

# Cognitive Therapy: Past, Present, and Future

Aaron T. Beck

Proponents of cognitive therapy have striven to establish this approach as a mature system of psychotherapy for over 3 decades. The theoretical formulations have been enriched by clinical extrapolations from the neopsychanalysts and experimental findings from cognitive psychology. The therapeutic strategies and techniques have been refined as a result of interaction with behavior therapy, which also influenced the emphasis on empirical testing of the theoretical formulations and the therapeutic applications. Outcome trials have demonstrated efficacy in a number of common disorders. New emphasis on the crucial importance of specific formulations (especially dysfunctional beliefs) has provided important clues to the treatment of a large number of other disorders. I conclude that cognitive therapy has fulfilled the criteria of a system of psychotherapy by providing a coherent, testable theory of personality, psychopathology, and therapeutic change; a teachable, testable set of therapeutic principles, strategies, and techniques that articulate with the theory; and a body of clinical and empirical data that support the theory and the efficacy of the theory.

Can a fledgling psychotherapy challenge the giants in the field—psychoanalysis and behavior therapy? (Beck, 1976, p. 333)

In the 16 years since I raised that question, substantial information has accumulated to address it. To make a judgment, I proposed a set of standards for evaluating a system of psychotherapy. A condensed version is as follows: (a) There should be empirical evidence to support the principles underlying the therapy, which should articulate with the techniques. (b) The efficacy of the treatment should have empirical support (Beck, 1976, p. 308). In retrospect, I added that the system should include "a tenable theory of personality and of the process of change" (Beck, 1991a, p. 192). Although there have been many definitions of cognitive therapy, I have been most satisfied with the notion that cognitive therapy is best viewed as the application of the cognitive model of a particular disorder with the use of a variety of techniques designed to modify the dysfunctional beliefs and faulty information processing characteristic of each disorder. The theory of personality and psychopathology has been described in a number of publications (e.g., see Beck & Weishaar, 1989). In this review, I will focus primarily on the reports regarding the efficacy of cognitive therapy in various disorders.

## Looking Back

Reflecting on the accumulated knowledge in 1990, I suggested that the crucial standards relevant to the application of cognitive therapy to the field of psychotherapy had largely been supported (Beck, 1991b). Also, there was growing support for the cognitive theory of personality and psychopathology. Literature reviews by Ernst (1985) and by Haaga, Dyck, and Ernst (1991), for example, indicated strong support for the "negativity hypothesis" of the cognitive model of depression. Other aspects

of the cognitive model of depression received weaker support. The cognitive models of anxiety and of panic disorders have also received support from diverse sources, as has the cognitive model of suicide (Beck, 1986, 1987; Beck, Brown, Berchick, Stewart, & Steer, 1990).

A crucial question of special interest to the practitioner and consumer is "Does it work?" Past and current findings show significant empirical support for the applications of cognitive therapy to a variety of frequently occurring disorders, with a broad range of populations, and in a variety of settings (i.e., inpatient and outpatient) and formats (individual, couples, family, and group).

## Depression

*End-of-treatment analysis.* Most of the outcome studies of cognitive therapy have been concerned with unipolar depression. Dobson (1989) conducted a meta-analysis of 27 separate studies involving 34 comparisons of cognitive therapy with either some other form of treatment or a wait-list control. His analysis showed that cognitive therapy was significantly superior to other treatments, including behavior therapy, psychodynamic therapy, nondirective therapy, and other psychotherapies; as expected, cognitive therapy was superior to no treatment. Cognitive therapy was found to be superior to pharmacotherapy as well; this comparison also included the results of the National Institute of Mental Health (NIMH) collaborative study of the treatment of depression (Elkin et al., 1989). Although the results at the end of treatment of this trial did not show a robust effect of cognitive therapy in comparison with the other groups, cognitive therapy appeared to have a more durable effect after treatment was concluded (see later discussion).

*Follow-up analysis.* Of importance is the fact that cognitive therapy has generally been found to be significantly more effective than pharmacotherapy on 1-year and 2-year follow-up. As summarized by Hollon and Najavits (1988), the relapse rate for cognitive therapy was approximately 30%, as compared with a relapse rate in excess of 60% for the pharmacotherapy group. A 2-year follow-up by Blackburn, Eunson, and Bishop (1986) also

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Aaron T. Beck, Department of Psychiatry, University of Pennsylvania.

Correspondence concerning this article should be addressed to Aaron T. Beck, who is now at the Center for Cognitive Therapy, Room 754, The Science Center, 3600 Market Street, Philadelphia, Pennsylvania 19104-2648.

demonstrated the superiority of cognitive therapy over pharmacotherapy. A more recent study by Shea et al. (1992) of patients in the NIMH collaborative study showed that at 6- and 18-month follow-up, cognitive therapy was nonsignificantly superior to pharmacotherapy and interpersonal psychotherapy and placebo with clinical management on 9 of 11 comparisons. Of particular interest was that cognitive therapy patients had a higher rate of "clinical recovery" as measured by end of treatment improvement that persisted for 8 weeks.

### *Generalized Anxiety Disorder*

Cognitive therapy has also been found to be effective in the treatment of generalized anxiety disorder. An uncontrolled study by Sanderson and Beck (1990) showed a substantial and significant reduction in anxiety and depression in a sample of 32 patients treated with cognitive therapy for an average of 10 weeks of treatment. Patients with personality disorders in addition to generalized anxiety disorder also improved significantly, but the treatment was longer than for those without a personality disorder.

Anxiety management training (Blowers, Cobb, & Mathews, 1987) and cognitive-behavioral techniques (Durham & Turvey, 1987) have been used with promising results. These studies, however, were compromised by methodological inadequacies, in particular the use of nonstudy concomitant medication, that could have misleadingly distorted the nature of the presenting problem.

Borkovec and Mathews (1988) conducted one of the few studies to rule out the use of nonstudy concurrent medication. They found no difference in the efficacy of nondirective therapy, coping desensitization, and cognitive therapy in the treatment of generalized anxiety disorder and panic disorder.

Three studies compared the efficacy of cognitive-behavioral therapy with pharmacological alternatives in the management of generalized anxiety disorder. Lindsay, Gamsu, McLaughlin, Hood, and Elspie (1984) reported superiority for cognitive-behavioral therapy and anxiety management training as compared with lorazepam and a waiting-list control group at 3-month follow-up. Power, Jerrom, Simpson, Mitchell, and Swanson (1989) reported superiority of cognitive-behavioral therapy when compared with diazepam or placebo at the end of the study period and at 12-month follow-up.

Power et al. (1990) reported the results of a study of a controlled comparison of 101 patients meeting criteria of the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.; American Psychiatric Association, 1980) for generalized anxiety disorder who were randomly allocated to cognitive-behavioral therapy, diazepam, placebo, cognitive-behavioral therapy plus diazepam, or cognitive-behavioral therapy plus placebo, and treated over 10 weeks. Outcome measures at the end of treatment and at 6-month follow-up revealed the superiority of all cognitive-behavioral therapy treatments, especially cognitive-behavioral therapy alone and cognitive-behavioral therapy plus diazepam.

Butler, Fennell, Robson, and Gelder (1991) reported a controlled clinical trial of 57 patients meeting criteria for generalized anxiety disorder and fulfilling an additional severity criterion. Individual treatment of 12 sessions duration showed a

clear advantage for cognitive-behavioral therapy over behavior therapy and a waiting-list control. There was no attrition from the cognitive-behavioral therapy group, although patients were lost from the behavior therapy. In summary, controlled trials support the efficacy of cognitive therapy for generalized anxiety disorder.

### *Panic Disorder*

Cognitive therapy has been particularly effective in the treatment of panic disorder. An uncontrolled study conducted by Sokol, Beck, Greenberg, Wright, and Berchick (1989) at the Center for Cognitive Therapy in Philadelphia showed a complete cessation of panic attacks in all of the patients involved in the study. These gains were maintained at 1-year follow-up. A subsequent study at the same clinic compared cognitive therapy with supportive therapy (Beck, Sokol, Clark, Berchick, & Wright, in press). At the end of 8 weeks, there was significant improvement in the cognitive therapy treatment but not in the supportive treatment; the difference between the groups was statistically significant. The supportive group was then crossed over to 12 weeks of cognitive therapy. At the end of 12 weeks of cognitive therapy, both the original cognitive therapy group and the crossover group had a minimum number of panic attacks. These results held for 1 year.

Clark (1991) reported statistically significant superiority of cognitive therapy over behavior therapy, imipramine, and placebo control at the end of treatment, and this superiority persisted until the end of 1-year follow-up.

Another index of the effectiveness of cognitive therapy is the reduction of antipanic medication. Newman, Beck, Beck, Tran, and Brown (1990) reported the results of cognitive therapy with two groups of patients: those who were receiving medication when they entered into the study and those who were not. The "medicated" group and the nonmedicated group showed substantial improvement. In addition, there was a 90% reduction of antipanic medication in the medicated group without any rebound effect or relapse. This study showed that applying the standard principles of cognitive therapy to the withdrawal symptoms enabled the patient to tolerate them without experiencing a recurrence of panic attacks.

### *Eating Disorders*

Eating disorders appear to be responsive to cognitive therapy. Fairburn et al. (1991) reported that cognitive-behavioral therapy with bulimia patients was more effective than both interpersonal psychotherapy and a simplified behavioral version of cognitive-behavioral therapy. Agras et al. (1992) found that a combination of maintenance imipramine and cognitive-behavioral therapy produced better long-term results than imipramine alone, cognitive therapy alone, or placebo.

### *Looking Ahead*

One of the interesting developments in the application of cognitive therapy has been the formulation of a specific cognitive model for each of the "new" disorders. A central theme of the applications has been, first, the general framework of cog-

nitive theory, namely, that there is a bias in information processing that produces dysfunctional behavior, excessive distress, or both. Second, specific beliefs incorporated into relatively stable structures—schemata—lead to these difficulties (the concept of cognitive specificity). Even when more traditional therapy formats (e.g., couples therapy or family therapy) have been retained, cognitive therapists have explored and evaluated dysfunctional beliefs and interpretations. The addition of the cognitive dimension has facilitated a more powerful approach (Beck, 1991b).

*Drug abuse* patients have a series of "need" beliefs such as "I can't stand my boredom (anxiety, depression, etc.) without a fix" and permission beliefs such as "It's okay to have a smoke this one time." Addiction is viewed as based on a cluster of beliefs of this nature (Beck, Wright, Newman, & Liese, in press). An outcome study of cognitive therapy for cocaine addiction is currently under way at the University of Pennsylvania.

Studies of *bipolar disorder* are currently under way at the University of Texas in Dallas with a treatment manual (Basco & Rush, 1991). A similar study with rapid cycling bipolar affective disorder is being conducted at the University of Pennsylvania with a treatment manual authored by Newman and Beck (1992). The focus is on beliefs that undermine medication compliance (e.g., "The medication destroys my creativity, makes me a dull person, etc.") and on manic beliefs (e.g., "I have exceptional powers and should use them"), as well as on the basic depressotypic beliefs (Weissman & Beck, 1978).

Depression in patients who have tested positive for *human immunodeficiency virus* (HIV) is the subject of an outcome trial at Cornell Medical School involving the use of a treatment manual developed by Fishman (1990). A typical belief is "I am a social outcast (helpless, worthless, unlovable) because I have a dirty disease."

Outcome studies for cognitive therapy of *avoidant personality disorder* and *obsessive-compulsive disorder* are in progress at the University of Pennsylvania. The treatment manual (Beck, Freeman, & Associates, 1990) lists 140 beliefs covering all of the various personality disorders. A typical avoidant belief is "I must avoid sticking my neck out (taking chances, confrontations, experiencing distress, etc.)." Obsessive-compulsive beliefs include "I must follow a foolproof system or there will be chaos."

Studies of *sex offenders* are being conducted at the University of Oklahoma and elsewhere (Cole, 1989). A typical belief of an incest offender is "Sex with my daughter will be good for our relationship and will help her to mature."

*Posttraumatic stress disorders* are the subject of many studies, particularly in the United Kingdom. The work on rape victims by D. M. Clark (personal communication, December 7, 1991) at Oxford, for example, goes beyond standard reactivation of traumatic episodes and focuses on the victims' specific beliefs, such as "This (rape incident) proves that I am just an object" or "I am worthless because I felt some pleasure."

Cognitive therapy is being applied in an interesting way to *multiple personalities* by Fine (in press). Cognitive techniques are used to elicit and restructure the basic beliefs of each of the "personalities" as they surface. An example is "If I kill Dora (another personality), I will be free." Strategies are used to demonstrate the unity of the entire person and the distinctiveness of

the beliefs. By restructuring the separate sets of beliefs, the therapist attempts to facilitate the reintegration of the personality.

*Hypochondriasis* has been targeted as a disorder amenable to cognitive therapy (Warwick, 1991; Warwick & Salkovskis, 1989). Typical beliefs are "The sensations I feel must be due to a serious illness" and "Even though the doctors haven't found any pathology so far, I must have another examination." Preliminary findings indicate a notable improvement with cognitive therapy when compared with a control group not receiving any psychological intervention.

*Obsessive-compulsive disorder* has been studied extensively by Salkovskis (1989), who proceeded beyond the standard behavioral approach and focused on cognitions and beliefs aroused by the obsessive thoughts; for example, "I must be crazy to have thoughts like this" or "It will be my fault if I don't do something about the (presumed) danger." Outcome studies are currently evaluating this approach.

Approaches to *marital problems* are being investigated by Epstein (University of Maryland) and Beck (University of Pennsylvania). Texts relevant to couples therapy (Epstein & Baucom, 1988) and self-help for couples (Beck, 1988) depict the typical dysfunctional beliefs, such as "If we can't talk about our problems, our marriage is in trouble" (mostly wives) and "If we have to talk about our problems, our marriage is in trouble" (mostly husbands).

Cognitive *family therapy* has been formulated recently and focuses on the conflicting beliefs of family members. Examples of such beliefs are "A child needs continuous love and care" (mother); "A child needs discipline" (father); and "I need to be left alone" (child). Such conflicting beliefs lead to accusations of "indulging the child" (by the father) and "being too harsh" (by the mother) and to the wish, on the part of the child, to run away. This formulation has been expanded by Wright and Beck (in press).

Cognitive *group therapy* has been used extensively (Freeman, 1983). Among the many therapeutic techniques are the elucidation of the basic beliefs of individual group members and their testing and evaluation by the rest of the group. Some beliefs relevant to the group that emerge are "I appear like a fool in a group" and "I am basically undesirable."

*Schizophrenic delusions and hallucinations* have been studied extensively by Hole, Rush, and Beck (1979) and Kingdon and Turkington (1991). In addition to working with the patients to list their distorted conclusions, the therapists address basic beliefs, such as "If I hear voices, it means somebody is trying to control my mind" and "Being mentally ill means I am helpless (worthless, undesirable)."

The literature on schizophrenia suggests that the prognosis in terms of recurrence or rehospitalization for schizophrenics is worse for patients in families who show high levels of expressed emotions (mostly negative emotions) toward the patients.

Although the causal link has not as yet been established, further work needs to be done in terms of exploring the family's cognitions, their relationship to expressed emotions and to prognosis, and the interactions of the familial cognitions with those of the patients. There is also some evidence that higher levels of family blame of the patient are associated with higher levels of expressed emotion (Halford, 1991). Future analyses

should examine how this affects the patients, particularly in terms of their beliefs about their inadequacy and social isolation, their hopelessness, and their self-criticism (Halford, 1991).

If meaningful relationships are established, then the particular cognitions of the family and of the schizophrenic member can become a focus for cognitive interventions, in cognitive family therapy as well as in individual cognitive therapy.

Cognitive therapy has been used in a number of other clinical conditions: a detailed treatment summary has been presented in *Cognitive Therapy in Clinical Practice* (Scott, Williams, & Beck, 1989). Of particular interest is the application of cognitive therapy to the mentally handicapped and cancer patients (Scott, 1989).

A monograph on cognitive therapy with *cancer patients* that served as a basis for a treatment trial has been produced by Moorey and Greer (1989). A preliminary study indicated that patients in a cognitive group therapy modality showed a greater reduction of dysphoria symptoms than did a control group. Long-term follow-up examining the effects on survival is now being carried out.

Many of the other new areas in which there has been preliminary support for the application of cognitive therapy have been reported in the *Comprehensive Casebook of Cognitive Therapy*, edited by Freeman and Dattilio (in press). Although these reports do not in themselves establish the efficacy of cognitive therapy for these conditions, they can help the clinician in formulating and adapting strategies for cases involving these problems. They can also provide an impetus for controlled outcome studies. It should be noted that much of the controlled research in the past was stimulated by case reports. Chapters detailing treatment in these promising applications address the following disorders and problems: performance anxiety, posttraumatic stress disorder, stress in general, adjustment disorder, dysthymia, obesity, schizotypal personality disorder, post-stroke depression, multiple personality disorder, and chronic pain. There are also chapters on the application of cognitive therapy to children, adolescents, and elderly patients.

A summary of the most recent applications of cognitive therapy to a variety of disorders and problems described in papers and posters at the World Congress of Cognitive Therapy in Toronto in June 1992 illustrates the breadth of the principles of cognitive therapy and, I hope, will serve as a stimulus for systematic research: chronic pain, criminal offenders, social phobia, chronic headaches, chronic tic disorders, HIV-related distress, alcoholism, morbid jealousy, irritable bowel syndrome, insomnia, schizophrenic disorder, guilt and shame, nicotine addiction, chest pain, organic brain damage, shoplifting, generalized tic disorder, and sexual problems.

It may be obvious to spectators in the therapeutic arena that cognitive therapy has co-opted (or been co-opted by) a large sector of the behavior therapy approaches to psychopathology. What may not be so readily discerned are many concepts derived initially from psychoanalysis (e.g., the emphasis on identifying the [conscious] meanings of pathogenic events) and the conceptualization of separate modes of cognitive processing (the reflective rational vs. the automatic nonrational), corresponding, in part, to Freudian notions of primary and secondary processing. Considerable research using strategies from

cognitive psychology has supported the theoretical foundations of cognitive therapy. The very broad application of the theory and strategies bolsters the claim of cognitive therapy as a robust system of psychotherapy.

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