

Behavioral Activation Treatment for Depression: Returning to Contextual Roots

Neil S. Jacobson, Christopher R. Martell, and Sona Dimidjian
University of Washington

Behavioral activation (BA), as a stand-alone treatment for depression, began as a behavior therapy treatment condition in a component analysis study of the Beck, Rush, Shaw, and Emery version of cognitive therapy. BA attempts to help depressed people reengage in their lives through focused activation strategies. These strategies counter patterns of avoidance, withdrawal, and inactivity that may exacerbate depressive episodes by generating additional secondary problems in individuals' lives. BA is designed to help individuals approach and access sources of positive reinforcement in their lives, which can serve a natural antidepressant function. Our purpose in this article is to describe BA and the history of its development.

Key words: behavioral activation, contextualism, major depression, cognitive-behavioral therapy, psychotherapeutic techniques. [*Clin Psychol Sci Prac* 8:255-270, 2001]

In 1990, Jacobson and colleagues at the University of Washington began a dismantling study where they tested competing hypotheses about the basis for the effects of cognitive therapy (Jacobson et al., 1996). In particular, they isolated the behavioral activation (BA) component of cognitive therapy (CT) to determine whether simply activating depressed people, and thereby helping them make contact with potentially reinforcing experiences, could account for the benefits of CT. The initial findings were consistent with the activation hypothesis, and long-

Address correspondence to Christopher R. Martell, Ph.D., Department of Psychology, University of Washington, 1107 N. E. 45th St., #310, Seattle, WA 98105-4631.

term follow-up results suggested that BA was as effective at preventing relapse as CT (Gortner, Gollan, Dobson, & Jacobson, 1998).

Based on these results, we, in collaboration with Michael Addis and Keith Dobson, have spent the past 2 years developing a new and more comprehensive model of BA designed as a treatment in its own right (Martell, Addis, & Jacobson, 2001). Although there is significant overlap between the techniques used in the previous study and those currently used, our work has placed BA in a broader contextual framework. Whereas in the last trial BA was defined by what could not be done (i.e., the proscription of cognitive interventions), BA as it is currently practiced has been developed to maximize the potential of a functional analytic treatment, which is epistemologically rooted in the philosophy of contextualism (Jacobson, 1994; Pepper, 1942) and a distinctly behavioral theory of depression (Ferster, 1973).

A large clinical trial is underway comparing the efficacy of our BA model to CT (overseen by Sandra Coffman, Keith Dobson, and Steven Hollon) and pharmacotherapy (overseen by David Dunner) for individuals diagnosed with current major depressive disorder.¹ Participants in the BA and CT conditions receive a maximum of 24 therapy sessions over a 16-week period. The pharmacotherapy is administered under double-blind conditions and includes 3 groups: (a) 16 weeks of paroxetine (trade name Paxil) followed by 1 year continuation paroxetine treatment, (b) 16 weeks of paroxetine followed by 1 year of pill placebo, and (c) eight weeks of pill placebo. This design is calibrated with previous trials to demonstrate the drug responsiveness of our sample (acute Paxil vs. acute pill placebo; Klein, 1996) and to establish the relapse potential of the psychotherapies (BA vs. CT vs. discontinued Paxil). It

also allows for a direct comparison of the acute and long-term efficacy among BA, CT, and Paxil when maintenance medication is used (Jacobson & Gortner, 2000).

The purpose of this article is to provide an overview of the current BA model, focusing in particular on the origin and history of our laboratory's interest in BA, the underlying principles of the model, and its primary intervention strategies. We discuss both the theory and practice of BA. In so doing, we illustrate how the epistemological assumptions as well as the underlying theory differentiate BA from CT and traditional behavior therapy but link BA more closely with a functional analysis of depression.

A BRIEF HISTORY OF BEHAVIORAL ACTIVATION

Interest in our new model of BA evolved from the empirical findings of the component analysis study (Gortner et al., 1998; Jacobson et al., 1996). Results from this study suggested that the behavioral activation component of CT performed as well as the full CT package in the acute treatment of depression and the prevention of relapse over a 2-year follow-up period. These results demanded careful scrutiny of the cognitive theory of depression and the prevailing treatment technology. It challenged the notion that one must directly confront and modify negative core schemas to effect change in depression and suggested that activating clients may, in fact, be not only necessary but also sufficient.

The component analysis study was not the first study to challenge the cognitive explanation for the documented success of CT. Cognitive therapy for depression has been demonstrated to be an efficacious treatment for depression in multiple clinical trials since the 1980s (DeRubeis, Gelfand, Tang, & Simons, 1999; Dobson, 1989; Hollon, Shelton, & Loosen, 1991). However, a number of investigators have questioned whether cognitive interventions, in fact, account for the positive outcome of cognitive therapy (see, e.g., Beidel & Turner, 1986; Latimer & Sweet, 1984; Sweet & Louizeaux, 1991; Wilson, Gordin, & Charbonneau-Powis, 1983). The component analysis study highlighted the surprising efficacy of a purely behavioral approach and, from a pragmatic standpoint, raised the question of whether BA, a more parsimonious treatment, would be more amenable to dissemination, particularly via less experienced therapists and/or self-administered or peer support treatments.

The component analysis results led to our effort to develop BA into a treatment in its own right, a process that in turn led us back to the behavioral literature. A number of behavioral theories of and treatments for depression have been proposed and evaluated during recent decades. In fact, nearly 30 years ago, Ferster (1973) proposed a distinctly behavioral theory of depression, based largely on the radical behaviorist principles of B. F. Skinner (1957). Ferster (1973) emphasized the importance of a functional analysis of behavior in the understanding and treatment of depression, which he described as an analysis in which "the significance of a person's activities is understood by the way it operates on the environment, including, of course, both sides of his skin . . . behavioral significance is largely derived from the reinforcers maintaining them, rather than their overt form" (p. 868). In addition to highlighting the functional analysis, Ferster also emphasized the centrality of increased avoidance and escape behaviors and decreased positively reinforced behaviors among depressed individuals. Although avoidance behavior was an essential feature of Ferster's early behavioral model of depression and is firmly established as a process that complicates anxiety disorders (Barlow, Blanchard, Vermilyea, Vermilyea, & DiNardo, 1986), it has largely been overlooked in the literature on depression prior to our new BA model (Dobson et al., 1999).

Lewinsohn and colleagues (e.g., Lewinsohn & Graf, 1973; Lewinsohn & Libet, 1972) also postulated a behavioral theory of depression in which a decrease in pleasant events or an increase in aversive events was associated with the onset of depression. In this way, particular reinforcing qualities of a person's environment, such as low rates of positive reinforcement or increased rates of punishment, were assumed to be causally related to depression (Lewinsohn, Antonuccio, Breckenridge, & Teri, 1984). Lewinsohn's original treatment (Lewinsohn & Graf) generally sought to increase large classes of self-defined "pleasant events" to increase the positive reinforcement for depressed clients.

Lewinsohn's treatment was significant for its emphasis on the importance of reinforcement contingencies in the treatment of depression and as such provides an important foundation for our BA model. Lewinsohn's treatment model, however, relied primarily on a nomothetic approach in the identification and classification of reinforcing events. In contrast, we conceptualize BA as more

idiographic and do not make a priori assumptions that an event is reinforcing until we have seen that it increases behavior or has a positive effect on mood.

In addition to Lewinsohn's model, other behavioral models have been developed with the aim of addressing the difficulties with problem solving often observed among depressed individuals (Nezu, 1989). The behaviorally focused therapy developed by D'Zurilla and Goldfried (1971) trained clients in five steps of problem solving: problem orientation, problem definition and formulation, generation of alternatives, decision making, and solution verification.

The early behavioral models, however, did not endure as purely behavioral treatments. Over time, cognitive interventions were integrated. For instance, as the treatment of Lewinsohn and Graf (1973) developed, it incorporated cognitive techniques; the current "coping with depression program" (Lewinsohn et al., 1984) includes cognitive restructuring interventions along with relaxation therapy, efforts to increase pleasant activities, and assertiveness and social skills training. Problem-solving treatment was also expanded to include distinctly cognitive components; for example, Nezu and Perri (1989) incorporated an examination of individuals' beliefs and expectations about problems and their ability to solve them. Moreover, behavioral interventions were subsumed as simply components of cognitive treatments with the explicit aim of modifying internal cognitive structures. For instance, Beck, Rush, Shaw, and Emery (1979) described BA strategies in the overall CT package as follows, "The ultimate aim of these techniques in cognitive therapy is to produce change in the negative attitudes" (p. 118). More recently, Hollon (1999) was similarly explicit about the goal of behavioral interventions in the context of CT: "The key point is that even when cognitive therapists are focusing on behaviors, they do so within the context of a larger model that relates those actions to the beliefs and expectations from which they arise and view them as an opportunity to test the accuracy of those underlying beliefs" (p. 306).

In each of these ways, it was clear that behavior therapy for depression had strayed far from its early contextual or functional roots (Jacobson, 1994; Pepper, 1942). Our current model of BA, while including all of the techniques represented in the BA treatment of the earlier study (Jacobson et al., 1996), has been formulated to return

behavior therapy for depression back to these early contextual roots.

BEHAVIORAL ACTIVATION AND THE DEMEDICALIZATION OF DEPRESSION

The functional analytic framework of BA is radically different from models that regard depression purely as a medical illness. In this way, BA is part of a larger effort to provide an alternative to treatment models that have underemphasized the importance of context and highlighted the importance of individual, internal dysfunction. Although clinical psychologists at one time challenged the assumptions of such models, today individual defect models have come to represent the normal science of our times (Jacobson & Gortner, 2000), whether the defects are biological, genetic, or have their source in faulty thinking.

Individual illness models focus on pathology within the organism, whereas a functional models look outside of the organism to establish relations between behavior and environment (Jacobson, 1997). A functional approach by no means denies either genetic (e.g., Kendler & Karkowski-Shuman, 1997) or biological vulnerabilities to depression. Dysregulation of neurotransmitter systems have been consistently reported in research on affective disorders (Siever & Davis, 1985); however, to date, the data are inconclusive regarding both causation and specific biological dysfunction that may account for effective pharmacological treatments (Maes & Meltzer, 1995; Schatzberg & Schildkraut, 1995). Neither purely biological nor purely behavioral models have been demonstrated to be sufficient in determining the pathogenesis of depression (Free & Oei, 1989).

Thus, the BA model does not deny the presence of genetic or biological vulnerability; however, it does suggest that an exclusive focus on biology risks ignoring a wide range of potentially important contextual factors in the onset and maintenance of depression. Clearly, some percentage of the variance in depression is a function of genetic predisposition (Gatz, Pederson, Plomin, Nesselroade, & McClearn, 1992). However, the epidemic of depression that has led a doubling of its incidence since World War II (Blehar, Weissman, Gershon, & Hirschfeld, 1988) is at odds with a purely genetic interpretation. Moreover, it seems likely that there are many subtypes of depression, and genetics may play a greater role in some types than in others (Winokur, 1997). Depression

differs from individual to individual in kind as well as in degree. Within that heterogeneous category called major depressive disorder, vulnerability factors appear to be quite heterogeneous. In fact, since estimates suggest that between 20 and 55% of the population report mild depressive symptoms at some point in their lives (Amenson & Lewinsohn, 1981; Kessler et al., 1994; Oliver & Simmons, 1985), as many as half the adult population may be vulnerable to depression. Our assumption is that for the majority of vulnerable people, life experience explains the risk.

When one looks closely at the demographics of depression, the importance of contextual factors external to the sufferer is clear. The probability of suffering from depression increases following traumatic life events, chronic stressors, and other situational factors (Kendler et al., 1995; Monroe & Simons, 1991). For example, marriage serves a protective function for both men and women, but much more so for men. In fact, some studies (e.g., Radloff and Rae, 1979) find that the gender gap in depression, which typically runs at least 2:1 in favor of women, actually reverses when married women are compared to single men. The studies are unanimous in showing that marital status serves a protective function for men; but for women, the protective function starts to disappear, and in some cases, marriage can become a vulnerability factor for women. Women who are unemployed, in their 20s or 30s, and have 3 children under the age of 10, are at great risk for depression (Prince & Jacobson, 1995). The gender differences in depression are much easier to explain based on the advantages that accrue to men for being in a traditional marriage, and the oppression of women in similar situations (Jacobson, 1989). The evidence suggests that one's place in the culture and status in society are clearly linked to vulnerability to depression. Additional factors point to learning history as an explanation for individual differences within the same subculture. Classic studies such as the Brown and Harris (1978) life events research in England point to factors such as parental loss and poverty as vulnerability factors.

Moreover, the use of antidepressant medications in the treatment of depression is not without problems. Non-compliance with pharmacological interventions and the fact that a substantial number of individuals are refractory to multiple medications limit the effectiveness of antidepressant medications for many individuals (Thase & Kupfer, 1996). Side effects are problematic, even with the

selective serotonin reuptake inhibitors (SSRIs), and occur in a substantial proportion of users (Antonuccio, Danton, DeNelsky, Greenberg, & Gordon, 1999). The safety of antidepressant medications has also been called into question, with prescription medications being implicated in the completion of suicide in depression (Antonuccio et al., 1999; Hollon et al., 1992). Furthermore, the relapse prevention effects of pharmacological interventions are limited as compared to psychosocial interventions (Blackburn, Eunson, & Bishop, 1986; Evans et al., 1992; Shea et al., 1992; Simons, Murphy, Levine, & Wetzel, 1996). It has also been argued that current treatment guidelines (American Psychiatric Association [APA], 1993; Depression Guideline Panel, 1993) underestimate the benefits of psychotherapy as a valid treatment for depression (Persons, Thase, & Crits-Christoph, 1996).

THE BASICS OF BEHAVIORAL ACTIVATION

Unlike most other popular models of depression, BA begins with the assumption that the triggers for any given depressive episode can be most effectively located in the life of the sufferer, rather than deficiencies within that individual (Brown & Harris, 1978; Dill & Anderson, 1999; Holahan, Moos, & Bonin, 1999; Mazure, 1998; Monroe & Simons, 1991; Monroe & Steiner, 1986). In other words, although we acknowledge that individuals differ in their vulnerability during the life events that trigger depression (Gatz et al., 1992), we focus on the ways in which individuals' lives have gone awry. Although we have no direct evidence that the environment is primarily responsible for depression, we think the current evidence points strongly to adverse life circumstances as critical causal factors. Furthermore, from a pragmatic standpoint, we believe that depression can be effectively treated when one looks outside rather than inside the sufferer for explanations. Thus, our treatment approach is based fundamentally on a distinctly behavioral model of depression.

In BA, we look at both the events taking place in the individual's life and the individual's response to the events once he or she becomes depressed. It is our contention that much of the behavior of depressed people functions as avoidance behavior as the individuals try to cope with the unconditioned responses to environments characterized by low levels of positive reinforcement or high levels of aversive control (Dobson et al., 1999). Inactivity, withdrawal, and inertia are commonly observed behaviors among depressed individuals. These are most frequently

seen as symptoms of depression and therefore are considered clinically to be part of what defines the disorder and are listed as part of the diagnostic criteria (APA, 1994). From a BA perspective, however, we also pay particular attention to the function of these behaviors in the context of an individual's life.

Unfortunately, while often providing relief in the short run, these avoidance patterns often function to deny depressed people access or opportunity to contact potentially antidepressant sources of reinforcement in their lives. Avoidance patterns tend to increasingly narrow the repertoire of behaviors in which an individual engages and often create secondary problems in an individual's life. For instance, the avoidance behaviors of staying in bed because a person feels lethargic often lead to secondary problems, such as poor attendance at work, which exacerbate contextual triggers (e.g., by increasing aversive control and/or decreasing positive reinforcement in an individual's life). We target these escape and avoidance behaviors and resultant secondary problems when we work toward guided activity to increase the probability of clients contacting positive reinforcement in their environment.

Highly related to avoidance patterns are routine disruptions, hypothesized to be a component of depressive disorders that may prove to integrate the purely biological and the purely psychosocial explanations for etiology and maintenance of depression (Ehlers, Frank, & Kupfer, 1988). The concept of social *zeitgebers* is central to routine disruption: It is a German word that, roughly translated, refers to social regulators of biological rhythms, our dependence on social/environmental routines to maintain emotional stability. Just as our biological clocks operate according to circadian rhythms, triggered by physical *zeitgebers* such as light, our dependence on social habits at certain times during the day, and the disruption of these routines may play an important role in depression. Ehlers, Kupfer, Frank, and Monk (1993) define *zeitgebers* as time cues and refer to *zeitstörers* as time disrupters. Examples of *zeitstörers* are transmeridian flight, shift work, a newborn baby, death of a loved one, a hostile home, and so on.

These concepts may have relevance to major and minor depressive disorder, as well as the recently identified subsyndromal symptomatic depression (Judd, Rapaport, Paulus, & Brown, 1994). As our daily habits and cultures determine, we sleep at certain times, eat at others, and so forth. These routines become important to us all—

to the point that our bodies become dependent on them. Disruption of these routines can cause us to be out of sync with our environments and can contribute to the exacerbation of depression. Regaining old routines, or finding new ones, are often important in the healing process. In fact, Ehlers et al. (1988) suggest that one of the reasons that interpersonal psychotherapy for depression (Klerman, Weissman, Rounsaville, & Chevron, 1984) is successful is because it regulates weekly social interaction, and CT for depression (Beck et al., 1979) is successful in part because of the behavioral activation components establishing weekly activities. Behavioral activation includes the establishment of routine both to ameliorate any disruptions in patterns of daily life and because repeat attempts are required on the part of the client before new behaviors are established in the repertoire.

COURSE OF TREATMENT

There is a logical course of BA treatment both in terms of the overall treatment and the structure of the therapy sessions. Within this overall structure, BA also has several general components: establishing a therapeutic relationship and presenting the model, developing treatment goals, conducting a functional analysis of daily events, and treatment review and relapse prevention. These components are reviewed below and are followed by a discussion of selected interventions.

The discussion below should be used as a guideline or general format. Because BA is a contextual and idiographic approach, it does not involve a lock-step session-by-session format. Moreover, further detail on session structure and treatment protocol is provided in Martell et al. (2001) and the BA treatment manual developed for use in our current investigation (University of Washington, 1999).

Establishing a Good Therapeutic Relationship and Presenting the Model

The treatment model should be presented in the first session of therapy, and clients should be encouraged to ask questions and/or express any doubts or concerns about the ways the model applies to their particular life circumstances. We present the model both in discussion during the session and through a brief written description of the model, which we ask clients to review before the second session. It should be noted that, although the explanation of the treatment rationale occurs in the early part of treat-

ment, it will likely need to be repeated multiple times over the course of treatment.

In our presentation of the treatment model, we highlight several elements. First, the relationships among mood, activity, and environment are clearly discussed. We highlight the vicious cycle that can develop between depressed mood, decreased activation/withdrawal/avoidance, and worsened depression. We explain that activation is a way to break this cycle and help people improve their mood and address the problems in their lives that precipitated or have been maintaining their depression. We explain that to increase activation and recover from depression, behavior needs to be goal directed rather than mood directed. In this way, we emphasize that BA takes an “outside-in” approach to behavior change (Jacobson & Gortner, 2000; Martell et al., 2001), despite the fact that popular belief (as well as other models of treatment) are predicated on “inside-out” approaches. One of the primary goals of presenting the BA model is to dispel the myth that changes in mood need to occur before changes in behavior. For example, a client in our study was reluctant to use an activity chart to plan activities for the week between therapy appointments. He would frequently state that he “would only do the activities if he had the energy.” The therapist identified the client’s emphasis on the need for energy as a prerequisite to action as an inside-out approach (i.e., waiting for an internal state to determine what behavior to engage in). The therapist suggested that the client try, as an experiment, to write one or two activities in his activity chart and to engage in the activity regardless of how he felt. He was asked to make a commitment to use the chart (the “outside”) rather than his feelings (the “inside”) to guide his behavior. The client did so and noted a significant positive shift in his mood state after engaging in the planned activities.

Second, we emphasize the importance of focused activation. We explain that we will not recommend that clients simply increase their activity at random, nor will we recommend that they increase behaviors that are generally thought to be pleasurable (e.g., taking a walk in a park). Instead, we emphasize the importance of finding which behaviors and activities will be positively reinforcing and will help disrupt the spiral of depression for each individual client. We emphasize that for BA to be effective, it must be tailored to each client’s particular life.

Third, we work to convey a sense of optimism for clients when presenting the treatment rationale. In part, conveying optimism depends on communicating empa-

thy for the difficulty of modifying behavior when one is depressed. We communicate to clients our understanding of the ways in which depression can rob them of energy, motivation, and hopefulness. However, we also emphasize that waiting for one’s mood to change before changing one’s behavior is likely to keep the client trapped in depression. We highlight the evidence supporting the fact that directed activation can improve mood, help people change the problems in their lives, and protect them from depression in the future.

Fourth, we explain the role of the therapist, often using metaphors of “coach,” “personal trainer,” or “consultant.” We emphasize that the role of the therapist is to work collaboratively with clients. Thus, therapists will not be prescribing tools for the client, nor will the client be alone in the process of change. Establishing a collaborative foundation is a critical part of effectively presenting the model and conducting effective BA in general. The general BA model is presented to each client, but the specific strategies used for a given client are individualized through a good functional analysis with each client.

Developing Treatment Goals

The development of treatment goals is a collaborative process between the therapist and client. Ultimately, the goal is to have clients engage in their lives in ways that modify their environment to increase their contact with sources of positive reinforcement. Once the model has been presented to the client, the therapist and client together identify secondary problem behaviors (e.g., avoidance patterns, routine disruption, inactivity) as well as larger life circumstances that may have precipitated or may be maintaining the depression. This information is used to delineate short- and long-term goals.

This process is essential in helping clients negotiate through the morass of feelings associated with depression and take steps toward making the necessary changes in their lives. Frequently clients have nonspecific goals such as “feeling better” or “getting a life.” Initially, then, focused, specific, and operational goals need to be articulated. Clients often have great difficulty distinguishing a short-term and long-term goal. Any goal that cannot be attained through immediate action and that requires progressive steps over a specified period of time to achieve is, therefore, defined as a long-term goal. In our 16-week treatment protocol, it is usually possible to focus on only one or two longer-term goals. Most of the therapy consists of helping clients activate themselves by setting short-

term behavioral change goals, detailing the steps to achieve these goals, and acting as a coach to encourage them to do the work to reach the goals.

BA is distinguished from other therapies for depression by our focus on new behaviors as a goal rather than on feeling good or thinking differently. In other words, the goal is the action itself, rather than the outcome of the action. Clients are asked to articulate when and where they will engage in specific activities and to suspend judgment about the outcome until they notice a change either in their mood or in momentum to engage in other behaviors.

Generally, goals relating to the modification of avoidance patterns, including routine disruptions, are tackled first in BA because such patterns directly interfere with the modification of triggers. Once these goals are addressed, interventions are directed toward helping clients change other elements of the environmental context of their lives. Often this includes addressing the contextual triggers that may have precipitated or may be currently maintaining their depression. For instance, toward the end of her treatment, one client began to address her sense of social isolation, which was precipitated a few years previously when her daughter married and moved to another city. Specific behavioral tasks were developed to broaden her social network and increase her social activation.

Also, many clients have goals that they may not have direct control over achieving, such as getting a certain job or making their partner or spouse act in a more considerate manner. In such cases, the goals for treatment should focus on increasing the client's activation rather than on modifying another's behavior or attaining a specific situation. A client from the current study provides an example. Gary was a 50-year-old man who had been laid off from a prestigious job when his company was purchased by another. The only work that he had been able to find was as a retail check-out clerk, and he had stopped his job search almost a year before his involvement in the study. One of his goals was to find a job in his field. However, given that he had not had such a job for more than 2 years, it was important that he not be set up for failure by the BA therapist. Gary's treatment helped him to begin to engage again in the behaviors that would increase the likelihood that he would find a job in his field. The goal was to continue with consistency in his job search, however, not to find a perfect job.

It is important to note that some clients may not get beyond the successful modification of secondary problem

behaviors over the course of treatment. Nevertheless, such clients are no longer maintaining avoidance behaviors which, in and of itself, provides an important step toward teaching clients to behave in ways that maximize the likelihood of contacting positive reinforcement in their environments.

Conducting a Functional Analysis

In our functional analyses, we attend in particular to contextual triggers for the depression and responses that are elicited by such triggers, which often include avoidance patterns and routine disruption. In our examination of contextual triggers, we are careful to note environmental contexts and learning histories characterized by low levels of positive reinforcement and/or aversive control. In general, our analysis is composed of a set of hypotheses: What triggered the depression? What particular depressive symptoms is the client experiencing? How is the client responding to or trying to cope with the depression? To what extent are avoidance patterns exacerbating the depression? What routines have been disrupted?

We test the adequacy of the functional analysis by examining whether it fulfills our pragmatic truth criterion; that is, does it lead to a treatment that successfully reverses the depression? We never know for sure that we have correctly identified functional relationships, but the analysis is assumed to be correct if it leads to a treatment that successfully reverses the depression.

The case of one of the clients in our current study, whom we will call Steve, can be used to illustrate the results of a functional analysis as we use it. When Steve entered therapy, his Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) score was in the 40s. He had tried antidepressants in the past but felt that they had little effect and was looking for a therapy that provided a direct link to his life concerns. Steve explained that he had been depressed for about a year, ever since his divorce. His wife left him because he had had an affair, and he was now living with the woman with whom he had had the affair. His divorce created financial problems that in turn led to a great deal of ruminative worrying. He was also reporting increased quarreling with his new significant other and considerable conflict with his ex-wife around parenting issues.

Steve engaged in a number of avoidance patterns. Since the onset of his depression, he had been irritable and difficult to get along with. He alienated his significant other, his children, his ex-wife, and his co-workers. Even

though his accomplishments on the job provided him with his one primary area of stability, satisfaction, and accomplishment, he did not go to work on a regular basis, and this was a significant avoidance pattern. Instead, when he awoke in the morning feeling depressed, he called in sick, and spent the day sitting on the couch, ruminating about how bad his life was. He was spending less and less time with his children, which relieved him of his parental responsibilities, but also increased his social isolation.

As a final step in our functional analysis of Steve, we examined the disruption in his routine, both before and since the onset of his depression. His marital relationship, and all of the routines that stabilized his life along with being married, were gone. He added instability to his life by working erratically. When he worked, he felt good at the end of the day. However, the tasks of getting up in the morning, getting ready for work, and getting there seemed overwhelming; not only was his erratic performance at work a further routine disruption, but it led to other unproductive avoidance patterns: staying in the house all day and not getting dressed; ruminating unproductively; and becoming even more irritable.

In order for Steve to reengage in his life, we hypothesized that a number of the avoidance patterns and routine disruptions that he had developed needed to be modified. In addition, a number of the contextual triggers needed to be addressed: he needed financial security, a stable relationship with his new partner, and a better adjustment to his role as part-time, noncustodial parent. Finally, a less conflictual co-parenting relationship with his ex-wife would also aid in his recovery. These areas were identified as important treatment goals and were addressed in BA through the use of the activation strategies discussed below.

The functional analysis forms the foundation of BA treatment. Treatment plans follow directly from the functional analysis, and in this way, it is the functional analysis that guides the overall course of treatment. Moreover, teaching clients to conduct functional analyses of their lives is a critical part of BA treatment.

Treatment Review and Relapse Prevention

Given the propensity for relapse in depression, all good therapies include a plan for preventing relapse. Behavioral activation is no exception. The belief that it is important to modify basic structures or core beliefs in cognitive-behavior therapy in order to produce lasting change was challenged by the original study comparing BA to the full

CT (Gortner et al., 1998). As behavioral activation has developed further from the initial BA methodology, the logical progression to program relapse prevention into the treatment has taken place. In BA, clients are taught to use a functional analysis to recognize environmental triggers to behaviors that result in or maintain dysphoria, and to then modify their behavior or avoid the environmental antecedent. Furthermore, in final sessions, therapists and clients should review the initial presenting problems and formulate a relapse prevention/response plan.

ACTIVATION STRATEGIES IN A TYPICAL BA REGIMEN

Focused Activation

Simply encouraging individuals to engage in pleasant activities does not provide adequate antidepressant effects (Dobson & Joffe, 1986; Hammen & Glass, 1975). The focused activation approach used in BA stems from our functional analysis and contrasts sharply with behavioral approaches that attempt to increase activities from a broad class of behaviors assumed to be positively reinforcing (e.g., taking walks, going to movies).

In these ways, the BA therapist works closely with the client to understand the client's current activities and to ascertain the activities in which the client believes it would be helpful to engage. The therapist and client then develop a plan to experiment with the new behavior and assess the outcome. In this way, BA makes frequent use of the pragmatic truth criterion central to a contextual epistemology (Hayes, 1993); if the new behavior helps clients function better in spite of mood, or improves their mood, clients are then encouraged to continue to engage in this behavior as part of their regular repertoire.

Activity logs, monitoring mastery and pleasure ratings, and client reports in date books are used to keep track of activities clients engage in. Therapists conduct a careful analysis of the activities reported in these charts. When activities are associated with a change in mood, therapists engage clients in detailed discussions of the contextual variables that may have accounted for this shift. In these ways, clients' abilities to conduct functional analyses of their own lives are enhanced.

Graded Task Assignment

Typically, focused activation is achieved through a process of graded task assignment. Thus, the assignment of increasingly more difficult tasks is used to move clients gradually toward full participation in activities that have a

maximum likelihood of positively reinforcing further activity and improving mood. Graded task assignment is based on the functional analysis and the resultant goals that are developed. It is often explained to clients that starting new behaviors is a difficult task and that their success will be maximized if they are able to break down tasks into manageable components. We suggest that the reinforcing qualities of success and mastery over a given component will increase the likelihood of completing the other components. We also commonly ask clients to engage in mental rehearsal of such tasks before completing them outside of therapy. The purpose of this intervention is to anticipate any obstacles to successful completion and to assess whether the graded components are likely to be successfully implemented. If the therapist and client determine that the component selected may be too challenging for the client, the task can be broken down further.

It should be noted that graded task assignment is also a central component in CT for depression (Beck et al., 1979); however, as stated above, our current BA approach differs in that assignments derive from the functional analysis such that there is no a priori assumption about the type of tasks that should be assigned.

Beginning the Upward Spiral: Avoidance Modification

As we have noted above, depressed clients engage in avoidance behaviors to decrease immediate discomfort, but these avoidance behaviors often exacerbate the depression because they do little to positively affect life situations. The first step in avoidance modification is to understand the discomfort experienced in a particular situation that is then followed by some action on the part of the client to extinguish the aversive experience.

We often use the acronyms of TRAP and TRAC to assist clients in identifying the function of various avoidance behaviors and helping them to choose alternative coping behaviors. Our acronym, TRAP, can be decoded as *T*, the *trigger*; *R*, the *depressive response*; and *AP*, the *avoidance pattern*, our summary label for the coping responses that often contribute to the maintenance of depression. In contrast, the *TRAC* acronym continues to designate *T* as the *trigger* and *R* as the *response*, but then replaces the avoidance pattern with *alternative coping*, *AC*.

We often visually depict the TRAP and TRAC acronym as shown in Figure 1 and ask clients to work with us to complete the three primary boxes in each diagram. As the example shown in Figure 1 illustrates, one client used

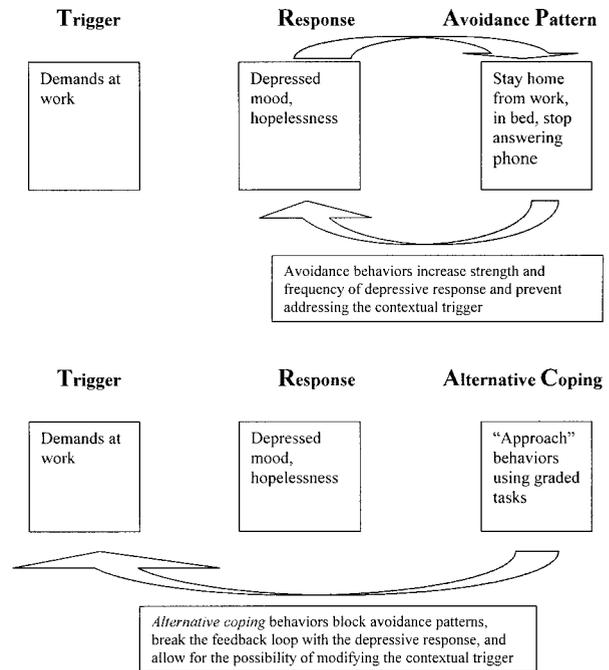


Figure 1. TRAP and TRAC models. An event serves as a trigger for an aversive response from the client, who then avoids the activity, resulting in a pattern of avoidance that prevents the client from resolving problems or contacting possible reinforcers.

this model to conduct a functional analysis of her responses to stressful demands at her work environment. She identified that her initial response to these demands was to feel decreased energy and feelings that she described as “flatness.” She attempted to cope with this trigger and her response by staying home from work, staying in bed, and minimizing all contact with her social network. Completing the TRAP and TRAC figures helped her understand the ways in which these avoidance patterns functioned to alleviate her distress in the short term (e.g., she was out of contact with the aversive environment at work) but also increase her depression in the long term (e.g., she was in contact with fewer and fewer natural positive reinforcers; the problems at work accumulated as she remained at home; etc.). In contrast, the visual depiction of the ways in which alternative coping responses allowed for a direct modification of her environmental context allowed her to understand ways to break free from the downward spiral of depression.

In addition to the TRAP and TRAC model, a focus on short-term versus long-term goals can also be a useful avoidance modification intervention. It is common for

people with depression to focus on the ways in which their behaviors function to achieve short-term goals (e.g., avoidance or escape from aversive environments), but to neglect the functional relationships of such behaviors with their long-term goals (e.g., blocking improvement in their depression). For this reason, articulating long-term goals in therapy and identifying actions that approach such goals can be important. Clients can be encouraged to take a cost-benefit approach in which they evaluate whether the short-term benefits of various avoidance behaviors are worth the long-term costs that may be exacted.

Routine Regulation

Because disruption of regular routines has been hypothesized to be an important variable in maintaining depression (Ehlers et al., 1993), the BA therapist works with the client to develop and follow a regular routine for basic life activities such as eating, working, and sleeping. In addition, we explain to clients that we can only evaluate the success of new behaviors in reducing depression after they have been tried for a period of time. Activation strategies that clients begin during treatment must be incorporated into a regular routine before any conclusions can be drawn.

Many clients resist an emphasis on maintaining a regular routine. It is important that clients are encouraged to take an experimental approach in which they attempt changes in these areas and evaluate whether such changes help them in the long run. Often developing a routine is the first step to being able to break free from the depression because the regularity of routine provides a degree of mood elevation. The client may regain the energy necessary to engage in new or exciting activities during their free time that they did not do before reestablishing a normal routine.

We work with clients on specific behavioral strategies to assist with regulating basic activities of daily life and/or new and potentially antidepressant activities that are identified during treatment. Often these interventions rely heavily on the use of the activity logs for activity scheduling but may also include other behavioral methods such as relaxation training. For example, one client who had been depressed for a number of years had developed a habit of coming home from work, falling asleep on the couch, and waking up in the middle of the night and then moving upstairs to the bedroom to attempt to go back to sleep. This pattern was problematic because the client was unable to get anything accomplished in the evenings,

missed dinner, and had disrupted sleep. One of the first goals identified for this client was to address this routine disruption. The therapist and client worked together to establish a pattern of sleep hygiene in which she came home, ate dinner, and went to bed at a set time. These changes in her routine led to an improvement in her mood.

We have also found that “ACTION” is helpful for some clients in their efforts to establish routines of new behaviors that are instituted over the course of treatment. ACTION, which can also help to reinforce the importance of the functional analysis, is defined as follows: *A, assess*—ask myself if what I am doing is going to make me more depressed? Is it avoidance? *C, choose*—choose to self-activate by behaving in a way that will increase my chances of improving my life situation and mood or choose not to self-activate and therefore take a break and remain depressed for this period of time. *T, try*—try the behavior that I have chosen. *I, integrate*—integrate the new behavior or activity into my daily routine.² *O, observe*—observe the result by asking do I feel better or worse after doing this activity, am I moving in the direction of my long-term goals? *N, never give up*—remember that taking a scientific approach means trying and trying again.

Attention to Experience

For many depressed individuals, a great deal of time is spent thinking about the misery of their lives and ruminating about their depressed symptoms rather than actively problem solving (Nolen-Hoeksema, Morrow, & Fredrickson, 1993). We do not deny that something akin to the negative cognitive triad (Beck et al., 1979) exists for many depressed people. Ferster (1973) suggested that the negative complaints of depressed persons serve the function of escape or avoidance behaviors because such complaints, such as “I feel miserable,” have removed or lessened aversive conditions at some time in the person’s history. Complaints are frequently reinforced in daily life, and thus the behavior remains even when there is no one or nothing in the environment to address the complaint.

In BA we address this type of ruminative, negative behavior but do so in a manner that continues to focus on activating the client rather than by using cognitive interventions to challenge rationally the content of the ruminations. We work to develop interventions that will block ruminative behaviors and maximize exposure to naturally occurring environmental reinforcement. Thus, in BA, we

address the context of the thinking, not the content. The BA therapist asks, under what conditions does this thinking occur, and what is the client avoiding by spending time ruminating? We look at the function of rumination as a behavior that blocks activation strategies for the client. When addressed as escape or avoidance behaviors, the logical intervention is exposure. We often train clients in attention to experience as an exposure exercise in which we encourage them to pay attention to the environment around them and to the activities in which they are participating. Clients are simply asked to notice the colors, smells, noises, and activities around them when they are engaged in a task. They are also encouraged to assess their physical relation to other people involved in a task. The BA attention to experience intervention is somewhat akin to mindfulness training (Linehan, 1993), though there is no explicit link to meditation in this model.

In one example from our clinical trial, a divorced father complained that an activity assignment of spending time with his family had not worked in improving his depression. He reported that although he worked in the yard with his children, he felt worse when the day was done. Further analysis of the situation indicated that his children had indeed been in the same yard but that the client had isolated himself in a little corner of the yard where he ruminated about his sadness over not having full-time custody. His children, in fact, had a wonderful time raking leaves and being together, but despite the client's physical proximity to them, his ruminating prevented him from engaging with them. He could not report what they had talked about or enjoyed. He was not aware of the sound of their laughter. He was encouraged to try a similar assignment again but to focus on what color and texture clothes the children were wearing, what they talked about, who giggled first, and so on. Upon his return from the second assignment, the client reported that he felt much better after spending an afternoon with his children.

We often find that encouraging clients to attend to the behavioral and experiential aspects of the situations and activities in which they are engaged helps them stop ruminating about their miseries and doubts. When we use the TRAP model and look at the process of ruminating and negative thinking as an avoidance pattern, the clients are then able to use alternative coping and make better use of their time. In contrast to CT, the BA therapist does not address the content of these ruminations by questioning the truth of the client's beliefs or by teaching them to look

for evidence for or against such beliefs. In BA, we focus on the function of such negative ruminations. By teaching clients that their thinking serves the function of keeping them from getting on with more important things or with activities that may have an antidepressant effect, we have been able to help clients who engaged in high-frequency negative thinking.

Overcoming Obstacles to Treatment

The primary obstacle to successful BA treatment is that many depressed clients are extremely passive and may experience difficulty using the activation strategies in a typical BA regimen. The BA therapist should follow a planned process to get such passive clients activated. First, the client needs to agree with the model of BA and clearly understand the BA model of depression. If a client does not agree that inactivity is creating problems, it is unlikely that he or she will comply with activation assignments. We encourage clients to adopt an empirical approach to this issue and suspend judgment until interventions have been implemented and outcomes observed.

One way to address this issue early in therapy is to experiment with activity charts. The client is asked in the first few sessions to begin to collect data on the activities engaged in and the associated mood. Often, when the client has complied to some extent with the assignment, the pattern of shifts in mood and activity will begin to convince the client that there is a connection between what is done and what is felt. However, not all clients comply with work between sessions, which presents a problem in BA, as it does in any form of active/directive therapy.

In the case of the client who does not complete assignments, we suggest the following. First, it is important to ascertain whether environmental events are preventing the client from doing the between-session work. Environmental events such as intrusions from children, demands of work, and other hassles may inhibit the client from collecting data on an activity chart or following through on other assignments. The therapist can help the client to make a plan that will minimize intrusions or set up private time to complete the task. A second problem arises when the client's patterns of avoidance and inactivity are so strong that they also prevent him or her from completing the assignments. In this case, it is often helpful for the therapist to have the client do the assignment in session. A third suggestion is that the therapist call the client between appointments to encourage compliance with

work. This strategy should be used judiciously and early in treatment so as not to encourage dependence on the therapist. Fading out such cues quickly is essential. Fourth, a graded task approach to between-session work is important; if a client does not complete a particular assignment, a therapist may want to reassign a smaller portion of that task to maximize a client's likelihood of successful activation. Finally, therapists should be certain that they are clear, explicit, and detailed in their description of assignments. Clients should have an opportunity to clarify questions and should have a clear understanding of important details such as the date, time, place, and whether or not other persons are present when the work will be completed.

Apart from noncompliance, another obstacle to good therapeutic outcome is suicidal ideation or behaviors. In any treatment for depression, therapists must assess suicidal ideation or intent on a regular basis, especially with the most severely depressed persons. Suicidal threats may be disguised in session, (e.g., "Well, I think doing this task will give me something to do if I'm still alive"), and the therapist must immediately address any such threats. BA therapists are expected to follow usual suicide prevention strategies (e.g., Linehan, 1997) and conduct a complete assessment. In addition, therapists can acknowledge that suicide is indeed a choice clients can make but also ask clients to identify and list in writing other choices they can make. Therapists can also ask clients to list all reasons for living, encouraging as much detail as possible (e.g., "to see a sunrise," "in hopes that Annie Lennox makes another solo CD"); instruct clients not to commit suicide; develop a plan for alternative solutions to problems; and make themselves available to clients in a crisis to discuss an alternative plan and coach the client through positive action and/or facilitate hospitalization if the risk is imminent. Therapists should tell clients that they can capitalize on the opportunity to get a second chance at solutions while the client is still alive. It is also important to encourage clients to make good use of social supports during a suicidal crisis. However, it is important that the social network be truly supportive, and that others reinforce healthy, nonsuicidal behaviors. Therefore, it may be important for the therapist to invite significant others in the client's life to a session or to have telephone contact with the therapist in order to enlist them in developing a safety plan with the client. Such involvement of significant others should only be done with client consent, after

the therapist has assessed the degree of trust the client has in the people to be involved.

SO WHAT'S NEW?

The current use of behavioral activation originated from the component analysis of CT investigation (Jacobson et al., 1996). As in CT, therapists of our current BA model continue to collaboratively set agendas with clients, provide between-session work, and solicit feedback. However, BA diverges from traditional cognitive and behavioral approaches in its emphasis on the environmental context of client's lives and in its unrelenting emphasis on encouraging the client to engage in activities that ultimately will bring them in contact with natural reinforcers in their lives.

BA seeks to help clients modify their environments, not their thinking. The private behaviors of the client are taken into account only in so far as is necessary to achieve the overall goal of modifying the client's environment. The approach to thinking is different from traditional CT in that only the context or function of the behavior of thinking is addressed, not the content of the thoughts.

In BA, it is assumed that the interaction of negative life circumstances and the client's difficulty changing these circumstances may lead to the passivity often seen with depressed clients. It is not that passive people become depressed, but repeated punishment or a life that functions primarily on a negative reinforcement schedule establishes behavior patterns that compete with behaviors more likely to result in positive reinforcement from the environment. In these ways, BA adds to current treatments of depression by focusing on the avoidance patterns clients use to cope with the troubles of their lives. Heretofore, avoidance has been the focus of treatment for anxiety disorders but has been underemphasized in the treatment of depression.

Moreover, whereas most behavioral or cognitive approaches to the treatment of depression are structural and rely on the acquisition of skills, BA is based on a contextual and idiographic understanding of human behavior and does not a priori prescribe skill training to modify deficits in behavior or thinking. Rather, the BA therapist attempts to evaluate the possible sources of reinforcement that the client is not contacting and then assists the client to activate sufficiently to increase the possibility that anti-depressant behaviors will be reinforced. Like integrative behavioral couple therapy (Jacobson & Christensen, 1996), which tries to bring couples into contact with nat-

ural contingencies rather than to teach specific skills (Jacobson & Margolin, 1979), BA is an approach to therapy that emphasizes natural contingencies as opposed to rule-governed behavior (Hayes, 1989). BA therapists may teach specific skills, but they are not required to do so. We believe that this distinction between “you must” and “you can” with regard to skills training differentiates BA from other behavior therapies. Also, there is an assumption in BA that the client may possess the skill but has not had sufficient opportunity to practice, or may be using avoidance as a way to block negative feelings, thereby limiting implementation of skills.

BA is a treatment that is contextual primarily because the focus is on helping people reclaim active participation in their own lives. Following the notions of Pepper (1942) regarding contextualism:

It is doing, and enduring, and enjoying; making a boat, running a race, laughing at a joke, persuading an assembly, unraveling a mystery, solving a problem, removing an obstacle, exploring a country, communicating with a friend, creating a poem, re-creating a poem. These acts or events are all intrinsically complex, composed of interconnected activities with continuously changing patterns. They are like incidents in the plot of a novel or drama. They are literally the incidents of life. . . . The contextualist finds that everything in the world consists of such incidents. (pp. 232–233).

BA therapists help clients to reengage in the incidents of their lives that are likely to bring areas of positive reinforcement under the control of their behavior. BA is rooted in the philosophy that it is the client’s life, not dysfunctional underlying structures or skill deficits, that can be modified to alleviate depression.

CONCLUSION

From its initial popularization as simply a component of cognitive therapy (Beck et al., 1979), BA has been developed to function as a complete treatment in its own right. BA as it is currently conceptualized is a treatment closer to the recent behavior analytic innovations (e.g., Hayes, Strosahl, & Wilson, 1999; Kohlenberg & Tsai, 1991) and is firmly embedded in the contextualist tradition (Jacobson, 1994, 1997). While the results of our current investigation will provide the ultimate test of our model, we believe that BA effectively returns behavioral interventions for depression back to their behavioral and contex-

tual roots and as such provides a powerful new treatment for depression by helping depressed people reengage in their lives.

NOTES

1. Although our current trial focuses exclusively on clients diagnosed with major depressive disorder, many of the interventions used may also have applicability to the treatment of other affective disorders. The use of the BA model with other conditions, however, awaits future research.

2. Clients are asked to integrate new behaviors before observing the outcome. This is not simply a convenience in the acronym. This is done because one-trial learning is not reliable, and depressed clients can easily become discouraged when they try a new behavior and do not feel immediate relief. We thus encourage clients to try integrating behaviors into a new routine and then to observe the outcome over a short time period.

ACKNOWLEDGMENTS

Preparation of this article was supported in part by National Institute of Mental Health Grant MH55502–04 to Neil Jacobson.

We gratefully acknowledge Michael Addis, Keith Dobson and Lisa Roberts for comments on drafts of this article. We also thank Virginia Rutter, Melissa McElrea, and David Markley for their assistance in completing this article.

REFERENCES

- Amenson, C. S., & Lewinsohn, P. M. (1981). An investigation into the observed sex difference in prevalence of unipolar depression. *Journal of Abnormal Psychology, 90*, 1–13.
- American Psychiatric Association. (1993). Practice guideline for major depressive disorder in adults. *American Journal of Psychiatry, 150*, 1–26.
- American Psychiatric Association (APA). (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Antonuccio, D. O., Danton, W. G., DeNelsky, G. Y., Greenberg, R. P., & Gordon, J. S. (1999). Raising questions about antidepressants. *Psychotherapy and Psychosomatics, 68*, 3–14.
- Barlow, D. H., Blanchard, E. B., Vermilyea, J. A., Vermilyea, B. B., & DiNardo, P. A. (1986). Generalized anxiety and generalized anxiety disorder: Description and reconceptualization. *American Journal of Psychiatry, 143*, 40–44.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. E., & Erbaugh, J. K. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561–571.

- Beidel, D. C., & Turner, S. M. (1986). A critique of the theoretical bases of cognitive-behavioral theories and therapy. *Clinical Psychology Review, 6*, 177-197.
- Blackburn, I. M., Eunson, K. M., & Bishop, S. (1986). A two-year naturalistic follow-up of depressed patients treated with cognitive therapy, pharmacotherapy, and a combination of both. *Journal of Affective Disorders, 10*, 67-75.
- Blehar, M. C., Weissman, M. M., Gershon, E. S., & Hirschfeld, R. M. (1988). Family and genetic studies of affective disorders. *Archives of General Psychiatry, 45*, 289-292.
- Brown, G. W., & Harris, T. (1978). *The Social Origins of Depression: A Study of Psychiatric Disorder in Women*. London: Tavistock Publications.
- Depression Guideline Panel. (1993). *Clinical practice guideline number 5: Depression in primary care, 2: Treatment of major depression* (AHCPR Publication 93-0551). Rockville, MD: Agency for Health Care Policy and Research, U.S. Dept. of Health and Human Services.
- DeRubeis, R. J., Gelfand, L. A., Tang, T. Z., & Simons, A. D. (1999). Medications versus cognitive behavior therapy for severely depressed outpatients: Meta-analysis of four randomized comparisons. *American Journal of Psychiatry, 156*, 1007-1013.
- Dill, J. C., & Anderson, C. A. (1999). Loneliness, shyness, and depression: The etiology and interrelationships of everyday problems in living. In T. Joiner & J. C. Coyne et al. (Eds.), *The interactional nature of depression: Advances in interpersonal approaches* (pp. 93-125). Washington, DC: American Psychological Association.
- Dobson, K. S. (1989). A meta-analysis of the efficacy of cognitive therapy for depression. *Journal of Consulting and Clinical Psychology, 57*, 414-419.
- Dobson, K. S., Dimidjian, S., Herman-Dunn, R., Martell, C. R., Addis, M. E., Linde, T., & Roberts, L. J. (Speakers). (1999). *Behavioral activation: A functional analytic contextual treatment for depression* (Cassette Recording No. 991111-120). New York: Association for Advancement of Behavior Therapy.
- Dobson, K. S., & Joffe, R. (1986). The role of activity level and cognition in depressed mood in a university sample. *Journal of Clinical Psychology, 42*, 264-271.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*, 107-126.
- Ehlers, C. L., Frank, E., & Kupfer, D. J. (1988). Social zeitgebers and biological rhythms: A unified approach to understanding the etiology of depression. *Archives of General Psychiatry, 45*, 948-952.
- Ehlers, C. L., Kupfer, D. J., Frank, E., & Monk, T. H. (1993). Biological rhythms and depression: The role of zeitgebers and zeitstörers. *Depression, 1*, 285-293.
- Evans, M. D., Hollon, S. D., DeRubeis, R. J., Piasecki, J. M., Grove, W. M., Garvey, M. J., & Tuason, V. B. (1992). Differential relapse following cognitive therapy and pharmacotherapy for depression. *Archives of General Psychiatry, 49*, 802-808.
- Ferster, C. B. (1973). A functional analysis of depression. *American Psychologist, 28*, 857-870.
- Free, M. L., & Oei, T. P. (1989). Biological and psychological processes in the treatment and maintenance of depression. *Clinical Psychology Review, 9*, 653-688.
- Gatz, M., Pederson, N. L., Plomin, R., Nesselroade, J. R., & McClearn, G. E. (1992). Importance of shared genes and shared environments for symptoms of depression in older adults. *Journal of Abnormal Psychology, 101*, 701-708.
- Gortner, E. T., Gollan, J. K., Dobson, K. S., & Jacobson, N. S. (1998). Cognitive-behavioral treatment for depression: Relapse prevention. *Journal of Consulting and Clinical Psychology, 66*, 377-384.
- Hammen, C. L., & Glass, D. R., Jr. (1975). Depression, activity, and evaluation of reinforcement. *Journal of Abnormal Psychology, 84*, 718-721.
- Hayes, S. C. (Ed.). (1989). *Rule-governed behavior: Cognition, contingencies, and instructional control*. New York: Plenum.
- Hayes, S. C. (1993). Analytic goals and the varieties of scientific contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese, & T. R. Sarbin (Eds.), *Varieties of scientific contextualism* (pp. 11-27). Reno, NV: Context Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York: Guilford.
- Holahan, C. J., Moos, R. H., & Bonin, L. A. (1999). Social context and depression: An integrative stress and coping framework. In T. Joiner & J. C. Coyne (Eds.), *The interactional nature of depression: Advances in interpersonal approaches* (pp. 39-63). Washington, DC: American Psychological Association.
- Hollon, S. D. (1999). Rapid early response in cognitive behavior therapy: A commentary. *Clinical Psychology: Science and Practice, 6*, 305-309.
- Hollon, S. D., DeRubeis, R. J., Evans, M. D., Wierner, M. J., Garvey, M. J., Grove, W. M., & Tuason, V. B. (1992). Cognitive therapy and pharmacotherapy for depression: Singly and in combination. *Archives of General Psychiatry, 49*, 774-781.
- Hollon, S. D., Shelton, R. C., & Loosen, P. T. (1991). Cognitive therapy and pharmacotherapy for depression. *Journal of Consulting and Clinical Psychology, 59*, 88-99.
- Jacobson, N. S. (1989). The politics of intimacy. *The Behavior Therapist, 12*, 29-32.
- Jacobson, N. S. (1994). Contextualism is dead: Long live contextualism. *Family Process, 33*, 97-100.

- Jacobson, N. S. (1997). Can contextualism help? *Behavior Therapy, 28*, 435–443.
- Jacobson, N. S., & Christensen, A. (1996). *Integrative couple therapy: Promoting acceptance and change*. New York: W. W. Norton.
- Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K., Gortner, E., & Prince, S. E. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology, 64*, 295–304.
- Jacobson, N. S., & Gortner, E. T. (2000). Can depression be demedicalized in the 21st century: Scientific revolutions, counter-revolutions, and the magnetic field of normal science. *Behavior Research and Therapy, 38*, 103–17.
- Jacobson, N. S., & Margolin, G. (1979). *Marital therapy: Strategies based on social learning and behavior exchange principles*. New York: Brunner/Mazel.
- Judd, L. L., Rapaport, M. H., Paulus, M. P., & Brown, J. L. (1994). Subsyndromal symptomatic depression: A new mood disorder? *Journal of Clinical Psychiatry, 55*(4) (suppl.), 18–28.
- Kendler, K. S., & Karkowski-Shuman, L. (1997). Stressful life events and genetic liability to major depression: Genetic control of exposure to the environment? *Psychological Medicine, 27*, 539–547.
- Kendler, K. S., Kessler, R. C., Walters, E. E., MacLean, C., Neale, M. C., Heath, A. C., & Eaves, L. J. (1995). Stressful life events, genetic liability, and onset of an episode of major depression in women. *American Journal of Psychiatry, 152* (6), 833–842.
- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshelman, S., Wittchen, H., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Study. *Archives of General Psychiatry, 51*, 8–19.
- Klein, D. F. (1996). Preventing hung juries about therapy studies. *Journal of Consulting and Clinical Psychology, 64*, 81–87.
- Klerman, G. L., Weissman, M. M., Rounsaville, B. J., & Chevron, E. S. (Eds.). (1984). *Interpersonal psychotherapy of depression*. New York: Basic Books.
- Kohlenberg, R. J., & Tsai, M. (1991). *Functional analytic psychotherapy: Creating intense and curative therapeutic relationships*. New York: Plenum.
- Latimer, P. R., & Sweet, A. A. (1984). Cognitive versus behavioral procedures in cognitive-behavior therapy: A critical review of the evidence. *Journal of Behavior Therapy and Experimental Psychiatry, 15*, 9–22.
- Lewinsohn, P. M., Antonuccio, D. O., Breckenridge, J. S., & Teri, L. (1984). *The coping with depression course*. Eugene, OR: Castalia.
- Lewinsohn, P. M., & Graf, M. (1973). Pleasant activities and depression. *Journal of Consulting and Clinical Psychology, 41*, 261–268.
- Lewinsohn, P. M., & Libet, J. (1972). Pleasant events, activity schedules, and depression. *Journal of Abnormal Psychology, 79*, 291–295.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford.
- Linehan, M. M. (1997). *Assessment and treatment of suicidal behaviors*. Unpublished manuscript.
- Maes, M., & Meltzer, H. Y. (1995). The serotonin hypothesis of major depression. In F. E. Bloom & D. J. Kupfer (Eds.), *Psychopharmacology: The fourth generation of progress* (pp. 933–944). New York: Raven.
- Martell, C. R., Addis, M. E., & Jacobson, N. S. (2001). *Depression in context: Strategies for guided action*. New York: Norton.
- Mazure, C. M. (1998). Life stressors as risk factors in depression. *Clinical Psychology Science and Practice, 5*, 291–313.
- Monroe, S. M., & Simons, A. D. (1991). Diathesis-stress theories in the context of life stress research: Implications for the depressive disorders. *Psychological Bulletin, 110*, 406–425.
- Monroe, S. M., & Steiner, S. C. (1986). Social support and psychopathology: Interrelations with preexisting disorder, stress, and personality. *Journal of Abnormal Psychology, 95*, 29–39.
- Nezu, A. M. (1989). A problem solving formulation of depression: A literature review and proposal of a pluralistic model. *Clinical Psychology Review, 7*, 121–144.
- Nezu, A. M., & Perri, M. G. (1989). Social problem solving therapy for unipolar depression: An initial dismantling investigation. *Journal of Consulting and Clinical Psychology, 57*, 408–413.
- Nolen-Hoeksema, S., Morrow, J., & Fredrickson, B. L. (1993). Response styles and the duration of episodes of depressed mood. *Journal of Abnormal Psychology, 102*, 20–28.
- Oliver, J. M., & Simmons, M. E. (1985). Affective disorders and depression as measured by the Diagnostic Interview Schedule and the Beck Depression Inventory in an unselected adult population. *Journal of Clinical Psychology, 41*, 469–477.
- Pepper, S. C. (1942). *World hypotheses*. Berkeley: University of California Press.
- Persons, J. B., Thase, M. E., & Crits-Christoph, P. (1996). The role of psychotherapy in the treatment of depression. *Archives of General Psychiatry, 53*, 283–290.
- Prince, S. E., & Jacobson, N. S. (1995). A review and evaluation of marital and family therapies for affective disorders. *Journal of Marital and Family Therapy, 21*, 377–401.
- Radloff, L. S., & Rae, D. S. (1979). Susceptibility and precipitating factors in depression: Sex differences and similarities. *Journal of Abnormal Psychology, 88*, 174–181.
- Schatzberg, A. F., & Schildkraut, J. J. (1995). Recent studies on norepinephrine systems in mood disorders. In F. E. Bloom &

- D. J. Kupfer (Eds.), *Psychopharmacology: The fourth generation of progress* (pp. 911–920). New York: Raven.
- Shea, M. T., Elkin, I., Imber, S. D., Sotsky, F. M., Watkins, J. T., Collins, J. F., Pilkonis, P. A., Beckham, E., Glass, R., Dolan, R. T., & Parloff, M. B. (1992). Course of depressive symptoms over follow-up: Findings from the NIMH Treatment of Depression Collaborative Research Program. *Archives of General Psychiatry*, *49*, 782–787.
- Siever, L. J., & Davis, K. L. (1985). Overview: Toward a dysregulation hypothesis of depression. *American Journal of Psychiatry*, *142*, 1017–1031.
- Simons, A. D., Murphy, G. E., Levine, J. L., & Wetzel, R. D. (1986). Cognitive therapy and pharmacotherapy for depression: Sustained improvement over one year. *Archives of General Psychiatry*, *43*, 43–50.
- Skinner, B. F. (1957 [1992]). *Verbal behavior*. Acton, MA: Copley Publishing.
- Sweet, A. A., & Louizeaux, A. L. (1991). Behavioral and cognitive treatment methods: A critical comparative review. *Journal of Behavior Therapy and Experimental Psychiatry*, *22*, 134–185.
- Thase, M. E., & Kupfer, D. J. (1996). Recent developments in the pharmacotherapy of mood disorders. *Journal of Consulting and Clinical Psychology*, *64*, 646–659.
- University of Washington, Department of Psychology, Center for Clinical Research (1999). *Cognitive and behavioral treatment of depression: A research treatment manual – behavioral activation (BA) condition*. Unpublished manuscript, University of Washington, Seattle.
- Wilson, P. H., Goldin, J. C., & Charbonneau-Powis, M. (1983). Comparative efficacy of behavioral and cognitive treatments of depression. *Cognitive Therapy and Research*, *7*, 111–124.
- Winokur, G. (1997). All roads lead to depression: Clinically homogeneous, etiologically heterogeneous. *Journal of Affective Disorders*, *45*, 97–108.
- Received May 11, 2000; revised October 24, 2000; accepted October 27, 2000.