPIN) against a clinical interview. *European Psychiatry*, Vol. 22, No. 4, pp. 244-251.
- Schneier, F.R.; Johnson, J.; Homig, C.D.; Liebowitz, M.R. & Weissman, M.M. (1992). Social phobia: comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, Vol. 49, No. 4, pp.282-288.
- Spielberger, C.D.; Gorsuch, R.L. & Lushine, R.E.(1970). *Manual for the state-trait anxiety inventory*. Consulting Psychologists Press, Palo Alto, California.
- Stein, M.B.; Walker, J.R. & Forde, D.R. (1994). Setting diagnostic thresholds for social phobia: considerations from a community survey of social anxiety. *American Journal of Psychiatry*, Vol.151, pp. 408-412.
- Stein, M.B.; Walker, J.R. & Forde, D.R. (1996). Public speaking fears in a community sample. Prevalence, impact on functioning and diagnostic classification. *Archives of General Psychiatry*, Vol.53, pp.169-174.
- Stein, M.B.; Roy-Byrne, P.P.; Craske, M.G.; Bystritsky, A.; Sullivan, G.; Pyne, J.M.; Katon, W. & Sherbourne, C.D. (2005). Functional impact and health utility of anxiety disorders in primary care outpatients. *Medical Care, Philadelphia*, Vol. 43, No. 12, p. 1164-1170.
- Taylor, S.; Woody, S.; Mclean, P.D. & Koch, W.J. (1997). Sensitivity of outcome measures for treatments of generalized social phobia. *Assessment*, Vol. 4, No.2, pp.181-191.
- Weeks, J.W.; Spokas, M.E. & Heimberg, R.G. (2007). Psychometric evaluation of the Mini-Social Phobia Inventory (Mini-Spin) in a treatment-seeking sample. *Depression and Anxiety*, Vol. 24, pp. 382-391.
- Wittchen, H.U. & Fehm, L. (2003). Epidemiology and natural course of social fears and social phobia. *Acta Psychiatrica Scandinavica*, Vol. 417, pp. 4-18.
- World Health Organization (1993). *Classificação de transtornos mentais e de comportamento da CID-10: descrições clínicas e diretrizes diagnósticas*. Artmed, Porto Alegre.
- World Health Organization (1997). *The Composite International Diagnostic Interview (CIDI)*, World Health Organization, Geneva, Switzerland.



## **Different Views of Anxiety Disorders**

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Anxiety, whether an illness or emotion, is a term with historical roots even in the Bible, but it was not popular until the modern age. Today, we can group, diagnose and treat several anxiety disorders to an extent, but the assessment of symptoms and severity, dealing with resistant conditions, new treatment modalities and specific patient population, such as children, are still the challenging aspects of anxiety disorders. This book intends to present anxiety disorders from a different view and discuss a wide variety of topics in anxiety from a multidimensional approach. This Open Access book addresses not only psychiatrists but also a broad range of specialists, including psychologists, neuroscientists and other mental health professionals.

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