DEPRESSIVE DISORDERS

BEHAVIORAL TREATMENTS FOR UNIPOLAR DEPRESSION

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Behavioral Treatments for Unipolar Depression

The rich theoretical and empirical literature that has developed attests to the value and efficacy of behavioral treatments for unipolar depression. In a number of ways, behavioral approaches to the treatment of depression have led the way in the development of a scientific study of the psychotherapy of episodes of psychopathology. Within a relatively short period of time, both the quantity and sophistication of behavioral treatments for depression have increased dramatically. A variety of behaviorally oriented treatment packages for depressive disorders have developed and considerable evidence exists for the efficacy of each of these programs. A number of thoughtful and comprehensive reviews of this extensive literature have appeared (Blaney, 1981; Craighead, 1981; DeRubeis & Hollon, 1981; Hersen & Bellack, 1982; Lewinsohn & Hoberman, 1982). Beyond the cumulative support for their efficacy, behavioral approaches are worth considering for a number of reasons. Behavioral therapies offer the patient new or enhanced behavioral and cognitive skills as well as new ways of thinking about himself or herself. By focusing on the interaction of patients with their environment, such therapies allow for the modification of predisposing or etiologically significant interactions by helping the patient to change those interactions. Additionally, as Rush and Beck (1978) noted, behavioral interventions can be utilized to increase compliance with pharmacotherapy and to decrease premature termination from biological treatments. Finally, depressed persons who either refuse or cannot take antidepressant medication, or who do

not respond to adequate trails of pharmacological agents, may respond to behavioral therapies. As clinicians increasingly accept the value and power of behavioral approaches in the treatment of psychiatric disorders, practitioners have the opportunity to select from a range of therapeutic formulations and, thus, to match potential interventions with the particular needs of their patients and the parameters of their treatment settings.

CONCEPTUAL PERSPECTIVES

Current behavioral approaches to the treatment of depression can best be understood and appreciated against the background of the conceptual foundations of behavior therapy in general, as well as early attempts by behaviorists to generate and test theory-based treatments for depression.

Conceptual Foundations of Behavior Therapy

The development of behavioral approaches to the treatment of psychological disorders had its basis in two initially distinct but sequential movements within psychology. First, beginning in the early part of this century, investigators increasingly attempted to explain human behavior on the basis of experimental studies of learning. Thus, psychologists such as Thorndike (1931) and Skinner (1953) argued for the importance of the "law of effect" and the role of behavioral consequences in learning, with Skinner also emphasizing the role of the environment rather than undocumented mental entities in determining behavior. A second and somewhat later force in the genesis of behavior therapy was rooted in an increasing dissatisfaction with the predominant intrapsychic conceptions of abnormal behavior and related treatment approaches. More particularly, certain theorists and practitioners were motivated to explore alternative models of treatment primarily because: (a) there was difficulty in testing critical assumptions of psychodynamic approaches, and empirical support was lacking when those assumptions could be tested; (b) the current diagnostic schemes had

few implications for understanding the etiology, prognosis, or treatment of the disorders they defined; and (c) there was a general belief that, as Eysenck's (1952) study had suggested, the efficacy of traditional psychotherapy had yet to be established. As a result of the dissatisfaction with available psychotherapeutic orientations, a variety of theorists and therapists endeavored to develop therapeutic approaches based on the clinical utility of learning concepts. These initial theories and practices based on experimental studies of behavior constituted the basis for the field of behavior therapy.

Currently, behavior therapy can best be understood more as a general scientific approach to the understanding of behavior and its treatment rather than as having a specific theoretical basis or consisting of any specific set of techniques. Kazdin (1982) has suggested that behavior therapy can best be characterized by a number of assumptions:

1. A reliance on findings or techniques derived from general psychology, especially the psychology of learning

2. A view of the continuity of normal and abnormal behavior

3. A direct focus on the maladaptive behavior for which an individual seeks treatment

4. An emphasis on the assessment of behavior across domains and situations, for the delineation of both an individual's behavior and the influences that may contribute to, and thus may be used

to change, that behavior

5. A belief that the process of treatment should be closely tied to the continual assessment of problematic target behaviors so that the outcome of therapy can be measured by monitoring changes in target behaviors

Additionally, behavior therapy is marked by its focus on current rather than historical determinants of behavior and on the specification of treatment in objective and operational terms so that procedures can be replicated.

Behavioral Theories of Depression

The predominant behavioral theories of depression fall in the domain of what is known as social learning theory. Social learning theory assumes that psychological functioning can best be understood in terms of continuous reciprocal interactions among personal factors (e.g., cognitive processes, expectancies), behavioral factors, and environmental factors, all operating as interdependent determinants of one another. From the perspective of social learning theory, people are seen as capable of exercising considerable control over their own behavior, and not simply as reactors to external influences; rather, they are viewed as selecting, organizing, and transforming the stimuli that impinge upon them. People and their environments are seen as reciprocal determinants of one another (Bandura, 1977).

Lewinsohn and his colleagues articulated the seminal behavioral theory of depression which has guided much of the empirical study of behavioral treatments of unipolar depression. According to Lewinsohn, Biglan, and Zeiss (1976), low rates of positive reinforcement (e.g., rewarding experiences) and/or high rates of aversive experiences are the central mediating factors in the onset of depression. Thus, the critical assumption of behavioral theories of depression is that a low rate of behavior (e.g., social withdrawal), dysphoric feelings, and negative cognitions are the product of low rates of rewarding experiences and/or high rates of negative experiences. These conditions were theorized to occur as a result of several factors: (a) The person's immediate environment may have few available positive experiences or may have many punishing aspects; (b) the capacity to enjoy positive experiences may be reduced and/or the sensitivity to aversive events may be heightened; and (c) the person may lack the skills necessary to obtain available positive experiences and/or to cope effectively with aversive events. Evidence for each of these possibilities was shown by several studies (e.g., Lewinsohn, Youngren, & Grosscup, 1979) and was reviewed by Lewinsohn and Hoberman (1982).

Recently, Lewinsohn, Hoberman, Teri, and Hautzinger (1985) proposed a new theoretical model of the etiology and maintenance of depression. This integrative model of depression, presented schematically in Figure 16.1, represents an attempt to collate the findings of our epidemiological (Lewinsohn, Hoberman, & Rosenbaum, 1988) and treatment outcome studies (Zeiss,

Lewinsohn, & Mufloz, 1979) with an increasing body of work in social psychology on the phenomenon of self-awareness (Carver & Scheier, 1982; Duval & Wicklund, 1973). The proposed etiological model, while tentative, represents the phenomena and conditions which are most often involved in the development and maintenance of depression. One of the strengths of this model is its incorporation of a number of different characteristics and processes that can influence the occurrence of depression. In so doing, the theory accounts for the great heterogeneity that characterizes both depression and depressives. According to the integrative theory of depression, the depressogenic process consists of the following components:

1. Antecedents are empirically defined as all events that increase the probability for the future occurrence of depression. In the literature to date, all of these "evoking events" fall under the general rubric of stressors, including life events, microstressors, and chronic difficulties. In particular, stressors related to marital distress, social exits, and work problems exhibit an especially strong relationship to the later development of depression.

2. The occurrence of *antecedents* is assumed to initiate the depressogenic process to the extent that they disrupt substantial, important, and relatively automatic behavior patterns of individuals. Much of everyday behavior appears to be "scripted" and, consequently, automatic and requiring very little mental effort. Yet, these scripted patterns constitute aspects of an individuals' behavior repertoire that are typical and crucial to a person's everyday interactions with the environment. Consequently, if antecedent

or depression-evoking events do disrupt expected, automatic patterns of behavior, they are likely to elicit an immediate negative emotional response (e.g., dysphoria).

3. Such disruptions and emotional upset are assumed to be related to depression to the extent that they lead to a reduction of positive experiences and/or to an elevated rate of aversive experience; that is, they shift the balance of the quality of a person's interactions with the environment in a negative direction.

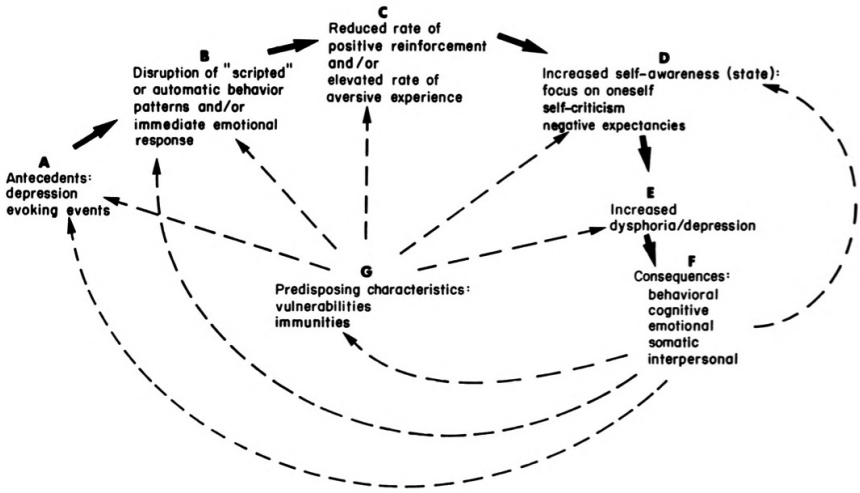

Figure 16.1. Schematic representation of variables involved in the occurrence of unipolar depression.

4. A continued inability to reverse the depressogenic process to this point (e.g., to cope with behavioral disruption through decreasing negative experiences or increasing positive ones and, thus,

producing a resumption of scripted behavior and/or neutral or positive affect) is hypothesized to lead to a heightened state of self-awareness. Such a state of increased self-awareness has been shown to have a number of relevant ramifications to depressive onset. First, given a situation that involves a behavioral standard (e.g., successful coping with evoking events and their subsequent emotional and behavioral disruption), self-awareness has been shown to increase self-evaluation and self-criticism when such a standard is not matched. Second, as negative outcome expectancies about future efforts to reverse the depressive cycle increase and individuals continue to be self-focused, their response is likely to be one of behavioral withdrawal and further self-criticism. In addition, heightened self-awareness has been shown to result in greater self-attribution for outcomes. In short, the elicitation of a state of heightened self-awareness breaks through an individual's self-protective, self-enhancing cognitive schema (e.g., Lewinsohn, Mischel, Chaplin, & Barton, 1980) and increases the individual's consciousness of having failed to live up to his or her expected standards of coping and, consequently, engenders a state of self-denigration and behavioral withdrawal.

5. Another important consequence of a heightened state of self-awareness is an intensification or magnification of affective reactions. The occurrence of disrupting antecedent events typically evokes some initial negative affect (e.g., sadness). Given an ongoing situation where an individual feels responsible for the occurrence of a stressor and/or attributes an inability to reverse the depressive cycle to himself or herself, dysphoria is likely to be the predominant emotional response. Thus, self-awareness will serve to magnify both the initial and continuing dysphoria.

6. Feeling increasingly dysphoric, in turn, is assumed to lead to many of the biological, behavioral, cognitive, emotional, and interpersonal changes that have previously been shown to be correlated with depression (e.g., appetite loss, slowed behavior, or social withdrawal). These changes are presumed to "lock in" the increased state of self-awareness and heightened dysphoria, creating a "vicious cycle" that serves to maintain the depressive state indefinitely.

7. The proposed model allows for a great variety of individual and environmental differences to both increase and decrease the risk of a depressive episode at a number of points during the depressogenic process. It is assumed that there are both predisposing vulnerabilities (e.g., being female, between ages 20 and 40, previous history of depression, and so on) and protective immunities (e.g., high self-perceived social competence, competence in social interaction, generalized coping skills, high frequency of pleasant events, and so on).

The integrative model, in addition to taking into account much of what is empirically known about depression, provides potential explanations for a number of important aspects of depression. The explanatory value of this integrative theory of depression, a more detailed description of the model, and a more elaborated empirical documentation of the processes implicated in the model is presented in Lewinsohn et al. (1985). The utility of the integrative model of depression for the clinician is twofold: First, it takes into account much of what has been learned through treatment outcome studies of depression, and, second, it

provides direction to the practitioner for the development and application of efficacious treatment programs.

In particular, the integrative model of depression highlights the probability that depressive episodes are the outcome of multiple events and processes. Of equal importance, it suggests that unipolar depression is a product of the transformation of behavior, affect, and cognition in the face of changing interactions between individuals and their environment. Therapeutically, it implicates a number of environmental, behavioral, affective, and cognitive phenomena as the targets of treatment. These include: stabilizing or reversing environmental changes (e.g., eliciting events); providing or enhancing means of coping with antecedent events that cannot be reversed and with the disruption of scripted behavior; decreasing the state of self-focus and the intensity of dysphoric affect; reducing critical self-evaluation and self-attribution for the failure to reverse the depressogenic process; reversing behavioral withdrawal and other correlates of the depressive episode; and remediating any predisposing vulnerabilities that facilitated the depressogenic process and that may, in turn, be maintaining the depressive episode. By selecting among these potential intervention strategies, behavioral treatments for depression aim to decrease the rate of negative experiences and increase the rate of positive experiences.

BEHAVIORAL STRATEGIES FOR TREATING DEPRESSION

A theory, however, is only a set of abstract statements suggesting general treatment goals for depressed persons (or at least certain kinds of depressives). A comprehensive treatment approach must also have a strategy. A treatment strategy translates the theory into a set of general operations and procedures that can be used to formulate treatment goals for the depressed person and to direct the elements of the treatment process. The guiding assumption in the treatment of depressed patients is that alterations in the frequency, quality, and range of the patients' activities and social interactions are the most common foci for achieving changes in the quality and frequency of positive experiences.

Diagnostic and Functional Assessment

First, an assessment for differential diagnosis must occur to determine whether depression is *the,* or at least *a,* problem for the individual. Individuals who are experiencing an episode of depression may manifest a heterogeneity of symptoms; additionally, symptoms of depression, and depression itself, occur in a large number of patients suffering from medical and other psychiatric disorders. Consequently, if depression is a presenting problem, an adequate medical and psychiatric history must be obtained to determine whether the depression is secondary to physical illness or a medical regime, or subsequent to a manic or hypomanic episode. In all these cases, it would be important to recommend an individual for specific assessment and treatment for the primary condition before

proceeding with behavioral treatment for the depression. Existing assessment instruments (the Beck Depression Inventory (BDI): Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; the Center for Epidemiologic Studies Depression Scale (CES-D): Radloff, 1977) allow a clinician to describe a patient in regard to depression severity and to delineate the specific constellation of symptoms shown by that patient as well as the absence or presence of other psychiatric conditions (the Schedule for Affective Disorders and Schizophrenia (SADS): Endicott & Spitzer, 1978; the Research Diagnostic Criteria (RDC): Spitzer, Endicott, & Robins, 1978).

While differential diagnosis may be common to behavioral as well as other treatment approaches, the second stage of assessment is relatively specific to behavioral interventions. A functional diagnosis or analysis of depressive behavior involves pinpointing specific person-environment interactions and events related to a particular patient's depression. This part of the diagnostic process is needed to guide the formulation of a specific, individualized treatment plan designed to change the events contributing to a particular patient's depression.

The prototypical means of identifying behavioral events and activities functionally related to depression involves the use of the Pleasant Events Schedule (PES; MacPhillamy & Lewinsohn, 1971) and the Unpleasant Events Schedule (UES; Lewinsohn, 1975a). Both of these tests have been described in greater detail elsewhere and test manuals providing normative data are available (Lewinsohn, 1975a, 1975b; MacPhillamy & Lewinsohn, 1982). Briefly, each schedule consists of

320 items assumed to represent an exhaustive sample of interactions with the environment that many people find pleasant or unpleasant. The client first rates the frequency of each event's occurrence during the past month, and then rates the subjective impact of the events. The frequency ratings are assumed to reflect the rate of occurrence of the events during the past month. The subjective impact ratings are assumed to indicate the individual's potential for positive experiences (e.g., enjoyability) and for negative experiences (e.g., aversiveness). Cross-product scores of the frequency and impact ratings are assumed to reflect the total amount of positive and negative experiences during the past month. Normative data on both schedules allow evaluation of the client's scores relative to others of the same sex.

Conceptualization of Presenting Problems

Another important strategy essential to behavior therapy for depression involves the development of a shared conceptualization of a patient's presenting problems between the therapist and the patient. Patients usually enter therapy with their own conceptualizations or definitions of their problems. As McLean (1981) wrote, depressed patients often see themselves as victims of their moods or environmental forces. Rarely do patients see their behaviors and/or their interpretations of their behaviors and/or the behaviors of others as causes for the depression. To complicate things further, increasing numbers of the lay and professional community are convinced that there is always a predominantly

biogenic cause of unipolar depression. This is often meant to imply the insignificance of psychological and environmental variables as causal factors. Thus, depressed patients often initially assume a passive stance; that is, they believe that something analogous to a physical disease has happened to them. Although they may emphasize specific behavioral problems (e.g., sleeplessness, lack of social involvement, obsessive thoughts), typically the focus is on "depression." Thus, it usually takes a considerable amount of work to move patients from a construct usage of the term *depression* to a recognition of the importance of specific problematic behavioral events that may be related to their dysphoria.

One goal of the initial phase of treatment is for therapist and patient to redefine the patient's problems in terms that will give the patient both a sense of control and a feeling of hope and in terms that will lead to specific behavioral interventions. Thus, the therapist tries to understand the patient's description and definition of the problem but may not uncritically accept the patient's view of the problem. Instead, therapist and patient attempt to redefine the problem in terms that are acceptable to both of them. Information obtained through the functional assessment of depressive behavior may be especially useful in developing a shared understanding of the genesis and maintenance of the patient's depression. It is the reformulation or conceptualization phase, then, that sets the stage for behavioral change; it is essential for successful treatment that the patient and the therapist evolve a common conceptualization with common expectations. This

conceptualization should be such as to lead naturally to specific behavioral changes that will benefit the patient in real-life situations.

There are numerous ways in which the patient and therapist can evolve a common conceptualization. The manner in which the therapist discusses the presenting problem, the kinds of questions asked, the type of assessment procedure employed, the content of the therapy rationale, and the kinds of initial homework assignments given are all used to evolve a common patient-therapist conceptualization. It is important to do a great deal of "structuring" in the initial phase of treatment of depressed patients so that there will be a clear and mutual understanding of expectations, goals, time commitments, and other conditions.

Monitoring of Mood and Activities

Continual feedback between ongoing assessment and treatment interventions especially characterizes behavioral treatments for depression. From the first day of therapy, the depressed patient is typically asked to monitor and rate his or her mood on a daily basis for the duration of treatment. These ratings can be made on a simple nine-point visual analog scale (where a one indicates very happy and a nine, very depressed). In rating their moods on a daily basis, depressed individuals are provided the opportunity to note variations in their mood. Daily mood variations also permit the therapist to note particular days when a patient is more or less depressed and to explore the specific circumstances

and/or repeated patterns influencing fluctuations in an individual's mood.

Similarly, patients are often asked to monitor the occurrences of pleasant and aversive events on a daily basis. Therapists typically prefer to generate an individualized list of events and activities for the individual to track. The main purpose of daily monitoring of activities and mood is to enable the patient and the therapist to become aware of the covariance that typically exists between mood and the rates of occurrences of pleasant and unpleasant activities. Inspection of a graph of the daily mood and event scores provides an easy means of estimating concomitant changes in the levels of these variables. Lewinsohn and his associates (Lewinsohn, 1976; Lewinsohn, Sullivan, & Grosscup, 1980) have pioneered the use of computerized analysis of PES and UES ratings to provide the basis for constructing a personalized activity schedule. This computer analysis provides the means of pinpointing precisely the specific events most highly correlated with mood fluctuations.

Patients are taught to graph and to interpret their daily monitoring data. They seem to understand intuitively the relationship between unpleasant events and mood. However, the covariation between pleasant events and mood is typically a relevation to patients. *Seeing* these relationships on a day-to-day basis impresses on patients, in a powerful way, how the quantity and the quality of their daily interactions have an important impact on their depression. Now, the depression is no longer a mysterious force, but an understandable experience.

Patients, in a very real sense, learn to diagnose the determinants of their own depression.

Progressive Goal Attainment and Behavioral Productivity

An increase in goal-defined behavior is essential to all behavioral treatments for depression. McLean (1981) has described a number of issues concerning goals common to depressed patients. He notes that many depressives are often problem- or crisis-focused and are unable to identify goals they wish to pursue. Typically, when depressed persons are able to formulate personal goals, their goals are unrealistically high and their criteria for achievement are expressed in a stringent, all-or-none manner. Depressed individuals, thus, are frequently characterized by frustration in attempting goals that have a low probability of attainment or, in those cases where goals are absent or undefined, by an aimless reactivity to the environment. In both cases, the general result of these deficiencies in goal setting is likely to be a decrease in purposeful behavior, particularly behavior that might have antidepressive consequences.

Given these deficits in goal setting and goal-related behavior, a major behavioral treatment strategy involves educating depressed individuals with regard to goals and goal-directed behavior. Depressives are taught to routinely set, plan, and review their goals. Each goal that is defined must be clearly relevant to the patient's needs. As Biglan and Dow (1981) note, patients are encouraged to

decide on their own priorities among goals and are encouraged to take global goals (e.g., happiness, success) and break them down into more specific, delimited, and attainable goals. After defining realistic objectives (e.g., aspects of the person or environment that can be changed), performance tasks are graduated "into as small units as are necessary in order to reduce the task demands to the point that successful performance is relatively guaranteed" (McLean, 1976, p. 80). Throughout treatment, an ongoing effort is made to keep intermediate treatment goals mutually meaningful and specific.

The emphasis in behavior therapy for depression is that thoughts and feelings can be most effectively influenced by behavior change. Consequently, a graduated, goal-oriented, behavioral focus is established early in treatment and the utility of this position is identified throughout the course of therapy. The focus on behavioral productivity is accomplished through the employment of regular homework assignments that emphasize gradual behavioral change designed to ensure a high probability of successful performance on the part of the depressive.

Contracting and Self-Reinforcement

Another central element of behavioral treatments for depression involves the "activation" of the depressed individuals' motivation by way of increasing their behavioral output. Both the assessment and the treatment of a depressed patient require effort on the patient's part. The patient may be asked to take steps

that involve substantial changes in daily activities. We advise patients to make specific agreements with themselves to give themselves rewards, but only if they perform the specific tasks agreed upon. Reinforcers may take many forms, such as material rewards or time to do things patients enjoy but don't do. The patients' responses on the PES, or activity schedules, also suggest potential rewards. Contracting is recommended because experience has shown that it facilitates the accomplishment of goals for many patients.

Another important means of cultivating motivation in depressed patients involves developing their ability and inclination to self-reinforce. The criteria for acknowledging its achievement are determined at the time the goal is set. If and when the goal is accomplished, the behavior therapist provides appropriate praise for this success. More importantly, the patient is encouraged (and reinforced) for employing any of a number of self-reinforcing practices. Other motivational tactics used include making the next appointment contingent on the completion of certain tasks and reducing patient fees for keeping appointments and for completing assignments.

Specific Skills—Remediation and Therapeutic Decision Making

Behavioral theories of depression place considerable weight, etiologically speaking, on an increase in competence-enhancing and pleasurable activities, particularly where there are specific performance and skill deficits. Depressed

individuals, as a group, show marked deficiencies in such areas as social skills, coping with stressors, and cognitive self-regulation (Lewinsohn & Hoberman, 1982). Hence, a significant aspect of all behavioral treatment programs for depression involves the systematic remediation of the performance and skill deficits presented by depressed patients. Treatment approaches thus focus on teaching depressed patients skills they can use to change detrimental patterns of interaction with their environment, as well as the skills needed to maintain these changes after the termination of therapy. Specific skills training interventions will vary from case to case; they will range from highly structured standardized programs to individually designed ad hoc procedures.

Training typically involves the following processes: didactic introduction to the skills involved; modeling and coaching by the therapist; role playing and rehearsal; practice by the patient during and after treatment sessions; and application of the skills in the real world. Among the variety of specific skills a therapist may employ in treating depressed individuals in behavioral treatment programs for depression are: self-change skills; contingency management skills; social skills such as assertiveness and communication skills; relaxation and stress management skills; identification and increase of rewarding activities; and a number of cognitive and self-control skills. Consequently, this is the aspect of therapy on which behavioral treatment programs differ the most from each other: different programs (and different therapists) often emphasize the application of different skills to reach similar strategic goals.

It must be remembered that, as individuals, depressed persons are remarkably heterogeneous with regard to symptoms, presenting problems, and functional difficulties. This fact points to the importance of therapeutic decision making in the behavior therapy of depressed individuals. Treatment decision making must necessarily be a dynamic process involving the nature of a patient's performance deficits, the nature of a patient's personal and social environmental resources, and ongoing treatment response (McLean, 1976).

Structural Parameters of Therapy

Behavioral treatment approaches are typically designed to be applied within a prespecified number of sessions. The time limit should be determined for each patient on the basis of the period of time that likely will be required to achieve the treatment goals. The existence of a time limit makes it essential for both the therapist and the patient to define and accept treatment goals they can reasonably expect to be accomplished during the allotted time. Of course, when deemed necessary by the patient or the therapist, treatment goals and time limits can be, and are, renegotiated.

Outcome Evaluation

A paramount concern of behavior therapy is the accountability of the therapist to the patient. This means that the selection and continuation of specific

treatment techniques must be justified on the basis of the ongoing evaluation of the patient's progress. Evaluation involves periodic assessment not only of changes in depression level but also of the concomitant changes in the events presumed to be related to the patient's depression. This two-pronged approach to assessment allows the therapist to evaluate the effectiveness of treatment, change the targeted behavior patterns, and then determine whether these steps are accompanied by changes in depression level.

Practical Concerns in Implementing Behavioral Treatments

Patient compliance with the procedures suggested by behavioral strategies for treating depression is the critical element in the actualization of behavior change. The behavioral approach requires considerable effort on the part of the patient and is dependent on the patient's keeping accurate records, being willing to learn how to chart the daily monitoring data, and agreeing to carry out other assignments from time to time. The crucial factor in eliciting a patient's cooperation is the therapist's ability to present a convincing rationale for the procedures. The therapist must be able to convince the patient that the self-monitoring and other assignments are an integral part of helpful treatment.

SPECIFIC BEHAVIORAL TREATMENT PROGRAMS

A variety of treatment programs, grounded in behavioral theories and sharing the general strategies described, have been developed and their efficacy examined. Despite commonalities, each of these programs differs in the employment of different tactics to accomplish goals pinpointed during the assessment process. Across treatment programs, behavioral treatment tactics are aimed at increasing positive experiences and decreasing unpleasant ones. These tactics, or specific interventions, typically fall into three general categories: (a) those that focus on implementing changes in the actual environment of a patient; (b) those that focus on teaching depressed individuals skills they can use to change problematic patterns of interaction with their environment; and (c) those that focus on decreasing the aversiveness and enhancing the pleasantness of person-environment interactions. Various combinations of these different tactics constitute the specific behavioral treatment programs for depression.

Decreasing Unpleasant Events and Increasing Pleasant Events

Lewinsohn, Sullivan, and Grosscup (1980) have described a behavioral program that aims to change the quality and the quantity of the depressed patient's interactions with the environment in the direction of increasing positive and decreasing negative interactions. The treatment is time-limited (12 sessions) and highly structured; a therapy manual is available to assist in the implementation of specific tactics. An activity schedule (Lewinsohn, 1976) is

constructed, consisting of 80 items rated by the patient as most pleasant and frequent and 80 items rated by the patient as most unpleasant and frequent. Patients begin daily monitoring both of the occurrence of pleasant and unpleasant activities and of their mood. They continue this daily monitoring for the duration of treatment. Subsequently, the treatment proceeds in two phases. In the first phase, treatment provides assistance to the patient in decreasing the frequency and subjective aversiveness of unpleasant events in his or her life and then, in the second phase, concentrates on increasing pleasant ones.

Reducing the Intensity of Aversive Events

The therapy begins by teaching patients to manage aversive events. Patients often overreact to unpleasant events and allow themselves to interfere with their engagement in, and enjoyment of, pleasant activities. Relaxation training is, therefore, introduced early in treatment, with the goal of teaching patients to be more relaxed generally but especially in specific situations in which they feel tense. Relaxation training is provided because feelings of anxiety and tension tend to make unpleasant events more aversive and to reduce patients' enjoyment of pleasant activities. Anxiety and tension also tend to impair the clear thinking required for making decisions, planning, and learning new skills. Relaxation training has become a multipurpose tactic. It is a procedure that is easy to master, and patients tend to become particularly involved with it. Relaxation training (in particular, the practice sessions with the therapist) also seems to enhance certain

nonspecific, but positive, components in the therapeutic process. The relaxation methods represent a modified version of the technique developed by Jacobson (1929) for inducing deep muscular relaxation. The patient is also assigned to read a book (Benson, 1975; Rosen, 1977) that presents all the practices one needs to know and follow in inducing progressive muscular relaxation.

Cognitive skills are intended to facilitate changes in the way patients think about reality. The locus of control over thoughts can clearly be identified as being in the patient since only the patient can observe his or her thoughts. Patients may monitor their thoughts, their connection to environmental events, and their mood every day. They are taught to discriminate between positive and negative thoughts, necessary and unnecessary thoughts, and constructive and destructive thoughts.

A number of cognitive self-management techniques have been utilized, including thought stopping and "premacking" positive thoughts (Mahoney & Thoresen, 1974) and Meichenbaum and Turk's "self talk" procedure (1976). Patients may be asked to schedule a "worrying time" or to engage in a "blowup" technique whereby potentially negative consequences are progressively exaggerated. Rational-emotive concepts may be covered and a procedure for disputing irrational thoughts may be presented (Ellis & Harper, 1961; Kranzler, 1974). All techniques are presented as skills that, to become maximally useful must be learned and practiced.

Reducing the Frequency of Aversive Events

The "decreasing unpleasant events" aspect of therapy then proceeds with pinpointing a small number of negative interactions or situations that trigger the patient's dysphoria. In order to reduce the aversiveness of these situations, the therapist has available a wide range of tactics. Typically, they fall into three categories: stress management skills, reducing aversive social interactions, and facilitating time management.

The stress management skills employed are based on techniques and procedures described by Meichenbaum and Turk (1976) and by Novaco (1975). Stress management training involves teaching patients to recognize objective signs of dysphoria early in the provocative sequence. The patients become aware of pending aversive situations and the effect that they are having on them. Components of "cognitive preparation" involve teaching patients specific skills needed for dealing with aversive situations and preparing for aversive encounters: self-instruction, in vivo relaxation, problem-solving skills, and other task-oriented skills.

Tactics aimed at allowing the patient to change the quantity and the quality of his or her interpersonal relationships typically cover two aspects of interpersonal behavior: assertion and interpersonal style of expressive behavior. For assertion, a covert modeling procedure based on Kazdin's works (1976) has been utilized in a sequence involving instruction, modeling, rehearsal, and

feedback. After the concept of assertion is presented, patients read *Your Perfect Right* (Alberti & Emmons, 1974) and a personalized list of problematic situations is developed by the patient and the therapist. The therapist may model some assertive possibilities for the patient; after that, the patient is encouraged to take over and to rehearse assertiveness using the covert modeling procedure. Transfer to in vivo practices is planned and monitored during later sessions.

Work on the interpersonal style of the patient involves the same format of instruction, modeling, rehearsal, and feedback. Patients and therapists together set goals (usually small and easily attained) based on preassessment problems and the patient's preferences. Typical goals may include responding with more positive interest to others, reducing complaints or "whining," increasing activity level and discussion, or changing other verbal aspects of behavior.

Daily planning and time management training is another general tactic included in the program. At this stage, patients read and make considerable use of selected chapters from Lakein's *How to Get Control of Your Time and Your Life* (1974). Depressed individuals typically make poor use of their time, do not plan ahead and, therefore, have not made the preparations (e.g., getting a baby sitter) needed in order to take advantage of opportunities for pleasant events. The training aims also to assist patients to achieve a better balance between activities they want to do and activities they feel they are obligated to do. Using a time schedule, patients are asked to preplan each day and each week.

Increasing Pleasant Activities

The weekly and daily planning also lays the groundwork for patients to schedule specific pleasant events which become the focus of the second phase of treatment. In helping patients to increase their rate of engagement in pleasant activities, the emphasis is on setting concrete goals for this increase and on developing specific plans for things patients will do. Patients make use of their activity schedule to identify events that they enjoy. Specific goals for increasing the actual amount of enjoyment are established and monitored. Patients are taught to distinguish events, behaviors, and feelings that interfere with the enjoyment of activities and to use relaxation, cognitive techniques, social skills, and so on to increase their enjoyment of these activities. Small but systematic increases in the number of pleasant activities are implemented by each patient over a period of several weeks and the effects on their mood are self-monitored. Beyond increasing simply the number of pleasant events, patients are assisted in distinguishing and enacting pleasant events that have a particularly strong relationship to a more positive mood. Patients are especially encouraged to increase their pleasant social activities. Patients and therapists set goals for such increases based on the patients' current frequency of social activity. Goals are gradually increased over several sessions. A more detailed description of this individualized treatment procedure and case illustrations are presented in papers by Lewinsohn, Sullivan, and Grosscup (1980).

With regard to the efficacy of this behavioral intervention, Lewinsohn, Youngren, and Grosscup (1979) examined the relationship between reinforcement and depression across four samples of depressives. Over the course of treatment, they found that the rate of positive reinforcement increased as a function of improvement in clinical depression level. Similarly, the rate of experienced aversiveness, or the reaction to unpleasant events, diminished as clinical depression decreased.

Social Interaction Therapy

The social interaction theory of depression postulated by McLean (1976, 1981) considers the depressed person's interaction with his or her social environment to be crucial for both the development and the reversal of depression. As McLean views it, depression results when individuals lose the ability to control their interpersonal environment. When ineffective coping techniques are utilized to remedy situational life problems, the consequence may be a decrease in positive events and, thus, depression. Social interaction therapy aims to maximize the patient's competence in specific coping skills.

Social interaction therapy incorporates behavioral and cognitive techniques. Consequently, social interaction therapy places a marked emphasis on therapeutic decision making that involves appropriate intervention components. It is also distinguished by its incorporation of procedures for including relevant social

network members (e.g., spouses) as integral components of treatment.

The therapist's evaluation includes the patient's living arrangements, marital status and satisfaction, and employment status and satisfaction. McLean stresses the importance of obtaining the patient's own criteria for improvement and maintaining a treatment that focuses on data management; explicit performance criteria are monitored by the patient throughout therapy.

Six specific therapeutic components are suggested by McLean: communication training, behavioral productivity, social interaction training, assertiveness training, decision-making and problem-solving training, and cognitive self-control. While the first three components are utilized in the treatment of all depressed patients, the latter three are employed based upon assessment of a patient's particular deficiencies in the problem areas. Perhaps the most distinctive component of social interaction therapy involves communication training between the patient and his or her spouse or significant other. Therapy includes a structured form of communication training to counteract aversive marital interactions and a constricted quantity in range of interactions. Communication exercises aim to provide opportunities for positive feedback, to enhance self-esteem, and to facilitate other forms of social interactions. Additionally, the inclusion of a relevant social network member is important in the promotion of social interaction and in maintaining treatment effects. At the end of treatment, patients are assisted to prepare for future episodes of depression, and

contingency plans are established and rehearsed.

McLean, Ogston, and Grauer (1973) developed a therapeutic program based on the aforementioned components and found it to produce significant changes in problematic behaviors and in verbal communication styles. In a large-scale treatment outcome study conducted by McLean and Hakstian (1979), 178 moderately clinically depressed patients were selected by interview screening and psychometric criteria. Subjects were randomly assigned to one of four treatment conditions: behavior therapy as described by McLean (1976), short-term traditional psychotherapy, relaxation training, and medication (amitriptyline). Experienced therapists were selected on the basis of their preferred treatment modality. Patients encouraged their spouses or significant others to participate in treatment sessions, which took place weekly over 10 weeks. The results obtained demonstrated the unequivocal superiority of the behavioral intervention. Behavioral therapy was best on nine out of 10 outcome measures immediately after treatment, and marginally superior at a three-month follow-up (best on seven of 10 outcome measures). Additionally, behavior therapy conditions showed a significantly lower attrition rate (5 percent) than the other conditions, which had dropout rates of 26 to 36 percent. The medication condition was found to have the highest attrition rate. The traditional psychotherapy treatment proved to be the least effective at both the posttreatment and follow-up evaluation periods; generally, it fared worse than the control condition (relaxation training).

Social Skills Training for Depression

Based on Lewinsohn's (1975a) earlier writing on depression, a behavioral program for treating depression was developed by combining social skill techniques utilized in Lewinsohn's (1975b) early research with social skill procedures developed with other types of psychiatric patients (Hersen, Bellack, & Himmelhoch, 1982). This approach, Social Skills Training (SST) (Bellack, Hersen, & Himmelhoch, 1981a), assumes that the depressed patient has either lost socially skillful responses as the result of anxiety, the course of psychiatric illness, or hospitalization, or that the patient never possessed social skills in his or her behavioral repertoire. Consequently, treatment is conceived of as a reeducation or education for depressed patients and employs instruction, feedback, social reinforcement, modeling, coaching, behavioral rehearsal, and graded homework assignments. The actual implementation of therapeutic interventions is based on a careful behavioral analysis of social skill deficits. Typically, treatment takes place over 12 weekly therapy sessions followed by six to eight booster sessions spread over a six-month period. SST can best be understood as focusing on a matrix that has types of social situations on one axis and types of social skills on the other. Since social skills tend to be situation-specific, training is provided in each of four social contexts: (a) with strangers; (b) with friends; (c) with family members or in heterosocial interactions; (d) at work or school. The importance of each of these four contexts is prioritized by each individual. Within each area, specific social problems are delineated and dealt with hierarchically in order of increasing

difficulty. Treatment across the different social contexts is seen as ensuring generalization of social skills across a variety of situations. Three types of social skills, which are viewed as being especially relevant to depression, are the primary focus of social skills training. *Positive assertion* refers to the expression of positive feelings toward others. Instruction in positive assertion concentrates on giving compliments, expressing affection, offering approval and praise, and making apologies; particular emphasis is placed on responding at appropriate times with the appropriate nonverbal components. *Negative assertion* refers to the expression of displeasure and to standing up for one's own rights. Training in this skill concerns refusing unrealistic requests, requesting new behavior from others, compromising and negotiating, and expressing disapproval or annoyance. Here, treatment aims to demonstrate that the reactions of others will be less negative than expected and less painful than continuing passivity and submissiveness. The third target of this treatment is *conversational skills,* including the ability to initiate, maintain, and end conversation. Patients are coached to avoid "sick talk" and to be more positively reinforcing to others.

For each social context-social skill deficit, the training program emphasizes four individual components. The skills training component involves learning specific response skills. Assessment is conducted through a role-playing task. Intervention targets are identified and the patient is provided with a rationale for his or her responding. Specific succinct instructions are provided for what the patient should do in a given situation. Following this, a number of serial trials

occur in which the patient observes the therapist model a response. The patient then performs the response. Discrete response behaviors are taught singly and sequentially, with regular feedback and positive reinforcement. Since behaviors that are not overlearned have been shown to drop out in stressful situations, the second component of social skills training involves practice both within therapy sessions and outside therapy. Appropriate homework assignments designed to lead to reinforcement are made and monitored by the patient and therapist. Social perception training is an additional treatment component and includes instruction in the social meaning of various response cues, familiarity with social mores, attention to the relevant aspects of interaction context, and ability to accurately predict interpersonal consequences. Finally, in the self-evaluation and reinforcement component, depressives are trained to evaluate their responding more objectively and to employ self-reinforcements; the therapist provides objective and appropriate criteria for judgment if the patient is too negative in self-evaluation.

Two pilot studies of SST (Hersen, Bellack, & Himmelhoch, 1980; Wells, Hersen, Bellack, & Himmelhoch, 1979) demonstrated that this intervention resulted in improvement both in specific social skills and in scores on self-report and psychiatric rating scales. Two larger studies of SST were reported by Bellack, Hersen, and Himmelhoch (1981b, 1983) and four different treatments (amitriptyline, SST plus amitriptyline, SST plus placebo, and psychotherapy plus placebo) were employed across 72 female outpatients. All treatments produced

statistically significant and clinically meaningful changes in symptoms and social functioning. Thus, SST plus placebo was as effective as amitriptyline alone or psychotherapy plus placebo. However, a greater proportion of patients were significantly improved in the SST plus placebo condition. In addition, Bellack, Hersen, and Himmelhoch (1983) found that patients treated with SST plus placebo showed the greatest improvement on measures of social skills and were most similar to normal women after treatment. Further, there was a significant difference in dropout rate across the treatment conditions—from a low of 15 percent in the SST plus placebo to as high as 56 percent in the amitriptyline alone condition (Bellack, et al., 1981b).

An Operant Reinforcement Approach

An operant reinforcement method of treating depression was described by Azrin and Besalel (1981). Like other behavioral programs, this one stresses an increase of reinforcement. However, Azrin and Besalel also report on a number of distinctive tactics designed to facilitate the amelioration of depression.

Depressed individuals are asked to identify at least four changes they desire. Each objective is to be stated in behavioral terms, if possible, and in terms of specific frequencies or duration. Patients are asked to rate their degree of happiness in each of eight areas: household responsibilities, sex, communication, social activities, finances, care of children, independence, and personal habits. On

the basis of these assessment procedures, treatment tactics are discussed initially with the patient and a behavioral contract is signed by both the therapist and patient outlining their responsibilities to one another.

More specifically, a number of instruments are presented to the patient which emphasize positive rather than problematic aspects of his or her life; these forms serve as the basis for the management of positive reinforcements during the course of treatment. Patients indicate which of 15 attitudinal statements, reflecting quasi-universal positive attributes, apply to them. On the basis of this desirable attitude list, patients write down as many "nice qualities about themselves" as they can think of. Next, a "happiness reminder" list of 18 items, reflecting generally positive types of events or situations, is utilized as a basis for generating a personalized list of activities and events that have been pleasant, meaningful, or previously interesting to the patient. Additionally, patients are asked to indicate which events on a possible pleasant activities list of 50 recreational activities apply to them. A list of probable pleasant activities is constructed for each patient and each item is rated on a one-to-four scale as to degree of enjoyment obtained for each activity. Another list, this one of all persons liked by the patient, is also constructed. Employing these various lists of potentially reinforcing events, activities, and persons, the therapist helps the patient to arrange a daily and weekly schedule for engagement in reinforcing activities.

Azrin and Besalel (1981) also reported on techniques to directly combat the negative mood of depression. Employing an overcorrection rationale, the therapist teaches the depressed individual to engage in compensatory, positive statements whenever a depressive state or response occurs. Each positive statement is derived from the "nice qualities" list described earlier and serves the purpose of self-praise. Patients are also asked to review a list of 42 severe traumatic events (e.g., "My house burned down"), few, if any, of which apply to a given person; this tactic is designed to induce behavioral contrasts with the patient's own life situation. Similarly, the depressed person is asked to respond to a form emphasizing positive aspects of stress-related severe depression, including possibly negative aspects of their life situation if their problem had not occurred and any benefits that occurred because of the problem. Each of these procedures is intended to refocus the patient's affective experience.

Reinforcer-facilitating social skills are taught to depressed persons whose depression is influenced by unsatisfactory social relationships. Individuals are taught to give compliments and show appreciation, to request reinforcers (e.g., compliments or appreciation) from others, to react to annoyance caused by others, to make agreements with others, and to identify probable reinforcers of friends. In addition, patients are encouraged to engage in "happy talk" with friends, focusing on pleasant (not problem-solving) topics of mutual interest.

Finally, common sources of depression are addressed directly through skill

remediation. Individuals with marital, vocational, employment, and other specific problems are assisted in translating amorphous complaints into specific behavioral objectives. Patients are then helped to implement those objectives through condensed interventions for marital, vocational, employment, and academic concerns.

Treatment utilizing these tactics takes place over four to 10 sessions. Particular procedures are discussed and practiced throughout treatment as necessary. Patients utilize self-reminder forms on which they record activities assigned to be carried out for each day between treatment sessions. These activities include each of the individualized goals, the activities scheduled by the therapist, and various positive interactional activities relevant to the specific individual. During treatment meetings, this form serves as the starting point of discussion and emphasizes what the depressed individual has done to help himself or herself. The therapist reviews the form and accomplishments of the previous week and then assigns and helps the patient to practice further intervention tactics. In contrast to other behavioral interventions, there is no attempt to have the patient master one procedure before proceeding to the next one. Rather, as noted earlier, all potentially relevant techniques are introduced initially and then applied as appropriate.

The Coping with Depression Course

The Coping with Depression (CWD) course is a multimodal, psycho-educational group treatment for unipolar depression. The major vehicle for treatment is an explicit educational experience designed to teach people techniques and strategies for coping with the problems that are assumed to be related to their depression. Thus, the course emphasizes the attainment of knowledge and skills over an intensive relationship with a therapist. The CWD course consists of 12 two-hour sessions conducted over eight weeks. Sessions are held twice a week during the first four weeks of treatment, and once a week for the final four weeks. One-month and six-month follow-up sessions, called "class reunions," are held to encourage maintenance of treatment gains.

The first two sessions of the CWD course are devoted to the definition of course ground rules, the presentation of the social learning view of depression, and instruction in basic self-help skills. The next eight sessions are devoted to the acquisition of skills in four specific areas: (a) learning how to relax; (b) increasing pleasant activities; (c) changing aspects of one's thinking; and (d) improving both the quality and quantity of one's social interactions. Each of the sessions in these four specific areas makes use of similar skills and techniques described earlier as part of the individualized treatment program for depression. Two sessions are devoted to each skill. The final two sessions focus on maintenance and prevention issues.

The course is a highly structured, time-limited, skill-training program that

makes use of a text, *Control Your Depression* (Lewinsohn, Mufloz, Youngren, & Zeiss, 1978), from which reading assignments are made; a participant workbook (Brown & Lewinsohn, 1979) that was developed to supplement the text; and an Instructor's Manual (Steinmetz et al., 1979), to ensure comparability of treatment across instructors. A more detailed description of the course is provided in Lewinsohn, Antonuccio, Steinmetz, and Teri (1984).

The participant workbook contains goal statements, assignments for each session, and monitoring forms for recording specific behaviors, thoughts, and feelings relevant to the class assignments. Group time is divided among lecture, review of the assignments, discussion, role playing, and structured exercises. The instructor's main goals are to deliver the course information accurately, to promote the effective application of the information, to help participants solve problems related to the material, and to facilitate a supportive group interaction.

An important feature of the CWD course is that participants are able to meet effectively in groups, to assist each other in overcoming their depression. With relatively few exceptions (Barrera, 1979; Lewinsohn, Weinstein, & Alper, 1970), previous cognitive behavioral treatments have been offered exclusively in an individual therapy mode. This is not surprising since most authorities in the area of group therapy (Yalom, 1975) advise against homogeneous groups of depressed patients. The CWD results indicate that, within the structure presented by the course, depressives work together very effectively. Another feature of the course

is that it presents a cost-effective, community-oriented outreach approach to impact on the great majority of depressives who never avail themselves of the services of clinics and mental health professionals. The educational focus reduces the stigma involved in seeking "psychiatric" or "psychological" treatment, which is especially important to the elderly depressed.

Several outcome studies have been conducted with the Coping with Depression course. Brown and Lewinsohn (1984) compared the CWD course to individual tutoring based upon the CWD course, a minimal phone contact intervention, and a wait-list control group. Teri and Lewinsohn (1981) compared the CWD course to individual behavior therapy for depression (Lewinsohn, Sullivan, & Grosscup, 1980). In both of these studies, the improvement shown by depressed individuals participating in the CWD course was substantial at posttreatment and was maintained at both one-month and six-month follow-up. The results indicated that the differences among all active treatment conditions were small and not statistically significant. In two other studies (Steinmetz, Lewinsohn, & Antonuccio, 1983; Hoberman, Lewinsohn, & Tilson, 1988), similar rates of improvement were demonstrated.

Both course leader and participant variables have been studied in relation to positive outcomes in the CWD courses. Antonuccio, Lewinsohn, and Steinmetz (1982) found that even though leaders differed significantly on many therapist variables (e.g., therapist warmth, enthusiasm, and so on), there was no significant

effect for therapist differences; that is, the instructors did not differ in how much improvement their respective participants displayed at the end of the course. Both Steinmetz et al. (1983) and Hoberman et al. (1988) examined individual predictors of outcome for CWD participants. Summarizing the results of these studies, the most robust predictors of recovery from depression following treatment were: (a) lower pretreatment levels of depression, (b) higher social functioning, (c) perceived mastery over events, (d) optimism regarding treatment outcome, and (e) early positive perceptions of group cohesiveness.

In recent years, investigators have modified the CWD course and studied its effectiveness with populations other than middle-aged adult depressives. To treat depressed adolescents, Clarke and Lewinsohn (1986) added interventions incorporating basic communication, negotiation, and conflict resolution skills into the basic CWD course program. Both Clarke (1985) and Lewinsohn, Clarke, Hops, Andrews, and Osteen (1988) demonstrated significant improvements for clinically depressed adolescents as a result of treatment with the CWD course for adolescents. A modification of the CWD course, the Life Satisfaction Course (Steinmetz, Zeiss, & Thompson, 1984), was developed for use with depressed elderly persons and was found to be efficacious (Thompson, Gallagher, Nies, & Epstein, 1983; Breckenridge, Zeiss, Breckenridge, & Thompson, 1985). Finally, a pilot study has shown that inpatients with "drug refractory" depression responded favorably to a modified version of the CWD program (Antonuccio et al., 1983).

The CWD course has also been studied as a means of preventing episodes of depression among individuals presumed to be at elevated risk of developing such episodes. Mufioz, Ying, Armas, Chan, and Gurza (1987) modified the CWD course and employed it with low-income, minority medical outpatients, a group known to be at high risk for future depressive episodes. Results indicated that participants receiving the CWD course showed a significantly greater decrease in the level of depressive symptoms and lower rates of depressive disorder (Mufioz et al., 1988). Similarly, Manson and colleagues (Manson, 1988; Manson, Moseley, & Brenneman, 1988) are conducting a study of a modified version of the CWD course for use as a preventive intervention with Native Americans aged 45 and older.

COMMON OUTCOMES OF BEHAVIORAL TREATMENT FOR DEPRESSION AND THE MECHANISM OF CHANGE

Clearly, a number of well-defined behavioral treatment programs for unipolar depression presently exist. All of these treatment programs share a basic conceptualization of the etiology of depression which emphasizes changes in the quality of an individual's interactions with the environment. Behavioral theories assume that the depressed patient has acquired maladaptive reaction patterns that can be unlearned. Symptoms are seen as important in their own right rather than simply as manifestations of underlying conflicts, and treatments are aimed at the modification of relatively specific behaviors and cognitions rather than a general reorganization of the patient's personality. All behavioral treatments, to date, are structured and time-limited. For each specific behavioral treatment program, empirical support for its therapeutic efficacy has been demonstrated. Each program appears to produce significant decreases in depression level and depressive symptomatology, although relatively little difference in outcome measures has been observed between treatment programs or modalities. It seems clear that at least certain behavioral treatment programs ameliorate depression in the same degree or better than antidepressive medications and that a significantly lower number of patients drop out of behavioral treatments. In fact, a recent study by Steinbrueck, Maxwell, and Howard (1983) presented a meta-analysis of 56 outcome studies of drug therapy and psychotherapy (most of which were cognitive and/or behavioral in nature) in the treatment of unipolar depression in

adults. Their results suggest that psychotherapy had an average effectiveness almost twice that of chemotherapy.

Two significant questions arise. First, by what mechanism(s) are behavioral treatments effective? Second, how is it that all the different behavioral treatment programs appear to be similarly effective? With regard to the first question, the contention of cognitive-behavioral approaches has been that changes in symptoms are effected by modifying behaviors or thoughts that are presumed to cause those symptoms. Thus, changes in cognitive and behavioral skills and, consequently, different outcomes are theorized to be the critical mechanism of change. A meta-analysis of placebo-controlled behavior therapy studies indicated that the specific effects of behavior therapies are twice as great as the nonspecific effects (Bowers & Clum, 1988). These findings suggest that some dimensions of such interventions do contribute to outcomes beyond a placebo effect of treatment.

However, relatively little attention has been focused on determining whether the specific cognitive or behavioral changes do, in fact, occur as a result of behavioral treatments for depression. Available studies suggest a somewhat contradictory set of affairs. To date, few studies have attempted to investigate the mechanism of change in behavioral treatments for depression. Williams (1988) examined adolescents who received the adolescent version of the CWD course. She found that, despite significant improvements in depression, treated patients

did not appear to improve in the actual skills presumed to produce the change in depression. These results suggest that actual skills or behavior change may not play the significant role in the CWD course and by extension in other behavioral treatments.

Even when specific interventions are employed in the treatment of depression, there appears to be no selective impact on target behaviors. Zeiss, Lewinsohn, and Mufioz (1979) compared brief behavioral interventions based upon increasing pleasant activities, improving social skills, or reducing negative conditions. They found that participants receiving different treatments all improved equally in their activities, social skills, and cognitions. Similar results were reported by Rehm, Rabin, Kaslow, and Willard (1982). In studies comparing cognitive therapy and pharmacotherapy (Rush, Beck, Kovacs, Weissenberger, & Hollon, 1982; Simons, Garfield, & Murphy, 1984), both depressed persons who received cognitive therapy and those who received antidepressant medication evidenced similar changes in cognitions over the course of treatment.

Yet, there is evidence that matching specific treatment techniques to patients with particular target problems can produce particular benefits. McKnight, Nelson, Hayes, and Jarrett (1983) found that patients with social skills difficulties and irrational cognitions improved more after receiving specific interventions for those deficits than after interventions not related to their presenting problem areas. Simons, Lustman, Wetzel, and Murphy (1985) similarly

showed that patients who scored high on a measure of learned resourcefulness (Rosenbaum, 1980) did better in cognitive therapy than in pharmacotherapy. The results of these studies suggest that it may be clinically efficacious to match particular treatment components to types of target problem areas that patients present.

With regard to the mechanism of change for behavioral interventions for depression, several possibilities exist. While perhaps not all patients demonstrate changes in the particular skills targeted by behavioral intervention, it may be the case that allocating one or two sessions per skill or problem area is insufficient to produce actual behavior change. In addition, given the results of the studies by McKnight et al. (1983) and Simons et al. (1985), it may be that only certain patients with particular target problem areas will demonstrate specific changes in behavior or cognition. Such changes may be obscured by analyses of total samples of patients. The lack of differential treatment response for unique interventions suggests two potential, but related, mechanisms of change. First, while actual behavioral or cognitive change may not be the means of change for all patients, clearly some aspect of cognitive-behavioral interventions is efficacious above and beyond a simple placebo or nonspecific event. Given the results of Zeiss et al. (1979), Rehm et al. (1982), and others, it may be argued that behavioral treatment programs are effective to the degree they employ some common "core" of strategies as opposed to any specific intervention. Specific techniques may be less important in these treatments than structural characteristics of the treatments.

With these conditions present, a second component of change may operate: an increased sense of self-efficacy based upon self-perceived mastery. Such a notion harkens back to Frank (1961), who theorized that treatment is effective to the extent that it succeeds in restoring "morale" to a demoralized client.

Thus, the authors of two treatment outcome studies for behavioral treatments of depression have offered their hypotheses as to the critical components for successful short-term behavioral treatments for depression. Zeiss et al. (1979) concluded that efficacious behavioral treatments should include the following characteristics:

1. Therapy should begin with an elaborated, well-planned rationale.

2. Therapy should provide training in skills that the patient can utilize to feel more effective in handling his or her daily life.

3. Therapy should emphasize independent use of these skills by the patient outside of the therapy context, and thus provide enough structure so that the attainment of independent skills is possible for the patient.

4. Therapy should encourage the patient's attribution that improvement in mood is caused by the patient's increased skillfulness and not by the therapist's skillfulness.

Similarly, McLean and Hakstian (1979) noted that high structure, a social learning rationale, goal attainment focus, and increasing social interaction were significant

elements in the behavioral treatment of depression.

SUMMARY

Behavioral treatments for depression are among the most popular and effective of available interventions. Initially grounded in the principles of learning and in the need for demonstrated effectiveness of psychotherapy, current behavioral theories of depression have become systemic and multidimensional. A core set of strategies informs the different models of behavioral treatments for depressive disorder. At the same time, each behavioral program includes unique tactics for improving the quality of the depressed person's interactions with his or her world. It is clear to date, that, while simple and practical, behavioral interventions are quite powerful in the acute treatment of depression. Further research efforts should be directed at strengthening the content and structure of the behavioral programs both to increase their effectiveness with patients who present with multiple problems and psychiatric disorders and to reduce the likelihood of recurrent depressions. In addition, by elucidating the mechanism of therapeutic action of behavioral tactics, both the understanding of etiological factors in depression and the effectiveness of interventions should be enhanced.

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