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# Cognitive-Behavioral Therapy for Social Anxiety Disorder: Current Status And Future Directions

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*Cognitive-behavioral therapy (CBT) is the most thoroughly studied nonpharmacologic approach to the treatment of social anxiety disorder, and its efficacy has been demonstrated in a large number of investigations. This article summarizes the data on the efficacy of CBT for the treatment of the symptoms of social anxiety disorder and impaired quality of life. The relative efficacy of various CBT approaches, both in the short-term and over extended follow-up periods, is reviewed. Factors associated with more or less positive response to CBT among patients with social anxiety disorder are examined. Special attention is given to the comparison of CBT with pharmacologic approaches to the treatment of social anxiety disorder and the potential utility of combining these approaches. Future directions in the application of combinations of CBT and pharmacotherapy to the treatment of social anxiety disorder are discussed. Biol Psychiatry 2002;51:101–108 © 2002 Society of Biological Psychiatry*

**Key Words:** Social anxiety disorder, social phobia, anxiety disorders, cognitive-behavioral therapy, psychosocial treatment, empirically supported treatment

## Introduction

Social anxiety disorder (also known as social phobia) has been described in earlier articles in this series as a prevalent, chronic, and disabling disorder. Although an increasing number of medications has been evaluated and demonstrated efficacy for the treatment of social anxiety disorder, it has been increasingly acknowledged that psychosocial treatments can play a significant role in the overall management of the socially anxious patient.

In this article, I review several aspects of cognitive-behavioral therapy (CBT) for social anxiety disorder, the most thoroughly studied approach to psychotherapy for

social anxiety disorder.<sup>1</sup> First, a brief overview of the various approaches to CBT for social anxiety disorder will be provided. Second, the efficacy of these techniques in relationship to each other and various control conditions, both in terms of acute response and duration of response after the discontinuation of treatment, will be examined. Third, factors associated with response to CBT will be described. Fourth, the efficacy of CBT in comparison to and in combination with pharmacotherapy will be examined. Finally, future directions in the application of combinations of CBT and pharmacotherapy to the treatment of social anxiety disorder will be discussed.

## The Varieties of CBT for Social Anxiety Disorder

Cognitive-behavioral therapy is a time-limited, present-oriented approach to psychotherapy that teaches patients the cognitive and behavioral competencies needed to function adaptively in their interpersonal and intrapersonal worlds. It is a joint effort of therapist and patient, who form a collaborative team to address the patient's concerns. An emphasis on empirical demonstration of efficacy in controlled research also characterizes CBT. The major classes of CBT that have been applied to the treatment of social anxiety disorder are exposure, cognitive restructuring, relaxation training, and social skills training.

### Exposure

Exposure techniques are designed to help patients face the situations they fear and stay psychologically engaged so that the natural conditioning processes involved in fear

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<sup>1</sup> Little empirical work has examined non-cognitive-behavioral psychosocial approaches to the treatment of social anxiety disorder. Interested readers are referred to a recent report of the efficacy of interpersonal psychotherapy (IPT) in a sample of socially anxious patients (Lipsitz et al 1999). A time-limited approach to psychotherapy, IPT is based on the assumption that psychiatric disorders occur and are maintained within a psychosocial and interpersonal context. It has previously been shown to be efficacious in the treatment of major depression (Elkin et al 1989), dysthymic disorder (Markowitz 1994), and other disorders with an interpersonal component such as bulimia nervosa (Wilfley et al 1993). Although psychodynamic theorists (Gabbard 1992) have advanced accounts of the development of social anxiety disorder, no studies of psychodynamic treatment for social phobia have yet been conducted.

reduction (habituation and extinction) can occur. As a first step, the patient and therapist develop a rank-ordered list of anxiety-provoking situations. To keep anxiety in a tolerable range, the patient then starts working on the least feared situation and approaches increasingly more difficult situations as a sense of mastery of the lesser situations is achieved. Either in imagination (as the therapist narrates scenes for the patient to imagine), in role play, or by confronting feared situations outside of session (or typically a combination of all three), the patient is asked to engage the situation and continue to do so until anxiety naturally begins to subside.

Most variations of CBT for the anxiety disorders include exposure as a central component. For exposure techniques to be maximally effective, patients must allow themselves to be fully engaged in the feared situation, that is, to pay full attention to the situation, to experience it fully, and to allow the inevitable rush of anxiety and arousal to occur (Foa and Kozak 1986); however, because anxious patients may find this difficult to do, they may engage in well-intentioned but maladaptive efforts to manage their anxiety experience. For instance, they may distract themselves and avoid paying full attention to the details of the feared situation. They may try to think about something else (most typically their perceptions of themselves as in danger) rather than attend to what is actually going on around them; however, recent data clearly indicate that instructions to maintain one's focus on the feared situation increase the efficacy of exposure techniques (Wells and Papageorgiou 1998).

### *Cognitive Restructuring*

The findings of a large body of experimental psychopathology research suggest that it is important for patients to examine their thoughts about feared situations and the beliefs that may underlie them. In fact, recent cognitive-behavioral models of social anxiety disorder (Clark and Wells 1995; Rapee and Heimberg 1997) suggest that it arises from inaccurate beliefs about the potential dangers posed by social situations, negative predictions about the outcomes of these situations, and biased processing of events that transpire during social situations.

In cognitive restructuring, individuals are taught to 1) identify negative thoughts that occur before, during, or after anxiety-provoking situations; 2) evaluate the accuracy of their thoughts in the light of data derived from Socratic questioning or as a result of so-called behavioral experiments; and 3) derive rational alternative thoughts based on the acquired information. Cognitive restructuring techniques contain a substantive exposure component; however, the focus of exposure in this context is on the collection of information that will allow patients to revise

their judgments about the degree of risk to which they are exposed in feared situations.

Behavioral experiments (Beck et al 1979) are assignments for patients to engage in activities that will undermine their belief(s) that they will not know how to behave in particular situations, that other people will be harsh and critical, that they will be overwhelmed by their anxiety in a way that will be humiliating and embarrassing, and so forth. For example, a patient who believed that he had to be profoundly witty in conversation to be accepted by others was asked to eavesdrop on the conversations of others during lunch break and report back to the therapist about their mundane content. Another patient who believed that he would not be able to break silences in conversation was asked to artificially create these silences during conversations.

Other behavioral experiments may involve the patient entering a feared situation without engaging in "safety behaviors" (Clark and Wells 1995). Safety behaviors are actions that patients falsely believe enable them to manage their anxiety successfully; however, these behaviors prevent patients from learning that they might have survived and flourished without these efforts. One patient falsely attributed successful conversations to the fact that he carefully rehearsed every line before speaking. Another believed that she avoided spilling her drink and thereby seriously embarrassing herself only because she clutched her glass tightly with both hands. Instructing the patient to drop safety behaviors during exposure facilitates treatment outcome (Wells et al 1995). Accordingly, the first patient was asked to forgo the rehearsal of anticipated interchanges before an upcoming social event, and the second was asked to hold her drink with one hand while conversing with others.

### *Relaxation Training*

Relaxation training helps patients learn to attend to and control the degree of physiologic arousal experienced during or in anticipation of feared events. There are several approaches to relaxation training, although most are derived from the pioneering work of Wolpe (1958) and Bernstein and Borkovec (1973). Patients learn to relax through exercises involving different muscle groups, first practiced in session and then as homework. Patients focus on a particular muscle group, tense it for 5 to 10 sec, and then release the tension, noticing the difference between the feelings of tension and relaxation and focusing on the sensations accompanying relaxation (e.g., warmth, heaviness). It is typical to begin working with 16 muscle groups but, over time, to practice relaxing larger groups of muscles to achieve more rapid relaxation. Patients then learn to scan their bodies for muscle tension and release

any tension by recalling how those muscles felt when relaxed. They are also taught cue-controlled relaxation, in which a word such as "relax" is repeatedly paired with a relaxed state and then used as a cue to begin the process of rapidly relaxing during daily activities.

Relaxation for social anxiety disorder is typically not effective unless it is "applied." In applied relaxation, patients first learn to attend to the physiologic sensations of anxiety. They then learn to quickly relax while engaging in everyday activities. They are then taught to apply relaxation skills in anxiety-provoking situations. Applied relaxation thus combines relaxation and exposure to help individuals cope with anxiety-provoking situations (Öst 1987).

### *Social Skills Training*

Social skills training for social anxiety disorder is predicated on the idea that socially anxious patients exhibit behavioral deficiencies (e.g., poor eye contact, poor conversation skills) that elicit negative reactions from others, causing social interactions to be punishing and anxiety provoking for the patient. Clearly, the social behavior of some socially anxious patients could use some fine tuning; however, when behavioral deficits are observed, it is unclear whether they are a function of a lack of social knowledge or skill, of behavioral inhibition or avoidance produced by anxiety, or a combination of factors. Research on the behavior of socially anxious persons has produced inconsistent results, with some studies suggesting performance deficits (Halford and Foddy 1982) and others failing to do so (Glasgow and Arkowitz 1975); however, there is strong support for the assertion that socially anxious persons underestimate the adequacy of their behavioral performance (Rapee and Lim 1992; Stopa and Clark 1993).

Common social skills training techniques include therapist modeling, behavioral rehearsal, corrective feedback, social reinforcement, and homework assignments. Notably, if these techniques effectively reduce anxiety, it is not necessarily because deficiencies in the patient's repertoire of social skills have been remediated (although this certainly may be the case). Social skills training may provide benefits because of the training aspects (e.g., repeated practice of feared social behaviors), the exposure aspects (e.g., confrontation of feared situations), or the cognitive elements (e.g., corrective feedback about the adequacy of one's social behavior) inherent in the procedures. Social skills training may also be easily combined with other techniques such as cognitive restructuring or exposure. For instance, social effectiveness training (Turner et al 1994a) is a multicomponent treatment package that combines exposure with social skills training and education in a mixture of group and individual formats.

## **A Meta-Analytic View of the Efficacy of CBT for Social Anxiety Disorder**

In this brief article, it is not possible to provide a comprehensive qualitative review of the literature on the outcome of CBT for social anxiety disorder, and the reader is referred to other sources for that purpose (Fresco et al 2000; Turk et al 1999). Instead, I will summarize the literature by discussing the outcomes of meta-analyses of the CBT literature. Meta-analysis is a method for examining the outcomes of several studies simultaneously by reducing the results of each study to a common quantitative metric, the effect size. A within-group effect size, based on the formula for Cohen's (1988)  $d$   $\{(M_{\text{pre}} - M_{\text{post}}) / SD_{\text{pooled}}\}$ , may be defined as the number of standard deviation (SD) units of improvement made by patients receiving a particular treatment in a particular study. An average within-group effect size of 1.0 for a specific treatment indicates that, on average, the patients in all the studies who received that treatment improved an SD's worth. Between-group effect sizes, also referred to as controlled effect sizes, are an expression of the degree to which a treatment improves to a greater degree than a control condition, again expressed in SD units  $\{(M_{\text{treatment}} - M_{\text{control}}) / SD_{\text{control}}\}$  (Glass et al 1981).

Four meta-analyses have focused exclusively on the treatment of social anxiety disorder (Federoff and Taylor, 2001; Feske and Chambless 1995; Gould et al 1997; Taylor 1996). Each compared various types of CBT to each other and to control conditions on effect sizes calculated on the basis of psychometrically sound self-rating measures of social anxiety. Although it is the tradition in clinical psychiatry to place greatest emphasis on clinician-rated measures, self-report measures of social anxiety disorder are more broadly employed and better validated than clinician-rated measures. They also tend to be more conservative, that is, they yielded either smaller (Feske and Chambless 1995) or equivalent (Federoff and Taylor 2001) effect sizes in the studies that examined both types of measures.

The meta-analyses demonstrated a significant amount of agreement about the acute efficacy of CBT for social anxiety disorder. Each examined the relative efficacy of exposure alone versus exposure combined with cognitive restructuring and found these two strategies to produce equivalent change. Social skills training and cognitive restructuring without exposure were examined in three meta-analyses (Federoff and Taylor 2001; Gould et al 1997; Taylor 1996) and applied relaxation in one (Federoff and Taylor 2001). Generally, these treatments resulted in more modest effect sizes, although these were not significantly smaller than the effect sizes of exposure-based interventions. All variations of CBT yielded larger within-group and controlled effect sizes than waiting list

controls across meta-analyses; however, only the combination of exposure and cognitive restructuring techniques was more efficacious than placebo controls in the meta-analysis by Taylor (1996). Individual and group interventions produced equivalent effect sizes.

All four meta-analyses examined the efficacy of CBT interventions at follow-up assessments. All indicated that within-group effect sizes were at least equivalent to the within-group effect sizes after acute treatment, suggesting that gains achieved during CBT were durable. In the meta-analysis by Taylor (1996), follow-up within-group effect sizes were significantly larger than they were after acute treatment, suggesting that CBT patients continued to improve over the follow-up period. Federoff and Taylor (2001) also provide evidence that the follow-up effect size of exposure plus cognitive restructuring may have been larger than the follow-up effect-size for placebo, whereas this was not the case for exposure, cognitive restructuring, or social skills training; however, this assertion requires much further study because only one study provided data for a placebo condition at the follow-up assessment.

### **Cognitive-Behavioral Group Therapy for Social Anxiety Disorder**

Before addressing the other stated goals of this article, it is important to introduce Cognitive Behavioral Group Therapy (CBGT) for social anxiety disorder because research on this protocol will feature prominently in later sections. I have focused my research on CBGT for many years (Heimberg and Becker, in press; Heimberg et al 1995).<sup>2</sup> It integrates cognitive restructuring techniques and exposure in the treatment of social anxiety disorder. Most commonly, it is administered to groups of six patients in 12 weekly 2.5-hour sessions. In sessions 1 and 2, patients receive rationale and instructions for exposure, cognitive restructuring, and homework assignments and practice cognitive restructuring skills. Thereafter, therapists lead patients through individualized exposures to role-played simulations of each patient's feared situations, preceded and followed by therapist-directed cognitive restructuring exercises. Patients are also coached in rational thinking during the exposure itself. At the end of each session, therapists work with each patient to develop homework assignments for completion during the upcoming week. Homework typically consists of exposures to real-life situations and patient-directed pre- and postexposure cogni-

tive restructuring, with the goal of teaching patients to become their own cognitive-behavioral therapists over the long term.

Several controlled studies have evaluated the efficacy of CBGT. It has produced outcomes superior to waiting list (Hope et al 1995a) and psychological placebo treatment (Heimberg et al 1990). Importantly, patients treated with CBGT had maintained their gains at follow-up assessments 4 to 6 years after treatment was discontinued (Heimberg et al 1993). Several additional studies of CBGT are reported in the following sections.

### **Factors Associated with the Outcome of CBT for Social Anxiety Disorder**

Only a few predictors of the outcome of CBT for social anxiety disorder have yet been identified; most of these studies have examined response to CBGT. Pretreatment severity of social anxiety symptoms (Otto et al 2000), compliance with homework assignments (Edelman and Chambless 1995; Leung and Heimberg 1996), frequency of negative thoughts during social interaction (Chambless et al 1997), and expectancy for treatment outcome (Chambless et al 1997; Safren et al 1997b) are among those variables that have been shown to predict treatment CBGT outcome.

Subtype of social anxiety disorder has also been related to outcome of CBGT (Brown et al 1995; Hope et al 1995b). Brown et al (1995) reported a higher rate of response to CBGT among patients with nongeneralized social anxiety disorder than among patients with the generalized form of the disorder. Both Brown et al (1995) and Hope et al (1995b) demonstrated that patients with generalized social anxiety disorder began treatment more impaired and, despite similar degrees of improvement, ended treatment more impaired than patients with nongeneralized social anxiety disorder.

Avoidant personality disorder (APD) is highly comorbid with social anxiety disorder (Brown et al 1995; Schneier et al 1991); however, this finding may be an artifact of overlap in the diagnostic criteria for the two disorders, and there is some evidence that patients who receive diagnoses of both generalized social anxiety disorder and APD may simply represent the most severe end of the social anxiety continuum (Heimberg 1996; Widiger 1992). Neither Brown et al (1995) nor Hope et al (1995b) found an effect of APD on CBGT outcome; however, 8 of 17 clients with generalized social anxiety disorder who met criteria for APD before treatment in the study by Brown et al (1995) no longer did so after completing treatment. Feske et al (1996) did report that individuals who had generalized social anxiety disorder with APD began treatment more impaired than individuals who had generalized social anxiety disorder without APD and remained that way, despite significant improvement, at post-

<sup>2</sup> Dr. Edna Foa's group has developed a protocol which they have dubbed Comprehensive Cognitive Behavioral Therapy (CCBT). CCBT is very similar to the protocol I describe herein, with the exceptions that it is most likely to be administered over 14 sessions and that there is a greater emphasis on the training of social skills. No direct comparisons of CBGT and CCBT have been undertaken, and the demonstration of significant differences would be unlikely. Therefore, CBGT and CCBT are not differentiated in the remainder of this article.

test and 3-month follow-up assessments. Thus the studies examining the impact of APD on the outcome of CBT for social anxiety disorder have produced equivocal results.

Social anxiety disorder is also highly comorbid with other Axis I disorders (Kessler et al 1994; Schneier et al 1992), particularly other anxiety and mood disorders (Brown and Barlow 1992). Neither Turner et al (1996) nor van Velzen et al (1997) found evidence for an impact of Axis I comorbidity on treatment outcome; however, neither study looked at the impact of specific subclasses of comorbid Axis I disorders. Erwin et al (in press) examined response to CBGT among social anxiety disorder patients with no comorbid diagnosis, with only a comorbid anxiety disorder, or with a comorbid mood disorder, after 12 weeks of treatment and after a 1-year follow-up. Patients with a comorbid anxiety disorder differed little from the patients without comorbidity; however, patients with comorbid depression were more impaired both before and after treatment than patients in the other two groups. This pattern was no longer evident at the follow-up assessment.

### **Impact of CBT on Quality of Life among Patients with Social Anxiety Disorder**

The earlier review of meta-analyses and factors influencing outcome focused on the symptoms of social anxiety; however, social anxiety disorder is also associated with significant disability and diminished quality of life (Stein and Kean 2000). Quality of life in this context refers to the person's subjective judgment of the satisfaction he or she experiences in everyday life. Using the Quality of Life Inventory (QOLI; Frisch et al 1992), Safren et al (1997a) demonstrated that persons with social anxiety disorder reported much lower quality of life than persons in a normative sample. Quality of life was inversely related to severity of social anxiety (especially anxiety in social interaction), impairment, and depression. Patients showed substantial improvements in quality of life immediately after a course of CBGT. We recently replicated these findings and further demonstrated that improvements in quality of life were maintained at follow-up 6 months after the end of treatment (Eng et al 2001). Although this is good news to be sure, these improved scores on the QOLI remained well below those of the normative sample. At this time, it appears that we are able to help patients with social anxiety disorder increase their satisfaction with their lives; we are not yet able to get them all the way home.

### **Comparison of CBT and Pharmacotherapy for Social Anxiety Disorder**

The relative efficacy of CBT and medication approaches to the treatment of social anxiety disorder has not been sufficiently studied. Few studies have been conducted, and two of

these examined medications that were not better than placebo in double-blind trials (buspirone: Clark and Agras 1991; atenolol: Turner et al 1994b). Another compared CGBT to the monoamine oxidase inhibitor (MAOI) phenelzine, to the high-potency benzodiazepine alprazolam, and to placebo (Gelernter et al 1991). All treatment groups, including placebo, resulted in significant improvement on most measures, with few differences among conditions; however, all patients in the medication and placebo conditions received instructions to engage in exposure to feared situations between sessions, making the results of this study difficult to interpret. Another study compared group CBT to clonazepam with exposure instructions but did not include a placebo cell (Otto et al 2000). Both treatments led to significant improvements on all measures and did not differ on clinician-rated measures. Among treatment completers (but not in the end-point analyses), clonazepam with exposure instructions was associated with greater improvement on some self-report measures. A large-scale multisite study comparing group CBT to fluoxetine and their combination, conducted by Jonathan Davidson at Duke University and Edna Foa at the University of Pennsylvania, is still underway. Preliminary data suggest equal efficacy of all active treatment conditions (Foa, personal communication, February 28, 2001). A single-site study conducted by David Clark and colleagues at Oxford University compared CBT to fluoxetine plus self-exposure instructions and placebo plus self-exposure instructions, but the results of that trial are not yet available (Clark, personal communication, March 12, 2001).

The only other published study comparing CBT and a medication for social anxiety disorder is the collaborative study between Michael Liebowitz of Columbia University and the New York State Psychiatric Institute Anxiety Disorders Clinic and myself in which we examined the relative efficacy of CBGT and phenelzine (Heimberg et al 1998; Liebowitz et al 1999). In this study, 133 patients were randomly assigned to CBGT, phenelzine, pill placebo, or educational supportive group psychotherapy (ES), a credible psychological placebo treatment, 107 of whom completed 12 weeks of treatment (Heimberg et al 1998). Thereafter, independent assessors classified 21 or 28 CBGT completers (75%) and 20 of 26 phenelzine completers (77%) as responders (intent-to-treat analysis, CBGT 58%, phenelzine 65%). These response rates were higher than those for placebo and ES but not different from each other. Many phenelzine patients classified as responders after 12 weeks of treatment had achieved gains by the 6-week assessment, whereas this was less common in CBGT. Phenelzine patients were also more improved than CBGT patients on a subset of measures after 12 weeks.

In the second phase of the study (Liebowitz et al 1999), patients who responded to CBGT or phenelzine were continued through 6 months of maintenance treatment and a

6-month follow-up period. Thereafter, 50% of previously responding phenelzine patients had relapsed, compared with only 17% of CBGT patients. The difference in relapse between treatments was significant for patients with generalized social anxiety disorder. The overall pattern of results suggests that phenelzine might have slightly greater immediate efficacy, but cognitive-behavioral treatment may confer greater protection against relapse.

Two of the meta-analyses discussed earlier also examined the relative efficacy of CBT and pharmacotherapy for social anxiety disorder. Gould et al (1997) reported similar controlled effect sizes for cognitive-behavioral (0.74) and pharmacologic (0.62) interventions on measures of social anxiety. Federoff and Taylor (2001), however, reported superior effect sizes for acute pharmacotherapy. Benzodiazepines were superior to most cognitive-behavioral interventions, but this was not the case for either the MAOIs or the selective serotonin reuptake inhibitors (SSRIs). It was not possible to examine whether pharmacotherapy was associated with maintenance of gains as reported earlier for CBT because these data were not generally reported for medication treatments.

### **Combining CBT and Pharmacotherapy for Social Anxiety Disorder**

Although the concurrent use of medication and psychotherapy is common in clinical practice, few studies have examined the efficacy of this approach to the treatment for social anxiety disorder. There are only two published trials (Clark and Agras 1991; Falloon et al 1981), and, as was the case for drug-CBT comparisons, neither study examined medications that proved superior to placebo. The only other studies of combination treatment are the Foa-Davidson collaboration (group CBT and fluoxetine) and the follow-up to the original Liebowitz-Heimberg collaboration (CBGT and phenelzine), both of which are still underway. As noted earlier, preliminary results from the Foa-Davidson study point toward equal efficacy for all active treatments, suggesting that the combination of group CBT and fluoxetine may not improve on the efficacy of either treatment alone. Preliminary analyses of data from the Liebowitz-Heimberg study show some greater likelihood that the combination of CBGT and phenelzine will surpass placebo than either of the monotherapies; however, both these statements are based on analyses of partial samples and should be taken with due caution. The differences in the patterns findings highlights the lack of firm knowledge in this area.

There are three possible outcomes if we combine drugs and CBT. They may synergize each other, producing a better outcome than either treatment would alone (the Liebowitz-Heimberg outcome?). This is, of course, the desired outcome, and it may occur if the two treatments

increase the chances of response for a specific patient or if they increase the magnitude of response across patients. It is also possible that medication and CBT may add little to each other (the Foa-Davidson outcome?). This would be the case if the medication and CBT target the same aspects of the problem or if one treatment was sufficiently powerful that the other had little room to contribute. It is also possible that one treatment may detract from the efficacy of the other. For example, medication might detract from CBT. This could happen if patients believe it is the medication that does all the good so that they do not invest in the activities of CBT or if they decide that they could not survive in this threatening world without the safety net provided by medication. Although this phenomenon has not been studied in social anxiety disorder, Basoglu et al (1994) did so among agoraphobic patients who had responded to alprazolam/placebo and exposure/relaxation. Patients who strongly attributed their improvement to medication and felt less confident in coping without tablets after 8 weeks of acute treatment were more likely to relapse during drug taper and treatment-free follow-up than were patients who attributed their improvements to their own efforts. In sum, the combination of drugs and psychotherapy for social anxiety disorder does not yet stand on firm empirical ground.

#### *Combining CBT and Medications for Social Anxiety Disorder: Future Directions*

Maybe the most pressing need for future study of CBT for social anxiety disorder is in its combination with medication treatments. This is a daunting challenge from the start because there is little a priori reason to assume that benzodiazepines, SSRIs, MAOIs, or other medications should combine with CBT in the same way. A reasonable hypothesis is that medications that exert their therapeutic effects with the least effect on the person's consciousness (i.e., with the fewest obvious side effects) may be less likely to interfere with the person's ability to learn the skills that are the heart of CBT and to believe in his or her ability to apply them. Medications with side effects that are more intrusive may lead the person to attribute positive changes to the medication and, as per the findings of Basoglu et al (1994), be more vulnerable to relapse. Similarly, we cannot automatically assume that the same medication at different dosages will combine in the same way with CBT. Although there is little to go on in the literature on social anxiety disorder, modest dosages of benzodiazepines may facilitate approach to a feared stimulus in the treatment of specific phobia; however, larger doses may reduce the efficacy of exposure by inhibiting the experience of anxiety (Sartory 1983).

We also need to broaden our thinking about what it means to "combine" drugs and CBT. In research to date, this has always

meant to apply these interventions simultaneously; however, it would also be of great interest to know the relative efficacy of different methods of starting and sequencing these aspects of treatment. For instance, is it best to start a medication first to take the edge off the patient's fears and promote quicker entry into feared situations? Might the medication then be phased out as CBT takes hold? It is also important to consider whether cognitive-behavioral interventions might be used to help patients with social anxiety disorder discontinue medications on which they have become psychologically or physically dependent. This strategy has been used quite successfully with panic disorder patients (Otto et al 1993). Might a similar strategy be used with patients who have taken medications successfully but who may be likely to relapse on medication discontinuation? Might CBT interventions be used most effectively to augment gains in partial responders to pharmacotherapy?

Maybe the most important need in this area is to increase the number of professionals who possess several skills. First, they can understand the need to query patients about symptoms of social anxiety disorder and can recognize social anxiety disorder when they see it. Second, they are well versed in the literature on both CBT and medication approaches to treatment. Third, they are knowledgeable and experienced in the administration of CBT. The greatest roadblock to the effective use of CBT for social anxiety disorder is the lack of professionals who are trained to administer it.

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