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artigo original

Cognitive-behavioral group therapy in obsessive-compulsive disorder: a clinical trial

Terapia cognitivo-comportamental em grupo no transtorno obsessivo-compulsivo: um ensaio clínico

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Abstract

Objective: To develop a cognitive-behavioral group therapy protocol and to verify its efficacy to reduce obsessive-compulsive symptoms.

Methods: An open clinical trial with 32 obsessive-compulsive patients was performed, in which a cognitive-behavioral group therapy protocol of 12 weekly sessions of two hours, in 5 consecutive groups, was applied. The severity of symptoms was rated with the Yale-Brown Obsessive-Compulsive (Y-BOCS), Hamilton Anxiety (HAM A) and Hamilton Depression (HAM D) scales. The patients were followed up for 3 months after the end of the treatment.

Results: There was a significant reduction in the scores of Y-BOCS, HAM A and HAM D scales with the treatment regardless the use of anti-obsessive medications. The rate of improved patients (decrease of ≥35% in Y-BOCS) was 78.1%. Two patients (6.25%) dropped out from the study. The effect size calculated for the Y-BOCS scale was 1.75.

Conclusions: This study suggests that cognitive-behavioral group therapy reduces obsessive-compulsive symptoms. In addition, patients presented good compliance.

Keywords Obsessive-compulsive disorder. Behavior therapy. Cognitive therapy. Group therapy.

Resumo

Objetivos: Desenvolver um protocolo de terapia cognitivo-comportamental em grupo e verificar sua eficácia em reduzir os sintomas obsessivo-compulsivos.

Métodos: Foi realizado um ensaio clínico não controlado com 32 pacientes portadores de transtorno obsessivo-compulsivo, com aplicação de um protocolo de terapia cognitivo-comportamental em grupo, de 12 sessões semanais de duas horas, em cinco grupos sucessivos. Os pacientes foram avaliados pela escalas Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), Hamilton de Ansiedade (HAM-A) e Hamilton de Depressão (HAM-D). Foram acompanhados por mais três meses após o término do tratamento.

Resultados: Houve redução significativa nos escores das escalas Y-BOCS, HAM-A e HAM-D com o tratamento, independentemente de os pacientes estarem utilizando ou não antiobsessivos. A resposta à terapia (redução ≥ 35% nos escores da Y-BOCS) foi de 78,1%. Dois pacientes (6,25%) abandonaram o tratamento. O tamanho do efeito calculado para a Y-BOCS foi de 1,75.

Conclusões: O presente estudo sugere ser a terapia cognitivo-comportamental em grupo eficaz na redução dos sintomas obsessivo-compulsivos, apresentando os pacientes uma boa adesão ao tratamento.

Descritores Transtorno obsessivo-compulsivo. Terapia comportamental. Terapia cognitiva. Terapia comportamental cognitiva. Terapia de grupo.

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Introduction

The therapy with serotonin reuptake inhibitors (SRIs) and the exposure and response prevention (ERP) therapy are considered as first-choice treatments in Obsessive-Compulsive Disorder (OCD).[1] A partial decrease in the intensity of symptoms is expected with SRIs, varying from 23% to 61%,[2,3] with a mean of 40%, being rare a full remission.[4,5] Many patients do not tolerate the adverse effects of SRIs and relapses after their discontinuation are frequent. About 20% of patients do not accept or withdraw from treatment.[6,7] The response to the SRIs is poor in the presence of comorbidities such as chronic tics, mood disorders, organic brain disorders, drug abuse or psychoses.[5,8]

ERP therapy was systematically brought into use in the 70's[9,10] and is considered as effective for more than 70% of OCD patients.[11] Nevertheless, refusal or withdrawal are common and may reach 30%. The therapy is not effective in approximately half of the patients beginning the treatment and in 1/4 of those who complete it.[12,13] Studies showed that patients who predominantly present rituals[14,15] and who early adhere to home tasks[16] have a better response. The response is worse in patients with severe symptoms, with predominance of obsessions, poor insight, with very fixed ideas about the content of the obsessions or when there are associated comorbidities such as severe depression, schizoid and schizotypical personality disorders or tics.[13,14-20] Besides, there are few professionals using ERP therapy to treat OCD in their consultation rooms.

In order to overcome these limitations the association of cognitive techniques[21-25] and a group approach[26-31] to the ERP have been proposed. Until recently the influence of erroneous beliefs in the origin, maintenance and severity of obsessive-compulsive symptoms was not considered and, therefore, not investigated. Several authors, however, have described cognitive dysfunctions in OCD, even though non-specific,[32] cognitive techniques for its correction,[21-25] and have also verified the relationship between the intensity of the dysfunctional beliefs and the intensity of the symptoms and the results of ERP therapy.[19] These techniques would be particularly useful in patients with predominance of obsessions or with obsessions without rituals.[24]

Cognitive-behavioral group therapy (CBGT) is based on the assumption that adding group factors such as the sharing of knowledge, the discovering of the universality of issues, the acquisition of hope while observing the improvement of other patients, the development of altruism and the desire to help other people, the correction of errors of assessment through the observation of others' behavior and the group's cohesion would proportionate different types of learnings, besides a greater commitment with tasks, due to the settlements arranged with the group.[33] These ingredients could improve the efficacy and compliance with ERP therapy, that are critical issues to the individual approach but not yet appropriately solved.

The additional advantages of CBGT are also the reduction of costs and the possibility of seeing a greater number of patients, aspects of great institutional and social concern.[30,31]

Nevertheless, initial studies left doubts about the CBGT's efficacy to decrease obsessive-compulsive symptoms.[26] Most of these studies were open clinical trials, some of which with small samples. Besides, the techniques employed were much varied; with or without the inclusion of family members, associating cognitive techniques or using ERP alone and the variation in the number of sessions from 7 to 25,[26-31] making it difficult to compare and generalize from their results. Only one controlled clinical trial was found, composed by 24 weekly sessions, reporting a high efficacy of the ERP group therapy.[28] In Brazil, as far as we know, there are no studies using the ERP group therapy, associated or not to cognitive interventions to treat OCD.

The aims of our study were to develop a cognitive-behavioral group therapy (CBGT) protocol and to verify its efficacy to reduce the obsessive-compulsive symptoms.

Methods

Study design

We developed and applied a cognitive-behavioral group therapy protocol, composed by 12 weekly sessions of 2 hours each, in an open clinical trial, in which 32 patients were enrolled, in 5 closed consecutive groups, with 5 to 8 participants each. After the end of the treatment we had also 3 follow-up monthly meetings.

Selection of the sample and initial assessment of patients

Patients were recruited from the population by means of lectures, radio or TV interviews and newspaper ads offering group treatment for OCD subjects and also among those who spontaneously sought the Anxiety Disorders Program (Protan) of the Hospital de Clínicas of Porto Alegre. The initial assessment was carried out by an experienced psychiatrist using a structured interview, aiming to diagnose OCD according to the DSM IV criteria[34] and applying the Brazilian version of the diagnostic instrument The Mini International Neuropsychiatric Interview (MINI),[35-37] to assess the presence of possible comorbidities as well as the inclusion and exclusion factors described bellow.

Inclusion and exclusion criteria

To be included in the research patients should have: (1) OCD according to the DSM IV criteria; (2) a stabilized dose for at least three months, in case they had been using anti-obsessive drugs; (3) ages between 18 and 65 years; (4) Y-BOCS scores equal to or greater than 16; (5) motivation and available time to participate in 12 weekly cognitive-behavioral group therapy sessions.

Out of 43 OCD patients assessed, 11 were excluded for having (1) major depression with suicidal risk; (2) bipolar disorder (3)severe personality disorders: borderline or schizotypical; (4) cognitive impairment: mental retardation; (5) lack of motivation for the treatment or lack of time availability to attend the sessions; (6) refusal of the group setting, and (7) mild symptoms (Y-BOCS scores equal to or lower than 15). Out of 32 patients that composed the sample, 30 completed the treatment

and 2 dropped out. The Ethics Committee of the Hospital de Clínicas of Porto Alegre approved the research. All participants signed the informed consent before the research began.

Scales and assessment instruments

Response to treatment was assessed by the application of the scales at the beginning, after the 4th, 8th, 12th session and in the 1st, 2nd and 3rd month after the end of the treatment:

- Yale-Brown Obsessive-Compulsive Scale (Y-BOCS):[38] assesses the intensity of obsessive-compulsive symptoms and is divided in two subscales, one for compulsions and other for obsessions. Each one has five items and can be used independently. The total score varies from 0 to 40.
- Hamilton scale for anxiety (HAM-A):[39] is a 14-item scale that assesses the intensity of anxiety symptoms. Each item is punctuated from 0 to 4 with a maximum of 56 points.
- Hamilton scale for Depression (HAM-D):[40] we used the 17-item version, with scores varying from 0 to 2 or from 0 to 4, with a maximum of 52 points.
- Mini International Neuropsychiatric Interview (MINI):[35,36] is a short standardized diagnostic interview, compatible with the DSM IV and ICD-10 criteria. The validity and reliability of the MINI has been widely tested. We used the Brazilian version 5.0.0.

Independent evaluators

Y-BOCS, HAM-A and HAM-D scales were applied by three independent researchers, who underwent a previous training of about 10 hours in its application, using recorded and live interviews with patients.

Treatment

Development of the protocol and standardization of the therapy

According to the general guidelines proposed by several authors,[27-31] we set to 12 the number of sessions, and defined their informative content, the ERP exercises and those to correct the dysfunctional beliefs for each of them (Attachment). We developed and standardized a protocol called 'Therapy Manual' which underwent small changes after the first 2 groups and which was applied in its final form in other 3, totaling 5 groups. The protocol contains general information about the treatment, the script and the theme of the sessions, sheets of paper to record weekly tasks, ERP exercises and those to correct dysfunctional beliefs for each one of the meetings. It has also an informative text about OCD, several instruments such as the Y-BOCS *Check list,* a list of avoidance behaviors, a scale to assess the subjective discomfort, self-monitoring graphs, copies of transparencies, concepts. Furthermore, it contains lists of dysfunctional beliefs: overestimation of risk and responsibility, overestimation of the power of thought and the need to control it, the need for certainty and perfectionism. It also contains exercises for their correction such as: identification and registration of automatic thoughts and dysfunctional beliefs, Socratic questioning about erroneous beliefs underlying obsessions or rituals, the search of alternative explanations or hypotheses, exercises to estimate the probability of occurring disasters, the cake (or pizza) technique to reassess the assignment of responsibility, behavioral tests and the use of reminders.[21-25,32] We used a set of 73 transparencies to support the psychoeducational explanations. Electronic copies of the manual and the transparencies are available under request.

In the first sessions we made live exhibitions of ERP, such as to touch objects considered as 'filthy' or 'contaminated: door handles, money, shoes' soles, syringes, venom's recipients and used toys, without the washing of hands afterwards. From the fourth session onwards we emphasized the use of ERP techniques associated to the above-mentioned cognitive techniques. We developed a list of reminders to help patients to distinguish obsessive-compulsive phenomena from other mental phenomena, to interrupt mental rituals or obsessive ruminations or even overt rituals not preceded by obsessions.

In the treatment of 'pure' obsessions we used the exposure to thoughts considered as unacceptable or 'horrible', by means of a repeated and long evocation, the avoidance of maneuvers to keep them away or to neutralize them (mental rituals), the writing of small 'catastrophic' or 'horrible' stories and the repeated reading and hearing of recorded tapes. Sessions started with the definition of the agenda, followed by the review of individual home tasks, a brief explanation by the coordinator of a topic related to OCD or to the cognitive-behavioral therapy, the personalized determination of the new home tasks and ended with the assessment of the session by all participants. Complementarily to the information, we stimulated the further reading of books and the visit to specialized sites in the Internet such as ours (www.ufrgs.br/toc).

Group techniques

During the sessions we stimulated all participants to participate, to exchange experiences, information and suggestions and to help each other to do the tasks. These exchanges acted in many moments as a catharsis and an occasion to instill or to acquire hope to overcome the symptoms or to improve the self-esteem. The group also offered an opportunity to observe other people with similar problems, discovering the universality of the problem, to learn well-succeeded strategies to face-up to fears and to revise parameters of normality and abnormality, the assessment of which in many times is compromised by OCD. It was also an opportunity to question fixed and overvalued beliefs when interacting with other subjects with different beliefs. An additional factor was the link and cohesion created between the participants of the group, stimulating supporting meetings and phone calls between them beyond the sessions, increasing the motivation to accomplish the home tasks and the attendance to sessions.[29-31,33] All groups were coordinated by the same therapist, helped by a co-therapist, who tried to keep continuously in the group: cordiality, easiness, confidentiality, respect, secrecy about what was discussed, enthusiasm with the therapy, a personal link with each one of the participants, calling them when they did not turn up and being available even out of the sessions.

Control of the treatment's integrity and compliance with the protocol

An independent observer verified the compliance with the protocol along the sessions, recording the content of the sessions, the interventions and techniques used and the accomplishment of the foreseen exercises. Occasional failures to fulfill the agenda of a session were compensated in subsequent sessions, in such a way that at the end of the treatment the protocol was completely fulfilled.

Analysis of results

We planned to analyze the efficacy of the treatment in three ways: (1) verifying whether there were differences between the scores before the beginning of the treatment with those along and at the end of it; (2) calculating: a) the percentage of patients who responded to the treatment, that is, presented a decrease of ≥ 35% in the Y-BOCS scores;[2] b) percentage of patients with symptoms equal to or less than 15 at the time of the discharge (considered as subclinical level); (3) calculating the effect size of the treatment.[41]

Statistical analysis

Thirty-two intended-to-treat patients were included in the data analysis. Data from the last measurement of the two patients who withdrew the study were copied and repeated at the end of the treatment. We did statistical analyses using the following tests: (1) ANOVA for Repeated Measures to verify: a) if there were differences within subjects (intra subject variance) along the 12 weeks of the treatment, taking into account the 4 measures adopted in the period; b) differences between means of scores in two out of 4 measures: before and at the end of the treatment; c) possible differences along the treatment (variance between subjects), due to the associated use of anti-obsessive drugs; (2) paired t test to compare the means at the end of the treatment with those 3 months after. The level of significance was set to a two-tailed α of 0.05.

Results

Demographic and clinical characteristics

The sample was composed by 32 subjects (22 females and 10 males), with a mean age of 39.5 years (±12.8), who had been suffering obsessive-compulsive symptoms for 23.6 years in average (±11.2) beginning in average at the age of 15 (±6.64); 68.8% reported an insidious beginning, not related to any stressing factor; 31.3% of the patients classified the course of their disease as continuous and without fluctuations; 56.3% as continuous with fluctuations; 6.3%, as continuous with deterioration and only 6.3% as episodic. Thirty patients completed the treatment and two (6.2%) dropped out: one patient had a complicated pregnancy after the third session, and one patient changed his job, what prevented him to come after the seventh session.

More than half of the patients (56.2%) had been using anti-obsessive drugs during varied periods – 4 months to 9 years, when they started our treatment. Medications and doses in use were maintained during the treatment and the three months of follow-up. The medications in use were fluoxetine: 12 patients – 20 mg/day to 80 mg/day (mean dose: 45 mg/day ±20.6 mg), 4 to 96 months; clomipramine: 5 patients – 75 mg/day to 150 mg/day (mean dose 95 mg/day±32.6 mg), 9 months to 12 years; sertraline: 1 patient – 50 mg/day, 36 months; 4 patients used associations of clomipramine (75 mg) and varied doses of fluoxetine. Despite using anti-obsessive drugs, these patients still showed clinically relevant obsessive-compulsive symptoms (Y-BOCS mean of 24.6±5.6), slightly higher than those who did not use them (23.4±4.6).

Regarding the symptoms, most patients presented with obsessions and compulsions of different types. Only one patient had obsessions without compulsions and other one, compulsions without obsessions. The most frequent obsessions were related to dirt or contamination (37.5%), aggression (22%), doubts (17%) and symmetry (17%). The most frequent compulsions were cleaning/washing (47%), repeating (25%) and checking (19%); 62.5% performed avoiding behaviors and 23%, obsessional slowness.

Most patients (72%) showed at least one comorbidity, and the most common were: major depression (22%) dysthymia (16%), social phobia (12%), panic disorder (9.4%) and generalized anxiety disorder (6.3%).

Statistical analysis of the clinical improvement

In the ANOVA for Repeated Measures, considering the four measures accomplished (beginning, 4^{th}, 8^{th}, 12^{th} week), the effect of treatment along the period was significant in the Y-BOCS scale and in the subscales of Obsessions and Compulsions. F and P values were: Y-BOCS (global) $F(gl=3.31)=57.6$ and $p<0.001$; Compulsions: $F(gl=3.31)=47.5$ and $p=<0.001$; Obsessions: $F(gl=3.31)=86.6$ and $p<0.001$. We observed also significant differences between scores in the four measures of the HAM A scale: $F(gl=3.31)=4.06$ and $p=0.009$ and non-significant ones in the HAM D scale: $F(gl=3.31)=2.46$ and $p=0.068$. In comparisons using the ANOVA between initial scores and scores at each of the three measuring points, the differences were already significant in the 4^{th} week in the Y-BOCS scale and in the subscales of obsessions and compulsions. In the HAM A and HAM D scales, however, the differences were significant only at the end of the treatment.

We used the t test for paired samples to compare scores at the end and three months after the 12-week treatment, and there were no significant differences in any of the scales. The means, standard deviations and p values before, at the end and three months after are displayed in Table. Means and 95% confidence intervals in the Y-BOCS scale along the treatment are in Figure. In the first four weeks of the treatment there was already a significant decrease in the values, as there is no superposition between the 95% confidence intervals of the beginning and of the fourth week. We can also notice that the variability in the four measures was very similar along the treatment.

Table - Means of scores, standard deviations and P values, in the Y-BOCS, HAM A, HAM D scales, at the beginning, at the end and three months after treatment (n=32).

	Beginning mean(±SD)	Final mean(±SD)	P**	3 months after mean(±SD)	P***
Y-BOCS (total)	24(5.3)	11.4(6.2)	<0.001*	11.5 (8.7)	0.933
Obsessions	11.9(3.1)	5.8(3.3)	<0.001*	5.7 (4.6)	0.823
Compulsions	12.2(2.6)	5.6(3.5)	<0.001*	5.8 (4.4)	0.690
HAM A	12.7(9.3)	9.1(7.7)	0.005*	8.9 (6.3)	0.861
HAM D	9.8(6.4)	7.3(7.5)	0.019*	6.9 (6.9)	0.710

*α >0.05; gl 1.30.
**P values for differences of means between scores at the beginning and at the end of the treatment::ANOVA test for Repeated Measures.
***P values(gl 31) for the differences of means between the end of the treatment and three months after it: t test for matched samples.

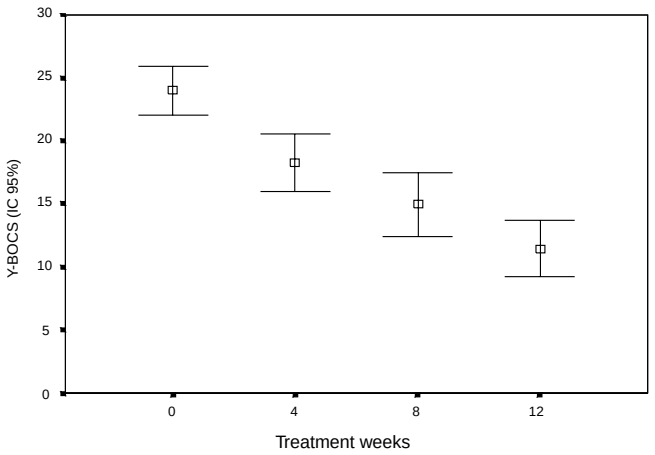

Figure – Means and 95% confidence intervals of the scores of the Y-BOCS scale during the treatment.

Influence of the associated use of anti-obsessive drugs

More than half of the patients used anti-obsessive medications before and along the treatment. The ANOVA test for Repeated Measures showed that there were no significant differences due to this use (factor between subjects) in any of the scales along the treatment. F and P values were: in the total Y-BOCS: F(gl=1.30)=0.411 and p=0.745; Obsessions: F(gl=1.30)=0.324 and p=0.808; Compulsions: F(gl=1.30)=0.317 and p=0.813; HAM A: F(gl=1.30)=0.875 and p=0.466 and HAM D: F(gl=1.30)=0.0560 and p=0.982.

Clinical efficacy

A total of 25 patients (78.1%) responded to the CBGT according to the previously established criterion: decrease ≥ 35% in the scores of the Y-BOCS. In the same way, according to the second criterion, 25 (78.1%) showed, at the end of the treatment, scores equal to or bellow 15, level considered as mild or subclinical. The effect size calculated according to Cohen's formula[39] was of 1.75 for the difference between scores of the Y-BOCS scale before and after the treatment.

Discussion

The results of our study suggest that the short cognitive-behavioral group therapy reduces the intensity of obsessive-compulsive symptoms, both obsessions and compulsions. We also observed a decrease in symptoms of anxiety and depression, probably due to the improvement of the obsessive-compulsive symptoms and the reduction of the limitations posed by the disorder.

The treatment was efficient in 78.1% of the patients, according to the established criterion, that was higher than the rates of 51 to 60% observed in pharmacological treatments using an identical criterion.[2]

We calculated also the effect size, a measure that assesses the intensity of the changes obtained with the treatment and allows the comparison with other studies. Values between 0.2 to 0.6 are considered as mild; between 0.6 to 1.2, as big, and between 1.2 to 2.0, as very big. The effect size in our study was 1.75, greater than those mentioned in a recent metanalysis:[7] 0.99 for ERP therapy and 1.09 for ERP therapy associated to anti-obsessive drugs. It was also higher than those reported in other studies using the CBGT: 0.79[27] and 1.01,[31] although lower than 2.69[28] of a controlled study. It was also noteworthy the low rate of withdrawals: only 6.25%, being usually higher, usually around 20%, reaching 30% in some studies.[7,12]

There were some differences from previous studies: the intensive use of cognitive techniques to correct dysfunctional thoughts and beliefs, the inclusion of patients with different comorbidities, including depression, and with severe obsessive-compulsive symptoms, what can explain the observed differences, particularly when compared with the single controlled study that reported a higher effect size[28] but excluded depressed patients or those with severe symptoms.

Other aspect to be highlighted is the fact that more than half of the patients had long been using anti-obsessive drugs and that the therapeutical effect of medications increases with time and occurs in up to 12 weeks in OCD. To avoid this possible confounding factor we only included patients whose doses were stabilized for at least 3 months. Paradoxically, patients using anti-obsessive drugs had Y-BOCS mean scores before the beginning of the treatment that were almost identical to those of patients who did not use them and the response to the treatment was similar in both groups. These results suggest that the CBGT may give an additional benefit to those patients who had a partial response or did not have any response to medications, what is similar to the conclusion by Simpsom et al.[40] We may reasonably suppose that the decrease in the intensity of symptoms with the CBGT may occur by a different mechanism from that of medications. The exposure and response prevention leads to a decrease in the intensity of distress associated to obsessions and in the need of performing rituals due to a mechanism of habituation. On the other hand, the cognitive techniques decrease the intensity of obsessions by modifying dysfunctional beliefs and thoughts.[24-25] Medications in turn interfere with the brain neurochemistry raising serotonin levels in the synaptic cleft, causing a cascade of intracellular effects that, although not totally clarified, reduces the intensity of obsessions and the need of performing rituals. These different effects can be possibly cumulative.

A small group of 7 patients (21.9%) still had clinical levels of symptoms at the end of the treatment (Y-BOCS scores

higher than 16). Some of them had difficulties to perform home tasks, other had overvalued ideas or very intense and fixed beliefs about their obsessions. How to identify these patients previously, and how to motivate them to perform home tasks or to improve their compliance? Considering the issue, we adopted several strategies: phone calls whenever they did not attend the sessions, offering domicile help from members of the group, etc. However, a question remains: what would be the difference between the group of patients that had their symptoms rapidly improved from those with minimal improvement or without any improvement? A possible explanation for these differences is that OCD may be a heterogeneous disorder, with different clinical presentations, with different underlying factors contributing to the etiology (genetic predisposition, cerebral neurochemistry and neurophysiological dysfunctions, systems of dysfunctional beliefs). These differences could influence the individual vulnerability, the course, and the prognosis and possibly the response to treatment. It is still possible that, due to these differences, a group of patients needs longer periods of treatment or that even with this additional period they remain resistant.

Another aspect we would like to comment is about the good compliance of patients. The withdrawal rate of 6.25% is lower than what is usually reported in the literature,[7,12] both for pharmacological treatment and for individual therapy. In the final assessment most patients reported being satisfied with the treatment and pointed out as main benefits, besides the reduction of symptoms, to have learned more about OCD, the erroneous beliefs and the strategies to modify them. This learned knowledge could have improved compliance with the ERP exercises, considered by patients themselves as the crucial ingredients to eliminate obsessions and rituals. They also mentioned the group interaction, the observation of the others, the connections established with other patients, the stimuli, suggestions and commitment with the group as important elements to attend the sessions and to accomplish the prescribed tasks.

Finally it is important to remark that the group CBGT is treatment with a better cost/benefit ratio as it provides a larger number of patients access to treatment at a lower cost. In the period of two hours we saw 8 patients, while in the individual therapy only 2 would be seen, in a ratio of 1:4 or 1:5, in case the groups have 10 patients.[31]

The CBGT also showed some disadvantages: first, the difficulty to gather patients with OCD. Although it is a highly prevalent disorder, in our society a considerable part of the population still does not know the real nature of the symptoms and that there is a treatment. At the institutional level, however, this is an interesting alternative provided it be appropriately divulged. Another problem is the fact that some patients who have social phobia and avoiding personality disorder as comorbidities or have symptoms of which they are ashamed, tended to refuse group treatment. It is also not an adequate approach for patients with severe depression or anxiety, or with comorbidities such as Tourette Syndrome, chronic tics, bipolar disorder, psychoses, drug addiction, schizotypical and *borderline* personality disorders, that demand specific strategies[8] or a great individual attention or cause excessive interference in the group's dynamics.

Generalizations from the results of our study must be made cautiously. Among its limitations is the fact of being a pilot study without a control group, with evaluators that were independent but not blind to the patient's treatment condition. Open clinical trials usually show a greater effect size than controlled studies, and this is a reason by which would be advisable, as the next step to be performed, a controlled clinical trial to confirm or not the results of the current study.

Conclusions

Our study suggests that the cognitive-behavioral group therapy is efficient in reducing obsessive-compulsive symptoms and patients presented good compliance. The results also suggest that patients with OCD not responding to SRI treatment may have a good response to this kind of treatment.

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Attachment

Summary of the sessions of CBGT

Session 1 – Presentation of the program and the participants; identification of OCD symptoms

Presentation of the aims of the CBGT, the participants and the group and distribution of the material (Manual, leaflet). Symptoms, epidemiology, etiology and impact of OCD in the personal and family life. Practical exercises to identify obsessions, compulsions and avoidance behavior through the Y-BOCS *Check list* and a list of avoidance behavior. Homework: the reading of the leaflet of explanation and preparation of the list of symptoms.

Session 2 – The principles of exercises of the therapy of exposure and response prevention (ERP)

Review of homeworks, elucidation of doubts. The behavioral model of OCD: the origin of obsessions and compulsions; their functional relationship and maneuvers to neutralize them. Review of the list of symptoms; exercises of exposure and response prevention to contaminated objects in the group, quantification of the anxiety they felt. Homework: final preparation of the list of symptoms in connection with the degree of anxiety associated.

Session 3 – The principles of ERP therapy (continued)

Review of the individual list of symptoms and discussion. Exposure and prevention therapy and habituation. Demonstrations (modeling) and repetition of the practical exercises of ERP: touching contaminated objects, evocation of 'bad' thoughts. Choice of individualized ERP tasks to do at home.

Session 4 – The cognitive model in OCD

Review of homeworks. The cognitive models, the most common dysfunctional beliefs in OCD. Exercises to identify and register automatic thoughts and dysfunctional beliefs.

Session 5 – Cognitive dysfunctions and their correction

Review of homeworks. Beliefs involving exaggerated assessment of risk and responsibility and correction techniques. Socratic questioning, alternative hypotheses and search of evidences, realistic calculation of risks, responsibility pie, behavioral tests and use of reminders. Homeworks: new ERP goals and exercises to correct dysfunctional beliefs.

Session 6 – Cognitive dysfunctions and their correction

Review of homeworks. Beliefs involving exaggerating the power of the mind, the need of controlling it, of being sure and perfectionism. Correction techniques: identification of dysfunctional beliefs, Socratic questioning, behavioral tests. ERP exercises in the group and to do at home and to correct dysfunctional beliefs.

Session 7 – OCD and its impact in the family

Session with patients and family members. Presentation of participants. Explanation: what is OCD, its symptoms, epidemiology, causes and treatment. Interference in the family, in the interpersonal relationships and at work. Report of participants and their family members. Attitudes that help or harm the OCD patient.

Session 8 – Replanning of ERP and cognitive tasks. Self-monitoring scales and new ERP and cognitive tasks to do at home.

Sessions 9, 10,11 – Review and reinforcement of ERP and cognitive strategies. Prevention of relapses.

Identification of risk situations, triggers, vigilance and reminders. Group review of self-monitoring graphs, of ERP and cognitive individual exercises.

Session 12 – Assessment of the treatment, review and reinforcement of strategies to prevent relapses, community resources, scheduling review meetings.