

Cognitive–Behavioral Therapy With and Without Medication in the Treatment of Obsessive–Compulsive Disorder

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Cognitive–behavioral therapy (CBT) and pharmacotherapy with serotonin reuptake inhibitors (SRIs) are established monotherapies for obsessive–compulsive disorder (OCD), yet research on their combined efficacy is lacking. Practicing psychologists who treat OCD are thus unable to say definitively whether exposure and ritual prevention would be more successful with concomitant SRI pharmacotherapy. The authors explored this issue in a clinical sample of 56 outpatients who received fee-for-service CBT; 31 (55%) received CBT alone, and 25 (45%) received CBT plus SRI. Both groups made clinically significant and comparable posttreatment gains, suggesting that CBT is effective with or without concomitant pharmacotherapy. Clinical implications are discussed.

With the current widespread use of medication to treat a variety of mental health problems, professional psychologists often need to discuss with prospective patients the pros and cons of continuing the medication regimen while undergoing psychotherapy. Conversely, patients who are considering medication may ask their psychologists whether they should do so while receiving psychological services to maximize benefit. Unfortunately, the answers to these questions are often unclear, as research on the relative efficacy of psychotherapy, pharmacotherapy, and their combination is underdeveloped for most psychological disorders. This is certainly the case with obsessive compulsive disorder (OCD), for which the efficacy of cognitive behavior therapy (CBT) and pharmacotherapy with serotonin reuptake inhibitors (SRIs) has been well established (see Abramowitz, 1997; Greist, Jefferson, Kobak, Katelnick, & Serin, 1995) but information about their combined efficacy remains equivocal at best (Franklin & Foa, 1998).

In the absence of clear evidence regarding the superiority of combined treatment strategies for OCD, professional psychologists must make use of a variety of information sources to arrive at clinical decisions regarding optimal care. Psychologists who treat OCD may rely collectively on the randomized controlled trials that have been conducted to date (e.g., van Balkom et al., 1998), expert-consensus practice guidelines (e.g., March, Frances, Carpenter, & Kahn, 1997), their own clinical judgment, and clinical reports regarding patients treated outside the context of controlled research studies. Our goal in the present report is to provide professional psychologists with data on patients with OCD who received CBT either with or without concomitant pharmacotherapy on a fee-for-service basis. We hope that the information contained herein will assist practicing psychologists who treat OCD in making the difficult decision of how to optimize outcome for patients about to embark on a course of CBT. We also discuss more general issues pertaining to the treatment of OCD in clinical settings, such as collaboration between therapists and prescribing physicians, as well as the potential usefulness and viability of anxiety specialty clinics in community settings.

Despite the clear limitations inherent in uncontrolled trials such as this one, the present study possesses several strengths. First, our use of a treatment manual to guide therapy promoted similarity of treatment across therapists and patients, thus standardizing CBT received by patients in both the CBT-alone and CBT-plus-SRI-pharmacotherapy conditions. Second, patients' symptoms were assessed at pre- and posttreatment by trained evaluators who were not otherwise involved in the patient's care so that we could minimize the effects of therapist allegiance on outcome data. Finally, we examined this issue in a clinical sample that is presumably more generalizable than are samples from randomized controlled trials (RCTs). In contrast to the typical RCT, no patients with primary OCD were excluded from the present study because of comorbid Axis I diagnoses, including major depressive disorder (MDD). Accordingly, our findings may be directly applicable to patients in the real world trying to make informed choices regarding the likely outcome of CBT with and without concomitant pharmacotherapy.

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Examination of Treatment Outcome in an Outpatient Clinic Sample

Center for the Treatment and Study of Anxiety (CTSA)

The CTSA was established in 1979 by Dr. Edna Foa and her colleagues. The CTSA's mission is to develop, test, and improve cognitive-behavioral treatments for anxiety disorders, including OCD. Toward that end, the CTSA has employed a relatively large (typically 5–10) faculty of cognitive-behaviorally oriented psychologists whose primary professional interests lie in clinical research in anxiety disorders. Collaborative relationships between the CTSA and research-oriented psychiatrists have been developed over the years, pursuant to comparing CBT and pharmacotherapy strategies for the treatment of OCD and other anxiety disorders. Several controlled efficacy studies for OCD have been conducted at the CTSA, including a recently completed controlled study of CBT, clomipramine (brand name Anafranil), and their combination (National Institute of Mental Health [NIMH] collaborative study; Kozak, Liebowitz, & Foa, 2000). The NIMH collaborative study failed to show a clear advantage for combined treatment over CBT alone, but the exclusion of depressed patients from that trial limits generalizability to clinical samples. In addition, the simultaneous start of CBT and pharmacotherapy may have obscured the potential benefits of combined treatment in that study. Recent studies conducted elsewhere have yielded inconsistent findings with respect to whether combined treatment is necessarily better than CBT alone (Hohagen et al., 1998; van Balkom et al., 1998). The absence of clear guidance about this important issue from the findings gleaned from controlled trials led us to examine exposure and ritual prevention (EX/RP) outcomes in the current study, a retrospective chart review of our open clinical sample. We believe that the use of such a sample will enhance generalizability to clinical settings and may therefore shed additional light on the problem of whether EX/RP plus concomitant pharmacotherapy is more or less effective than EX/RP alone.

Intake and Treatment Assignment at the CTSA

Prospective OCD patients at the CTSA are evaluated in a two-stage process in which each patient is interviewed separately by two assessors. First, a doctoral-level clinical psychologist with extensive training and experience in diagnosing OCD interviews each patient for 2 hr, beginning with a general inquiry into the current symptoms, a review of treatments for OCD and related problems, and an unstructured assessment of current comorbid Axis I and Axis II conditions. Once a primary diagnosis of OCD has been established, the interview then focuses on the details of the patient's OCD symptoms. This inquiry is guided by the use of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman, Price, Rasmussen, Mazure, Delgado, et al., 1989; Goodman, Price, Rasmussen, Mazure, Fleischmann, et al., 1989) checklist, a comprehensive list of typical obsessions and compulsions, and then the Y-BOCS symptom severity scale (range = 0–40). In addition, inquiry is made about current symptoms of depression using the 17-item Hamilton Depression Inventory (HAM-D; Hamilton, 1960); this version of the HAM-D has a range of 0–50. Differential diagnosis is examined carefully, as individuals with certain clinical conditions (e.g., trichotillomania, generalized anx-

iety disorder) are sometimes mistakenly referred for OCD evaluation. The first assessor presents these interview data to a senior psychologist, who confirms diagnosis and then discusses treatment options with the patient and his or her family. Patients diagnosed with primary OCD who meet criteria for ongoing treatment outcome studies at the CTSA are provided with a description of these studies as well as information about the fee-for-service CBT program.

Method

Participants

In the present study, we examined treatment outcome in 56 adult outpatients who completed the fee-for-service CBT program at the CTSA. Participants were referred by a mental health practitioner, by patient advocacy groups such as the Obsessive-Compulsive Foundation, or had responded to media advertisements. Participants were treated between the years 1992 and 1998 after written informed consent was obtained. All participants were diagnosed with primary OCD (according to the criteria of the revised third edition of the *Diagnostic and Statistical Manual of Mental Disorders [DSM-III-R]* or, if during or after 1994, the *DSM-IV*) by both of the intake interviewers. It is notable that, unlike many carefully controlled randomized trials, in this study no adult patient was excluded from treatment because of age, secondary comorbid Axis I or Axis II diagnoses, medical problems, concomitant medication use, or treatment history. In particular, the fact that we did not exclude patients because of comorbid psychopathology, including MDD, a common OCD comorbidity, constitutes a strength of the present study in that it enhances generalizability of our findings to the clinical settings in which most OCD patients receive care.

Concomitant Medications

Thirty-one participants (55.4%) were not using any psychotropic medications at intake, whereas 25 (44.6%) were currently taking either clomipramine or a selective serotonergic medication (e.g., sertraline). All participants on SRI medication reported that the medications were prescribed for their OCD, and patients were encouraged to continue taking their medication as already prescribed throughout EX/RP treatment. Our clinical impression is that participants did so, as no clinical charts indicated medication discontinuation during EX/RP. The treating psychologist typically made an initial contact with the physician prescribing the medication and kept this practitioner abreast of treatment progress and discontinuation. These physicians ranged in experience from family practitioners with little training or experience in treating OCD to highly experienced psychiatrists with a particular expertise in pharmacotherapy for OCD. Inspection of Table 1 reveals that the mean doses and dose ranges for the SRIs were generally lower than the recommended target doses for treating OCD (March et al., 1997). Also of note, several additional participants in the CTSA's outpatient CBT program were not included in this study because they were receiving more complex pharmacotherapy regimens (e.g., SRI plus anxiolytics); too few of these participants were receiving any particular regimen to compose a meaningful subgroup.

Table 1
*Medications and Doses Used by OCD Patients
 Treated With EX/RP*

Medication	<i>n</i>	Daily dose (mg)			Recommended target dosage (mg) ^a
		<i>M</i>	<i>SD</i>	Range	
Clomipramine	11	200	48.7	100–250	200
Fluoxetine	7	60	23.1	20–80	60
Fluvoxamine	2	200		100–300	200
Sertraline	2	100		50–150	150
Paroxetine	2	30		20–40	50
Venlafaxine	1	150			

Note. OCD = obsessive-compulsive disorder; EX/RP = exposure and ritual prevention.

^a Recommended dosages are from March et al. (1997).

Treatment

All 56 participants received intensive CBT involving EX/RP for OCD on a fee-for-service basis, typically involving 3 treatment-planning sessions followed by 15 EX/RP sessions. The daily sessions lasted 2 hr each, and treatment was conducted over the course of approximately 1 month. Treatment was manualized (Kozak & Foa, 1997), and supervisors encouraged protocol adherence, but formal treatment fidelity data were not gathered. As has been discussed cogently elsewhere (e.g., Kendall, Chu, Gifford, Hayes, & Nauta, 1998), treatment manuals should be considered guides to clinical practice rather than step-by-step cookbooks that script all possible interactions between therapist and client. We encourage our therapists to use the essential principles espoused in the manual to guide treatment and to try to include each element in the session outlines in accord with the manual's description but to rely on their clinical judgment with respect to session flow, discussion of issues that have arisen since the last meeting, and the general conduct of treatment. Therapists who are not acting in accord with these guidelines are supervised and encouraged to do so.

Treatment-planning sessions were devoted to gathering information about the nature of the OCD symptoms, development of an exposure hierarchy, education about OCD, and the rationale for EX/RP. Patients were told that adequate exposure to feared situations and objects ultimately reduces obsessional distress and that adequate exposure requires refraining from rituals and avoidance. EX/RP sessions began after these planning sessions. Each session consisted of EX/RP and a review of homework that participants had been assigned at the end of the previous session. Degree of involvement of family members or other support persons was determined by clinical judgment. These family members and friends were typically invited to the last assessment session to discuss the treatment plan and were provided advice about how they could help their loved one succeed in CBT.

Exposure exercises. These were designed to trigger the patient's specific obsessional concerns. Patients were encouraged to persist with each exposure until the distress decreased noticeably. Exposure exercises were arranged hierarchically, beginning with moderately distressing ones. The exercises gradually progressed toward the most distressing situation or object, which was typically confronted during Exposure Session 6. For example, 1 patient with

obsessive fears of harm befalling a loved one if he refrained from praying rituals was asked in Session 6 to intentionally pray for the death of this loved one in the session while simultaneously refraining from rituals. For patients with specific feared consequences associated with the failure to ritualize, imaginal exposure exercises were routinely included in treatment. For example, a patient with obsessive fears of injuring a pedestrian while she was driving was asked to create a brief (5-min) script of driving on a local road, hitting an apparent pothole, failing to check in the rearview mirror, then later being arrested for committing vehicular homicide. The purpose of these scripts is to repeatedly present the patient with a detailed account of his or her obsessive fears to promote habituation of anxiety in response to this content. Coupled with the disconfirmatory evidence derived from in vivo exposure exercises to driving without rituals, these practices help the patient to better distinguish realistic risks from obsessive fears. Informal discussions of distorted cognitions are also routinely included in CBT involving EX/RP, but unlike in more cognitively oriented treatments of OCD (e.g., van Balkom et al., 1998), such discussions accompany exposure exercises rather than replace them. In addition to completing exposure exercises in session, participants were given approximately 2 hr of exposure homework to complete between sessions.

Ritual prevention. Patients were instructed to refrain from rituals throughout the entire treatment period. The importance of ritual prevention was introduced at the first session and emphasized before and throughout treatment. Self-monitoring forms were used throughout treatment to enhance awareness of situations that triggered patients' urges to ritualize. When violations of ritual prevention occurred, therapists reviewed strategies of how to cope more effectively with compulsive urges and offered additional encouragement to abstain from rituals. For example, patients with contamination fears and associated washing rituals were asked to refrain from showering for several days during the 1st week of treatment; normalized washing followed by reexposure (e.g., drying off with a contaminated towel after a shower) was introduced in the latter half of the intensive treatment. To improve compliance, the therapist encouraged the patient to seek assistance and support from his or her designated support person or to contact the therapist prior to engaging in rituals. Toward the latter part of the program, the therapist introduced relapse prevention techniques that have been found effective with OCD (Hiss, Foa, & Kozak, 1994).

Therapists. Treatment was conducted by clinical psychologists and clinical psychology interns who had received training in EX/RP treatment for OCD at the CTSA. Cases were assigned to therapists nonrandomly, on the basis of clinical factors (e.g., case complexity), participant variables (e.g., preference for female therapist), and practical matters (e.g., therapist availability). Senior clinical psychologists with expertise in EX/RP provided individual supervision, and cases were also discussed in weekly group supervision meetings conducted by these experts. As we have reported elsewhere (Franklin, Abramowitz, Furr, & Kalsy, 2001), no post-treatment differences were found between psychology interns with little experience in treating OCD and highly experienced experts, with both groups of patients experiencing substantial and clinically meaningful reductions in their OCD symptoms. As would be expected given the method of case assignment, the more experi-

enced group of clinicians treated the more severe cases (Franklin et al., 2001).

Demographics

Table 2 presents the demographic characteristics of patients in each treatment group. Statistical tests (*t* tests for means and chi-square tests for frequencies) revealed no significant differences between groups on any demographic characteristic.

Results

Examination of Treatment Effects

We categorized patients on the basis of medication status as follows: (a) CBT without medication and (b) CBT with SRI medication. We evaluated the effects of SRI medication status on CBT treatment outcome using a 2 (medication status) \times 2 (time) mixed-design analysis of covariance (ANCOVA), with medication status as the between-subjects factor and pretreatment OCD and depressive symptom severity serving as the covariates.

Figure 1 presents pre- and posttreatment Y-BOCS scores for both groups. It is important to note that the Y-BOCS severity scale ranges from 0 (*no symptoms*) to 40 (*extremely severe symptoms*), with the pretreatment score for an untreated sample of OCD patients entering a controlled study typically in the low to mid 20s (e.g., Fals-Stewart, Marks, & Schafer, 1993). A *t* test indicated no significant between-groups difference in initial OCD symptom severity, $t(54) = 0.07$, $p > .05$. The rate of OCD symptom reduction across all patients was 63.8%, and it is not surprising that the effect of treatment was significant, paired $t(55) = 21.46$, $p < .001$. Symptom reductions of 65.0% and 62.8% were found in the groups treated with and without concomitant pharmacotherapy, respectively.

Severity of pretreatment OCD and depressive symptoms has predicted treatment outcome in prior research (Abramowitz, Franklin, Street, Kozak, & Foa, 2000; Basoglu, Lax, Kasvikis, & Marks, 1988). To control for these variables, we conducted an ANCOVA to examine the effects of medication status on post-

Table 2

Demographic Characteristics of the Treatment Groups

Characteristic	Treatment group	
	EX/RP without SRI	EX/RP with SRI
Group size	31	25
Age (years)		
<i>M</i>	34.1	29.7
<i>SD</i>	12.4	9.2
Male (%)	58.1	60.0
Caucasian (%)	96.3	100.0
With college degree (%)	59.1	42.8
Married (%)	28.6	19.0
Employed full-time (%)	72.7	91.5
HAM-D score		
<i>M</i>	11.5	10.8
<i>SD</i>	6.9	4.4

Note. Data are missing for some participants in some groups. EX/RP = exposure and ritual prevention; SRI = serotonin reuptake inhibitor; HAM-D = Hamilton Depression Inventory.

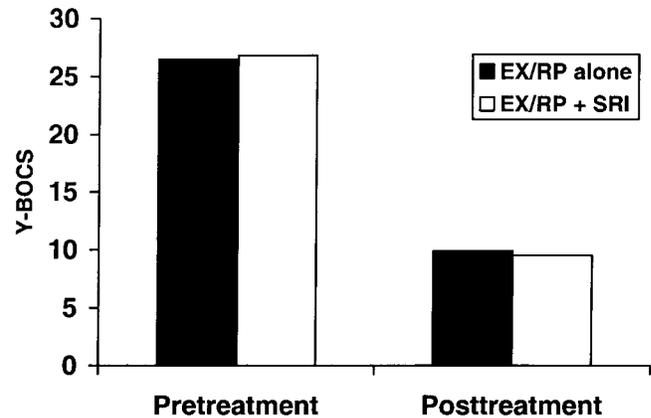


Figure 1. Pre- and posttreatment Y-BOCS scores by treatment group. Y-BOCS = Yale-Brown Obsessive Compulsive Scale (Goodman et al., 1989); EX/RP = exposure and ritual prevention; SRI = serotonin reuptake inhibitor.

treatment Y-BOCS scores, using pretreatment Y-BOCS and HAM-D scores as covariates. This analysis indicated no significant posttreatment differences between groups, $F(1, 55) = 3.57$, $p > .05$.

Clinical Significance of Treatment Effects

In addition to assessing statistical significance, we considered the clinical significance of observed changes in OCD symptoms. Accordingly, we used procedures described by Jacobson and Truax (1991) and discussed by Maasen (2001) to identify patients who achieved posttreatment functioning within the nonpatient distribution of Y-BOCS scores. Nonpatient Y-BOCS data reported by Steketee, Frost, and Bogert (1996; $M = 7.2$; $SD = 4.5$) were used to calculate the cut score for the nonpatient Y-BOCS distribution (Y-BOCS = 14.4). Next, the test-retest reliability of the Y-BOCS interview ($r = .88$; Steketee et al., 1996) was used to calculate a reliable change (RC) index (Jacobson & Truax, 1991) that indicated whether each patient's pre- to posttreatment change was attributable to therapy as opposed to imprecision in the Y-BOCS.

Patients were considered to have experienced clinically significant change if (a) their Y-BOCS score was below 15 and (b) their RC index was greater than 1.96 (Jacobson & Truax, 1991). The number of patients in the CBT-without-SRI group who attained clinically significant improvement was 23 (74.5%). In the CBT-with-SRI group, 20 patients (80.0%) attained clinically significant improvement. These percentages did not differ between the groups, $\chi^2(1, N = 56) = 0.26$, $p > .05$.

Comparison With Outcomes From Other EX/RP Studies

As described above, our results suggest that both of these patient groups made statistical and clinically significant gains immediately following treatment. However, it is important to place these findings in the context of what has been reported with EX/RP in other settings and with other samples. Comparing the percentage of reduction on the Y-BOCS observed here with those found across other EX/RP outcome studies that have used this outcome

measure would be one alternative, yet these calculations do not take sample variances into account. Instead, we calculated within-subject effect sizes based on the Y-BOCS for each of our treated groups, as recommended by Cohen (1988), and compared them with those derived from other recent EX/RP studies.

In the current study, the within-subject effect sizes for the CBT-alone and CBT-with-SRI groups were 3.24 and 2.82, respectively. Warren and Thomas (2001) recently reported a within-subject effect size of 2.19 for 19 patients treated with EX/RP in an outpatient setting. Their results and ours compare favorably with those derived from several recently published outcome studies by Lindsay, Crino, and Andrews (1997; $D = 3.88$), van Balkom and colleagues (1998; $ES = 1.00$), and Fals-Stewart and colleagues (1993; $ES = 0.93$). Thus, the patients we report on here, who were treated outside the context of an RCT, appear to fare similarly well to those patients treated in such studies, regardless of their medication status.

Because follow-up data collection is still under way, we cannot answer questions about long-term outcomes, such as whether patients who received CBT alone are more vulnerable to relapse or whether patients in the combined treatment group are still taking medicine years after completing CBT. Thus, although the outcomes presented above are encouraging and consistent with previous findings about short-term efficacy and effectiveness of CBT, future research must examine how well these patients are doing in the long run to better estimate the clinical and functional impact of the treatments. Nevertheless, although we do not address these issues in the present examination of short-term treatment effects, the collective literature on long-term outcome for OCD following CBT is quite positive, suggesting that most patients who complete EX/RP maintain their treatment gains over several years (for a review see Foa & Kozak, 1996).

Implications and Applications

One of the main implications of our findings is that CBT appears to be helpful whether or not patients are receiving pharmacotherapy. Thus, it appears that patients who are not already taking medication for OCD prior to initiating CBT do not necessarily need to begin such a course to benefit substantially. An important caveat is necessary here, however: Our clinical impressions and some empirical studies (e.g., Abramowitz, Franklin, Street, et al., 2000; Hohagen et al., 1998) suggest that if the unmedicated OCD patient is comorbid for severe depression, a course of pharmacotherapy might be in order before CBT is initiated. CBT is demanding, requires a high degree of motivation, and is fueled by the patient's optimism that the anxiety-evoking exercises he or she is undertaking now will pay off in reduced frequency and intensity of obsessions later. Amotivation and pessimism, cardinal features of severe depression, may mediate CBT outcome, perhaps by compromising compliance with the very procedures that produce significant posttreatment improvements. Thus, the severely depressed patient may be better off delaying CBT until he or she has evidenced a partial response to an antidepressant medication, preferably one with demonstrated antiobsessional properties also. Medications that have been found to be superior to placebos for OCD in adults include clomipramine (Anafranil), fluoxetine (Prozac), fluvoxamine (Luvox), sertraline

(Zoloft), and paroxetine (Paxil; Greist, Choinard, DuBoff, et al., 1995; March et al., 1997).

A second key implication of our findings pertains to prospective patients contemplating a trial of CBT for OCD who are already taking an SRI. Our results suggest that these patients do not need to alter their pharmacotherapy regimen to benefit substantially from EX/RP. Many patients who come to our clinic already taking medicine report at least some benefit from SRI pharmacotherapy, yet they are concerned that medicine could interfere with CBT outcome. Our data suggest that CBT response is quite good for patients who continue pharmacotherapy; this information can be presented to patients who are considering combined treatment to allay such concerns. However, efficacy of pharmacotherapy in real-world settings has also not been evaluated sufficiently, and studies such as the current one are important because they may help us begin to understand whether dosing strategies are similar in the research and clinical contexts and, more broadly, how community treatment actually works. It is notable that a substantial proportion of our patients receiving SRI pharmacotherapy appeared to be undermedicated relative to the expert-consensus guidelines regarding target doses (March et al., 1997). Although we did not collect systematic data regarding why this was the case, a proportion of these patients may have experienced dose-limiting side effects. However, when we compared outcomes for patients taking lower than recommended SRI doses with outcomes for those taking at least the recommended maximum SRI dose, we found no differences between these two groups.

In the absence of long-term outcome data, our findings cannot be used to help answer questions about whether patients who received combined treatment will later be able to withdraw from pharmacotherapy without experiencing a significant return of OCD symptoms. Again, severe depression may influence patients' and clinicians' choices about whether to continue medication indefinitely after a positive response to combined treatment. If a patient has a history of recurrent major depressive episodes and does not suffer from severe side effects to the medicine, it may be the case that a cautious approach to adjusting pharmacotherapy is warranted. In general, discussion about the long-term need for pharmacotherapy may be appropriate toward the end of EX/RP treatment, although the lack of unequivocal empirical evidence to guide these decisions tempers our conclusions.

It is notable that the treatment program completed by our patients included prolonged, repeated exposure in the presence of a therapist, complete ritual abstinence instructions, daily 2-hr sessions held over the course of 1 month, and expert supervision. We have also found that outcomes achieved by our less-experienced therapists were quite favorable, although the method of assigning cases to therapists on the basis of severity may have accounted for this observation (Franklin et al., 2001). The effectiveness of CBT programs that do not include these treatment elements is unclear, although preliminary findings from a study of an otherwise-identical twice-weekly CBT regimen are encouraging (Abramowitz, Franklin, Filip, & Foa, 2000). The empirical validation of a less-frequent treatment regimen may pave the way for broader use of CBT for OCD in clinical practice, as patients, therapists, and insurance companies alike tend to balk at the daily therapy regimen used here. In our clinic we have at times used behavioral technicians to provide additional assistance with EX/RP exercises, but the effects of switching to this strategy are

not well studied as yet. The use of technicians such as practicum students or therapists in training may offer a practical solution to this barrier to the use of CBT in clinical practice and needs to be explored further.

Findings that our clinical psychology interns' patients made substantial treatment gains that were comparable to those achieved by patients treated by the supervising experts are encouraging but do not speak to whether such inexperience would negatively affect outcome in other clinical settings where such expert supervision may not be available. Clinicians who are not practicing in such settings yet are interested in developing such an atmosphere may be able to do so by attending workshops in CBT for OCD, becoming active members in professional organizations that foster interest in CBT (e.g., the Association for the Advancement of Behavior Therapy), establishing collaborative working relationships with faculty from these centers, and taking advantage of opportunities to interact with similarly interested practitioners. Increasingly, treatment manuals are being sold (e.g., Kozak & Foa, 1997), and these manuals can be used to guide rather than dictate clinical practice with OCD patients (Abramowitz, Franklin, & Cahill, in press). Some contact with the manual's creator or with someone who has extensive experience in its use is highly desirable, as practical tips on how best to adapt the manual to the day-to-day needs of clinical practice are best provided by those who have done so already. Because OCD so often results in substantial functional impairments, such endeavors may prove highly productive professionally and expand access to CBT to more OCD patients, especially those who have not responded to pharmacotherapy interventions that are widely available.

To a certain extent, examination of the question of CBT treatment outcome with and without pharmacotherapy in a naturalistic study comes at the expense of internal validity. For example, we cannot determine the influence of patient choice (e.g., choosing CBT only over combined treatment) on treatment response, nor can we ascertain whether patients in the concomitant medication groups were more severely symptomatic when they initiated pharmacotherapy than were those who received EX/RP alone. Therefore, we cannot determine whether these premedicated patients would have responded as favorably to EX/RP if they had not been receiving concomitant pharmacotherapy. Power to detect a statistical difference may also be at issue in this study, as one might expect only a small effect size given that both groups received intensive EX/RP. The direction and magnitude of our within-subject effect sizes do not suggest that this is at issue, but, nevertheless, it could well be said that our findings ought to be replicated with larger samples using more carefully controlled designs before we are confident about these observations. We also cannot discern whether our interns' patients would have fared as well if we had not selected their patients on the basis of clinical severity. In light of these limitations, our findings must be considered preliminary with respect to the synergistic effects of SRI pharmacotherapy in combination with EX/RP. Unfortunately, as is often the case in OCD treatment research, the ethnic homogeneity of our sample limits conclusions about the generalizability of treatment effects to more ethnically and racially diverse groups.

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