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Group therapy with OCD

– development and outcome of diagnosis specific treatment of patients with OCD in groups

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Meta analysis studies show important effects of cognitive therapy and behavioural therapy for OCD, but further knowledge about resource saving formats such as group therapy is needed and there are only few relevant studies available. We developed a manual for cognitive-behavioural group treatment of patients with OCD. Twenty four patients from a clinical population participated in this naturalistic study and were administered Y-BOCS, SCL-90-R and GAF before and after treatment. Significant improvement was observed on all measures. Y-BOCS pre-treatment was 26.54 (±7.6), Y-BOCS post-treatment was 20.40 (±8.3) and effect-size was 0.81. Other studies show larger effects, and we discuss methodological issues and elements in our therapy that could be modified to improve the outcome for future patients. In conclusion, our findings support cognitive-behavioural group therapy for OCD, but studies with randomised controlled groups and long-term follow-ups are necessary to further develop the group format in treating OCD.
Keywords: OCD, group, psychotherapy, manual, outcome.

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Introduction

Obsessive compulsive disorder

Obsessive–compulsive disorder (OCD) has a lifetime prevalence of 1.6%-2% (Kessler et al., 2005; Greist et al., 2003). The disorder is characterized by recurrent and persistent thoughts that are experienced as absurd and inappropriate but which can not be ignored or suppressed (obsessions). The person tries to neutralize and prevent the obsessions by repetitive behaviours or mental acts (compulsions) (Hansen & Bolwig, 1994). There is a large body of evidence showing that therapy involving individual cognitive-behavioural techniques is effective, although the issue of active elements in cognitive versus behavioural therapy is unsettled (Abramowitz, 2006; Huppert & Franklin, 2005). A recent meta-analytic study ranks different therapies according to their effect-sizes (ES): cognitive-behavioural therapy plus medication (ES=1.72, SD = 0.9),

cognitive-therapy (CT) (ES=1.59, SD = 0.6), behavioural therapy inclusive exposure response prevention (BT) (ES=1.53, SD = 0.9), cognitive-behavioural therapy (CBT) (ES=1.39, SD = 0.5), and medication (ES=1.18, SD = 0.6) (Eddy, Dutra, Bradley, & Westen, 2004). Other meta analysis studies claim that CBT is as effective as CT and BT for OCD and have a better outcome for refractory patients (Butler, Chapman, Forman, & Beck, 2006; Cottraux et al., 2001). The general recommendation of a transnational working group on anxiety disorders is that CBT should be the first choice in treatment of OCD (Greist et al., 2003). However, the evidence is based on research conducted on individual treatment. There is little evidence of group treatment of OCD and it is an open question whether group treatment only facilitates ERP and does not affect the cognitive distortions of the patients (McLean et al., 2001; Whittal, Thordarson, & McLean, 2005).

Group therapy for patients with OCD

We searched Pubmed for studies of OCD and group therapy using the following keywords: obsessive-compulsive disorder, OCD, psychotherapy and group. The search resulted in eleven studies. The studies compared type of treatment, type of symptoms, and duration of treatment. All eleven studies are listed with effect sizes and classified according to the type of psychotherapy (see table 3 in appendix). Five of the studies were conducted as randomized controlled studies (Fals-Stewart, Marks, & Schafer, 1993; McLean et al., 2001; Volpato et al., 2003; Sousa, Isolan, Oliveira, Manfro, & Cordioli, 2006; Anderson & Rees, 2007) and they are shortly described here.

Fals-Stewart et al. (1993) compared group versus individual therapy. Ninety-three patients were randomly assigned to group BT (n=30), individual BT (n=31) and a progressive muscle relaxation control condition (n=32). The patients were given two one-hour sessions a week over 12 weeks. Group BT was as effective as individual BT in reducing OCD symptoms. McLean et al. (2001) compared different types of group therapy. Seventy six patients were randomly assigned to CBT in groups (n=34) or to BT in groups (n=42) and as a control condition 38 patients were on a waiting list for three months before being enrolled in treatment. Patients were given 12 two and half-hour sessions over 12 weeks. BT in groups was slightly more effective than CBT in groups by the end of treatment and at a 3 months follow-up. Vopalto-Cordioli et al. (Volpato et al., 2003) compared CBT in groups with patients on a waiting list. The patients were randomly assigned to the CBT groups (n=23) and to the waiting list (n=24). The CBT consisted of 12 two-hour sessions - one per week. Group CBT reduced OCD symptoms and overvalued ideas, and improved patient self-reported quality of life. The same

research group (Sousa et al., 2006) compared group CBT with pharmacological treatment. Patients in the CBT group (n=28) had a weekly two-hour session for 12 weeks. Medicated patients (n=28) had a 20-minute visit weekly and were supplied with 100 mg sertraline per day for 12 weeks. Generally, there was no significant difference in symptom reduction between the two groups, but scrutinizing the results showed that group CBT was associated with significant reduction in compulsion and the highest rate of remission of symptoms. The most recent study is of individual CBT and group CBT with identical CBT protocols (Anderson & Rees, 2007). The clinical sample was randomly assigned to group CBT (n=20), individual CBT (n=17) and a waiting list (n=14). Group CBT comprised 10 weekly two-hour session while individual CBT comprised 10 weekly one-hour sessions. It was expected that individual treatment would show better outcome than group treatment because of the complex and idiosyncratic nature of obsessions and compulsions, but no significant difference between group and individual CBT was observed. The authors argued that group treatment facilitates motivation and homework completion and that this compensates for the fact that there is less time for each patient. Therefore group treatment is as effective as individual treatment and it has a major advantage in reducing therapist time and cost of the treatment.

In conclusion, available studies suggest that group CBT is as efficient as individual CBT for OCD.

Objective

In 2004 Psychotherapeutic Centre (PC) Stolpegaard decided to launch a naturalistic preliminary study for group treatment of OCD in a clinical sample. The objective of the project was to develop and implement a manual for group treatment for patients with obsessive compulsive disorder on cognitive behavioural basis and to evaluate the outcome of the treatment.

Method

Study setting

Psychotherapeutic Centre Stolpegaard was established in 1966 and offers treatment for all non-psychotic conditions primarily on outpatient basis. Patients are referred from GPs, psychiatric units and psychologists in Copenhagen and the former Copenhagen County. Treatment has, until the launch of this project, been psychodynamic or systemic psychotherapy.

The training of the therapists

Several educational and supervisional measures were taken to ensure and maintain the cognitive behavioural method performed by the therapists in the project. The project group included five clinicians in all. The formal educational background for the clinicians were: medicine, psychology, social advice, nursing and occupational therapy. They were highly experienced group therapists with the following additional training in cognitive behavioural therapy: All five held a one year diploma in cognitive therapy including lectures and seminars of treatment of different anxiety groups held by Cognitive Psychology Centre, Copenhagen. Three seminars were conducted by experienced teachers at the Cognitive Psychology Centre, Copenhagen, one seminar was on OCD led by professor Paul Salkovskis from Maudsley, Hospital London. Additionally a four day course in treating low self esteem and depression was held by Melanie Fennell, director and MSc in advanced Cognitive Therapy studies, Oxford.

After the first intake of patients the project coordinator[1] trained the therapists in the OCD treatment manual and they were all continuously supervised in the method of cognitive behavioural therapy by external supervisors specialized in cognitive behavioural therapy (Cognitive Psychology Centre, Copenhagen).

During the project the therapists on average were given 72 hours theoretical teaching and training, 30 hours workshop, 75 hours external supervision and 50 hours internal supervision in the performance of cognitive behavioural therapy.

The manual

The aim was to develop a manual and guidelines for OCD group treatment on a cognitive behavioural basis. The core of cognitive and behavioural theory is that the human mind is a construction of rewarded and repeated patterns of behaviour - cognitive behavioural therapy is the reflection, breaking and changing of these patterns (Beck, 1983). Two articles describing guidelines for group therapy with OCD patients were identified (Fals-Stewart & Lucente, 1994) (Whittal & McLean, 1999) and other materials about individual OCD treatment were used to develop the manual (Salkovskis, 1999; Wells, 1997).

Mostly, manuals and research studies employed 12 weeks therapy for two hours with two therapists. Since patients in our centre were an unselected clinical sample potentially more disturbed than a selected research sample, we decided a closed group format of 16 CBT sessions of two hours duration with half a hour break to relax and to train their social skills and bonding among each other. Each

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group consisted of optimal and maximal six patients and the same two therapists throughout the therapy. Studies have anticipated idiosyncratic problems of OCD-patients giving one or two individual sessions to maximize the accomplishment to the following group treatment (Whittal et al., 1999). Therefore we added an initial individual session to formulate the case, to agree on a treatment objective and to secure compliance in therapy. Furthermore, one follow-up session three months after termination of the treatment was included to maintain focus and to prevent relapses.

Theoretically we used Salkovskis' understanding of OCD as the basic model (sequence of acts). In short, Salkovskis says that it is not the intrusive thought that causes the patient's distress and eager to neutralizing, but it is the patient's appraisal and responsibility for the thought.

Intrusion -> evaluation -> reaction to the evaluation. (Salkovskis, 1999)

Salkovskis also emphasizes that the patient himself must discover the non-threatening nature of his intrusive thoughts through investigation, exposure and experiments. Therefore he recommends experiments outside the treatment setting to maximize the patient's ownership for the endeavours (Salkovskis, 1999).

The manual contained guidelines for the topic of each session with suggestions for homework and worksheets. Concerning the content of the therapy we operated with five principal components in our design of the manual: psycho-education, themes, homework, exposure training in and outside sessions and a toolbox of techniques to alter cognitive and behavioural dysfunctions. Psycho-education and themes were given in 12 sessions always with topics leading up to the new homework. At the beginning of the therapy, theoretical education about the cause and maintenance of OCD, exposure and anxiety management were in focus.

In the mid phase of therapy, practical themes related to exposure and training of social skills were predominant. During in-session exposure the patients have the advantage of being supported by the therapist. Salkovskis claims however, that the presence of the therapist can cause diminished responsibility towards the assignments when they are performed in the setting. We gave priority both to homework in and outside the sessions, since we considered it to be an important and very flexible component in working with the patient's dysfunctional beliefs and behaviours.

In the mid phase, connection between thoughts and feelings and the connection between childhood experiences and their unfitted rules for their adult lives were also themes. The themes were included in the homework with assignments to practise social skills and breaking of dysfunctional old patterns in daily living. Several techniques to alter cognitions and behaviours have been described

(Beck, 1983; Fals-Stewart et al., 1994; Whittal et al., 1999; Clark, 2004; Wells, 1997). We chose to emphasize those techniques that could be integrated in Salkovskis' model best. We presented how to elicit automatic thoughts, vertical arrow, OCD-logic versus normal logic, division-line and thought action fusion. A closer description of these techniques can be found in the therapy manuals by Clark and by Wells (Clark, 2004; Wells, 1997).

In the closing stages of the therapy, education about how to prevent relapses were given.

The first draft of the manual contained more elements than described above, however feedback from the therapists and the patients very soon revealed that focus on fewer elements was more beneficial for the therapy and the manual was changed accordingly.

The structure of the sessions

The manual described the same structure for the 16 group sessions although there were minor variations (see details in table 1). The sessions began with a round of empowerment to reinforce therapeutic gains. Next, the assigned homework was reviewed for each patient. Third, either psycho education, individual therapy or exposure practice and response prevention were administered. Fourth, new homework was assigned to the patients. Finally, a quick round with reflections on today's session ended the session.

Patients

Patients with OCD referred to PC Stolpegaard in the period from May 2004 to January 2005 were included in the project. The inclusion criteria were: i) DSM-IV and WHO ICD-10 criteria for OCD as a primary diagnosis and ii) no abuse of drugs or alcohol. Secondary psychiatric disorder or use of prescribed antidepressiva did not lead to exclusion. The sample consisted of 24 patients, 19 women and five men. The mean age was 28.5 years. Seventeen patients had had symptoms of OCD for more than five years and 18 patients had been unsuccessfully treated before. Ten patients were taking psychotropic medication (SSRI) at the start of the treatment. The patients had moderate to severe symptoms (Y-BOCS=26.54, GSI=1.26 and GAF= 50.13) at the start of the treatment. Six patients had a secondary diagnosis: Two anorexia (F50.00), one unidentified personality disorder (F60.9), one generalised anxiety disorder (F41.1), one traumatic stress disorder (F43.2) and one unspecified anxiety disorder (F41.9). The average duration from visitation to start of treatment was 107 days (SD=83 days).

Table 1: The content of the sessions

Pretreatment: one individual meeting • Explanation of the work in the group and what to expect. Introduction of norms and rules. Practical information (time, place, confidentiality) • Development of exposure hierarchy and personal aims during treatment. • Answering of questions and doubts.
Session 1-2 • Introduction of the group and the group members. • Psycho education: Knowledge of OCD and the vicious circle. Methods to break the vicious circle. How to do exposure practice and response prevention. • Homework introduction: how to complete monitoring forms and exposure records.
Session 3-4 • Empowerment. • Homework review. • Psycho education: Connection between OCD and life history. The cognitive model and how to do cognitive restructuring. • Homework: exposure practices and response prevention. • Reflection on today's session.
Session 5-14 • Empowerment. • Homework review. • Therapy focused on the single members and their cognitive distortions. • In-session exposure and response prevention. • Homework: Cognitive restructuring, exposure practices and response prevention. • Reflection on today's session.
Session 15 • Empowerment. • Homework review. • In-session exposure and response prevention • Psycho education: Discuss triggers for relapse and recurrence. Review strategies for preventing relapses. • Homework: Y-BOCS and other symptom inventories. • Reflection on today's session.
Session 16 • Empowerment. • Homework review. • Psycho education: Discuss triggers for relapse and recurrence. Review strategies for preventing relapse. • Evaluation of the group by each patient.
Follow-up (after 3 months) • Round with a status from every patient. • Focus: Success in maintaining the acquired condition and applying methods to solve and prevent relapses of OCD. How to continue a positive circle. • Leave.

Procedure and the tests

The patients were requested to answer the initial symptom questionnaire after the first individual pre-treatment meeting and before group session 1. The post treatment symptom questionnaire was answered after group session 15. The patients evaluated the therapy after the 16th group session, and the two therapists were interviewed about their evaluation of their performance in the therapy.

Yale Brown Obsessive Compulsive Scale (Y-BOCS)

The Y-BOCS is an observer-rating instrument. Y-BOCS measures the severity of OCD symptoms on five obsession items and five compulsions items on a five-point scale ranging from 0 (no symptoms) to 4 (severe symptoms). Y-BOCS assesses the time spent engaged in the symptoms; the degree of interference with functioning; the level of distress; attempts to resist the symptoms; and the level of control over the symptoms. Y-BOCS has been shown to have adequate interrater agreement, internal consistency, and validity (Goodman et al., 1989).

Symptom checklist-90-Revised (SCL-90-R).

SCL-90-R is a highly validated self-reporting symptom checklist designed to measure psychiatric symptoms and current psychological distress (Derogatis, 1994). Nine subscale scores can be derived from the SCL-90-R and on addtion measures of generel symptom severity and distress. Here we report scores for the depression subscale, anxiety subscale and the global severity index (GSI).

Global assessment of functioning (GAF).

Global assessment of functioning is a continuous scale (range: 1–100) used for rating a patient's lowest level of psychosocial functioning during the preceding month (American Psychiatric Association, 2000). GAF was used as a self-rating form separated into social functioning and psychological symptoms. The smallest of the two scores was used to assess the overall psychosocial functioning (Bodlund, Kullgren, Ekselius, Lindstrom, & von Knorring, 1994),

Verbal reports

To capture qualitative aspects, patients were asked to tell freely about their experiences with this type of group therapy at the 16th and final session. As described, two therapists were also asked to evaluate their experiences.

Statistical analysis

Descriptive and inferential statistics were performed with SPSS 14 (Statistical Package for the Social Sciences). T-tests were performed for paired measures on Y-BOCS, SCL-90-R and GAF before and after treatment. One-tailed p-values are reported because it was hypothesized that patients with OCD would be significantly improved after treatment. Significance level was set to 0.05. Effect-sizes (ES) where calculated using Glass' formula: $ES = (mean_{pre} - mean_{post})/SD_{pre}$ According to Cohen ES < 0.50 is considered small, ES = 0.50-0.80 is moderate, and ES > 0.80 is large (Cohen, 1988).

Results

Y-BOCS, SCL-90-R and GAF

Table 2 shows the results for Y-BOCS, SCL-90-R and GAF. There were significant differences for all measures, except for Y-BOCS for patients using prescribed medication during treatment. The effect-sizes for Y-BOCS were moderate to large – in the seventies and eighties. Medicated patients showed an Y-BOCS effect-size of 0.75 (n=10) and un-medicated patients an effect-size of 1.07 (n=14).

Effect-sizes for SCL-90-R scores were small to moderate. The GSI showed moderate improvement from being severely bothered by symptoms to being moderately bothered. The SCL-90-R depression and anxiety subscales showed only a minor improvement.

Finally, self-reported GAF sores showed a large effect-size of 0.93 and this was the greatest improvement among all symptom tests.

Missing value analysis (MVA) was conducted. For the SCL-90-R and GAF two cases had missing values in the pre-condition and four cases in the post-condition. For the Y-BOCS nine cases had missing values in the post-treatment condition and none in the pre-condition. The missing values were imputed using the Expectation Maximization (EM) algorithm. The resulting dataset showed smaller p-values and larger effect-sizes on Y-BOCS (total), YBOCS-Antidepressiva, SCL GSI, SCL Depression-score, SCL Anxiety-score and GAF.

Table 2: Treatment outcome on Y-BOCS, SCL-90-R and GAF (n=24).

TEST	Pre score (SD)	Post score (SD)	ES	P	ES (MVA)	P (MVA)
Y-BOCS total	26,54 (±7,6)	20,40 (±8,3)	0,81	0,0003	0,91	< 0,0001
• Obsession subtotal	13,50 (±3,9)	10,30 (±4,7)	0,83	0,0002	-	-
• Compulsion sub-total	13,04 (±3,9)	10,10 (±4,5)	0,75	0,0009	-	-
• Antidepressiva (n=10)	25,29 (±7,3)	19,88 (±8,6)	0,75	0,0510	0,99	0,0346
• No antidepressiva (n=14)	26,13 (±6,3)	19,43 (±4,7)	1,07	0,0046	1,05	0,0011
SCL-90-R						
• GSI	1,26 (±0,69)	0,90 (±0,77)	0,50	0,0018	0,55	0,0001
• Depression-score	1,90 (±1,46)	1,28 (±1,34)	0,44	0,0023	0,71	0,0002
• Anxiety-score	1,34 (±1,31)	0,93 (±1,23)	0,32	0,0039	0,45	0,0004
GAF	50,13 (±7,4)	58,61 (±10,9)	0,93	0,0003	0,94	< 0,0001

Verbal reports

At the final session the patients were asked about their subjective experience of the group treatment. The main points from the patients were the following: It was a great relief to experience that other people were *"as crazy as one self"*. It made it easier to reveal and talk about one's own obsessions and compulsions when you had heard the symptoms and stories of other patients with OCD. The patients felt themselves recognized and understood by the other patients and they experienced great confidence and group cohesiveness.

The therapists reported that they were pleased with the manual as it provided a framework for how to conduct the treatment. It made it easier for them to work with behavioural assignments such as, for example, exposure. One reason for this advantage was that group therapy resulted in a more straightforward and coherent group. Another reason was that the patients in the group were more supportive and brave doing exposure assignments – although half of the patients did not complete their homework and did not find it relevant to do the exposure. The therapists often felt that there was insufficient time to go through the cognitive distortions - e.g. the "vertical arrow" exercise. Mostly, the patients were more prone to focus on their daily problems with anxiety, social relations etc. At the ending and the follow-up session, the patients still presented new problems – demanding therapy rather than refreshing learned techniques. The therapists felt that the closed groups with a fixed number of patients and a fixed starting time were too inflexible to accommodate the flow of new patients and their specific needs.

Discussion

The objective of the project was to develop, implement and evaluate treatment of patients with OCD in groups. We found a moderate to large effect of the treatment and our results show that group treatment may be used for OCD. Other studies using group therapy also show large effects – but also large variance which primarily may reflect methodological differences. The studies with largest effect-sizes of 2.39 and 2.1 were conducted by Volpato and colleges (Sousa et al., 2006; Volpato et al., 2003). Both of these studies were characterized by including voluntary patients and by using strict criteria for exclusion. In the 2003 study, 18 patients out of 65 patients were excluded and in the 2006 study 38 patients out of 94 were excluded because of comorbidity. In the latter study all the patients were naïve regarding CBT treatment. This kind of selection may result in smaller variance in symptoms and more uncomplicated treatment groups. The opposite may be true for the two other studies with effect-sizes of approx. 1. Anderson & Rees (Anderson et al., 2007) explicitly stated that their study was based on a clinical population to enhance generalizability and included several patients with comorbidity. Thus, 65% of the participants had a second axis I diagnosis and 52,4% had an additional axis II diagnosis. In the study by Mclean et al. (McLean et al., 2001) 51% of the participants had at least one other axis I disorder. Altogether this could lead to larger inter-individual differences and patient groups that are more difficult to treat. Similarly to the studies by Anderson & Rees and Mclean et al., our study was based on a clinical population and did not use strict exclusion criteria. Several patients had a secondary diagnosis (25%), a majority of the patients had a history of previous unsuccessful treatment (75%) and the patients showed a large inter-individual variance in symptoms. These aspects of our study may explain the observed, relatively small effect-sizes.

Possible elements affecting the outcome in our group therapy

Whittal et al. (2005) and Anderson & Rees (2007) discuss the advantages and drawbacks in BT/ERP and CT in groups compared to individually therapy. With BT/ERP in groups, the patients are able to learn from each other and are motivated to be successful in the group. This advantage was supported by the testimonies from our patients, but a number of patients also rejected the exposure. Whittal et al. (ibid) experienced that in group therapy the time to identify and challenge idiosyncratic ways of thinking was insufficient and that cognitive distortions therefore were undertreated compared to individual therapy. Salkovskis (1999) and Wells (1997) have emphasized that the patient's appraisal

of intrusive thoughts and thought-behaviour fusion should be the main focus of treatment, but a few direct confrontations and loss of the unique focus on the individual patients and their thoughts were also reported by our therapists. Although Anderson & Rees (ibid) did not find time to be a factor influencing the effect of therapy, it can be a problem for some therapists with less training and experience as suggested by Whittal & Mclean (1999).

Another element which can influence the outcome is the amount of homework. Anderson & Rees (2007) suggest better outcome for treatment in groups with homework assignments. They reason that the patients in groups have their homework reviewed in the beginning of every therapy session in front of each other and that the patients therefore are motivated to complete the assignments. Other studies showing that homework compliance correlates with outcome support this suggestion (Rees, McEvoy, & Nathan, 2005; Whittal et al., 2005). In our group treatment, homework was assigned, but many of the patients did not complete the assignments at home and defied doing exposure during sessions. Several patients suggested that they did not succeed because they felt too overwhelmed by their symptoms at home and did not find the exposure at PC Stolpegaard realistic.

Mclean et al. (2001) argued that the competence and training of therapists is important. Our project involved both development of a manual and implementation of this manual in therapy sessions. Before start of the group treatment our therapists were thoroughly trained, but it is likely that they did not use the manual optimally in all therapy sessions. Another important factor is the experience of therapists in methods of cognitive behavioural therapy and in the specific problems of OCD described by Salkovskis (1999) and Wells (Wells, 1997). Use of novice therapists can obviously influence treatment efficacy (Eells, Lombart, Kendjelic, Turner, & Lucas, 2005) and recently trained therapists were included in our study. However, we had at least one highly experienced and leading therapist for every treatment group. Larger treatment effects may have been observed had it been possible to include two highly experienced therapists in each group.

Conclusion

In this naturalistic study we have investigated practical implementation of cognitive-behavioural group therapy for patients with OCD. The study showed moderate to large effect sizes, but even larger effect sizes have been observed in comparable studies of OCD group therapy. The differences in effect size may be related to differences among studies with respect to treatment programs, patient characteristics, training of therapists, and methodological factors. Future studies should explore the active elements and techniques in therapy (Oei & Browne, 2006), include randomised control groups and long-term follow-ups to

create a basis for improving practical application of group therapy for patients with OCD.

Table 3. Studies on group-based treatment for patients with OCD listed according to type of therapy.

Researchers	**N=**	**Duration**	**Therapy**	**Pre YBOCS**	**post YBOCS**	**Effect-size**
Anderson et al., 2007	20	10 weeks	CBGT	25,40 (7,3)	18,10 (7,7)	1,00
Sousa et al., 2006	28	12 weeks	CBGT	25,08 (5,1)	14,28 (8,2)	2,12
Fineberg, Hughes, Gale, & Roberts, 2005	21	12 weeks	CBGT	22,90 (4,4)	16,50 (6,0)	1,44
Volpato et al., 2003	23	12 weeks	CBGT	26,70 (4,9)	15,10 (7,8)	2,37
McLean et al., 2001	31	12 weeks	CBGT	21,90 (5,8)	16,10 (6,7)	1,00
Mean (CBGT)				*24,40 (5,5)*	*16,02 (7,3)*	*1,59*
Researchers	**N=**	**Duration**	**Therapy**	**Pre YBOCS**	**post YBOCS**	**Effect-size**
Himle et al., 2001	89	7 weeks	BGT	22,32 (6,5)	15,62 (?)	1,03
Himle et al., 2001	24	12 weeks	BGT	22,08 (7,0)	14,92 (?)	1,02
McLean et al., 2001	32	12 weeks	BGT	21,80 (4,6)	13,20 (7,2)	1,87
Van Noppen, Pato, Marsland, & Rasmussen, 1998	18	10 weeks	BGT	21,10 (4,8)	18,50 (4,8)	0,54
Van Noppen, Steketee, McCorkle, & Pato, 1997	17	10 weeks	BGT	23,90 (7,2)	16,60 (7,2)	1,01
Fals-Stewart et al., 1993	30	12 weeks	BGT	22,10 (?)	12,00 (?)	2,69
Krone, Himle, & Nesse, 1991	17	7 weeks	BGT	20,40 (6,3)	17,20 (6,9)	0,51
Van Noppen et al., 1998	72	10 weeks	BGT +	21,90 (5,7)	16,20 (6,3)	1,00
Krone et al., 1991	18	7 weeks	BGT +	21,90 (6,6)	15,10 (6,1)	1,03
Mean (BGT)				*21,94 (6,1)*	*15,48 (6,4)*	*1,19*

CBGT = cognitive-behavioural group therapy. BGT = behavioural group therapy incl. exposure response prevention. BT + = BT in combination with antidepressiva. (?) = data not available.

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