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Cognitive and cognitive-behavioral therapies

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In the trenches

Cognitive and cognitive- behavioral therapies

Until the 1970s it was clear that there were three primary forces in the field of psychotherapy; namely, the psychoanalytic, behavioral and humanistic models and methods. It has only been in the last three decades that the cognitive and cognitive-behavioral therapies have grown to distinguish themselves from their forebears, and to take the place of an identifiable "fourth force" in psychotherapy. Indeed, the cognitive-behavioral therapies have shown some of the strongest growth of any of the psychotherapy approaches to date (Robins, Gosling, & Craik, 1999), and have been applied to an increasing array of clinical disorders (Dobson, 1988; Freeman, Simon, Butler, & Arkowitz, 1989; Granvold, 1996; Hawton, Salkovskis, Kirk, & Clark, 1989; Salkovskis, 1996). In part due to the strong research evidence that they have been able to accrue (Chambless, et al, 1996; 1998), they also figure prominently among the empirically supported treatments that are currently recognized in psychotherapy (Dobson & Craig, 1998).

In this chapter we will provide a brief review of some of the major historical forces that lead to the development of the cognitive behavioral therapies. We will then define what are the common characteristics among this increasingly diverse set of interventions, and in doing so also attempt to differentiate the cognitive-behavioral therapies from related approaches to psychotherapy. We will then turn our primary focus to a description of the major models within the cognitive-behavioral paradigm, and to discussing their current empirical status. The chapter will conclude with a discussion of current issues related to the cognitive-behavioral therapies, and with predictions and suggestions for the future development of the approach.

Historical forces in the development of the cognitive-behavioral therapies

As has been noted, the development of the cognitive-behavioral therapies can roughly be

timed to the early 1970's (Mahoney, 1974; Meichenbaum, 1977). Although many descriptions of this development suggest that the cognitive-behavioral therapies grew out of the behavioral tradition (Block & Dobson, 1988; Mahoney, 1974) it may, in fact, be more accurate to suggest that two developmental pathways existed. The first of these pathways was progressive from behaviorism, while the second was more "revolutionary" from psychoanalysis. Each of these developmental parentages, and their therapeutic offspring are described in turn.

The more traditional view of the cognitive-behavioral therapies is that they developed from a growing disaffection with the radical behavioral model, and its exclusive attention to observable behavior as the object of study. Efforts to conceptualize thoughts as covert behaviors (e.g. Homme, 1965; Cautela, 1967) were not satisfactory, as the evidence required to document the lawful behavior of cognition could not be attained. Further, increasing evidence began to emerge that even in the absence of behavioral experience, cognitive activities could predict behavioral change (e.g. the studies on observational learning: Bandura & Walters, 1963), or that in some instances cognitive predictors of behavior even out-performed behavioral predictors (Bandura, 1977).

From the above research literatures it became increasingly clear that strict behavioral models could not adequately account for behavior change. Increasingly, mediational models of change were introduced. For example, an early cognitive-behavioral intervention was covert sensitization (Cautela, 1967), in which the mental rehearsal of negative outcomes for behavior (e.g. imaging one's self vomit all over one's clothing, and being publicly embarrassed after drinking alcohol) was predicted to be a mediator for reducing actual alcohol consumption. A more elaborate model of cognitive-behavioral change was that developed by Meichenbaum (1977; Meichenbaum & Goodman, 1971), where individuals who were learning new, more

adaptive behavior were taught to provide themselves "self-instructional training", in which they mentally walked themselves through the steps that would lead to adequate performance. Self-instructional training also included mental reinforcement for satisfactory outcomes.

The most complex of the early cognitive-behavioral therapies involved models that went beyond specific behavioral outcomes, and tried to develop more generalizable models of behavior change. Kanfer's emphasis on goal-directed behavior change (1996; Kanfer & Schefft, 1988), and the development of the problem-solving therapies (D'Zurilla & Goldfried, 1971) represent models of behavior change that incorporated ideas from the emerging cognitive mediational literature, but which kept a constant eye on measuring behavioral change as the key outcome variable.

In addition to the incremental approaches to developing the cognitive-behavioral therapies, a second developmental pathway must be recognized. Two of the major figures in the field, Aaron Beck and Albert Ellis, were trained in psychoanalysis and practiced this therapy approach early in their careers. Both theorists, however, came to reject some of the basic principles and practices of their early training, and developed models of psychopathology and treatment that included internal (i.e. cognitive and emotional) processes, but did not rest on assumptions of unconscious process, or the need for long-term relationship-based treatment (Dryden & Ellis, in press; Beck, 1970). Both of these individuals developed perspectives that were "revolutionary" compared to their training, but came to be incorporated into several later cognitive-behavioral models. Ellis' early work on irrationality as the basis of human suffering and his A-B-C model of cognitive mediation, for example, presage the development of many later ideas in the cognitive-behavioral tradition.

Common and distinguishing features of the Cognitive-behavioral therapies

In part due to the attention and growth of the approach, it is increasingly difficult to name the boundary of the cognitive and cognitive-behavioral therapies. As early as 1988, it was suggested that there are at least 12 to 17 specific cognitive-behavioral models (Dobson & Block, 1988; Mahoney, 1988), and no doubt the number of therapies has grown since then (although we know of no recent taxonomy). Among the therapies that have been developed there are conceptual and practical differences that can be used to classify them. For example, Dobson and Block (1988) argued that cognitive-behavioral therapies can be classified as one of the following types:

Coping skills therapies- therapies that focus on the learning or improvement of adaptive behavioral repertoires, often through cognitive mechanisms (for example, self-instructional training),

Problem-solving therapies- therapies that teach a method of examining a problem from an adaptive perspective, and determining how best to solve that problem, and

Cognitive restructuring therapies- therapies that attempt to promote optimal functioning or healthy emotional responses by examining and changing dysfunctional thought processes (for example, Rational Emotive Behavior therapy or Cognitive Therapy).

Our perspective is that the above conceptual framework continues to hold up well. At the same time, as the following review of specific therapies will suggest, it is our sense that more recent developments in the cognitive-behavioral therapies have tended to focus less on the use of coping skills interventions, and more on the formal process of problem solving or cognitive restructuring. We suggest that a strong factor in the relative development of various approaches to cognitive-behavioral therapy may lie in the explicit recognition of cognitive restructuring therapies as effective treatments (Chambless, et al, 1998).

The realism assumption, and the place of constructivistic therapies

In his analysis of the cognitive-behavioral therapies, Mahoney (1988; 1991; 1995) has delineated a distinction between what he has termed the "rationalist" and the "constructivist" approaches to therapy. The distinction being drawn is much more than a focus in treatment, or based upon particular therapeutic interventions. Indeed, the demarcation is based upon a metaphysical perspective about the world and the nature of knowledge.

Rationalist therapies are predicated upon the assumption of logical empiricism -- that a "real world" exists, and that it may either be perceived and understood accurately or mis-perceived. From this perspective, concepts such as "cognitive distortions", "cognitive errors", "cognitive bias", and "irrational beliefs" make sense, as they reflect the extent to which the individual's perceptions are in line with "reality". These therapies explicitly endorse the assumption of cognitive mediation, that emotional experience and behavioral choices follow from the cognitive appraisal of different situations. Rationalist cognitive therapies therefore focus on the accurate perception of events around the individual, and on the adaptive response to those circumstances.

In contrast to the rationalist cognitive-behavioral therapies, the constructivistic therapies make no *a priori* assumption about the existence of an objective world, independent from experience. The value of cognition, from this perspective, is not in terms of its reality-base, but in terms of its coherence, order and adaptiveness. Thus, the function of cognition is to order and make sense of experience, but cognition does not perforce define the nature of that experience, as the possibility of direct experiential and emotional "knowing" is also recognized. Thus, direct cognitive mediation is rejected, as both "feedforward" and "feedbackward" mechanisms between emotion, physiological, behavioral, and cognitive systems are hypothesized (Mahoney, 1991;

1995).

One of the controversies between rationalist and constructivistic approaches to therapy deals with the role of emotion, and its use in therapy. Rationalistic approaches view emotion as a consequence of cognitive processing, and therefore as an index of the negativity and the specific nature of that cognitive process. It has been argued that rationalist therapies view emotion as problems to be controlled by modifying dysfunctional thoughts (Mahoney, 1988; 1991; Neimeyer, 1995). For example, depression can be seen as a result of negative, distorted thoughts, and that it should be treated by correcting these maladaptive cognitions. A constructivist paradigm, however, would view depression as a natural way of "knowing", and that both the presence of depression, as opposed to some other emotional experience, and its intensity, reflect aspects of that knowledge.

As has been articulated in her book Back to Reality , Held (1995) argues that constructivism itself comes in two forms. In the most extreme, what we label as "metaphysical constructivism", the idea of an external reality is literally rejected. Within this perspective, humans are no more than the constructions we make of our experience, and no experience is inherently more accurate, honest, or justified than any other. Our lives are literally what we make of them, at a given place and time. As such, therapy involves a process of meaning-making and elaborative exploration. Choices are framed by the decision about what feels good to the individual and fits within his/her view of the world and self. No emotional, behavioral, or cognitive pattern is essentially "healthier" than any other. The point of contact between the therapist and client is language, which is the process by which meanings are elaborated.

In contrast, what we call "methodological constructivism" does not take the metaphysical position about the lack of external reality. Thus, this form of constructivism may include the

idea that "the truth is out there", but that the nature of that truth is potentially unknowable. From this perspective, what is key for optimal functioning is coherence and adaptation to the world as we know it. Methodological constructivism also uses language as the process for elaborating meaning in therapy; indeed, the techniques it encourages are largely those of metaphysical constructivism.

We have elaborated the above distinction in part because of the growing interest in narrative forms of therapy (Gilligan & Price, 1939; White & Epston, 1990), the rise of post-modernism in psychology (Gergen, 1992; 1994), and the development of constructivist therapy (Guidano, 1991; Neimeyer, 1993; 1995). The 1988 Handbook of Cognitive-behavioral Therapies (Dobson, 1988) included a chapter on this form of therapy. Increasingly though, we are of the opinion that although methodological constructivism has some aspects of theory and methods of therapy in common with the cognitive restructuring types of cognitive-behavioral therapies, both metaphysical and methodological constructivism belong to another approach to therapy. In particular, their rejection of the realism assumption places the manner in which problems are conceptualized, the way in which case conceptualizations are shared with the patient, the techniques that are chosen, and the ways in which outcomes are evaluated (indeed, the very idea of "outcomes"), on a different plane than the other cognitive-behavioral therapies. Although this position can, and no doubt will, be contested, we have for the above reason chosen to not address constructivist treatments further in this chapter.

Specific Forms of Cognitive-Behavioral Therapy

In this section we address some of the major approaches of cognitive-behavioral therapy. Each form of therapy is given a definition and some historical reference. The treatment model is explained, as are some of the major treatment methods. Each section concludes with a

discussion of the research findings for that approach.

Self-instructional Therapies/Training

Self-instructional training (SIT) refers to a set of cognitive techniques designed to help individuals overcome cognitive deficits in areas such as problem solving, verbal mediation, and information seeking. Overt verbalisations of thought processes are modelled for the client and then are subsequently imitated and internalised by the client. Covert self-verbalisations follow which result in the client gaining verbal control over behavior. It is important to remember that SIT is an intervention strategy rather than a formalised theory (Kendall, Vitousek, & Kane, 1991).

Self-instructional training was originally developed by Meichenbaum and Goodman (1971; Meichenbaum, 1975) for use with impulsive or behavior-disordered children. This model was developed based on an understanding that impulsive children exercised less verbal control over their behavior than less impulsive children. Therefore, a training procedure that promotes self-regulatory private speech was expected to be helpful/beneficial for such children.

Meichenbaum (1977) later extended the use of self-instructional training to schizophrenic adults. Subsequent research has attempted to apply self-instructional training to individuals with mental retardation (e.g., Agran, Fodor-Davis, & Moore, 1986; Hughes, Hugo, & Blatt, 1996; Rusch, Morgan, Martin, Riva, & Agran, 1985; Whitman, Spence, & Maxwell, 1987).

SIT consists of a strategy for teaching self-instructional skills using the training sequences below: 1) trainer performs task instructing aloud while subject observes; 2) subject performs task while trainer instructs aloud; 3) subjects performs task while self-instructing aloud; 4)) subjects performs task while whispering; 5) subject performs task while self-instructing covertly. Individuals are then taught to verbalise the following self-instructional statements: 1)

stating the problem; 2) stating the response; 3) self-evaluating; and 4) self-reinforcing. Thus, individuals are taught to verbalise a sequence of statements when performing a task and these vocalisations serve to direct task performance of appropriate responses (Meichenbaum, 1975; Meichenbaum & Goodman, 1971).

Initial results by the developers of self-instruction indicated that it was successfully used with impulsive children as well as hospitalised schizophrenics (Meichenbaum, 1975; 1977; Meichenbaum & Goodman, 1971). Currently, although a considerable body of literature research suggests that self-instructional training is effective with children, few data exist regarding the effectiveness of self-instructional training with adults, including schizophrenic populations. Not surprisingly, there is also currently a dearth of research that meets the criteria for empirically supported treatment literature. To our knowledge, Self-Instructional Training has not been found to be an efficacious treatment for any adult disorder.

Problem-solving Therapy

Problem-solving therapy (PST) was an early addition to the cognitive-behavioral field (D'Zurilla & Nezu, in press-a; Kendall & Hollon, 1979). This approach flourished during the 1970s, with a number of PST programs being employed either alone or as part of a larger treatment package (D'Zurilla, 1988). As described below, it continues to be practised both as a complete intervention, and as an adjunct to other therapy approaches.

The underlying assumption of PST is that psychopathology can be conceptualised as an ineffective or maladaptive style of coping. According to this conceptualisation, an individual's difficulties stem from ineffectual problem resolution and poor coping strategies. Ineffectual attempts to cope with or to resolve problems produce negative effects, be they physical symptoms, depression, anxiety, or the creation of new problems (D'Zurilla & Goldfried, 1971;

D'Zurilla & Nezu, in press-a). PST thus utilises a social problem solving model in which effective problem solving as a general coping strategy increases general adaptiveness and prevents the adverse effects of stress from impacting upon one's well being (D'Zurilla, 1990; D'Zurilla & Nezu, in press-a; D'Zurilla & Nezu, in press-b; Nezu & D'Zurilla, 1989; Nezu, Nezu, & Houts, 1993).

A variety of social PST paradigms exist; however, this section will focus on the model developed by D'Zurilla and colleagues because it is representative of most problem-solving approaches. D'Zurilla and Goldfried (1971) originally presented a model of social problem solving, which was later refined by D'Zurilla and Nezu (1982, in press-b). In this model, two processes are responsible for determining typical problem-solving outcomes. The first of these is *problem orientation,* which refers to the attentional and motivational aspects of the problem-solving process. Specifically, problem orientation refers to the ability to recognise problems as they occur. Related to this perceptual process is a set of relatively stable cognitive-emotional schemas or scripts which describe how a person typically thinks and feels about problems in living and his own general problem-solving ability (D'Zurilla & Nezu, in press-a). Individuals may have a positive or constructive problem orientation, which results in positive emotions and approach tendencies, and maximises the likelihood of effective problem-solving behavior. Alternatively, individuals may have a negative, dysfunctional problem orientation, which results in negative emotions and avoidance tendencies and reduces the likelihood of effective problem-solving behavior (D'Zurilla, 1988).

D'Zurilla and Nezu (in press-a) proposed the following problem orientation variables: problem perception, problem attribution, problem appraisal, perceived control, and time/effort commitment. These are listed in sequential order, with each increasing or decreasing the

likelihood of the next variable occurring. *Problem perception* is defined as the general tendency to recognise problems when they occur. By doing so, problem perception activates/sets in motion the other problem orientation variables and thus sets the stage for problem solving proper. *Problem attribution* is defined as an individual's beliefs regarding problems. A positive problem attribution refers to the tendency to understand problems as normal and inevitable events for everyone. A negative problem attribution refers to the tendency to understand problems as a reflection of a personal and stable defect. *Problem appraisal* refers to an individual's assessment/analysis of the significance or relevance of a problem for his/her own well being. A positive problem appraisal refers to the tendency to view problems as challenges. A negative problem appraisal refers to the tendency to view problems as only harmful or threatening. *Perceived control* consists of both generalized problem-solving self-efficacy (the expectation/ assumption that one is able to effectively solve problems) and generalized positive problem-solving outcome expectancy (the expectation/ assumption that problems can be solved). Finally, *time/effort commitment* refers to the likelihood that the individual will accurately estimate and be able to commit to the amount of time and effort required for effective problem solving.

Problem-solving refers to the process of attempting to arrive at an effective problem-solving solution by applying four primary problem-solving skills which should maximise the likelihood of arriving at the most effective solution: problem definition and formulation; generation of alternative solutions; decision making; and solution implementation and verification (D'Zurilla & Nezu, in press-a; Nezu et al., 1993). Although these skills are described sequentially, in reality individuals move back and forth between each of these skills in their attempt to arrive at the best solution for a particular problem (cf. Crick & Dodge, 1994).

The social problem solving model presented provides a general framework for the use of PST. Assessment involves an analysis of negative life events, daily problems, emotional stress responses, and deficits in problem orientation and problem-solving skills. PST is then utilised to reduce deficits and/or improve abilities in problem orientation and problem solving. This, in turn, is expected to increase coping skills and improve psychological well-being (D'Zurilla, 1988; D'Zurilla & Nezu, in press-a).

An important objective of PST involves identifying and resolving current life problems that are antecedents of an individual's maladaptive responses. A concomitant goal involves teaching general skills that will enable an individual to deal more effectively and independently with future problems. In addition to solving these antecedent problems, PST can impact directly on maladaptive responses, such as anxiety, depression, pain, overeating, or problem drinking, if they are viewed conceptually as "problems-to-be-solved" (D'Zurilla & Nezu, in press-a). It is important to remember, however, that PST is not concerned solely with the amelioration of skills deficits, but also with higher-level functioning (D'Zurilla & Nezu, in press-a).

PST can be applied using either a structured, time-limited format focussing on psychotherapy and skills training, or in a more traditional open-ended framework (D'Zurilla & Nezu, in press-a). The sequence or practice of PST involves moving through the major components of the social problem solving model. At each stage, specific PST and general CBT techniques are used to facilitate a more adaptive or effective means of problem orientation and problem solving. However, it is important to remember that although the process of PST is described as sequential, in practice, it is much more fluid and flexible.

In the problem orientation phase, the goal is to help the client to adopt a more positive or adaptive problem orientation, to more accurately identify problems, and to recognise emotions as

indications that a problem exists (D'Zurilla & Nezu, in press-a). Specific techniques to facilitate this include the reverse advocacy role play technique, in which the therapist adopts a belief about problems, which reflects a negative orientation. The client is asked to respond with reasons why a given assumption may be maladaptive or incorrect (D'Zurilla & Nezu, in press-a). Other techniques include the use of problem checklists to help identify existing and possible problems, teaching clients how to use cues to help them stop and think before reacting impulsively in reaction to situations, and reframing emotional reactions as indications that a problem exists (D'Zurilla & Nezu, in press-a).

In the problem definition and formulation phase, the intention is to assist the client to understand the nature of the problem and to generate realistic problem-solving goals (D'Zurilla & Nezu, in press-a). Techniques used to facilitate this goal include teaching clients how to use the five "W" questions (who, what, when, where, and why), and the use of general cognitive restructuring techniques to correct any faulty thinking. In the generation of alternative solutions phase, the goal is to produce as many possible solutions to the problem. Clients are asked to suspend their judgement when generating these alternative solutions so that a variety of alternatives can be listed.

In the decision making phase, the goal is to choose among the possible solutions and develop a problem-solving plan. In order to do this, clients are taught to identify possible consequences of each alternative, in terms of their short- and long-term implications for themselves and others. Clients are also taught to evaluate whether a given solution will solve their problem and achieve the most adaptive solution. Finally, in the solution implementation and verification phase of PST, the goal is to perform the chosen solution plan and to monitor and evaluate its outcomes. To do this, clients are taught self-monitoring techniques, and are also

encouraged to reward themselves for accurately predicting outcomes (D'Zurilla & Nezu, in press-a)

In addition to the specific PST techniques described above, a variety of general CBT techniques are also used, including Socratic questioning, didactic instruction or psychoeducation, modeling, shaping, rehearsal, homework assignments, and reinforcement of positive changes (D'Zurilla & Nezu, in press-a). Proponents of PST assert that general CBT techniques that are used in a given case should be integrated into the general PST framework (D'Zurilla & Nezu, in press-a; D'Zurilla, 1988).

Treatment manuals have been developed for applying PST to a variety of populations and problems, including clinical depression (Nezu, 1986; Nezu, Nezu, & Perri, 1989; Nezu & Perri, 1989), cancer patients (Nezu et al., 1993), and substance abuse (Platt, Taube, Metzger, & Duome, 1988). In addition, D'Zurilla and Nezu (in press-b) have recently completed a generic training manual. PST has been utilised with a variety of populations, including adults and children, clinical and nonclinical problems (e.g., depression, schizophrenia, anxiety disorders, suicidal behavior, substance abuse, marital and relationship problems, mental retardation), health problems (e.g., cancer), and a variety of populations (e.g., individual, group, marital, family) (D'Zurilla & Nezu, in press-a). Finally, PST has been used as a preventive approach (e.g., workshops, seminars, etc.).

Studies on a variety of populations have attested to the effectiveness of PST, including investigations of schizophrenia, depression, suicidal ideation and behavior, anxiety disorders, emotional and behavioral problems in individuals with mental retardation, marital problems, parenting problems, substance use, smoking, weight-control, pain, cancer, and more generally community problems and issues (e.g., stress management training, competence enhancement) (D'Zurilla & Nezu, in press-a). D'Zurilla and Nezu (in press-b) have recently published a

complete review of the outcome literature pertaining to PST. The developers of this approach acknowledge that there are limitations to this body of research which need to be addressed, however, their overall conclusion is that the bulk of the data support the efficacy of PST across different populations, problems, treatment settings, and ages (D'Zurilla & Nezu, in press-a).

Beginning in the early 1980s, a number of studies have utilised the manualized treatment protocol to study the effectiveness of PST in treating depression. In general, results indicate that PST is as effective or more effective in reducing depressive symptoms compared to no treatment, to control treatment (i.e., social reinforcement programs, problem-focussed treatment without systematic training in problem-solving skills) or to alternative treatments (i.e., PST without the problem-orientation component; reminiscence therapy; amitriptyline) (Arean, Perri, Nezu, Schein, Christopher, & Joseph, 1993, with depressed elderly patients (over 55); Hussian & Lawrence, 1981 with elderly individuals; Mynors-Wallis, Gath, Lloyd-Thomas, & Tomlinson, 1995 with depressed adults in primary care; Nezu, 1986 with clinically depressed adults; Nezu & Perri, 1989 with clinically depressed adults). Interestingly, Mynor-Wallis et al. (1995) documented that PST was as effective as amitriptyline in reducing depressive symptoms in a primary care population. Additionally, a dismantling study (Nezu & Perri, 1989) found that improvements in depressive symptoms were significantly greater when the problem-orientation component of PST was included compared to when it was not included.

However, there are problems with the available PST outcome literature. First, it is noteworthy that PST has not been systematically compared to other forms of CBT, which have been found to have empirical support according to the empirically supported treatment literature. Second, an adequate body of literature does not yet exist to support unequivocally the empirical status of PST. Thus, at present, the available research suggests that PST for depression is a

possibly efficacious treatment according to the empirically supported treatment literature (Chambless et al., 1998). Further evidence using the generic PST treatment manual, as well as more focussed trials, will help to establish the empirical status of PST.

Rational Emotive Therapy and Rational Emotive Behavior Therapy

Rational Emotive Therapy (RET), developed by Albert Ellis in 1955 under the original title Rational Psychotherapy, represented the first of what would later come to be known as the cognitive-behavioral therapies (Dryden & Ellis, in press; Ellis, 1997). Ellis subsequently changed the term again in 1993 to Rational Emotive Behavior Therapy (REBT) in response to critics who argued that the previous label neglected behavior (Dryden & Ellis, in press; Ellis, 1993). Consistent with this recent development we will refer to this approach as REBT in this chapter.

Ellis purported that a number of factors impact the psychological well-being of individuals, including cognitive, emotional, behavioral, and environmental determinants (Dryden & Ellis, 1988). Toward this end, Ellis proposed the ABC model of human disturbance, in which A stands for the activating event, B refers to the person's rational or irrational beliefs which influence the way that A is perceived, and C stands for the emotional, behavioral, and cognitive consequences that arise from B (Dryden & Ellis, in press; Ellis, 1995). The key assumption of this model is that our beliefs affect both how we feel and act, and also that the way we feel and act, in turn, affects our beliefs.

While acknowledging the interdependent and interactive nature of these variables in (mal)adaptive human functioning, REBT ascribes a central role to cognition, and in particular to evaluative beliefs, in accounting for psychological health and disturbance. In keeping with this emphasis on cognition, Ellis stressed that humans have two primary biological predispositions

(Ellis, 1979). The first of these is the tendency to think in a rigid and irrational manner. For example, individuals often interpret desires and preferences in absolutist terms (e.g., needs, demands). The extreme nature of these standards makes them very difficult to achieve, and more likely to result in psychological distress when they are not met. Thus, the REBT model defines the term irrational to mean that beliefs are rigid, inconsistent with reality, and illogical, and that they usually (although not invariably) impede the pursuit of basic goals and desires (Dryden & Ellis, in press; Ellis, 1979). The second basic biological human tendency involved the capability for meta-cognition (i.e., to ponder over one's thinking) and therefore the potential for humans to modify irrational thinking.

REBT proposes that when individuals become psychologically disturbed because of the presence of absolutistic demands, they begin to make illogical assumptions or cognitive distortions/errors such as all-or-none thinking, fortune telling, and jumping to conclusions (Dryden & Ellis, 1988; Dryden & Ellis, in press, Ellis, 1984). In this respect, REBT is similar to other CBT theories (e.g., Beck, Rush, Shaw & Emery, 1979). Ellis' model differs from other conceptualisations, however, in that these cognitive distortions are believed to inevitably stem from the self-defeating demands or "musts" that the person has established. Absolutism (e.g.,"must-urbation") is thought to be at the root of psychological disturbance, according to. Psychologically healthy individuals, in contrast, are purported to exhibit a philosophy of "relativism". These persons may have several wishes and preferences, but do not convert their desires into absolutistic demands that must be met in order to attain happiness or self-satisfaction.

Ellis also proposed that low frustration tolerance works to perpetuate psychological disturbance. Individuals prefer familiarity and resist change, even though the temporary

discomfort involved in change would result in the subsequent amelioration of subjective distress. Also, psychological disturbance is perpetuated because people have a tendency to act in ways consistent with their irrational beliefs (Dryden & Ellis, in press).

Given that irrational thoughts, absolutist demands, and unconditional shoulds/musts are at the crux Ellis' theory, it follows that these are emphasised most in therapy. A major objective of REBT is to help individuals identify, challenge, and dispose of their irrationality and replace these beliefs with more rational and healthy thinking (Dryden & Ellis, 1988; Dryden & Ellis, in press; Ellis, 1995). REBT strives for the elegant restructuring of an individual's core philosophy of demands and irrational beliefs. Although cognitive change is the primary focus of REBT, it is also recognised that therapeutic change may also come from the alteration of activating events.

REBT is an active, directive style of therapy in which therapists function as educators who teach clients to correct their irrational beliefs and to think more rationally. Clients learn how to use REBT methods to help themselves which requires that they assume an active role in the therapy. REBT therapists consider a balanced therapeutic relationship to be an important but not necessary condition for effective therapy. While an atmosphere of unconditional acceptance is promoted, undue therapist warmth is considered to be counterproductive because it may reinforce clients' irrational beliefs about their need for approval or love.

Therapy progresses through a series of stages, beginning with assessment. During the assessment phase, therapists focus on understanding the client's current problem and information is gathered regarding the ABCs of these difficulties (Dryden & Ellis, in press). Typically, extensive information about the client's history is collected nor deemed necessary. The assessment phase includes a therapeutic component, as it affords the opportunity for the client to begin to understand the relationships among their activating events (A), their beliefs (B) and the

consequences (C) of those beliefs (Ellis & Greiger, 1977).

The second stage of therapy is the disputing stage in which clients are helped to gain some insight, on an intellectual level, that their musts and demands are not supported by reality (Dryden & Ellis, in press). The purpose of this stage is to help the client understand that his or her irrational beliefs are responsible for his/her emotional disturbance and that more rational beliefs will lead to psychological health. This newly found intellectual insight is a necessary prerequisite for the next stage of therapy, the working through phase.

In the working through phase, a variety of techniques are used to help clients achieve greater emotional insight into their difficulties. According to REBT, attaining emotional insight helps to promote and reinforce new thoughts, feelings, and behaviors that are consistent with a rational belief system (Dryden & Ellis, in press).

Notwithstanding the theoretical distinctions that have been drawn between REBT and other modes of cognitive-behavior therapy, in practice they may be indistinguishable (Ellis, 1996, Dryden & Ellis, in press). REBT therapists are eclectic in the techniques they use. Specialised techniques derived from REBT theory, as well as general strategies adopted from CBT and from other schools of psychotherapy are often employed. The therapeutic methods most preferred by REBT therapists are those most congruent with the overarching ABC model. For example, actively disputing irrational beliefs is generally favoured over relaxation or other cognitive distraction techniques. The primary REBT techniques involve disputing irrational beliefs, examining the pros and cons of various situations, imagery, bibliotherapy, defining techniques (e.g., using language differently so that it is less self-defeating) (Dryden & Ellis, in press). A number of emotive techniques are also employed, including the use of humor, therapist self-disclosure, stories and parables, humorous songs, and shame attacking exercises (e.g., clients

are instructed to deliberately act shamefully in public in order to learn to tolerate discomfort and accept themselves), and risk-taking exercises (e.g., clients force themselves to take a risk in an area in which they are trying to make a change).

A number of behavioral techniques are also essential to the practice of REBT, including *in vivo* desensitization and flooding. These more intense behavioral procedures are preferred to gradual (e.g., systematic desensitization) procedures typically used in cognitive-behavior therapy, as a primary goal is to increase the client's frustration tolerance (Dryden & Ellis, in press; Ellis & Grieger, 1977).

According to Dryden & Ellis (in press), more than 1000 outcome studies have been conducted on RET and REBT, with the majority of these indicating that REBT is significantly more efficacious than no treatment. A number of reviews of available outcome studies have been conducted (Engels, Garnefski, & Diekstra, 1993; Haaga & Davison, 1993; Hollon & Beck, 1994; and Lyons & Woods, 1991). For example, Lyons and Woods (1991) conducted a meta-analysis of 70 studies comparing RET to baseline, control groups, cognitive behavior modification, behavior therapy, and other psychotherapies. The populations investigated included normal, phobic, neurotic, and emotional/somatic subjects. These reviewers found that RET was more effective compared to baseline and control groups, but was no more effective than cognitive behavior modification and behavior therapy.

Despite positive reviews, the outcome literature on RET and REBT has been criticized by several researchers. For example, Gossette and O'Brien (1992) reviewed the available research comparing the unique components of RET with wait-list, placebo, and other treatment conditions and found that RET was effective in only 25% of the comparisons. These researchers cogently argued that many of the extant outcome studies which attest to the efficacy of RET are flawed

because they have combined RET techniques with general CBT rather than addressing the unique features of RET. Dryden & Ellis (in press) also caution that the efficacy of REBT not been systematically compared to other types of CBTs, including those developed by Beck, Bandura, Lazarus, & Meichenbaum. Relatedly, Kendall, Haaga, Ellis, Bernard, DiGiuseppe, and Kassinove (1995) recently noted that there is a paucity of well-controlled outcome studies that meet the criteria for establishing empirically supported treatments (e.g., APA Division 12 Task Force report on Promotion and Dissemination of Psychological Procedures). The empirically supported treatment literature does not presently include REBT as an efficacious treatment for any adult mental disorder (Chambless et al., 1998).

Cognitive Therapy

Cognitive therapy was originally developed by Beck and colleagues (Beck, et al, 1979) for the treatment of depression. Cognitive therapy is an active, direct, structured, short-term, psychoeducational psychotherapy that has now been adopted for the treatment of a variety of mental disorders, in addition to unipolar depression (e.g., Basco & Rush, 1996; Beck & Emery, 1985; Freeman, et al., 1989; Beck, Wright, Newman, & Liese, 1993; Dattilio & Freeman, 1994). Cognitive therapy is based upon the theoretical rationale that one's self-schema and related cognitive processes largely determine one's affect and behavior (Beck, 1976; Beck et al., 1979).

A core assumption of cognitive therapy is that the way in which an individual processes and interprets internal and external information must be modified in order to effect real change in psychological functioning and to prevent the recurrence of psychopathology. Thus, the principle emphasis in therapy entails the identification, evaluation, and modification of faulty information processing and underlying self-schemata. In cognitive therapy, clients are taught that the content and processes of their thinking style mediates emotional distress, that they can learn to

systematically monitor and evaluate their beliefs and information-processing styles, and that the modification of these automatic thoughts and core beliefs will result in changes in affect and behavior. Cognitive therapy focuses on assisting clients to examine and understand the way in which they perceive themselves, their world, and the future, and to experiment with more adaptive ways of responding in cognitive, emotional, and behavioral modes.

One of the primary tenets of cognitive-behavior therapy is the use of collaborative empiricism. Collaborative empiricism refers to the fact that therapist and client function together as a team, each contributing valuable information and expertise in an attempt to understand the client's difficulties (via guided discovery), ameliorate his/her symptoms, and enhance his/her functioning (Beck et al., 1979). This collaboration extends to all aspects of the therapeutic encounter, from eliciting raw data to establishing homework assignments. A second important principle in cognitive therapy is its focus on the "here and now" (Beck et al., 1979). Although maladaptive thinking may have developed from early experiences, successful treatment does not require eliciting childhood memories or working through unconscious processes; rather, therapy focuses on how this thinking is currently activated and how one's maladaptive philosophies and beliefs might become more in line with objective evidence.

Assessment and diagnosis are essential components of cognitive-behavior therapy. Also, it is imperative that the patient is provided with a rationale regarding cognitive therapy. Once the essential information has been gathered, and the client has been educated about the cognitive model and what he/she can expect from the process of cognitive therapy, the client and therapist work together to formulate a cognitive understanding of the client's problems (Persons, 1989; Persons & Davidson, in press). This formulation will ideally explain the cognitive distortions, behavioral issues, and emotional issues that contribute to an individual's

psychological distress. This cognitive formulation forms the basis for the process and structure of therapy by establishing key objectives and action plans for change. Another key point in cognitive therapy is the establishment of an agenda at the beginning of each therapy session so that both therapist and client collaboratively agree on the topics for each session. Throughout the course of therapy, the initial cognitive formulation or hypotheses about the client are tested and refined in accordance with available information.

Despite the title, cognitive therapy has from its inception made use of a variety of cognitive and behavioral techniques and strategies (Beck et al., 1979). In addition, cognitive-behavior therapy does not ignore the importance of emotions, and in fact makes use of a number of emotional techniques as well (Beck et al., 1979). Primarily, though, cognitive techniques are aimed at eliciting, understanding and altering the client's cognitive organization or construction of reality (e.g., beliefs, assumptions) (Beck et al., 1979). Cognitive techniques include cognitive restructuring, Socratic questioning, identifying illogical thinking, ascertaining the client's assumptions and previously unattested implicit rules, identifying automatic thoughts, examining and reality testing automatic thoughts, reattributing responsibility, searching for alternative solutions, and recording dysfunctional thoughts.

As therapy proceeds and the client's symptoms abate, the focus of therapy changes from identifying cognitive errors to changing the maladaptive assumptions upon which those errors are based (Beck et al., 1979). This focus is thought to have preventative effect in terms of increasing the client's ability cope with future problems and minimizing his/her risk subsequent psychiatric distress. Maladaptive assumptions are believed to derive from self-schemas, which are the rules or internal working models with which the client has learned to interpret his/her self, the future, and the world. Different forms of psychopathology are believed to operate under

this same basic system of cognitive biases, although they may be distinguished in terms of their content-specific cognitive profiles. For example, depression is often characterized by automatic thoughts and maladaptive beliefs that pertain to past loss, failure, and deprivation. The schemata involved in anxiety revolve around themes of future threat or danger. These schemas are maladaptive in that they are rigid, excessive, and are thought to be activated when the individual experiences a situation which impinges upon his/her specific vulnerability (e.g., acceptance-rejection) (Beck et al., 1979).

One important role of the therapist is to help clients question and assess the costs and benefits of their schemas, examine the evidence for these beliefs, generate alternative explanations, and develop more healthy beliefs. A technique that is often used to facilitate this stage is the Downward Arrow or Vertical Arrow Technique (J. Beck, 1995). This technique involves asking a series of questions about the significance of an anticipated or past event in order to elicit the client's underlying beliefs (Belsher & Wilkes, 1994).

Socratic questioning involves asking a series of questions in order to help clients to challenge the assumptions, beliefs, or behaviors that contribute to their presenting complaints (e.g., Rush & Nowels, 1994). An important distinction between CBT and REBT arises with respect to this aspect of therapy. In REBT, active disputation of client's cognitions is undertaken in order to help the client see the cognitive errors they are making. In CBT, Socratic questioning allows the clients to arrive at their own conclusions regarding how they are thinking and to identify their own cognitive errors rather than relying on the therapist to elicit and challenge them (Beck et al., 1979).

Behavioral techniques are also used in cognitive therapy. The goal of the behavioral techniques is to change behavior, elicit thoughts that are associated with specific behaviors, and

test maladaptive cognitions or assumptions (Beck et al., 1979). In the early stages of therapy and with more severely depressed clients, for example, behavioral techniques (e.g., activity scheduling, mastery and pleasure schedules, graded task assignments) are utilised to fairly quickly provide the client with some measure of symptom relief so that they are able to proceed with a course of therapy. These strategies often help to counteract a patient's immobility, loss of motivation, and beliefs that he/she is ineffectual. Successful completion of behavioral techniques also provides the client with information that is contrary to their beliefs that they are unable to accomplish any tasks. A key difference between the use of behavioral techniques by a cognitive therapist and that by a behavior therapist is that the modification of behavior is the goal for the behavior therapist, whereas the modification of behavior is the means to an end, cognitive change, for the cognitive therapist (Beck et al., 1979). Homework is also an essential aspect of cognitive therapy, as it allows the client to continue to work toward his/her goals between the therapy sessions, and so encourages an active role for the client in his/her own recovery (Beck et al., 1979).

CBT has also been adapted for use with a number of disorders other than unipolar depression, including anxiety disorders (e.g., Beck & Emery, 1985), personality disorders (e.g., Beck, Freeman & Associates, 1990; Young, 1990, 1994), eating disorders (e.g., Fairburn, 1981; Fairburn, 1985; Garner & Bemis, 1982, 1985), substance abuse (Beck et al., 1993), and bipolar disorder (Basco & Rush, 1996).

According to the empirically supported treatment literature, cognitive therapy of depression has been found to be an efficacious and specific treatment for depression (Chambless et al., 1998). Thus, according to the available research, cognitive therapy is more efficacious than no treatment, control treatments, and other active treatments, such as/including nondirective

therapy, traditional psychodynamic group therapy, interpersonal therapy, behavior therapy, and problem-solving therapy for depression (Chambless et al., 1998). Cognitive therapy has also been compared with pharmacotherapy in the treatment of depression and in many instances has been found to be as effective or even more effective than pharmacotherapy (Antonuccio, Danton, & DeNelsky, 1995; Bowers, 1990; De Rubeis & Feeley, 1990; Dobson, 1989; Evans et al., 1992; Hollon et al., 1992; Hollon, Shelton, & Loosen, 1991). Although more recent research indicates that the initial reports of clear superiority of cognitive therapy may need to be attenuated, it remains to be seen whether cognitive therapy holds promise in preventing or delaying relapse and that this may be where its superiority lies (Antonuccio et al., 1995; Blackburn, Eunson, & Bishop, 1986; Dobson, Pusch, & Jackman-Cram, 1991; Fava, Rafanelli, Grandi, Conti, & Belluardo, 1998; Gortner, Gollan, Dobson, & Jacobson, 1998; Hollon et al., 1991; Segal, Gemar, & Williams, 1999; Simons, Murphy, Levine, & Wetzel, 1986). Even more encouraging has been the growing consensus that cognitive therapy is effective even for severely depressed individuals (Bowers, 1990; Evans et al., 1992; Hollon et al., 1992; Miller, Norman, Keitner, Bishop, & Dow, 1989; Thase, Bowler, & Harden, 1991).

Cognitive therapy has also been found to be an efficacious and specific treatment for Generalized Anxiety Disorder and Panic Disorder (Chambless et al., 1998). Thus, cognitive therapy is more effective/efficacious than applied relaxation in the treatment of GAD, and more effective than exposure therapy or applied relaxation in the treatment of Panic Disorder. Also, in the treatment of Social Phobia, exposure on its own or in combination with cognitive restructuring were both found to be efficacious treatments. Cognitive therapy has also been found to be a possibly efficacious treatment for OCD, although exposure and response prevention remain the efficacious and specific treatment (Chambless et al., 1998).

The empirical status of cognitive therapy for other disorders is more tenuous than for depression and the anxiety disorders. Trials are under way evaluating its efficacy in the area of substance abuse, bipolar disorder, post-traumatic stress disorder and other domains. The field will no doubt pay considerable attention to these results.

Schema-focused Cognitive Therapy

Schema-focussed therapy (SFT; Young, 1990, 1994) is an adaptation of Beck's CBT which was developed for the treatment of personality disorders and chronic Axis I disorders (e.g., depression, anxiety). Schema-focussed therapy differs from standard CBT in a number of ways. First, SFT places greater emphasis on the therapeutic relationship. Second, the role of affect is explicitly highlighted. Third, more discussion is focussed on childhood origins of difficulties and developmental processes. Fourth, more attention is directed toward coping styles. Finally, there is more focus on identifying core themes or schemas. Thus, schema-focussed therapy is an integrative approach that combines cognitive, behavioral, interpersonal, and experiential techniques.

Schema-focussed therapy proposes four theoretical constructs to expand general CBT as proposed by Beck et al. (1979). The first of these is Early Maladaptive Schemas, which are defined as "extremely stable and enduring themes that develop during childhood and are elaborated upon throughout an individual's lifetime ...[and which] serve as templates for the processing of later experience" (Young, 1990, p. 9). Young also proposed three major processes, which explain how schemas function within an individual. Schema maintenance refers to processes, such as cognitive distortions and self-defeating behavior patterns, which reinforce early maladaptive schemas. Schema avoidance refers to processes, which act to avoid triggering the schema or experiencing the affect associated with the schema. Schema avoidance can

include attempts at cognitive avoidance, affective avoidance, or behavioral avoidance. Finally, schema compensation refers to processes that overcompensate for early maladaptive schemas. Young (1990, 1994) has described a number of early maladaptive schemas that have been gleaned from clinical work, although he cautions that the list remains a work in progress.

Schema-focussed therapy proceeds in two stages. In the first stage, the focus is on assessment and education. Specific steps to achieve these goals include identifying the client's schemas and educating him/her about them, linking the schemas to the client's current problems and to his/her life history, helping the patient become aware of the emotions associated with his/her schemas, and identifying the client's dysfunctional coping styles. In the second stage of therapy, the goal is change. Specific steps within this stage include cognitive work, such as restructuring the client's cognitions about his/her schemas; experiential work to help the client grieve their early pain and regain some empowerment; a focus on the therapeutic relationship in order to "provide limited reparenting" as well as to work on confronting schemas and coping styles; and breaking of behavioral patterns by assigning and rehearsing behavioral change related to the client's current problems.

Schema-focussed therapy is a rich approach that advances CBT in some clear directions. SFT also moves the field of the cognitive-behavioral therapies much closer to other schools of thoughts, such as both the constructivist therapies (Neimeyer, this volume) and in particular the object-relations school of psychoanalysis schools. Unfortunately, at present there is a dearth of published research on the efficacy of schema-focussed therapy. Even some of the basic assumptions of the approach (for example, the benefit of reprocessing early experience) require evaluation. The evolving place of SFT within the cognitive-behavioral therapies will no doubt be based in part on these evaluations.

Case Example: The Importance of Case Conceptualization

"Dan" was a 43-year old while collar worker in a good-sized oil and gas firm, at least until the day he was told he was part of a "right-sizing" exercise the company he worked for was doing. As the only person laid off in his particular office, he began to question why he had been chosen. The company gave no answer; the settlement package they offered was a standard one, and the personnel officers offered no further clues.

Dan's wife of 14 years was anxious about the situation she and he were in. Mandy worried about mortgage payments and how they would afford to raise their two children. As Dan's initial attempts to obtain other work were unsuccessful, she became critical of him. His hope began to slip, and he found himself pulling away from both Mandy and other friends. By the time he recognized he was depressed and came for treatment, he had already entertained thoughts of running away and suicide as strategies to cope with his perceived incompetence.

The assessment of Dan revealed he met criteria for Major Depressive Disorder. His Beck Depression Inventory score of 34 suggested moderately severe depression, and his manner reflected this assessment. He had become quite pessimistic about his work prospects, and he was not actively searching for new work. In fact, he spent a good deal of time watching TV. Although he was helping out more around the house, both he and Mandy viewed this as a poor substitute for work. She was actively critical of him, and had recently started to reject him in bed.

Dan's case is not terribly unusual, but is does raise important questions about how best to conceptualize and approach his problem. Simply using the cognitive-behavioral therapies, potential approaches to this case include:

- Identifying the irrational beliefs he (and his wife) has about the need to work and

its role in defining his value as a person. REBT might have been used to educate Dan about his current beliefs and their consequences; then using rational disputation to broaden his view of his value.

- Treating his employment situation as a "problem" and using a problem-solving approach to his process of seeking re-employment. Techniques that could be used included generating various possible work situations, evaluating the advantages and disadvantages of each situation, defining optimal job strategies for the option that was chosen as the best from among those evaluated and encouraging Dan to act on these plans.
- Using cognitive therapy strategies to assess situation-specific cognitive distortions in a variety of problematic areas, including job search, or his relationship with Mandy, his children and friends. Using this approach he could learn the process of how depression affects the view of what is possible, and new options for adaptive behavior and more effective thinking could arise.
- A more schema-focussed cognitive therapy approach could have been employed to examine the origins of his apparent equation of his worth being defined by his work situation, and how this schema defined his reaction to his lay-off.

Which of the above conceptualizations was the "correct" one? Which one would lead to the best treatment plan, that would be maximally effective in reducing Dan's depression, helping restore his relationship with Mandy, or get him to return to the work force (assuming these were his goals)? Which approach would he find the most acceptable? Should his wife be brought into the treatment office? Might a simple behavioral plan, without cognitive interventions, be just as effective? Is there any data to support one or the other of the above plans for a depressed person with the profile of Dan?

It is an unfortunate reality that at present the research evidence does not support any one of the above strategies over its competitors (or treatments from other supported approaches). The treatment of Dan was therefore based more on a clinical judgement regarding what he presented as his most salient problem (his work situation), what he had tried previously that had not been successful (I always look for ineffective strategies, and then use something else). In the end, a combination of problem-solving and cognitive restructuring was used. We identified negative cognitions that were interfering with his job search and corrected these ideas (see the TIC-TOC strategy; Beck & Emery, 1985; J. Beck, 1995), and then used a more positive problem-solving approach to his employment situation. No doubt, his success in getting a new position was helpful in his recovery from depression, although the fact that it was at a lower income than his previous job left fertile ground for exploring the meanings he associated with position and economic value.

Indeed, it may not matter which approach was used with Dan. At this point in development we simply do not have a treatment algorithm to apply to individuals (I predict we never will, and that clinical judgement will always play a role at the individual case level). What this case does underscore for me, though, is the need for a case conceptualization (see also Persons, 1989; Persons & Davidson, in press) to plan the interventions that are applied.

Conceptual Issues and Future Directions

As the above sections attest, there is a wide range of cognitive-behavioral therapies, with a large number of interventions that can be applied to a broad range of clinical problems (Dobson & Craig, 1996; Granvold, 1994). Some of these therapies, such as REBT and Cognitive Therapy, represent systems of therapy, while other methods are methods of more focussed intervention (e.g. SIT). Cognitive-behavioral therapies are generally garnering research evidence

to support their development (Chambless, et al, 1998; Dobson & Craig, 1998), and it is likely that they will continue to be among the strongest developments in the years to come. Despite the above generally rosy picture, is remains true that a number of conceptual and development challenges exist for the cognitive-behavioral therapies. In this section we review some of the most salient of these issues.

One model or several?

One of the conceptual issues that has been raised about the cognitive-behavioral therapies is whether they represent a single conceptual approach to psychotherapy, several related approaches, or a set of techniques (e.g. McMullin, 1986). Certainly, the cognitive-behavioral therapies we have discussed above share the three essential elements first outlined by Dobson and Block (1988), in that they assume: 1) that cognitive activity affects behavior (the mediational hypothesis), 2) that cognitive activity may be monitored and altered (the access hypothesis), and 3) that desired behavioral change can be effected through cognitive change. They all share the idea that change in cognition, although a goal of therapy, is not sufficient to conclude that therapy is concluded. Rather, behavioral change as an index of cognitive change is also a required element of successful therapy.

We have argued that the constructivist forms of therapy are not within the gambit of the cognitive-behavioral therapies, because of their basic belief in the lack of a knowable, external reality. This perspective can be challenged (Held, 1995). We anticipate that considerable discussion about the "location" of the constructivist therapies within the taxonomy of psychotherapies in general will take place in the near future (see Neimeyer, this volume).

Beyond the question of constructivist therapies, though, it would be to the field's advantage if a proper taxonomy of the cognitive-behavioral therapies could be evolved. Such a

taxonomy could help to clarify if some approaches "supercede" others, and, conversely, if others are embedded with others. This taxonomy would be very helpful in the generation of comparative research studies. For example, it may be of value to contrast REBT, PST and CBT in the treatment of depression. In order to do, however, a more formalized taxonomy will be needed, with a clear exposition of which interventions "belong" to which therapies. Such research can help to clarify which are the effective ingredients of therapy, or lead to the generation of new hybrid cognitive-behavioral models of intervention.

Efficacy and Efficiency

Although the cognitive-behavioral therapies are beginning to amass a solid data base in terms of their efficacy (Chambless, et al, 1998) it remains the case that the efficacy literature requires development. For example, although cognitive therapy is now considered to be effective in treating depression, its status with regard to other clinical issues is not as well developed. As discussed above, there remain an insufficient number of well-controlled studies evaluating the efficacy of REBT. Some cognitive-behavioral therapies require further evidence to establish that they are more than "probably efficacious" (Chambless, et al, 1996; 1998).

It is our perspective that as mental health treatments in general become more firmly established as having efficacy, and as this evidence becomes more broadly known, several effects can be anticipated. First, as the public comes to learn about these data, they will seek these treatments. Third-party payers are acutely sensitive to funding what works, and so it can be expected that they will preferentially fund these treatments (indeed, this phenomenon is already occurring). Public policy makers and public agencies will always prefer to spend public funds on normative science and demonstrably evidence-based practice (Barlow, 1996). It is important to note that evidence-based practice and practice guidelines will favor all approaches

that are provided such support. Thus, although to date the cognitive-behavioral therapies distinguish themselves for their evidence, other therapy approaches can potentially also garner such evidence.

A critical question is whether or not the methodology typically associated with clinical trials can provide convincing evidence about therapy effectiveness. Although the randomized clinical trial continues to be the optimal research design for evaluating therapy effectiveness, a number of conceptual issues remain, including: the relative homogeneity of research participants, the manualization of treatment methods, the choice of outcome measures, the use of trained studied therapists, the nature of placebo or no-treatment controls, recruitment and sample sizes, the appropriate analysis of intent-to-treat and completer samples, the use of significance testing versus other outcome assessment, and so on (Haaga, this volume; Jacobson & Christensen, 1996: Kazdin, 1994). In the design of any given study, the investigator will typically trade off one advantage for another methodological or statistical problem.

On top of the research issues that emerge in efficacy studies, the issue of efficiency has increasingly been raised. If a given therapy "works", how many sessions of it are required? Can it be organized in such a manner as to be more broadly applied, or accepted by a higher proportion of patients? If two effective treatments exist for a given problem, is one more cost-effective, either in the short or long term (Hollon, 1996). These questions require studies that take an existing effective treatment, and then either modifies the treatment (e.g. compresses it into fewer sessions), or compares it to some other approach in terms of outcomes and other variables such as cost-offset, patient satisfaction, or some other measure of effectiveness of the approach (Howard, Moras, Brill, Martinovich, & Lutz, 1996). To date, such research is sparse. We therefore advocate greater attention to the issues of efficiency as well as efficacy in research

on the cognitive-behavioral therapies (Hollon, 1996; Howard, et al, 1996).

Mechanisms of change

Although the techniques of the cognitive behavioral therapies are fairly well explicated, it is the case that in large measure we do not well understand the mechanisms of change. Many of the therapies are complex, multifactorial approaches, and involve several techniques appropriate to the patient's presenting problems and stage of therapy. Further, many of the treatment manuals make reference to the need for a particular form of therapeutic relationship, and for certain structured elements of the therapy (e.g. session agendas, homework) irrespective of the therapy content. Whether the effectiveness of the cognitive-behavioral therapies rests on the nature of the therapy relationship, the structural elements of the therapy, the therapy techniques, or some combination of the above (potentially also in interaction with other patient variables) is not well understood at present.

In order to investigate the effective ingredients of change a number of research designs can be employed (Kazdin, 1994). Dismantling research paradigms have been used in examining the bases of the cognitive-behavioral therapies, in such areas as depression (Jacobson, et al, 1996; Gortner, et al, 1998; Nezu & Perri, 1989), anxiety disorders (Emmelkamp, Mersch, Vissia, & van der Helm, 1985; Jerremalm, Jansson, & Ost, 1986), and marital therapy (Jacobson, 1984). Problem solving therapies and panic control therapy, by virtue of their modular structure, recommend themselves for future such research.

A variant of efficiency research that has been used in some studies, but is still relatively under-utilized in the cognitive-behavioral tradition, is that of process research. For example, it is possible to assess the utilization of various techniques at various stages of treatment, and determine whether or not these techniques are associated with patient change. In a study of this

type, DeRubeis and Feeley (1990) documented that cognitive therapy techniques early in the course of therapy were associated with positive change in patient depression scores, and more than general relationship factors. Similar research may provide clues abut the mechanisms of change, and has obvious implications for the optimal delivery of effective treatments.

The moderating role of various patient characteristics on cognitive-behavioral treatment outcomes is as yet a relatively under-studied area. Beutler (Beutler & Baker, 1998; Beutler & Clarkin, 1994) has recommended the use of aptitude-by-treatment interactional research designs to examine these questions. Given that the cognitive-behavioral therapies are beginning to demonstrate a sufficient empirical base in general, it may be time to begin to study their relative effectiveness in specific populations or with specific patient characteristics (Beutler & Baker, 1998; Doyle, 1998). We recommend the strategies of aptitude-by-treatment research methods to the field, although we are cognizant that such research requires larger sample sizes than those typically associated with work in the field.

Training, adherence and competency issues

One of the issues that has recently emerged in the research literature is that of therapist training, adherence and competency. The criteria for empirically supported therapies include the development of a treatment manual to help ensure that the treatment, if found effective, can be replicated. This requirement, though, begs the question of what type of training is necessary for outcome and efficiency research (Dobson & Shaw, 1988). Presumably, a treatment manual will help to control the content of any treatment that is being investigated; put otherwise, it will control the independent variable. Measures of therapist adherence to a manual will constitute the operational definition of the manual's implementation. In addition to the issue of adherence, though, is that of competence. Competence rests on a level of skilful application of the

techniques of the treatment that goes beyond simple adherence. The optimal test of a treatment model should be based upon both an adherent and competent administration.

Unfortunately, the requirements of adherent and competent delivery of treatments are not often evaluated in treatment studies. Even in the research on cognitive therapy of depression, where this issue has been considered the most, standardised criteria for assessing adherence and competence are not yet available. It is not even clear who can be used as an evaluator of adherence and competence; for example, can trained undergraduate students provide valid competency ratings, or must the raters be trained experts (Dobson & Shaw, 1988)? Unlike in drug protocols, where blood or urine assays can assess the dose being delivered to the patient, we have no similar evaluations in psychotherapy.

It is important to note that although adherence is a critical issue in randomised clinical trials, it is relatively unimportant in clinical settings. Indeed, one of the criticisms of the psychotherapy literature is that the treatments are too pure, and that they do not relate well to clinical practice where therapists typically operate using an eclectic framework (Goldfried & Wolfe, 1996). What is critical for practitioners and service providers is how to be competent in delivery; adherence is relevant only if it can be demonstrated that a "pure" intervention is also the only competent way to deliver the treatment. Such questions require much more evaluation, both in general and with respect tot he cognitive-behavioral therapies.

Dissemination

Predicated on the assumption that the cognitive-behavioral therapies are effective, as the data base is beginning to show, an important issue emerges in how best to disseminate these treatments to interested and affected parties. Such parties include, but are not limited to, practitioners, patients, third party payers, and policy makers. Organisations that promote the

cognitive-behavioral therapies, such as the Association for the Advancement of Behavior Therapy, or the International Association of Cognitive Psychotherapies, have a pivotal role to play in ensuring that dissemination takes place. Methods such as journals, books, conferences, workshops, public press releases, political lobbying and just plain old "boosterism" for psychotherapy all recommend themselves to us as sound strategies. The therapies that garner sound efficacy and effectiveness evidence, not limited to, but certainly including the cognitive-behavioral therapies, deserve the opportunity to be used in clinical practice. Our patients deserve no less.

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