Cognitive-behavioral therapy in social phobia
Terapia cognitivo-comportamental da fobia social

Lígia M Ito,[1] **Miréia C Roso,**[1] **Shilpee Tiwari,**[2]
Philip C Kendall,[2] **Fernando R Asbahr**[1]

Abstract

Objective: *This article is a review of relevant aspects of social phobia and the stages of treatment within cognitive-behavioral therapy in children and adolescents, as well as in adults.* **Method:** *A review of the literature published on the treatment of social phobia using cognitive-behavioral treatments was performed using the Medline database.* **Results:** *A review of the literature suggests that social phobia is a chronic and prevalent condition, characterized by social inhibition and excessive shyness. Diagnosis and treatment of the disorder are usually determined by distress level and functional impairment. Population studies indicate that lifetime prevalence rates for social phobia range from 2.5 to 13.3%. The main techniques used in cognitive-behavioral therapy for social phobia are described and exemplified in a case report.* **Conclusions:** *There is a general consensus in the literature that cognitive-behavioral therapy is efficacious in the treatment of youth and adults with social phobia. Because of the early onset associated with social phobia, the identification of children at high risk for the development of social phobia should be prioritized in future investigations.*

Descriptors: *Social phobia; Cognitive-behavioral therapy; Shyness; Anxiety; Literature review*

Resumo

Objetivo: *Este artigo revisa aspectos relevantes da fobia social e os estágios de tratamento através da terapia cognitivo-comportamental em crianças, adolescentes e adultos.* **Método:** *A partir do banco de dados Medline, realizou-se revisão da literatura publicada a respeito do tratamento da fobia social por meio da terapia cognitivo-comportamental.* **Resultados:** *Revisão da literatura sugere que a fobia social é uma condição prevalente e crônica, caracterizada por inibição social e timidez excessiva. Tanto o diagnóstico como o tratamento desse transtorno são comumente determinados pelo nível de incômodo e pelo prejuízo funcional. Estudos populacionais indicam taxas de prevalência ao longo da vida para a fobia social entre 2,5 e 13,3%. As principais técnicas utilizadas na terapia cognitivo-comportamental para a fobia social são descritas e exemplificadas em um relato de caso.* **Conclusões:** *Há consenso geral na literatura de que a terapia cognitivo-comportamental é eficaz tanto para o tratamento de jovens como de adultos com fobia social. Uma vez que a fobia social com freqüência tem início precoce, a identificação de crianças com risco acentuado para o desenvolvimento de fobia social deve ser priorizada em investigações futuras.*

Descritores: *Fobia social; Terapia cognitiva comportamental; Timidez; Ansiedade; Revisão de literatura*

[1] Psychiatry Institute, Hospital das Clínicas, School of Medicine, Universidade de São Paulo (USP), São Paulo (SP), Brazil
[2] Temple University, Philadelphia (PA), USA

Correspondence
Fernando R Asbahr
LIM-23 IPqHCFMUSP
R. Ovídio Pires de Campos, s/n
São Paulo, SP, Brazil
E-mail: frasbahr@usp.br

Introduction

Social phobia (SP) represents a mental health problem with disabling characteristics. The most common is fear of being humiliated or mocked in social situations by having improper attitudes or anxiety symptoms such as tremors, excessive sweating, and inattention. Social interaction becomes more threatening when associated with lack of motor control seen in behaviors such as drinking, eating or writing.

SP can be categorized as generalized or circumscribed, depending on the amount or diversity of feared social situations. Lifetime prevalence rates for both types of SP are estimated to range between 25 and 13.3%.[1,2] In adults, it is more frequent in women and is likely to onset in adolescence, although many adults report experiencing symptoms of SP since childhood. In children, it is as common in females as in males.[3] Individuals with SP, regardless of age group, have a higher risk of having comorbid psychiatric diagnoses such as generalized anxiety disorder, depression, specific phobia, and psychoactive substance dependence (e.g., alcohol or tranquilizers).[3-5] In addition, many SP individuals have characteristics of avoidant personality disorder (APD), a long-lasting avoidance pattern of interpersonal contact, which is considered by some as the most severe form of SP, with longer disease course and higher number and variety of feared social situations.[6]

There are multiple factors associated with SP etiology. Family studies have shown a pattern of family aggregation in SP, especially of the generalized subtype. The higher incidence of SP in first-degree relatives of affected individuals suggests a possible genetic component.[7] More recent genetic studies have suggested the possibility of polygenic inheritance, with candidate genes in research.[8] Functional neuroimaging studies, performed using magnetic resonance imaging (MRI) or positron-emission tomography (PET), have shown hyperstimulation of temporal structures (amygdala, prefrontal cortex, hippocampus, and striatum) in response to random images of human faces, suggesting a hypersensitive limbic system not only to harmful stimuli but also to stimuli that are considered affectively neutral.[8,9]

In addition to the biological vulnerability reported in genetic and neurobiological studies,[10,11] a frequently investigated area is the relationship between behavioral inhibition (BI) – which encompasses introversion, shyness, avoidance, and fear of strange people and objects – in infants and small children and SP in adolescence or early adult life.[12] BI is a personality trait defined as the individual's tendency to move away from novelties. Behaviorally inhibited children are four to five times as likely to develop SP. However, the presence of personality traits, such as shyness and BI, is not a sufficient condition for SP since not all individuals who have such characteristics develop this disorder, which reaffirms the importance of environmental and biological factors in its etiology.[13] Furthermore, research on child development has correlated early social inhibition with exaggerated protection and control responses by parents. These, in turn, reinforce the child's withdrawal and consequently make exposure to social situations difficult, forming a vicious cycle.[14]

Treatment

The therapeutic approaches empirically tested and recognized as efficacious for SP are pharmacotherapy, individual (ICBT) and group (GCBT) cognitive-behavioral therapy. Due to the focus of this article, cognitive-behavioral therapy (CBT) approaches in children, adolescents and adults are now described.

Cognitive-behavioral therapy (CBT)
1. Theoretical model

According to the cognitive-behavioral model, individuals with anxiety perceive the world as a dangerous place, a potential threat that demands constant surveillance. Patients with SP are extremely sensitive to clues that denote the possibility of negative evaluation by other people. Excessive attention to these clues produces exaggerated self-criticism and distorted perception of behaviors that could go unnoticed. Therefore, a brief silence in social interaction, for example, is interpreted as lack of interest, and refusal to accept an invitation may mean constant isolation and loneliness.

Interpretation or meaning of a given experience is permeated by beliefs or values built by the individual. Clark & Wells describe the main beliefs in patients with SP as a fear of making mistakes and being rejected, as well as of being incapable, abnormal and inferior. Viewed through a distorted lens, neutral stimuli are misinterpreted as negative, whereas positive and safe stimuli are ignored.[15] Memories of successful situations, with use of proper coping resources in the past, are underestimated or given low importance. Such distorted perception may trigger physical, behavioral and cognitive symptoms, generating discomfort and reinforcing a negative self-image, sense of inadequacy and feelings of humiliation, thereby contributing to withdrawal from social experience. Avoidance and isolation intensify the self-focused attention and prevent disconfirmation of the perceived threatening natured of the environment and social relationships.

2. Characteristics

CBT is educational and has a focused approach. It focuses on practical discussions performed during sessions and homework assignments. The therapist has a collaborative and active role in the treatment. Studies have shown that, for circumscribed SP, 12 to 16 weekly group or individual sessions are enough to significantly reduce the symptoms. For generalized SP, treatment response depends on the number of comorbidities and symptom severity; treatment is usually longer and results are more limited.[16]

3. Evaluation

Before treatment begins, the following data are collected: disease course, onset and duration; family history, including biological diathesis; family and school experience; social, affective, and sexual relationships; physiological, cognitive and behavioral symptoms; identification of comorbidities; need for psychiatric assessment and use of drugs; triggering situations of symptoms and their degree of interference and impairment in the individual's life; environmental factors and family influence; and preexisting social skills.

The data collected during the evaluation inform treatment planning. Therapy should initially prioritize the symptoms that cause the highest degree of impairment. Group or individual therapy is recommended, depending on the severity of SP, degree of avoidance and the patient's availability.

4. Psychoeducation

It is essential, in the beginning of the therapy, to include a session to educate the patients about their disorder and treatment. Concurrent pharmacological therapy and the importance of including the family in the treatment should be discussed. Family guidance should include explanations on how to cope with the difficulties that arise when interacting with the patient.

5. Objectives

Therapist and patient work together to determine the objectives

of the therapy. The most frequent objectives include reduction in anticipatory anxiety, physiological symptoms commonly found in anxiety, negative cognitions that maintain dysfunctional beliefs, phobic avoidance, and improvement in social skills. These objectives should be reevaluated during and at the end of treatment. When working with children and adolescents, in addition to reducing social anxiety, treatment involves increasing self-esteem, helping the youth develop confidence in social situations. The focus of the treatment, which generally requires active participation from the youth's parents/guardians, is to increase the youth's exposure to different situations, with many people and activities,[17,18] leading to an increased sense of mastery in social situations.

Cognitive-behavioral techniques

1. Social skills training (SST) and assertiveness training (AT)

The main goal of SST and AT is to provide the patient with a wide and varied repertoire of more adaptive social behaviors, reducing passivity and feelings of impotence or anger, taking into consideration the patient's characteristics and the social group they belong to.

SP patients often report difficulties with starting, establishing, maintaining and ending a conversation; maintaining the focus and interest in the topic being discussed; tolerating silences; selecting topics to discuss and knowing how to discuss them; changing the subject if necessary; establishing and maintaining friends.[19] These difficulties are addressed in SST and AT.

The training should initially occur during the visits with the therapist and should take place in familiar environments, followed by practicing skills in the wider social environment with friends and neighbors.

2. Cognitive approach

Cognitive restructuring involves identification of distorted thoughts, conditional beliefs and the patient's core belief, thus allowing the therapist to gain insight into the patient's cognitive processes and functioning.[15]

A diary may be used to help the patient record his/her "automatic" distorted thoughts and the anxiety that ensues in a social situation. Next, the patient is advised to observe such thoughts "at a distance" and question them, so that he/she can view their distortions and reframe them (see things differently) to lower the anxiety they generate. The challenge of automatic distorted thoughts is performed through the technique of Socratic questioning and the review of evidence confirming or disconfirming the patient's negative hypotheses.

By questioning thoughts, it is possible to determine the types of associated logical errors. The most common errors in SP are mental reading ("*he thinks I'm incompetent*"); guessing and catastrophizing ("*if I have to sign my name, I won't be able to do it*"); and personalization ("*they are not paying attention to me. I must have said something stupid*").[20]

Identifying, questioning and modifying negative dysfunctional thoughts are resources that allow the patient to recognize the relationship between thoughts and their symptoms. In addition, such learning enables the patient to reduce the negative interference of thoughts and emotions, thus increasing self-control and self-confidence.

Once distorted thoughts are identified, it is possible to find the core underlying belief that generated and is maintaining such thoughts, as well as the conditional beliefs and compensatory strategies that the patient uses to cope with this belief. To do so, the patient is asked about the meaning of identified thoughts: "*What does this thought mean to you, what does it say about you*?"

Some authors believe that the main belief in SP is self-deprecating ("*I'm incompetent, insignificant*").[15] For that reason, conditional beliefs are built throughout life, with the aim to "hide" this "self-deprecation," such as "*if I show my insecurity by blushing, I'll be humiliated*"; "*if I'm not impeccable in my behavior, I'll be despised.*" The compensatory strategy to cope with this type of belief involves the constant and excessive observation of one's own behavior, such that no "slips" are allowed, in addition to an exaggerated expectation of one's own performance.

The modification of conditional beliefs, compensatory strategies and core beliefs is performed through the use of different procedures that should be chosen according to the characteristics and objectives of each case.

3. Stress management and relaxation

Stress management and relaxation techniques are also used in the treatment of SP with the aim of making the patient learn how to have more control over the physiological responses typical of anxiety. Thus, these techniques are often used in the treatment of all patients with anxiety.

In stress management, the patient is advised to identify the signs that indicate an increase in his/her anxiety and to use distraction and/or a breathing exercise to prevent anxiety from increasing.

Relaxation techniques are generally useful to reduce basal anxiety and also foster the perception of anxiety self-control. The most widely used relaxation training script is that by Jacobson,[21] which advises the patient to observe each muscle group to identify muscle tension and relax the muscle.

4. Exposure tasks

Exposure to feared situations reduces anxiety and phobic behavior. It can be performed by facing in vivo ("real life") or imaginary situations.

The patient and therapist work together to identify anxiety-provoking situations. Once identified, the situations are hierarchically classified according to the degree of anxiety they produce, from situations causing less anxiety to the most feared situations. With the guidance of the therapist, the patient then gradually faces the situations, from least to most anxiety-provoking, until his/her anxiety is reduced (a phenomenon called habituation). Exposure to each of the situations should be systematic (i.e., very frequent and for a long period of time) to result in habituation.

The use of a diary is recommended for the patient to evaluate his/her anxiety before, during and after the exposure task, recording all the difficulties encountered. A diary also helps the patient track his/her progress and respective reduction in anxiety.

In vivo exposure tasks involve deliberately seeking confrontation with real situations that generate anxiety. Imaginal exposure involves thinking about confronting an anxiety-provoking stimulus and can be useful in helping the patient prepare for *in vivo* exposure tasks. In the treatment of SP, some difficulties in performing exposure tasks are expected. Some social situations that cause anxiety are often unpredictable and last for a short time, which may prevent the experience of habituation. Therefore, it is important to be careful when developing the list that will define the hierarchy of situations to facilitate task execution and maximize treatment-induced gains.

Groups can be helpful. A group enables performance of some exercises between group members and helps create situations that generate anxiety without necessarily having to rely on chance.

5. Scheduling homework assignments

Throughout treatment, part of the session is devoted to scheduling and following-up on homework assignments. These should be practiced daily, using what was learned in-session as a model. The need to complete homework tasks should be discussed and established.

6. Termination

The therapy in its weekly format may be terminated when most symptoms have significantly reduced in intensity and are causing minimal interference with the patient's daily routine. At this stage, the techniques are reviewed and the patient is advised to continually practice them to maintain clinical improvement. Attention should also be paid to recurrences and their potential triggering factors. Following weekly therapy sessions, it is permissible for the patient to return at longer intervals for maintenance sessions.

Group cognitive-behavioral therapy (GCBT)

Heimberg et al. found that GCBT is an efficacious treatment for SP when compared with a control group of waiting list and non-specific treatments involving emotional support.[22] Although it is not superior to the individual format, clinical impression suggests that it is an efficacious alternative for some patients. Advantages relative to individual therapy include members sharing the same difficulty, increased opportunities for *in vivo* exposure, direct evidence against cognitive distortions, public commitment to change, and vicarious learning.

Some criteria should be considered, especially for group composition. The group should be balanced by gender, age and SP severity. Patients with severe depression and anxiety, a primary disorder other than SP, comorbid personality disorders, and those who are excessively hostile and demanding, at increased risk of developing anger responses to defend against fear of social interaction, may not benefit from this therapy and should be excluded. Indications for GCBT are patients with similar severity that have proper interpersonal performance in situations that trigger anxiety.

The ideal number of patients to compose the group is around six, and it is recommended that the group be led by two therapists. The treatment should consist of approximately 12 weekly sessions, each lasting two hours, following a structured schedule for each phase of therapy. Cognitive-behavioral techniques are similar to those used in individual sessions.

Efficacy of cognitive-behavioral therapy

Among the varied modalities of psychotherapy, CBT is the most efficacious treatment for SP.[23] However, extant research is limited: in many studies, assessments at the end of the treatment and during follow-up indicate that many patients no longer meet diagnostic criteria for SP, but still experience significant difficulties in social situations, which could be considered subsyndromic manifestations of this disorder.[24]

Some studies have examined the cognitive and behavioral approaches in detail to determine the essential components of each treatment. Clark et al. have recently showed that a cognitive therapy (CT) program increased total remission of symptoms in 62 social phobic patients and was significantly better than the combination of exposure and relaxation techniques, as indicated by posttreatment and 1-year follow-up assessments.[25] At follow-up, 84% of patients receiving only CT no longer met diagnostic criteria, whereas only 42% of the group treated with exposure tasks and relaxation techniques met that criteria.

Clark et al. also compared CT to treatment with fluoxetine/self-exposure and placebo/self-exposure.[26] Stangier et al. and Mörtberg et al. compared ICBT with GCBT.[27,28] Across studies, the CT program proved to be superior to exposure, and, in the latter two studies, GCBT results were not as favorable as those by Clark et al.[26] Stangier et al. found that patients who received CT and GCBT had better results on posttreatment assessment measures than those in the wait-list control condition.[27] Follow-up results indicated that patients who received ICBT fared better than those who received GCBT.

Case example

Andrew* was a 10 year-old male with a lasting history of social anxiety and avoidance. Although he reported that he enjoyed playing with peers, Andrew did not feel comfortable playing with more than one child at a time. If he was invited to play at a peer's house, he always declined. Andrew frequently complained to his mother that he did not have any friends. Attending school was also a major issue for Andrew. Prior to, or on the way to school, he often complained of feeling sick (e.g., "*My stomach hurts; I think I have to throw up*"). When in the school's cafeteria, he was unable to eat because he felt so distressed being around other children – Andrew was afraid that he would throw up and that his peers would laugh at him. This social distress increased to such an extent that Andrew began refusing to attend school, eat at restaurants, or attend any social gatherings unless accompanied by his mother or father.

Andrew had a significant family history of psychiatric problems. His father suffered from generalized anxiety disorder and his mother suffered from depression. Although not presenting any significant problems during his early developmental years, Andrew was described as "extremely shy since he was born." Facing new or unfamiliar situations had always been a problem for him.

Following a referral by his pediatrician, Andrew was evaluated by a child psychiatrist. Information provided during the initial intake interview was consistent with a diagnosis of SP accompanied by avoidance. No clinically meaningful depressive symptoms were detected.

The therapeutic strategy that was undertaken consisted of 12 sessions of CBT, with three main components (or strategies): 1) relaxation training in the first 2-3 weeks, with "homework practice" in between sessions, using a relaxation CD; 2) SST to increase social engagement, including basic conversation skills, such as introducing himself and asking simple questions. Skills such as keeping eye contact and maintaining the same voice volume were also included; and 3) *in vivo* exposure tasks, such as weekly conversations with peers and adults, designed to allow conversational skills to be practiced. Following general guidelines for conducting exposure treatment with anxious youth, situations were practiced within session with the therapist before they were attempted elsewhere, using imaginal exposure and role-play. Andrew was encouraged to anticipate difficulties he might encounter, and together with the therapist, he brainstormed effective coping strategies to manage his anxiety during exposure tasks. It was also important for exposure tasks to closely resemble anxiety-provoking situations in the "real world." In Andrew's case, for the exposure task to be genuine and truly elicit anxiety, situations where a large number of children would be present were chosen. For example, a local restaurant near his therapist's office was one of the sites for an *in vivo* exposure task. Accompanied by his therapist, Andrew practiced greeting other youngsters and having brief conversations with some of them. These initial exposure tasks were designed to help Andrew establish a sense of mastery and success. Once Andrew evidenced that he

succeeded in these particular tasks, he began to practice peer interactions in other, more difficult, social situations in which the therapist was not always present.

As the treatment progressed, Andrew's parents were informed about the treatment and its strategies, particularly the exposure tasks. In some instances, the parents were included (accompanied Andrew and the therapist) for the *in vivo* exposure tasks. Parental involvement was also necessary for the implementation of exposure tasks that took place between therapy sessions, such as coordinating times when a friend would visit Andrew's house or when Andrew could attend a birthday party. The therapist helped Andrew's parents problem-solve ways that they could manage his distress, as well as any distress they might experience by extension, during anxiety-provoking situations. After the completion of treatment, several positive gains were observed. The therapist noted that Andrew had made clear progress, given that his distress level during social situations had decreased considerably. Also, there was a significant increase in the number of social situations in which Andrew took part, including playing soccer with his street neighbors, going to school peers' birthday parties, and, eventually, spending an entire afternoon at a friend's house, suggesting that he was no longer avoiding social situations. This friend was soon considered to be his best friend. During the last session, the therapist met with Andrew and his parents to discuss relapse prevention plans to ensure the maintenance of treatment gains.

* Andrew is a pseudonym used for confidentiality.

Conclusions

CBT is an efficacious treatment for patients with SP. In GCBT, a higher number of patients are seen by a therapist, significantly reducing treatment costs. In addition, the group treatment approach itself facilitates *in vivo* exposure. However, GCBT superiority over ICBT has not been established in empirical studies.

Patients with generalized SP, which runs a long-lasting course and is often associated with comorbid disorders, require individual therapy. For these patients, even a combined treatment with pharmacotherapy can be insufficient for a complete resolution of symptoms, since a residual condition may remain and facilitate recurrences. In such cases, even empirically-supported treatment may not produce satisfactory responses; therefore, the use of several efficacious therapy techniques may be necessary. The combination of CBT and pharmacotherapy for these patients is a promising research field that warrants further investigation.

In the case of a mental disorder that can have an early onset, the identification of children at high risk for the development of SP may allow for SP prevention throughout childhood and adolescence. Parents, teachers, pediatricians and psychologists working with youths could be educated to change the approach toward them, with the aim of bringing benefits to patients with SP. Disseminating self-help and information manuals for adolescents and young adults can be another form of preventing SP. Prevention may reduce the suffering caused by social anxiety and be a less expensive alternative to treatment in the future.

Disclosures

Writing group member	Employment	Research grant[1]	Other research grant or medical continuous education[2]	Speaker's honoraria	Ownership interest	Consultant/ Advisory board	Other[3]
Lígia M Ito	IPqHCFMUSP	---	---	---	---	---	---
Miréia C Roso	IPqHCFMUSP	---	---	---	---	---	---
Shilpee Tiwari	Temple University	---	---	---	---	---	---
Philip C Kendall	Temple University	---	---	---	---	---	
Fernando R Asbahr	IPqHCFMUSP	---	---	---	---	---	---

* Modest
** Significant
*** Significant. Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.
Note: IPqHCFMUSP = Instituto de Psiquiatria do Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo.
For more information, see Instructions for authors.

References

1. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, Wittchen HU, Kendler KS. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in United States. Results from the National Comorbidity Survey. *Arch Gen Psychiatry*. 1994;51(1):8-19.
2. Lecrubier Y, Weiller, E. Comorbidities in social phobia. *Int Clin Psychopharmacology*. 1997;12(Suppl 6):S17-21.
3. Beidel DC, Morris TL, Turner MW. Social Phobia. In: Morris TL, March JS, editors. *Anxiety disorders in children and adolescents*. 2nd ed. New York: Guilford; 2004. p. 141-63.
4. Schneier FR, Johnson J, Horing CD, Liebowitz MR, Weissman MM. Social phobia. Comorbidity and morbidity in an epidemiologic sample. *Arch Gen Psychiatry*. 1992;49(4):282-8.
5. Kessler RC, Sang P, Wittchen HU, Stein M, Walters EE. Lifetime co-morbidities between social phobia and mood disorders in the US National Comorbidity Survey. *Psychol Med*. 1999;29(3):555-67.
6. Herbert JD, Hope DA, Bellack AS. Validity of the distinction between generalized social phobia and avoidant personality disorder. *J Abnorm Psychology*. 1992;101(2):332-9.
7. Stein MB. Neurobiological perspectives on social phobia: from affiliation to zoology. *Biol Psychiatry*. 1998;44(12):1277-85.
8. Mathew SJ, Ho S. Etiology and neurobiology of social anxiety disorder. *J Clin Psychiatry*. 2006;67 Suppl 12:9-13.
9. Fyer AJ. Current approaches to etiology and pathophysiology of specific phobia. *Biol Psychiatry*. 1998;44(12):1295-304.
10. Kendler KS, Neale MC, Kessler RC, Heath AC, Eaves LJ. The genetic epidemiology of phobias in women: the interrelationship between agoraphobia, social phobia, situational phobia and simple phobia. *Arch Gen Psychiatry*. 1992;49(4):273-81.
11. Pollack MH Comorbidity, neurobiology, and pharmacotherapy of social anxiety disorder. *J Clin Psychiatry*. 2001;62(Suppl 12):24-9.
12. Kagan J, Snidman N. Early childhood predictors of adult anxiety disorders. *Biol Psychiatry*. 1999;46(11):1536-41.
13. Kagan J. Temperament and the reaction to the unfamiliarity. *Child Development*. 1997;68(1):139-43.
14. Rubin KH, Nelson LJ, Hastings P, Asendorpf J. The transaction between parent's perceptions of their children's shyness and their parenting styles. *Int J Behav Dev*. 1999;73(1):1-21.
15. Clark DM, Wells A. A cognitive model of social phobia. In: Heimberg RG, Liebowitz MR, Hope DA, Schneier FR, editors. *Social phobia: diagnosis, assessment and treatment*. New York: Guilford; 1995. p. 69-93.
16. Heimberg RG. Cognitive behavioral therapy for social anxiety disorder: current status and future directions. *Biol Psychiatry*. 2002;51(1):101-8.

17. Asbahr FR. Anxiety disorders in childhood and adolescence: clinical and neurobiological aspects. *J Pediatr.* 2004;80(2 Suppl):S28-S34.

18. Kendall PC, Asbahr FR, Ito LM, Chouldhury MS. Crianças e Adolescentes com Transtornos de Ansiedade. In: Knapp P, editor. *Terapia Cognitivo-Comportamental na Prática Psiquiátrica*. Porto Alegre: Artmed; 2004. p. 351-7.

19. Caballo VE, Andrés V, Bas F. Fobia Social. In: Caballo VE, dir. *Manual para el tratamiento cognitivo-conductual de los transtornos psicológicos. Vol. 1 Transtornos por ansiedad, sexuales, afectivos y psicóticos*. Siglo Veintieuno de España Editores S.A.; 1997. p. 25-86.

20. Falcone EO. O processamento cognitivo da ansiedade na fobia social. *Rev Psiq Clin*. 2001;28(6):309-12.

21. Jacobson E. *Progressive Relaxation*. Chicago: University of Chicago Press; 1938.

22. Heimberg RG, Salzman DG, Holt CS, Blendel KA. Cognitive behavioral group treatment for social phobia: effectiveness at five-year follow-up. *Cognitive Ther Res*. 1993;17:325-39.

23. Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *Clin Psychol Rev*. 2006;26(1):17-31.

24. Davidson JR, Foa EB, Huppert DJ, Keefe FJ, Franklin ME, Compton JS, Zhao N, Connor KM, Lynch TR, Gadde KM. Fluoxetine, comprehensive cognitive behavioral therapy and placebo in generalized social phobia. *Arch Gen Psychiatry*. 2004;61(10):1005-13.

25. Clark DM, Ehlers A, Hackmann A, McManus F, Fennell MJ, Grey N, Waddington L, Wild J. Cognitive therapy versus exposure and applied relaxation in social phobia: a randomized controlled trial. *J Consult Clin Psychol*. 2006;74(3):568-78.

26. Clark DM, Ehlers A, McManus F, Hackmann A, Fennell MJ, Campbell H, Flower T, Davenport C, Louis B. Cognitive therapy versus fluoxetine in generalized social phobia: a randomized placebo-controlled trial. *J Consult Clin Psychol*. 2003;71(6):1058-67.

27. Stangier U, Heidenreich T, Peitz M, Lauterbach W, Clark DM. Cognitive therapy for social phobia: individual versus group treatment. *Behav Res Ther*. 2003;41(9):991-1007.

28. Mörtberg E, Clark DM, Sundin O, Aberg Wistedt A. Intensive group cognitive treatment and individual cognitive therapy vs. treatment as usual in social phobia: a randomized controlled trial. *Acta Psychiatr Scand.* 2007;115(2):142-54.