Brief Cognitive-Behavioral Therapy: Definition and Scientific Foundations

Holly Hazlett-Stevens and Michelle G. Craske

Department of Psychology, UCLA, Los Angeles, CA, USA

Over the past 50 years, cognitive-behavioral therapies (CBT) have become effective mainstream psychosocial treatments for many emotional and behavioral problems. Behavior therapy approaches were first developed in the 1950s when experimentally based principles of behavior were applied to the modification of maladaptive human behavior (e.g., Wolpe, 1958; Eysenck, 1966). In the 1970s, cognitive processes were also recognized as an important domain of psychological distress (Bandura, 1969). As a result, cognitive therapy techniques were developed and eventually integrated with behavioral approaches to form cognitive-behavioral treatments for a variety of psychological disorders. In this paper, we review the evidence for brief forms of CBT across various disorders. First, we consider the basic principles of CBT that render such therapies well suited for abbreviated formats.

BASIC PREMISES OF CBT

Although a number of different cognitive-behavioral techniques have been developed to address a variety of specific clinical problems, a set of basic principles and assumptions underlies all of these techniques. First, psychological dysfunction is understood in terms of mechanisms of learning and information processing. Basic learning theory incorporates findings from laboratory research on classical and operant conditioning. For example, certain phobic symptoms may represent a classically conditioned fear response that persists long after the removal of the original unconditioned stimulus. In this event, repeated, unreinforced exposure to the conditioned stimulus without the unconditioned stimulus is assumed to extinguish the conditioned fear response. In a similar vein, operant conditioning explains how undesired symptoms or behaviors are maintained as a function of the consequences that follow. For example, chronic pain behaviors are believed to be maintained in large part by attention from others. Therapies that teach persons to operate in their environment, so as to maximize positive reinforcement for adaptive behaviors and minimize such

reinforcement for problematic behaviors, have developed from early operant conditioning research. Cognitive research has shown that distortions in processing information about oneself and the environment are integral to many behavioral and psychological problems. For example, biases toward attending to threatening information or toward interpreting ambiguous situations as threatening contribute to excessive or unnecessary anxiety. Similarly, memory biases for distressing events or negative details of events may contribute to depressed mood. Learning to shift appraisals, core beliefs, and associated biases in attention and memory forms the basis of cognitive therapies.

Second, the cognitive-behavioral approach to treatment is guided by an experimental orientation to human behavior, in which any given behavior is seen as a function of the specific environmental and internal conditions surrounding it (Goldfried & Davison, 1994). Behavior is therefore lawful and can be better understood and predicted once its function is revealed. Because cognitive processes as well as overt behavior are viewed as adaptive and subject to change, the cognitive domain is also appropriate for therapeutic intervention (Goldfried & Davison, 1994). CBTs are therefore designed to target specific symptoms and behaviors that are identified as a part of the diagnosis or presenting problem for treatment. The cognitive-behavioral therapist approaches treatment with the assumption that a specific central or core feature is responsible for the observed symptoms and behavior patterns experienced (i.e., lawful relationships exist between this core feature and the maladaptive symptoms that result). Therefore, once the central feature is identified, targeted in treatment, and changed, the resulting maladaptive thoughts, symptoms, and behaviors will also change. For example, a CBT therapist treating panic disorder might discover that the patient holds the erroneous belief that a rapid heartbeat indicates a heart attack. Treatment would therefore aim to challenge this misconception with education and cognitive restructuring while encouraging the patient to experience intentionally the sensation of a rapid heartbeat in order to learn that a heart attack does not occur.

Third is the premise that change is effected through new learning experiences that overpower previous forms of maladaptive learning and information processing. For example, facing feared objects or situations without escape or avoidance enables new approach behaviors and judgments of safety to be learned. Change can therefore occur in the short term as a result of learning these new thoughts and behaviors, and be maintained over the long term as these newly acquired responses generalize across situations and time. CBT also often involves the teaching of new coping skills (such as assertiveness, relaxation, or self-talk) for more effective response to environmental situations. This is expected to lead to improved outcome over time as the new skills are practiced and repeatedly implemented. Clinical improvement can therefore result from two different pathways. First, as previous maladaptive thoughts and behaviors are replaced with more adaptive responses, new learning occurs as the result of new experiences. Second, the individual may learn effective coping skills that lead to improved functioning over time as these skills are practiced and developed.

Fourth is the value of scientific method for CBT, as reflected in the therapist's ongoing evaluation of change at the level of the individual patient. From their experimental orientation, CBT therapists generate hypotheses about an individual's cognitive and behavior patterns, intervene according to that hypothesis, observe the resulting behavior, modify their hypothesis on the basis of this observation, and so on. Thus, the CBT therapist is not simply bound to a set of techniques, but practices from a basic philosophical position consistent with scientific methods (Goldfried & Davison, 1994). This experimental approach

is also apparent in the large number of randomized, controlled psychotherapy outcome research studies of the efficacy of CBT. In 1995, a Task Force of the American Psychological Association's Division of Clinical Psychology reviewed the psychotherapy outcome research literature to determine which treatments were considered effective, according to certain research criteria. By their 1996 update (Chambless et al., 1996), 22 different treatments were deemed "well-established," meeting the most rigorous research criteria for efficacy, while an additional 25 treatments met the less stringent criteria of "probably efficacious treatments." The great majority of these "empirically supported therapies" were cognitive-behavioral treatments for a variety of problems, including anxiety disorders, depression, physical health problems, eating disorders, substance abuse, and marital problems. Thus, much research evidence is available to support the use of CBT to treat a number of specific symptoms and behavioral problems.

The cognitive-behavioral conceptualization of psychological dysfunction, the specific nature of the target of CBT, the hypothesized mechanisms of therapeutic change, and the value of the scientific method all render CBT suitable for brief formats. That is, once the critical maladaptive learning and information processing is understood, crucial therapeutic learning experiences can be structured and coping skills can be taught in a very short period of time. Similarly, continuous evaluation of the efficacy of CBT enables variations in its delivery to be examined. One such variation is the length of treatment.

BRIEF CBT

As a result of the problem-focused approach, CBT treatments are typically brief and time-limited in nature. Many CBT treatments lead to significant clinical improvement and symptom reduction, relative to other forms of psychotherapy, in as few as 10–20 sessions. However, treatment researchers are now working to streamline existing effective CBTs to make them even more efficient, cost-effective, and affordable. Some approaches to increase the efficiency of CBT treatments include adapting individual treatments to a group format, self-help materials and bibliotherapy, and computer-assisted therapy programs. The most common approach for enhancing efficiency, however, is to abbreviate existing CBT treatments by reducing the number of treatment sessions. Not only is this trend a pragmatic response to external pressures such as the rise of managed health care in the USA, but it also reflects the underlying assumption (already stated) that effective CBT results from identifying and changing specific cognitions and behaviors that are responsible for the presenting problem. As CBT treatment research progresses, more powerful therapies containing only those techniques that lead to significant change are developed. Similarly, as additional research further pinpoints the likely cause of a particular disorder, treatments become better targeted at the maladaptive features in need of intervention.

Brevity has many clear advantages. Increased cost-effectiveness could make treatment accessible to more individuals in need of assistance. Patients enjoy rapid treatment gains, and this may also improve the credibility of the treatment and increase the motivation for further change. However, this approach may be disadvantageous in some circumstances. Abbreviated CBT approach assumes that the target for change is clearly defined and circumscribed. Patients presenting with more diffuse symptoms or with particular comorbid conditions that interfere with directly targeted programs (such as Axis II disorders) may need more lengthy treatment. The abbreviated approach also assumes that the patient is

motivated to participate in the treatment and is ready to make cognitive and behavioral changes. Therefore, patients who are ambivalent about change and unwilling to comply with necessary homework assignments may not benefit from treatments with very limited durations. Similarly, brief CBT puts a greater burden on the patient to engage actively in treatment both during and between sessions. The CBT patient assumes much responsibility for learning necessary therapeutic material and practice of related exercises and skills, significantly more so when such treatment is abbreviated. Finally, the brief CBT approach demands that the therapist be able to keep the patient focused on the specific goals and tasks of treatment. This requires the therapist to be skilled at redirecting patients quickly while maintaining a strong therapeutic alliance. Not all therapists may be suitable for brief CBT. These potential disadvantages clearly warrant empirical investigation.

In the next section, we provide a brief overview of the empirical research evidence that supports the practice of brief CBT. Although there is no clear, standard definition of "brief" CBT, we considered CBT interventions consisting of fewer than 10 sessions. This cutoff was based on the observation that current standard CBT treatments typically span 10–20 sessions. We located empirical studies of the efficacy of brief CBT by asking experts in a variety of areas about available research and by searches of Psychological Abstracts. This section is not an exhaustive review of the current literature, but an overview with a focus on studies that employed randomized controlled group psychotherapy outcome research designs. We structured our review by diagnostic category, as there has been no empirical investigation of the efficacy of brief CBT across different disorders.

In evaluating the research to date for brief CBT, several issues become noteworthy. The first issue, to which we already alluded, is that certain disorders may be more amenable to brief CBT than other disorders. Specifically, more circumscribed disorders with more readily definable lawful relationships, such as specific phobias, seem most suitable for brief CBT. In accord, the specific phobias have been studied more than any other disorder vis-à-vis brief CBT. The remaining issues have to do with the quality of research to date regarding brief CBT; they are summarized in Table 1.1. For example, how should the efficacy of brief CBT be evaluated? We found very few studies that directly compared abbreviated to unabbreviated CBT, and those that did were often "confounded" by the incorporation of self-help adjunct materials for the abbreviated CBT only. Unconfounded studies were found in the treatment of specific phobias only. The majority of studies compare brief CBT to another type of therapy (e.g., nondirective), an attention placebo control, or waiting list control. While important, these designs do not directly assess the relative merits of brief CBT versus unabbreviated CBT.

A third issue concerns the dimensions along which to compare abbreviated and unabbreviated CBT: is abbreviated CBT as effective as unabbreviated CBT in terms of acute response, long-term response, and nontargeted symptoms or conditions? Most studies evaluate short-term or acute response as well as long-term status. Despite the reasoning that relapse *may* be elevated after brief CBT relative to unabbreviated CBT, particularly if skills and new learning are not repeated and reinforced after the end of treatment, the evidence generally suggests good long-term response to brief CBT. With respect to nontargeted symptoms and comorbid conditions, evidence for the benefits of unabbreviated CBT is growing, at least with respect to anxiety disorders. For example, targeted treatment for panic disorder leads to significant improvements in other comorbid anxiety disorders, depressive disorders, and Axis II features (e.g., Brown & Barlow, 1995; Tsao et al., 1998). Some studies have investigated the effects of brief CBT on measures that are not specific to the particular disorder (e.g., depression,

Table 1.1 Empirical issues addressed by the reviewed research for each Disorder

Disorder	Research features						
	Brief vs standard CBT, unconfounded by adjunct materials	Acute response	Long-term response	Generalization to nontargeted symptoms and conditions	Therapeutic mechanisms	Individual difference predictors of outcome	Therapist variables related to outcome
Panic disorder		X	X	X		X	
Specific phobia	X	X	X	X		X	
GAD		X	X	X		X	
Social phobia		X	X	X		X	
PTSD prevention		X	X	X			
Depression		X	X	X		X	
Bulimia nervosa/BED		X	X	X		X	
Obesity		X	X	X		X	
Couples therapy		X					
Alcohol use		X	X	X		X	
Headache		X	X	X	X	X	
Low-back pain		X	X	X	X		X

general anxiety, and overall psychological functioning), but yet to be evaluated is whether brief CBT has the same broad-based effect on diagnosed comorbid conditions.

A fourth consideration is whether the process of therapeutic change is the same in brief CBT as in unabbreviated CBT. Rachman & Whittal (1989) compared fast and slow responders to exposure therapy for fears of spiders and snakes. They hypothesized that steady and slow reductions in fear reflect a type of trial and error learning, whereas fast reductions in fear reflect insight and reasoning, akin to a "flashbulb" effect. Obviously, the goal of brief CBT is to structure the learning experiences in order to maximize this second type of learning. Very rarely have therapeutic mechanisms been studied, to date.

A final issue concerns individual difference variables that predict outcome from brief CBT, such as attitudes to treatment, chronicity, severity, and ongoing life stressors. Some available research suggests that, as with standard CBT, positive attitudes toward treatment predict treatment response to brief CBT. Other findings suggest that brief CBT may be more effective with less severe populations. However, some studies found no significant predictors of outcome. More research is needed to elucidate which individual characteristics lead to improved treatment outcome under what treatment conditions. Finally, the relationship between therapist variables, such as level of experience, and therapeutic outcome is also of importance and has been rarely studied.

PANIC DISORDER AND AGORAPHOBIA

A number of advances have been made to reduce the number of treatment sessions for panic disorder and agoraphobia. Traditional CBT is provided over 10–20 sessions and includes several treatment components (Craske, 1999). Education and cognitive restructuring address faulty beliefs and misconceptions about the meaning of bodily sensations. Corrective breathing techniques are sometimes incorporated to regulate breathing. Finally, various forms of interoceptive and in vivo exposure are designed to reduce fear and avoidance of physical sensations and agoraphobic situations. Several investigations support the use of abbreviated CBT to treat panic disorder and agoraphobia.

One series of studies compared brief therapist-administered CBT to self-help treatment approaches. Lindren et al. (1994) found that an eight-session group CBT treatment effectively reduced panic and agoraphobia symptoms on a number of outcome measures when compared to a waiting-list condition. They also found that an eight-week, self-help, bibliotherapy treatment was equally effective. In a later study, this research group found that a self-administered, bibliotherapy treatment was comparable to an eight-session individual treatment consisting of education, breathing and relaxation training, cognitive restructuring, and imaginal and in vivo exposure (Gould et al., 1993). Similarly, Ghosh & Marks (1987) reduced treatment to a minimum of three and a maximum of 10 sessions in their self-directed exposure program for agoraphobia. Results showed that this psychiatrist-instructed treatment led to substantial improvement in agoraphobic avoidance at six-month follow-up. The fact that their other treatment conditions that included a self-help book or computer instructions only were just as effective suggests that an exposure program with no therapist contact is an effective mode of treatment. However, recent evidence questions the effectiveness of purely self-help treatments for panic attacks in the absence of any therapist contact (Febbraro et al., 1999). Notably, none of these studies compared abbreviated to unabbreviated CBT, and effects on comorbid conditions were not reported.

A few studies have investigated the use of telephone contacts to reduce the number of therapy sessions. Côté et al. (1994) provided panic disorder patients with either 17 individual CBT sessions (including education, breathing retraining, relaxation, cognitive therapy, and interoceptive and situational exposure) or the same treatment delivered over seven sessions and eight brief telephone contacts. The results indicated that both treatments were effective, with significant and equivalent improvements at six-month follow-up. For housebound agoraphobic patients or those who are isolated from treatment facilities, guided exposure treatment involving only telephone contact may also be effective when provided over eight (Swinson et al., 1995) or 10 (McNamee et al., 1989) telephone sessions. This last study, however, reported a high dropout rate for the group receiving telephone-guided exposure.

Direct comparisons between abbreviated and unabbreviated CBT include a study by Botella & García-Palacios (1999), who compared a standard 10-session CBT for panic disorder to an abbreviated five-session treatment in a community sample with an overall low level of education (average of 9.7 years). The results suggested that the treatments were effective and comparable, with both groups maintaining gains at 12-month follow-up. Such results are similar to those of Newman et al. (1997), who compared standard 12-session individual CBT to an abbreviated four-session, computer-assisted CBT. Both treatment groups demonstrated significant improvement at post-treatment and at six-month follow-up. Analyses of clinical significance suggested the superiority of the 12-session condition, but only at post-treatment. Finally, Clark et al. (1999) compared standard 12–15-session cognitive therapy for panic disorder to a brief five-session version of the same treatment. Both of these treatments were highly effective and superior to a waiting-list control condition, and there were no significant differences between the two treatments. It is noteworthy, and in contrast to lengthier CBT trials, that the brief versions of treatment mentioned in the previous three studies all included self-help material as an adjunct to treatment. Botella & García-Palacios (1999) provided a self-help manual and audiotape to their brief treatment participants, while Clark et al. (1999) also provided self-study written materials and exercises to patients in the brief cognitive therapy condition. Likewise, Newman et al. (1997) included a computer-assisted therapy component to all participants receiving the four-session treatment. Thus, it is unclear whether the results would have differed had unabbreviated CBT included the same self-help material.

A final approach abbreviates the length of treatment by administering intensive treatment over a brief period of time. Evans et al. (1991) provided 18 hours of intensive group CBT over two days. Significant reductions in symptoms were found for this group when compared to a waiting-list control group, and the clinically significant improvement found for 85% of these patients was maintained at one-year follow-up. However, these results should be interpreted with caution because this was not a randomized trial. In another open trial, Spiegel & Barlow (2000) are evaluating an eight-day intensive treatment program for panic disorder with moderate to severe agoraphobia that incorporates therapist-directed and self-directed exposure. The preliminary findings are very positive.

A few studies reported an individual difference variable of relevance to outcome from brief CBT. We (Craske et al., 1995) found that four weekly sessions of abbreviated CBT were superior to four sessions of nondirective counseling of panic disorder patients seeking pharmacological treatment. However, the results were not as effective as typically found with 10–15 sessions of CBT, and less severe patients improved most with this particular abbreviation of CBT. Febbraro et al. (1999) found that, among their sample of individuals experiencing panic attacks with or without panic disorder, the presence of a panic disorder

diagnosis did not predict outcome. The Clark et al. (1999) study described above found that belief that treatment would be successful at the end of the first session predicted outcome at post, and a measure of beliefs about bodily sensations predicted outcome at one-year follow-up. However, Evans et al. (1991) reported that none of their 11 pretreatment variables predicted outcome.

SPECIFIC PHOBIA

Much work has been done to develop brief and effective CBT for various specific phobias. Treatment typically includes education about the nature of fear, cognitive restructuring of thoughts and misconceptions about the feared object or situation, and systematic imaginal and in vivo exposure to the feared object or situation (Craske, 1999). These procedures are employed for all types of phobias, although applied tension is used in the treatment of blood, injury, and injection phobias (Öst, 1996a). In 1996, Öst reviewed the specific phobia treatment outcome research and found rates of clinical improvement ranging between 77% and 90% after only one to eight sessions. Treatment studies for acrophobia; animal phobia; blood, injury, and injection phobias; claustrophobia; dental phobia; and flying phobia were included. Öst also examined the long-term outcome of these studies and concluded that these gains are generally maintained for up to 10 years after successful treatment.

A number of studies support the use of single-session treatments for specific phobias. For example, Öst et al. (1991) found that one session of therapist-directed exposure lasting a maximum of three hours effectively reduced fear and avoidance in spider-phobic patients. This treatment was superior to a two-week, self-directed exposure program. These researchers later demonstrated that this single-session, therapist-directed treatment is also superior to self-help manual treatment programs that involved unsupervised patient-directed exposure exercises either at home or in the clinic (Hellström & Öst, 1995). Therapist-directed single-session exposure treatment is also effective when provided in a group format (Öst et al., 1997b), especially when provided in smaller (i.e., three to four people) groups (Öst, 1996b).

Single-session CBT for other phobias is supported when compared to longer-length treatments. Hellström et al. (1996) compared a single two-hour session to five sessions of an applied tension treatment that taught patients to prevent the fainting response with muscle tension upon exposure to feared blood and injury stimuli. A third treatment group received a single two-hour session of tension only without the exposure. All three groups improved significantly at post-treatment and one-year follow-up. Although the five-session applied tension treatment was superior to the one-session applied tension treatment at post-treatment, no differences were found at follow-up. They also found that individuals classified as "fainters" improved as much as (and on two measures even more so than) those classified as "non-fainters." This research group also concluded that a single session of therapist-directed exposure is the treatment of choice for injection phobia (Öst et al., 1992). One treatment session that did not exceed three hours in length was highly effective at both post-treatment and at one-year follow-up. Furthermore, this single-session treatment was just as effective as the same treatment delivered over five sessions. Recent evidence also suggests that one session of CBT for claustrophobia is comparable to five sessions of the same treatment (Öst et al., 2001). Similarly, one three-hour session of exposure and cognitive restructuring was just as effective as five sessions of the same treatment for flying

phobia at post-treatment and at one-year follow-up (Öst et al., 1997a). However, some loss in treatment gains at follow-up was reported for both groups in this study. Clearly, this body of research suggests that circumscribed phobias are well suited for brief CBT; and it appears to be as effective in the short term as the long term.

OTHER ANXIETY DISORDERS

Of all the anxiety disorders, abbreviated treatments for panic disorder (with and without agoraphobia) and for specific phobia have the most empirical support. A few studies support brief CBT for other anxiety disorders. A growing body of controlled research supports the efficacy of cognitive-behavioral treatments for generalized anxiety disorder (GAD) (Borkovec & Whisman, 1996). Standard CBT treatments include anxiety monitoring, relaxation training, cognitive therapy, and imagery exposure, and are typically conducted over approximately 12 sessions. However, one study compared only eight sessions of CBT to nondirective counseling and to a waiting-list control condition (Blowers et al., 1987). Results showed that while CBT resulted in modest clinical improvements that were consistently superior to the waiting-list condition at post-treatment and at six-month follow-up, few differences emerged between the CBT and nondirective counseling groups. Another study demonstrated that a six-session, large-group course was effective in the treatment of GAD when compared to waiting-list control, but improvements were comparable to a "placebo" version of the treatment (White et al., 1992). Additional research suggests that CBT for GAD can be effective in as few as 4–7 sessions, appearing to be comparable to active medication and superior to medication placebo (Power et al., 1990). A recently developed CBT treatment for GAD was successfully administered over six group sessions with the adjunct use of a palmtop computer program (Newman et al., 1999). However, this report consisted of an uncontrolled case design with a single group of three participants. Lacking in the studies to date is a direct comparison between abbreviated and unabbreviated CBT for GAD.

Social phobia can be effectively treated over approximately 12 sessions of either individual or group CBT, and such treatments typically include psychoeducation, cognitive restructuring, and exposure to anxiety-provoking social situations (Heimberg & Juster, 1995). While there is good controlled psychotherapy outcome research to support this practice, little information is available regarding the efficacy of abbreviated treatments. In an uncontrolled study, Rapee (1993) provided an abbreviated version of the cognitive-behavioral group treatment (CBGT) outlined by Heimberg et al. (1990). Treatment consisted of six 90-minute sessions. The results indicated significant improvement at post-treatment and at three- and six-month follow-up on most outcome variables. However, data were available from only 30 of the original 52 participants, and only one-third of the remaining participants met stringent "responder" clinical criteria at post and follow-up assessments. Although this rate of improvement falls within the estimated 20–95% reported range (Feske & Chambless, 1995), Heimberg and colleagues have reported improvement rates of 75% post-treatment and 81% at six-month follow-up after unabbreviated CBGT (Heimberg et al., 1990).

Foa et al. (1995) investigated the efficacy of a brief intervention to prevent the onset of post-traumatic stress disorder (PTSD) in female recent assault victims. This research group adapted their effective CBT treatment for PTSD into a brief prevention program consisting of four individual two-hour sessions. Results indicated significant improvement

on a variety of measures post-treatment and at 5.5 months after the assault. Improvements on some measures were also greater than those found for a matched repeated assessment control group. Finally, only 10% of the CBT group later met diagnostic criteria for PTSD, whereas 70% of the matched control group met PTSD criteria. These results should be interpreted with caution, however, as participants were not randomly assigned. No studies were found for brief CBT treatment for obsessive-compulsive disorder (OCD). Standard CBT for OCD is quite intensive, typically consisting of 15 two-hour sessions that occur daily over a three-week period (Riggs & Foa, 1993). Such intensive treatment may be necessary for an individual to gain adequate exposure to feared situations without engaging in a compulsive response that would reinforce the fear.

DEPRESSION

Substantial empirical evidence supports the use of CBT in the treatment of major depressive disorder. Two such widely studied approaches include Beck's cognitive therapy and behavioral programs based on the work of Lewinsohn (Craighead et al., 1998). Behavior therapy programs aim to increase pleasurable activity while reducing aversive experiences, while CBT also targets negative thoughts regarding oneself and the world with cognitive restructuring. These treatments are administered over 12–20 individual or group sessions, and much research is available to support this practice (Craighead et al., 1998).

A few studies have investigated whether these highly effective treatments can be abbreviated for use in primary care and other community settings. Scott et al. (1997) provided six weekly CBT sessions (lasting approximately 30 minutes each) and written educational material to primary care patients diagnosed with major depression. Patients were randomly assigned to either this treatment condition or to treatment as usual in the primary care clinic. The results indicated that the treatment participants recovered at significantly higher rates than the control group immediately after treatment, and these gains were maintained at one-year follow-up. Similarly, Katon et al. (1996) provided a collaborative care treatment for depressed patients in a primary care medical setting. Treatment included four to six individual CBT sessions. In addition, therapists and physicians consulted with study psychiatrists to optimize effective medication treatment and improve medication adherence. Patients were randomized to either the collaborative condition or treatment as usual. The results demonstrated significant improvement for those treatment patients diagnosed with major depression when compared to the treatment as usual control condition. Finally, a brief six-session group CBT appears to be effective when administered in a non-research community mental health treatment setting (Peterson & Halstead, 1998), but this study was an uncontrolled trial. While these studies support the efficacy of brief treatment, they do not elucidate how these gains compare to lengthier CBT. If depression is a less circumscribed disorder with less specific core features to target in treatment, brief treatments may not be as effective. However, if therapists can successfully identify and challenge core maladaptive thoughts over a brief period of time, this approach may prove beneficial. Further research that directly compares standard CBT to brief CBT would be needed to answer this empirical question.

Brief CBT may be effective for childhood depression. Wood et al. (1996) provided five to eight sessions of either CBT or relaxation only control to child and adolescent patients (aged 9–17) with diagnosed depressive disorders. At post-treatment, CBT was clearly

superior to relaxation control, but the two treatments were similar on most measures by six-month follow-up. Weisz et al. (1997) provided an eight-session CBT for childhood depression that aimed to enhance reward and reduce punishment by teaching children to assert control over their environment as well as to adjust their subjective reactions to undesired events. Elementary school pupils (mean age of 9.6 years) with mild to moderate levels of depression received either eight sessions of this group CBT or no treatment control. Results indicated significant improvements on depression measures for the treatment group compared to the control group both at post-treatment and at nine-month follow-up.

EATING DISORDERS

Although CBT for anorexia nervosa is widely used, few randomized controlled studies have been published, and treatment typically spans a one- to two-year period (Garner et al., 1997). In contrast, CBT for bulimia nervosa is supported by a number of well-controlled research studies (Wilson et al., 1997), and this treatment has been effectively adapted to treat binge eating disorder as well (Wilfley & Cohen, 1997). Abbreviated versions of CBT for bulimia nervosa and for binge eating disorder have been developed.

Standard CBT for bulimia nervosa is often based on the manual of Fairburn et al. (1993). This treatment package includes education, self-monitoring, changes in eating patterns, problem-solving and self-control strategies, and cognitive restructuring, and is typically administered over 19 sessions (Wilson et al., 1997). In a small, uncontrolled trial, this treatment was abbreviated to a maximum of eight 20-minute sessions in a primary care setting, and 55% of patients showed significant improvement (Waller et al., 1996). These results are consistent with a randomized controlled study that found eight sessions of CBT to be highly effective through six-month follow-up and superior to an attention placebo self-monitoring treatment (Thackwray et al., 1993).

A few studies suggest that brief interventions that emphasize the educational component might also be helpful to some bulimic patients. For example, Olmstead et al. (1991) compared a five-session educational group treatment for bulimia nervosa to 19 sessions of individual standard CBT. The results demonstrated equal effectiveness in symptom reduction for the least severe 25–45% of the sample, whereas standard CBT was associated with greater improvement for the more severe participants. This replicates our finding with panic disorder and agoraphobia (Craske et al., 1995). This five-session psychoeducation treatment has also proven more effective than waiting-list control (Davis et al., 1990) and equivalent to a 12-session CBT group process intervention (Davis et al., 1997), although this last study employed a sequential cohort design without random assignment. In a follow-up study, however, Davis et al. (1999) compared a six-session educational treatment to this same treatment combined with 16 additional sessions of CBT, and found some advantage of the lengthier treatment. Although this study compared a brief CBT treatment to a longer treatment, the additional sessions in the standard CBT condition contained elements other than those found in the brief psychoeducational treatment.

A second line of research has found the number of treatment sessions for bulimia nervosa and binge eating disorder to be reduced with the aid of self-help materials. In 1994, Treasure et al. compared eight sessions of CBT following the provision of a self-help manual to 16 sessions of standard CBT for bulimia nervosa. Results at post-treatment and at 18-month follow-up yielded no differences between the two treatment groups, and both were superior

to a waiting-list control group. Similarly, uncontrolled research suggests that this guided self-help approach can be effective when provided over as few as four sessions (Cooper et al., 1994; Cooper et al., 1996). In a large randomized controlled trial, Carter & Fairburn (1998) compared pure self-help and non-specialist facilitator-guided self-help treatment to a waiting-list control condition. Both self-help groups were given a book based on the CBT treatment for binge eating disorder (Fairburn, 1995), and the guided self-help participants met with a facilitator for six to eight brief sessions to discuss the content of the materials. The results indicated that both treatment conditions led to significant changes when compared to the waiting-list group, and treatment gains were maintained at six-month follow-up. However, later research has demonstrated the advantages of therapist-guided self-help treatment for binge eating when compared to an unguided version of this treatment (Loeb et al., 2000).

A related condition, obesity, can be effectively treated with CBT in 16–20 sessions (Brownell & O'Neil, 1993), and a few studies suggest that this treatment can be reduced with the aid of a computer therapy program. Agras et al. (1990) randomized mildly to moderately overweight women to a single-session plus computer treatment, a five-session plus computer treatment, or standard CBT provided over 10 group sessions. The results indicated that the *modest* treatment effects were equivalent for the three groups at one-year follow-up. This research group later demonstrated that two different computer therapy treatments combined with four group sessions led to significant weight reduction, although one of the computer groups was superior to the other (Taylor et al., 1991). These computer-assisted treatment programs appear to be most effective when participants are instructed to use them seven days a week, and the addition of a brief support group component does not appear to enhance outcome (Burnett et al., 1992).

COUPLES THERAPY

A few studies have investigated the efficacy of reducing standard 10–20-session CBT in the treatment of couple dysfunction. Halford & Osgarby (1996) conducted a quasi-experimental study comparing a three-session brief CBT to standard 12–15-session CBT. Both treatments yielded significant and equivalent post-treatment effects. Davidson & Horvath (1997) provided either three sessions of brief CBT emphasizing cognitive reframing or delayed treatment to 40 couples. Treatment led to significant improvement compared to delayed treatment on some outcome measures, and the treatment gains were maintained at six-month follow-up. Finally, a three-session assessment-feedback treatment led to small positive changes and was superior to a written-assessment only condition in a sample of non-treatment-seeking college student couples (Worthington et al., 1995).

ALCOHOL USE

A large number of treatment approaches for alcoholism have been developed, and CBT is regarded as one of the more effective treatments (Longabaugh & Morgenstern, 1999). CBT treatments for alcohol use and dependence disorders typically target problem drinking behaviors by improving cognitive and behavioral coping skills. Patients are taught to cope with both internal events, such as alcohol cravings, and external events, such as social pressures

to drink and environmental cues that trigger the urge to drink (Fuller & Hilles-Sturmhofel, 1999).

Standard CBT for problem drinking is provided over approximately 12 sessions (Longabaugh & Morgenstern, 1999). A number of brief interventions have been developed and investigated, but these brief interventions typically involve only self-help materials or advice sessions delivered by primary health-care providers. In a review of brief interventions for alcohol problems, Bien et al. (1993) found that physician advice interventions were comparable to standard CBT and to other extensive treatments. They also reported that brief motivational induction treatments appear to be effective in motivating alcoholic patients to seek further treatment. CBT often has served as an extensive treatment against which other forms of brief treatment (e.g., minimal physician advice) are compared (Hall & Heather, 1991). However, one study compared a self-help bibliotherapy intervention to three different therapist-directed brief group interventions (Skutle & Berg, 1987). The first therapist-directed treatment group received six sessions of a guided self-help version of the bibliotherapy intervention. The second treatment group received six sessions of coping skills training, in which ways to cope with high-risk situations were taught and practiced. The final therapist-directed treatment group received a combination of these two treatments delivered over eight sessions. The results indicated that the weekly alcohol consumption decreased significantly for all four groups, and these gains were maintained at one-year follow-up. No significant differences were found among the groups.

CBT for problem drinking has also been abbreviated by Sobell & Sobell (1993). Their guided self-management treatment program aims to motivate behavior change and to provide suggestions and strategies for accomplishing behavioral goals. Treatment procedures include setting drinking behavior treatment goals, alcohol education, self-monitoring, identification of the triggers and consequences related to drinking, and the development of behavioral strategies to attain established goals. Although the length of treatment is flexible to meet the needs of the individual, this guided self-management treatment can be effectively implemented in only two sessions (Sobell & Sobell, 1993). A randomized outcome investigation of this treatment compared two 90-minute sessions of the behavioral components only to two 90-minute sessions of the behavioral components plus cognitive relapse prevention (Sobell et al., 1995). The results indicated that both groups exhibited significant reductions in reported drinking behavior. These outcomes were maintained at six- and 12-month follow-up. However, no differences were found between the two treatments.

Marlatt and colleagues have developed a single-session intervention for the prevention of drinking problems in high-risk college students. Marlatt et al. (1998) randomly assigned college freshmen to receive either an individual interview session or no treatment during the winter term of their first year. Participants considered to be at the highest risk of developing alcohol-related problems (on the basis of reported high-school drinking behavior) were selected. The intervention session consisted of reviewing the participants' self-monitoring of drinking; individualized feedback about observed drinking patterns, associated risks, and beliefs about alcohol; discussion of information and misconceptions regarding the effects of alcohol; and suggestions for risk reduction. This intervention was designed to increase motivation, and confrontational or judgmental comments were avoided. The results indicated decreases in drinking rates and harmful consequences for both groups over the two-year follow-up period, but the treatment gains were significantly greater for the intervention group.

PAIN MANAGEMENT

While effective CBT-oriented treatments are available for a variety of chronic pain conditions, this section will focus on the brief treatment research for headache and low-back pain. CBT programs are widely used, effective approaches for the management of headache pain (Blanchard & Seymour, 1996). Treatment typically employs education, some form of relaxation training (e.g., progressive muscle relaxation, autogenic training, and meditation) and/or biofeedback, and cognitive coping techniques (Holroyd & Penzien, 1994). Over the past decade, researchers have developed brief "minimal therapist contact" treatments, in which CBT is administered in only three to five sessions. In 1996, Rowan & Andrasik systematically reviewed the available controlled outcome research to examine the efficacy of minimal therapist contact CBT for headache pain. For adult tension-type headache, two studies showed that three sessions were comparable to 10 sessions of relaxation training (Teders et al., 1984; Blanchard et al., 1985). Equivalent efficacy was also demonstrated for three sessions of relaxation when compared to five sessions of relaxation plus cognitive therapy (Attanasio et al., 1987; Appelbaum et al., 1990) and to 11 sessions of relaxation and cognitive therapy (Attanasio et al., 1987). However, one study did show some advantage of a three-session treatment including both relaxation and cognitive therapy over three sessions of relaxation alone (Tobin et al., 1988). Minimal therapist contact CBT for tension headache has also proven superior to waiting-list control (Appelbaum et al., 1990) and comparable to amitriptyline medication (Holroyd et al., 1991). Rowan & Andrasik (1996) concluded that these brief tension headache treatments, largely consisting of progressive muscle relaxation training, are as effective as longer, clinic-based relaxation training treatments, with 37–50% of participants meeting stringent clinical improvement post treatment and up to two-year follow-up.

Rowan & Andrasik (1996) also identified several studies that support minimal therapist contact CBT for vascular (migraine and migraine combined with tension-type) headaches. For example, Williamson et al. (1984) found that four sessions of group relaxation training were equivalent to eight group sessions, with both treatments yielding significant improvements compared to an attention placebo. Similarly, three sessions of individual relaxation training were found comparable to 16 sessions for both pure migraine and migraine combined with tension-type headache participants (Blanchard et al., 1985). Three-session individual relaxation plus thermal biofeedback appears to be equivalent to 16 sessions of the same treatment (Jurish et al., 1983), to three sessions of an abortive medication and compliance intervention (Holroyd et al., 1988), and to five sessions of the same treatment plus cognitive therapy (Blanchard et al., 1990). This treatment was also superior to a headache-monitoring condition (Blanchard et al., 1990). Finally, Richardson & McGrath (1989) found that only two sessions of CBT produced the same effects as an eight-session CBT, both of which were superior to waiting-list control. From these studies, Rowan & Andrasik (1996) concluded that brief relaxation interventions, either with or without thermal biofeedback, are as effective as longer treatments, leading to clinically significant improvement in 40–79% of patients.

A few studies support the use of minimal therapist contact treatments for headaches in children and adolescents. Three sessions of relaxation training were found superior to both nine sessions of an attention placebo condition and a headache monitoring only condition in the treatment of adolescent tension headache (Larsson et al., 1987). For the treatment

of vascular headaches, three and four-session thermal biofeedback treatments appear to be equivalent to 10 sessions in children aged 8–16 years (Burke & Andrasik, 1989; Guarnieri & Blanchard, 1990). Finally, a single session of CBT with additional therapist telephone contact was comparable to eight sessions of CBT and superior to waiting-list control in a group of 11–18-year-old migraine patients (McGrath et al., 1992).

Judith Turner and colleagues have developed effective, brief CBT interventions for the treatment of chronic low-back pain in adults. Early research demonstrated that five 90-minute sessions of group CBT were comparable to five sessions of relaxation only on most measures post-treatment, with some advantages of the CBT group up to two years after treatment (Turner, 1982). When an eight-session group behavioral treatment aimed at altering problematic "pain behaviors" was compared to an eight-session group CBT treatment, both treatments yielded significant and equivalent improvement by one-year follow-up, unlike the waiting-list control condition (Turner & Clancy, 1988). This eight-session behavioral treatment was also effective when combined with an exercise component, showing greater improvement than eight sessions of either component alone post-treatment (Turner et al., 1990). However, all three treatments were better than waiting-list control, and all three were equivalent at six-month and one-year follow-up. Similarly, six-session relaxation training, six-session cognitive therapy, and a six-session CBT combining these elements all led to significant and equivalent reductions in pain intensity when compared to waiting-list control (Turner & Jensen, 1993). These gains were maintained for all three treatment groups at both six-month and one-year follow-up.

SUMMARY

A number of controlled research studies support the use of abbreviated CBT for the treatment of panic disorder (with and without agoraphobia) and a number of specific phobias. Preliminary research suggests that brief CBT treatments might also be useful in the treatment of GAD and social phobia, as well as in the prevention of PTSD after assault. Early efforts to reduce the length of treatment for depression have been identified for both adult and child populations. In the area of eating disorders, reduced session treatments are effective for both bulimia nervosa and binge eating disorder, with a few studies supporting the use of brief computer-assisted therapy for obesity and weight reduction. Some research also suggests that couples therapy CBT can be abbreviated and produce positive outcomes. While much research supports the efficacy of CBT for alcohol use disorders, brief treatments generally do not include CBT therapy components. One CBT treatment, however, has been abbreviated to as few as two sessions, and the outcome data are promising. A similar single-session intervention appears to be useful in the prevention of alcohol-related problems in college students. Finally, a large body of research supports the use of minimal therapist contact treatment for headache, and a recent meta-analysis shows that these treatments are consistently comparable to longer, clinic-based treatments (Haddock et al., 1997). Minimal therapist contact headache treatment also appears to be effective for children and adolescents. The use of abbreviated CBT for chronic low-back pain is supported in a series of research investigations as well.

These findings generally support the practice of abbreviating standard CBT. However, some conditions have been studied far more than others. The conditions with specific,

circumscribed, maladaptive features and symptoms may be better suited to this approach. In fact, specific phobias are the only disorders in which unconfounded comparisons have supported the use of brief CBT versus unabbreviated CBT. When the source of the maladaptive behavior can be readily identified and targeted in treatment, brief methods are appropriate. If the patient suffers from a diffuse set of complex maladaptive thoughts and behaviors, then longer treatment may be indicated. This may explain why clinical problems such as panic disorder, specific phobia, and pain can be effectively treated in a few sessions, while other disorders, such as depression and GAD, warrant further study. We need more research that directly compares standard and brief CBT (unconfounded by adjunct materials), especially across different disorders so that we are better able to identify those most likely to benefit from an abbreviated approach, and that identifies the therapeutic mechanisms of change and assesses the impact of therapist variables on outcome.

REFERENCES

Agras, W.S., Taylor, C.B., Feldman, D.E., Losch, M., & Burnett, K.F. (1990). Developing computer-assisted therapy for the treatment of obesity. *Behavior Therapy, 21*, 99–109.

American Psychological Association Division of Clinical Psychology Task Force on Promotion and Dissemination of Psychological Procedures (1995). Training in and dissemination of empirically-validated psychological treatments: Report and recommendations. *The Clinical Psychologist, 48*, 3–23.

Appelbaum, K.A., Blanchard, E.B., Nicholson, N.L., Radnitz, C., Kirsch, C., Michultka, D., Attanasio, V., Andrasik, F., & Dentinger, M.P. (1990). Controlled evaluation of the addition of cognitive strategies to a home-based relaxation protocol for tension headache. *Behavior Therapy, 21*, 293–303.

Attanasio, V., Andrasik, F., & Blanchard, E.B. (1987). Cognitive therapy and relaxation training in muscle contraction headache: Efficacy and cost-effectiveness. *Headache, 27*, 254–260.

Bandura, A. (1969). *Principles of behavior modification*. New York: Holt, Rinehart, and Winston.

Bien, T.H., Miller, W.R., & Tonigan, J.S. (1993). Brief interventions for alcohol problems: A review. *Addiction, 88*, 315–336.

Blanchard, E.B., Andrasik, F., Appelbaum, K.A., Evans, D.D., Jurish, S.E., Teders, S.J., Rodichok, L.D., & Barron, K.D. (1985). The efficacy and cost-effectiveness of minimal-therapist-contact, non-drug treatments of chronic migraine and tension headache. *Headache, 25*, 214–220.

Blanchard, E.B., Appelbaum, K.A., Nicholson, N.L., Radnitz, C.L., Morrill, B., Michultka, D., Kirsch, C., Hillhouse, J., & Dentinger, M.P. (1990). A controlled evaluation of the addition of cognitive therapy to a home-based biofeedback and relaxation treatment of vascular headache. *Headache, 30*, 371–376.

Blanchard, E.B., & Seymour, D. (1996). Psychological treatment of benign headache disorders. *Professional Psychology: Research and Practice, 27*, 541–547.

Blowers, C., Cobb, J., & Mathews, A. (1987). Generalised anxiety: A controlled treatment study. *Behaviour Research and Therapy, 25*, 493–502.

Borkovec, T.D., & Whisman, M.A. (1996). Psychosocial treatment for generalized anxiety disorder. In M.R. Mavissakalian & R.F. Prien (Eds.), *Long-term treatments of anxiety disorders* (pp. 171–199). Washington, DC: American Psychiatric Press.

Botella, C., & García-Palacios, A. (1999). The possibility of reducing therapist contact and total length of therapy in the treatment of panic disorder. *Behavioural and Cognitive Psychotherapy, 27*, 231–247.

Brown, T.A., & Barlow, D.H. (1995). Long-term outcome in cognitive-behavioral treatment of panic disorder: Clinical predictors and alternative strategies for assessment. *Journal of Consulting and Clinical Psychology, 63*, 754–765.

Brownell, K.D., & O'Neil, P.M. (1993). Obesity. In D.H. Barlow (Ed.), *Clinical handbook of psychological disorders* (2nd ed., pp. 318–361). New York: Guilford Press.

Burke, E.J., & Andrasik, F. (1989). Home- versus clinic-based biofeedback treatment for pediatric migraine: Results of treatment through one-year follow-up. *Headache, 29*, 434–440.

Burnett, K.F., Taylor, C.B., & Agras, W.S. (1992). Ambulatory computer-assisted behavior therapy for obesity: An empirical model for examining behavioral correlates of treatment outcome. *Computers in Human Behavior, 8*, 239–248.

Carter, J.C., & Fairburn, C.G. (1998). Cognitive-behavioral self-help for binge eating disorder: A controlled effectiveness study. *Journal of Consulting and Clinical Psychology, 66*, 616–623.

Chambless, D.L., Sanderson, W.C., Shoham, V., Johnson, S.B., Pope, K.S., Crits-Christoph, P., Baker, M., Johnson, B., Woody, S.R., Sue, S., Beutler, L., Williams, D.A., & McCurry, S. (1996). An update on empirically validated therapies. *The Clinical Psychologist, 49*, 5–18.

Clark, D.M., Salkovskis, P.M., Hackmann, A., Wells, A., Ludgate, J., & Gelder, M. (1999). Brief cognitive therapy for panic disorder: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 67*, 583–589.

Cooper, P.J., Coker, S., & Fleming, C. (1994). Self-help for bulimia nervosa: A preliminary report. *International Journal of Eating Disorders, 16*, 401–404.

Cooper, P.J., Coker, S., & Fleming, C. (1996). An evaluation of the efficacy of supervised cognitive behavioral self-help for bulimia nervosa. *Journal of Psychosomatic Research, 40*, 281–287.

Côté, G., Gauthier, J.G., Laberge, B., Cormier, H.J., & Plamondon, J. (1994). Reduced therapist contact in the cognitive behavioral treatment of panic disorder. *Behavior Therapy, 25*, 123–145.

Craighead, W.E., Craighead, L.W., & Ilardi, S.S. (1998). Psychosocial treatments for major depressive disorder. In P.E. Nathan & J.M. Gorman (Eds.), *A guide to treatments that work* (pp. 226–239). New York: Oxford University Press.

Craske, M.G. (1999). Anxiety disorders: Psychological approaches to theory and treatment. Boulder, CO: Westview Press.

Craske, M.G., Maidenberg, E., & Bystritsky, A. (1995). Brief cognitive-behavioral versus nondirective therapy for panic disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 26*, 113–120.

Davidson, G.N.S., & Horvath, A.O. (1997). Three sessions of brief couples therapy: A clinical trial. *Journal of Family Psychology, 11*, 422–435.

Davis, R., McVey, G., Heinmaa, M., Rockert, W., & Kennedy, S. (1999). Sequencing of cognitive-behavioral treatments for bulimia nervosa. *International Journal of Eating Disorders, 25*, 361–374.

Davis, R., Olmstead, M., & Rockert, W. (1990). Brief group psychoeducation for bulimia nervosa: Assessing the clinical significance of change. *Journal of Consulting and Clinical Psychology, 58*, 882–885.

Davis, R., Olmstead, M., Rockert, W., Marques, T., & Dolhanty, J. (1997). Group psychoeducation for bulimia nervosa with and without additional psychotherapy process sessions. *International Journal of Eating Disorders, 22*, 25–34.

Evans, L., Holt, C., & Oei, T.P.S. (1991). Long term follow-up of agoraphobics treated by brief intensive group cognitive behavioural therapy. *Australian and New Zealand Journal of Psychiatry, 25*, 343–349.

Eysenck, H.J. (1966). Personality and experimental psychology. *Bulletin of the British Psychological Society, 19*, 1–28.

Fairburn, C.G. (1995). *Overcoming binge eating*. New York: Guilford Press.

Fairburn, C.G., Marcus, M.D., & Wilson, G.T. (1993). Cognitive-behavioral therapy for binge eating and bulimia nervosa: A comprehensive treatment manual. In C.G. Fairburn & G.T. Wilson (Eds.), *Binge eating: Nature, assessment, and treatment* (pp. 361–404). New York: Guilford Press.

Febbraro, G.A.R., Clum, G.A., Roodman, A.A., & Wright, J.H. (1999). The limits of bibliotherapy: A study of the differential effectiveness of self-administered interventions in individuals with panic attacks. *Behavior Therapy, 30*, 209–222.

Feske, U., & Chambless, D.L. (1995). Cognitive-behavioural versus exposure only treatment for social phobia: A meta-analysis. *Behavior Therapy, 26*, 695–720.

Foa, E.B., Hearst-Ikeda, D., & Perry, K.J. (1995). Evaluation of a brief cognitive-behavioral program for the prevention of chronic PTSD in recent assault victims. *Journal of Consulting and Clinical Psychology, 63*, 948–955.

Fuller, R.K., & Hilles-Sturmhofel, S. (1999). Alcoholism treatment in the United States: An overview. *Alcohol Research and Health, 23*, 69–77.

Garner, D.M., Vitousek, K.M., & Pike, K.M. (1997). Cognitive-behavioral therapy for anorexia nervosa. In D.M. Garner & P.E. Garfinkel (Eds.), *Handbook of treatment for eating disorders* (2nd ed., pp. 94–144). New York: Guilford Press.

Ghosh, A., & Marks, I.M. (1987). Self-treatment of agoraphobia by exposure. *Behavior Therapy, 18*, 3–16.

Goldfried, M.R., & Davison, G.C. (1994). *Clinical behavior therapy* (2nd ed.). New York: John Wiley.

Gould, R.A., Clum, G.A., & Shapiro, D. (1993). The use of bibliotherapy in the treatment of panic: A preliminary investigation. *Behavior Therapy, 24*, 241–252.

Guarnieri, P., & Blanchard, E. (1990). Evaluation of home-based thermal biofeedback treatment of pediatric migraine headache. *Biofeedback and Self-Regulation, 15*, 179–184.

Haddock, C.K., Rowan, A.B., Andrasik, F., Wilson, P.G., Talcott, G.W., & Stein, R.J. (1997). Home-based behavioral treatments for chronic benign headache: A meta-analysis of controlled trials. *Cephalalgia, 17*, 113–118.

Halford, W.K., & Osgarby, S. (1996). Brief behavioural couples therapy: A preliminary evaluation. *Behavioural and Cognitive Psychotherapy, 24*, 263–273.

Hall, W., & Heather, N. (1991). Issue of statistical power in comparative evaluations of minimal and intensive controlled drinking interventions. *Addictive Behaviors, 16*, 83–87.

Heimberg, R.G., Dodge, C.S., Hope, D.A., Kennedy, C.R., Zollo, L.J., & Becker, R.E. (1990). Cognitive behavioural group treatment for social phobia: Comparison with a credible placebo control. *Cognitive Therapy and Research, 14*, 1–23.

Heimberg, R.G., & Juster, H.R. (1995). Cognitive-behavioral treatments: Literature review. In R.G. Heimberg, M.R. Liebowitz, D.A. Hope, & F.R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 261–309). New York: Guilford Press.

Hellström, K., Fellenius, J., & Öst, L.-G. (1996). One versus five sessions of applied tension in the treatment of blood phobia. *Behaviour Research and Therapy, 34*, 101–112.

Hellström, K., & Öst, L.-G. (1995). One-session therapist directed exposure vs two forms of manual directed self-exposure in the treatment of spider phobia. *Behaviour Research and Therapy, 33*, 959–965.

Holroyd, K.A., Holm, J.E., Hursey, K.G., Penzien, D.B., Cordingly, G.E., Theofanous, A.G., Richardson, S.C., & Tobin, D.L. (1988). Recurrent vascular headache: Home-based behavioral treatment versus abortive pharmacological treatment. *Journal of Consulting and Clinical Psychology, 56*, 218–223.

Holroyd, K.A., Nash, J.M., Pingel, J.D., Cordingley, G.E., & Jerome, A. (1991). A comparison of pharmacological (amitriptyline HCL) and nonpharmacological (cognitive-behavioral) therapies for chronic tension headache. *Journal of Consulting and Clinical Psychology, 59*, 387–393.

Holroyd, K.A., & Penzien, D.B. (1994). Psychosocial interventions in the management of recurrent headache disorders 1: Overview and effectiveness. *Behavioral Medicine, 20*, 53–63.

Jurish, S.E., Blanchard, E.B., Andrasik, F., Teders, S.J., Neff, D.F., & Arena, J.G. (1983). Home- versus clinical-based treatment of vascular headache. *Journal of Consulting and Clinical Psychology, 51*, 743–751.

Katon, W., Robinson, P., Von Korff, M., Lin, E., Bush, T., Ludman, E., Simon, G., & Walker, E. (1996). A multi-faceted intervention to improve treatment of depression in primary care. *Archives of General Psychiatry, 53*, 924–932.

Larsson, B., Melin, L., Lamminen, M., Ullstedt, F. (1987). A school-based treatment of chronic headaches in adolescents. *Journal of Pediatric Psychology, 12*, 553–566.

Lindren, D.M., Watkins, P.L., Gould, R.A., Clum, G.A., Asterino, M., & Tulloch, H.L., (1994). A comparison of bibliotherapy and group therapy in the treatment of panic disorder. *Journal of Consulting and Clinical Psychology, 62*, 865–869.

Loeb, K.L., Wilson, G.T., Gilbert, J.S., & Labouvie, E. (2000). Guided and unguided self-help for binge eating. *Behaviour Research and Therapy, 38*, 259–272.

Longabaugh, R., & Morgenstern, J. (1999). Cognitive-behavioral coping-skills therapy for alcohol dependence: Current status and future directions. *Alcohol Research and Health, 23*, 78–85.

Marlatt, G.A., Baer, J.S., Kivlahan, D.R., Dimeff, L.A., Larimer, M.E., Quigley, L.A., Somers, J.M., & Williams, E. (1998). Screening and brief intervention for high-risk college student drinkers: Results from a 2-year follow-up assessment. *Journal of Consulting and Clinical Psychology, 66*, 604–615.

McGrath, P.J., Humphreys, P., Keene, D., Goodman, J.T., Lascelles, M.A., Cunningham, S.J., & Firestone, P. (1992). The efficacy and efficiency of a self-administered treatment for adolescent migraine. *Pain, 49*, 321–324.

McNamee, G., O'Sullivan, G., Lelliott, P., & Marks, I. (1989). Telephone-guided treatment for housebound agoraphobics with panic disorder: Exposure vs. relaxation. *Behavior Therapy, 20*, 491–497.

Newman, M.G., Consoli, A.J., & Taylor, C.B. (1999). A palmtop computer program for the treatment of generalized anxiety disorder. *Behavior Modification, 23*, 597–619.

Newman, M.G., Kenardy, J., Herman, S., & Taylor, C.B. (1997). Comparison of palmtop-computer-assisted brief cognitive-behavioral treatment to cognitive-behavioral treatment for panic disorder. *Journal of Consulting and Clinical Psychology, 65*, 178–183.

Olmstead, M.P., Davis, R., Garner, D.M., Rockert, W., Irvine, M.J., & Eagle, M. (1991). Efficacy of a brief group psychoeducational intervention for bulimia nervosa. *Behaviour Research and Therapy, 29*, 71–83.

Öst, L.-G. (1996a). Long-term effects of behavior therapy for specific phobia. In M.R. Mavissakalian & R.F. Prien (Eds.), *Long-term treatments of anxiety disorders* (pp. 171–199). Washington, DC: American Psychiatric Press.

Öst, L.-G. (1996b). One-session group treatment of spider phobia. *Behaviour Research and Therapy, 34*, 707–715.

Öst, L.-G., Alm, T., Brandberg, M., & Breitholtz, E. (2001). One vs. five sessions of exposure and five sessions of cognitive therapy in the treatment of claustrophobia. *Behaviour Research and Therapy, 39*, 167–183.

Öst, L.-G., Brandberg, M., & Alm, T. (1997a). One versus five sessions of exposure in the treatment of flying phobia. *Behaviour Research and Therapy, 35*, 987–996.

Öst, L.-G., Ferebee, I., & Furmark, T. (1997b). One-session group therapy of spider phobia: Direct versus indirect treatments. *Behaviour Research and Therapy, 35*, 721–732.

Öst, L.-G., Hellström, K., & Kåver, A. (1992). One versus five sessions of exposure in the treatment of injection phobia. *Behavior Therapy, 23*, 263–282.

Öst, L.-G., Salkovskis, P.M., & Hellström, K. (1991). One-session therapist-directed exposure vs. self-exposure in the treatment of spider phobia. *Behavior Therapy, 22*, 407–422.

Peterson, A.L., & Halstead, T.S. (1998). Group cognitive behavior therapy for depression in a community setting: A clinical replication series. *Behavior Therapy, 29*, 3–18.

Power, K.G., Simpson, R.J., Swanson, V., Wallace, L.A. (1990). A controlled comparison of cognitive-behaviour therapy, diazepam, and placebo, alone and in combination, for the treatment of generalised anxiety disorder. *Journal of Anxiety Disorders, 4*, 267–292.

Rachman, S., & Whittal, M. (1989). Fast, slow and sudden reductions in fear. *Behaviour Research and Therapy, 27*, 613–620.

Rapee, R.M. (1993). Recent advances in the treatment of social phobia. *Australian Psychologist, 28*, 168–171.

Richardson, G.M., & McGrath, P.J. (1989). Cognitive-behavioral therapy for migraine headaches: A minimal-therapist-contact approach versus a clinic-based approach. *Headache, 29*, 352–357.

Riggs, D.S., & Foa, E.B. (1993). Obsessive compulsive disorder. In D.H. Barlow (Ed.), *Clinical handbook of psychological disorders* (2nd ed., pp. 189–239). New York: Guilford Press.

Rowan, A.B., & Andrasik, F. (1996). Efficacy and cost-effectiveness of minimal therapist contact treatments of chronic headaches: A review. *Behavior Therapy, 27*, 207–234.

Scott, C., Tacchi, M.J., Jones, R., & Scott, J. (1997). Acute and one-year outcome of a randomized controlled trial of brief cognitive therapy for major depressive disorder in primary care. *British Journal of Psychiatry, 171*, 131–134.

Skutle, A., & Berg, G. (1987). Training in controlled drinking for early-stage problem drinkers. *British Journal of Addiction, 82*, 493–501.

Sobell, M.B., & Sobell, L.C. (1993). *Problem drinkers: Guided self-change treatment*. New York: Guilford Press.

Sobell, M.B., Sobell, L.C., & Gavin, D.R. (1995). Portraying alcohol treatment outcomes: Different yardsticks of success. *Behavior Therapy, 26*, 643–669.

Spiegel, D.A., & Barlow, D.H. (2000). *8-Day treatment of panic disorder with moderate to severe agoraphobia*: *Preliminary outcome data*. Poster presented at Annual Conference of the Association for Advancement of Behavior Therapy, New Orleans.

Swinson, R.P., Fergus, K.D., Cox, B.J., & Wickwire, K. (1995). Efficacy of telephone-administered behavioral therapy for panic disorder with agoraphobia. *Behaviour Research and Therapy, 33*, 465–469.

Taylor, C.B., Agras, W.S., Losch, M., Plante, T.G., & Burnett, K. (1991). Improving the effectiveness of computer-assisted weight loss. *Behavior Therapy, 22*, 229–236.

Teders, S.J., Blanchard, E.B., Andrasik, F., Jurish, S.E., Neff, D.F., & Arena, J.G. (1984). Relaxation training for tension headache: Comparative efficacy and cost-effectiveness of a minimal therapist contact versus a therapist delivered procedure. *Behavior Therapy, 15*, 59–70.

Thackwray, D.E., Smith, M.C., Bodfish, J.W., & Meyers, A.W. (1993). A comparison of behavioral and cognitive-behavioral interventions for bulimia nervosa. *Journal of Consulting and Clinical Psychology, 61*, 639–645.

Tobin, D.L., Holroyd, K.A., Baker, A., Reynolds, R.V.C., & Holm, J.E. (1988). Development and clinical trial of a minimal contact, cognitive-behavioral treatment for tension headache. *Cognitive Therapy and Research, 12*, 325–339.

Treasure, J., Schmidt, U., Troop, N., Tiller, J., Todd, G., Keilen, M., & Dodge, E. (1994). First step in managing bulimia nervosa: Controlled trial of therapeutic manual. *British Medical Journal, 308*, 686–689.

Tsao, J.C.I., Lewin, M.R., & Craske, M.G. (1998). The effects of cognitive-behavior therapy for panic disorder on comorbid conditions. *Journal of Anxiety Disorders, 12*, 357–371.

Turner, J.A. (1982). Comparison of group progressive-relaxation training and cognitive-behavioral group therapy for chronic low back pain. *Journal of Consulting and Clinical Psychology, 50*, 757–765.

Turner, J.A., & Clancy, S. (1988). Comparison of operant behavioral and cognitive-behavioral group treatment for chronic low back pain. *Journal of Consulting and Clinical Psychology, 56*, 261–266.

Turner, J.A., Clancy, S., McQuade, K.J., & Cardenas, D.D. (1990). Effectiveness of behavioral therapy for chronic low back pain: A component analysis. *Journal of Consulting and Clinical Psychology, 58*, 573–579.

Turner, J.A., & Jensen, M.P. (1993). Efficacy of cognitive therapy for chronic low back pain. *Pain, 52*, 169–177.

Waller, D., Fairburn, C.G., McPherson, A., Kay, R., Lee, A., & Nowell, T. (1996). Treating bulimia nervosa in primary care: A pilot study. *International Journal of Eating Disorders, 19*, 99–103.

Weisz, J.R., Thurber, C.A., Sweeney, L., Proffitt, V.D., & LeGagnoux, G.L. (1997). Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training. *Journal of Consulting and Clinical Psychology, 65*, 703–707.

White, J., Keenan, M., & Brooks, N. (1992). Stress control: A controlled comparative investigation of large group therapy for generalized anxiety disorder. *Behavioural Psychotherapy, 20*, 97–114.

Wilfley, D.E., & Cohen, L.R. (1997). Psychological treatment of bulimia nervosa and binge eating disorder. *Psychopharmacology Bulletin, 33*, 437–454.

Williamson, D.A., Monguillot, J.E., Jarrell, M.P., Cohen, R.A., Pratt, J.M., & Blouin, D.C. (1984). Relaxation for the treatment of headache: Controlled evaluation of two group programs. *Behavior Modification, 8*, 407–424.

Wilson, G.T., Fairburn, C.G., & Agras, W.S. (1997). Cognitive-behavioral therapy for bulimia nervosa. In D.M. Garner & P.E. Garfinkel (Eds.), *Handbook of treatment for eating disorders* (2nd ed., pp. 67–93). New York: Guilford Press.

Wolpe, J. (1958). *Psychotherapy by reciprocal inhibition*. Stanford: Stanford University Press.

Wood, A., Harrington, R., & Moore, A. (1996). Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. *Journal of Child Psychology and Psychiatry, 37*, 737–746.

Worthington, E.L., McCullough, M.E., Shortz, J.L., Mindes, E.J., Sandage, S.J., & Chartrand, J.M. (1995). Can couples assessment and feedback improve relationships? Assessment as a brief relationship enrichment procedure. *Journal of Counseling Psychology, 42*, 466–475.