

# Integrating Psychodrama and Cognitive Therapy—An Exploratory Study

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**ABSTRACT.** The authors evaluated the effects of participating in a group course, using integrated psychodramatic and cognitive-behavioral techniques, on participants' ( $N = 40$ ) changes in the number of core beliefs, number of automatic thoughts, moods, and alleviation of depression. The results of the study showed that the average Beck Depression Inventory (BDI-II) scores from the first 3 and last 3 weeks of the course did not differ significantly. That lack of difference may be attributed to the use of students as participants in the study; their BDI-II scores, already low in the first 3 weeks of the course, had little, if any, room for improvement. The average mood ratings, before and after writing balanced thoughts, differed significantly ( $p < .05$ ) for each time period of analysis (i.e., separately for the first and last 3 weeks). Thus, there were immediate positive effects from writing balanced thoughts but no significant differences between the average mood ratings across the 2 time periods, whether the ratings were obtained before or following the writing of the balanced thoughts. The lack of generalization during the initial practice (first 3 weeks) of writing balanced thoughts across new situations was evident later in the course. The BDI-II scores significantly correlated with the number of automatic thoughts, core beliefs, and different types of core beliefs. That finding suggests Beck's assumption that negative thought content characterizes depression (see D. A. Clark, A. T. Beck, & B. A. Alford, 1999).

Key words: behavioral therapy, cognitive therapy, depression treatment, psychodrama

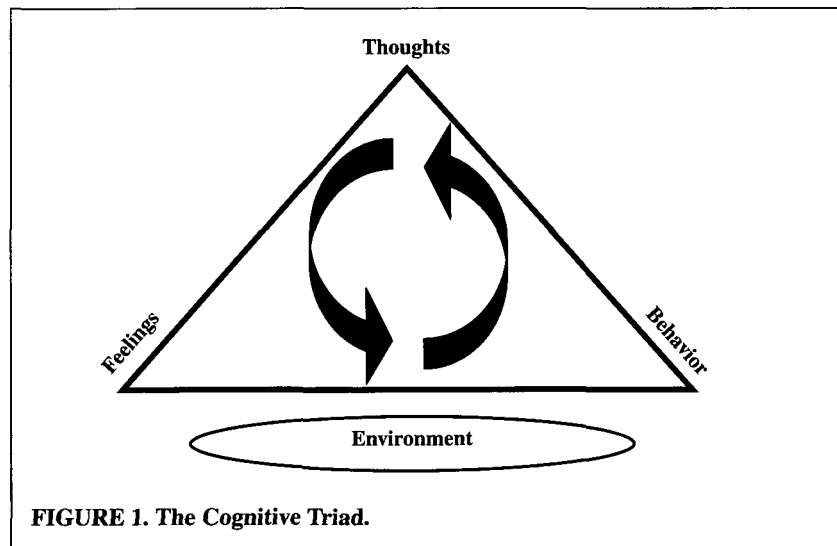
THE COGNITIVE MODEL IS BASED ON THE ASSUMPTION that thoughts influence emotions and behaviors and assumes that dysfunctional thoughts are frequently associated with psychological distress. The dysfunctional thoughts are provoked by the individual's core belief or beliefs acquired during early childhood experiences (A. T. Beck, Rush, Shaw, & Emery, 1979; J. S. Beck, 1995). Core beliefs (see J. S. Beck, 1995) consist of

28 beliefs that are divided into two categories, helpless and unlovable. The following are the helpless core beliefs: helpless, powerless, out-of-control, weak, vulnerable, needy, trapped, inadequate, ineffective, incompetent, failure, disrespected, defective (i.e., I do not measure up to others), and not good enough (in terms of achievement). The following are the unlovable core beliefs: unlovable, unlikable, undesirable, unattractive, unwanted, uncared for, bad, unworthy, different, defective (i.e., so others will not love me), not good enough (to be loved by others), bound to be rejected, bound to be abandoned, and alone.

Some authors use the terms *schemas* and *core beliefs* interchangeably, as if they were the same concept. A. T. Beck (1964), however, makes a distinction between the two constructs. He states that core beliefs are the actual content of the cognitive structures within the mind. Thus, the cognitive structures are the schemas, and the content represents the core beliefs. Young (1990, p. 9) referred to Early Maladaptive Schemas (EMSs) as “stable and enduring themes that develop during childhood and are elaborated upon throughout an individual’s lifetime.” EMSs are composed of many characteristics, which are self-perpetuating and tend to be more difficult to change. EMSs may cause psychological distress because they are known to be dysfunctional. When EMSs are activated, usually by some environmental stimuli, they tend to provoke high affect levels. EMSs are beliefs about oneself that are unconditional and are usually the result of encounters with important individuals (parents, siblings, peers) within the first few years of one’s life (Schmidt, Joiner, Young, & Telch, 1995; Young, 1990).

A prominent hypothesis of the cognitive theory of depression (A. T. Beck, 1987) is the cognitive triad (Figure 1), which specifies that depressed individuals have negative thoughts revolving around themselves, the world (their experiences), and the future. Individuals who are depressed misinterpret facts and experiences in a negative fashion, limiting their focus to the negative aspects of situations, thus feeling hopeless about the future. A direct relationship is postulated between negative thoughts and severity of depressive symptoms. Specifically, the more frequently that negative thinking occurs, the greater severity of other depressive symptoms (Haaga, Dyck, & Ernst, 1991). In a study of women, Dent and Teasdale (1988) found that persistence of depression 5 months later was predicted by the severity of the initial depression and the frequency of the global negative trait adjectives that the women used to describe themselves at initial assessment. Women with equal depression, but with more global evaluative thinking, were slower to recover.

Kumari and Blackburn (1992) had normal and depressed participants record their negative automatic thoughts over a 2-week period, using the Daily Record of Dysfunctional Thoughts Form (A. T. Beck et al., 1979). A thought-content analysis showed that the “affective state associated with negative



**FIGURE 1. The Cognitive Triad.**

thought is different in normal and depressives. The two main emotions registered were anger and anxiety by normal subjects, and depression and anxiety by depressed individuals" (p. 173). They found the themes related to self-deprecation, hopelessness, rejection, and illness more prominent in the depressed than in normal individuals. Madonna and Philpot (1996) found the ratio of positive to negative self-statements (as reported on the Automatic Thought Questionnaire-Revised of Kendall, 1989) to differentiate the low, medium, and high depression groups of undergraduate students, as determined by their scores on the Beck Depression Inventory (BDI), developed by A. T. Beck, Brown, and Steer (1987).

The cognitive model specifies that depression is maintained by negative thoughts. Thus, to reduce depression, one needs to reduce the frequency or intensity of such thoughts. In other words, to create a positive change in one's mood and behavior, one needs to evaluate and modify dysfunctional thoughts. Cognitive-behavioral therapy (CBT) focuses on evoking change in a person's thinking and underlying beliefs to bring about lasting emotional and behavioral change (A. T. Beck et al., 1979; J. S. Beck, 1995).

#### **Research on the Effectiveness of Cognitive-Behavioral Therapy**

Considerable research dedicated to testing the effectiveness of CBT, supports the use of CBT as an effective treatment for clinical depression (A. T. Beck et al., 1979; Dobson, 1989; Haaga et al., 1991). At the least, CBT has been found to be as effective as other major treatments for depression, includ-

ing pharmacotherapy, behavior therapy, and interpersonal therapy. Dobson (1989) conducted a meta-analysis of published research to evaluate the effectiveness of Beck's cognitive therapy for depression. The analysis included 28 studies in which cognitive therapy had been used on depressed individuals and the BDI (A. T. Beck et al., 1979) was used as an outcome measure. Ten of the studies compared a group treated with cognitive therapy and a wait-listed or no-treatment control group. From the findings, Dobson concluded that the cognitive therapy group, on average, did better than 98% of those in the control group. Recognizing that there is much support for the effectiveness of CBT, we present the following section in which we review in more detail the aspects of the meta-analysis that are most relevant to our study.

Wierzbicki and Bartlett (1987) compared the effects of group and individual cognitive therapy with the outcome of an untreated wait-listed control group. Eighteen individuals were assigned to either group or individual therapy, whereas 20 people were assigned to the control group. Six weekly group sessions lasted 90 min each, and there were six weekly individual sessions that lasted 60 min each. Both the individual and the group therapy sessions had the same structure, consisting of homework assignments to be discussed with the therapist. The outcome measures used in the study to measure depression were the BDI and BDI-II Depression Scales (Dempsey, 1964). Those in individual therapy showed a greater reduction in depressive symptoms than those in the group therapy and the control groups. Although the results from the latter two did not differ significantly, those who attended group therapy tended to show greater improvement.

Reynolds and Coats (1986) compared CBT with a relaxation-training group and a wait-listed control group. Thirty adolescents were assigned to one of the groups. Treatment for both groups consisted of ten 50-min sessions that met twice weekly. Techniques used with the CBT group included self-monitoring, positive mood and activity log, an explanation of the cognitive triad, self-evaluation, homework assignments, and self-reinforcement. During the relaxation sessions, the participants learned specific relaxation exercises to relax numerous muscle groups and how to generalize those learned skills to tension-producing situations. Both the CBT and relaxation groups had a greater improvement in the BDI scores, when compared with that of the control group; however, there was no significant difference between the two treatment groups.

In eight studies, cognitive therapy and pharmacotherapy were compared. On average, the participants who received cognitive therapy had a better outcome than 70% of the individuals who received the drug therapy (Dobson, 1989). Rush, Beck, Kovacs, and Hollon (1977) compared cognitive therapy with pharmacotherapy in 41 depressed individuals. Participants in the cognitive therapy group attended a maximum of 20 individual sessions over a 12-

week period, whereas individuals assigned to the pharmacotherapy condition had a maximum of 12 sessions over a 12-week period. The measures used in the study were the BDI, the Raskin Depression Scale (Raskin, Schulterbrandt, Reatig, & McKeon, 1970), and the Hamilton Rating Scale for Depression (HRS-D), devised by Hamilton (1960). Participants in the cognitive therapy group were given homework assignments and were taught how to recognize the connection between feelings, thoughts, and behaviors; regulate negative thoughts; explore evidence for and against those negative automatic thoughts; replace the negative cognitions with reality-oriented interpretations; and identify, dispute, and change dysfunctional beliefs. Patients in the pharmacotherapy condition attended 20-min weekly sessions in which the side effects of the medication were monitored and supportive therapy was provided. Results showed a reduction in depressive symptoms in both treatment groups. The cognitive therapy group showed a significantly greater reduction in HRS-D and BDI scores than the pharmacotherapy group did.

Finally, there were seven studies that contrasted cognitive therapy with a number of different therapies not previously mentioned. Those findings showed that on average, the individuals who received cognitive therapy did better than those in the alternative therapy groups: psychodynamic, interpersonal, assertion training, and relaxation (Dobson, 1989). Steuer et al. (1984) examined whether depressed geriatric patients would be responsive to CBT and psychodynamic group therapy. Twenty-six participants were divided into four groups: two cognitive-behavioral and two psychodynamic. The groups met for 46 sessions over a period of 9 months. The cognitive-behavioral techniques involved the participants in keeping weekly activity schedules, maintaining a pleasure log, completing task assignments, keeping a record of negative automatic thoughts, using empirical reality testing of those thoughts, examining distortions, and creating different ways to view one's life. The psychodynamic techniques used were support, direction, confrontation, and interpretation. Specifically, the leaders aimed to develop cohesion within the group and to encourage the development of insight into patterns of socially maladaptive behaviors in order to alleviate depression and to prevent a relapse. The instruments used were as follows: The Hamilton (1967) Rating Scale for Depression (HRS-D), which concentrates on the vegetative symptoms of depression; the Zung (1965) Self-Rating Depression Scale (SDS), which has been used extensively with the elderly population; and the Beck Depression Inventory (BDI). Results showed significant decreases in measures of depression for both groups. On the BDI, however, the cognitive-behavioral group showed a greater improvement than the psychodynamic group.

Researchers have found cognitive-behavioral therapy to be an effective form of treatment for other disorders and problems as well as for depression. Baum, Sayers, and Scher (1990) found cognitive-behavioral techniques, specifi-

cally cognitive restructuring, to be effective in marital therapy. Sixty couples were assigned to one of the following five groups: behavioral marital therapy (BMT), BMT plus cognitive restructuring (CR), BMT plus emotional expressiveness training (EET), cognitive restructuring, and emotional expressiveness training, or a wait-listed control group. Before treatment, each couple completed self-report measures, including the Relationship Beliefs Inventory (RBI) of Epstein and Eidelson (1981) and the Irrational Beliefs Test (IBT) of Jones (1968). Although both the RBI and IBT measure unrealistic standards held by individuals, the RBI measures dysfunctional cognitions toward marital relationships, and the IBT focuses on unrealistic standards held for individuals instead of relationships. Couples in the treatment groups were then provided therapy for 12 weekly sessions. The BMT group used problem-solving techniques, along with communication skills, to aid in the problem solving and contracting. The CR group focused on identifying each individual's concerns within the marriage and assisting the couples in developing more realistic views of their mutual perceptions. In addition, the CR group concentrated on the unrealistic standards held by each person toward the relationship and how those standards might contribute to marital distress. The EET group focused on the expression of emotions and being empathetic. The couples were also taught how to switch back and forth from the role of the speaker to that of the listener. Results showed that the treatment groups that included cognitive restructuring were as effective in increasing marital adjustment as the other two groups.

CBT has been effective in the treatment of bulimia nervosa. The therapy consists of changing the participants' negative beliefs concerning their weight and body shape and of helping them to develop normal eating habits and coping skills that can be used to prevent binge eating and purging (Wilson & Fairburn, 1993).

### **Cognitive–Behavioral Therapy in Groups**

Group therapy has been shown to be not only be an effective form of treatment but also a cost-effective therapy. A meta-analysis conducted by McRoberts, Burlingame, and Hoag (1998) examined 23 studies that compared group and individual therapies. In the studies included in the meta-analysis no difference was found between the outcomes of the group and individual formats.

Oei and Sullivan (1998) evaluated whether changes in cognitions led to a reduction of depressive symptoms in recovered and nonrecovered mood-disordered patients. Cognitive–behavioral procedures were implemented in 12 weekly group sessions, each lasting 2 hr. Outcome measures used in the study were the BDI, the Automatic Thoughts Questionnaire (ATQ) of Hollon and Kendall (1980), the Dysfunctional Attitudes Scale (DAS) of Weissman and

Beck (1978), and the Beck Hopelessness Scale (BHS) of A. T. Beck, Weissman, Lester, and Trexler (1974). They found several results “consistent with the proposition of cognitive theory (i.e., the remediation of negative cognition plays a significant role in recovery from depression during CBT)” (p. 407). Their results were as follows: (a) The mean BDI score showed a faster improvement in recovered mood disordered group than in the nonrecovered group, (b) the mean ATQ scores showed an increase in differences between the two groups as the treatment progressed, (c) the mean DAS scores revealed an increase in difference between the two groups as the treatment progressed, and (d) although there was no significant difference in the rate of change in the BHS scores between the two groups, a significant difference was found between the two groups as a function of the treatment.

Leung, Waller, and Thomas (2000) evaluated the effectiveness of group CBT on 20 women diagnosed with bulimia nervosa. Another focus of their study was the role of core beliefs in changing eating attitudes and behaviors. Specifically, they had predicted that the women having fewer healthy core beliefs would show less improvement from treatment. They used the Young (1994) Schema Questionnaire (YSQ) to measure the women’s core beliefs and the Mizes Anorectic Cognition scale (MAC) of Mizes and Klesges (1989) to measure cognitions related to typical anorexic and bulimic behaviors. The women attended 12 group sessions of CBT, in which they learned about their disorder and received support and understanding from the other group members. They were also trained in behavioral techniques to control their bingeing and purging behaviors and were taught cognitive skills to contradict their dysfunctional thoughts surrounding food, weight, and size. The results showed a 59% reduction in the frequency of bingeing and a 53% reduction in vomiting. The results supported the researchers’ assertion that the frequency and intensity of negative core beliefs will be related to the extent of improvement as a function of the treatment. They found that women who showed a lack of improvement in bulimic attitudes demonstrated a stronger belief in 10 of the 16 negative core beliefs–schemas (abandonment, dependence–incompetence, defectiveness–shame, enmeshment, failure to achieve, subjugation, self-sacrifice, social undesirability, unrelenting standards, and vulnerability to harm). Women with stronger social undesirability belief tended to have less reduction in the frequency of bingeing. They also found that the greater the defectiveness–shame and social undesirability beliefs, the less improvement in vomiting behaviors.

Nixon and Singer (1993) examined the effects of group CBT in reducing self-blame and guilt in parents of children with severe disabilities. Both the BDI and ATQ were used in that study. Thirty-four mothers were randomly assigned to either group therapy treatment or to a wait-listed control group. The participants in the treatment group attended five 2-hr sessions focusing on

techniques to help them deal with cognitive distortions that provoke self-blame and guilt. During the sessions, the women learned how to conceptualize automatic thoughts and cognitive distortions by becoming aware of them through daily monitoring. The therapists then contradicted those thoughts and distortions by providing evidence that refuted those beliefs. The therapists explained to the group that their beliefs allowed them to continue feeling blame and guilt. They taught the women strategies to change their cognitive distortions and automatic thoughts and told them that modifying their thinking could help change how they felt about themselves. Following the treatment, the therapists found a significant difference between the treatment group and control group in reduction of guilt, self-blame, negative automatic thoughts, and depression.

Researchers have also examined whether group CBT is effective in the treatment of panic disorders. Otto, Pollack, Penava, and Zucker (1999) found that CBT is an effective, alternative treatment for those individuals who are not responding well to pharmacotherapy. They taught participants about the CBT model of panic disorder and its treatment. Then, the individuals attended 12 group sessions that focused on cognitive restructuring, exposure intervention, and relaxation training.

### **The Present Study**

We report on an exploratory study that we designed to examine the effects of completing the Thought Record Forms (TRF) on a weekly basis in a group course, in which we integrated psychodramatic and cognitive-behavioral techniques as a means to alleviate depression. In the group course, the students were specifically trained to complete the TRFs, identify their core beliefs, list and rate their moods, practice writing balanced thoughts, and to re-rate their moods after writing the balanced thoughts. In addition, we examined the relationship among a number of variables derived from the TRFs (e.g., automatic thoughts, core beliefs-schemas, balanced thoughts, moods) and depression.

The study derives its major impetus from A. T. Beck's (1967, 1976, see also Clark, Beck, & Alford, 1999) theorizing that one's negative automatic thoughts reflect a general negativity about oneself and a cynicism, both of which are symptomatic of depression. When depressed (clinical as well as nonclinical), a person has a "significant elevation in negative thought content about the self, future, and possibly to a lesser extent, personal world" (p. 405). Beck later applied his cognitive model to the understanding of anxiety (A. T. Beck, Emery, & Greenberg, 1985) and personality disorders (A. T. Beck, Freeman, & Associates, 1990). If negative automatic thoughts and other cognitive errors in thinking are a type of information processing, then therapy, which brings awareness of negative thought processes, should decrease depression. That notion encom-

passes recognizing various errors of perception and interpretations of one's interaction with oneself and others and learning to develop new ways of thinking (that is balanced thoughts). Beck, however, does not assume in his theory that negative thinking causes depression, but it does "contribute to the pathogenesis of depression" (see Clark et al., 1999, p. 412).

Given that assumption, it seems reasonable to expect that a course integrating psychodramatic procedures with cognitive therapy techniques (primarily a psychoeducational model, see Greenberger & Padesky, 1995) should be helpful in reducing depression. The cognitive therapy model is focused on identifying upsetting situations, automatic negative thoughts, and triggered moods, on writing balanced thoughts to counter negative automatic thoughts, and on recognizing distortions in thinking and interpretations of difficult situations (see for example, J. S. Beck, 1995; Greenberger & Padesky, 1995, for exercises). The psychodramatic procedures of role playing, role reversal, and mirroring should facilitate the process of examining various conflicting situations that individuals experience within the context of a group so that they can understand better the nature of negative thoughts triggered by situations and their effects on moods. In essence, the procedures illustrate the psychodramatic triad (Hollander, 1978; Karp, 1998), as shown in Figure 2.

Furthermore, a group environment provides a supportive climate to practice new thinking and behaviors. Thus, we hypothesized that, as a result of participating in the course, the students would show a lowering of depression scores, as measured by the BDI-II.

The TRF yields a number of variables, such as frequencies of the stressful situations mentioned earlier and of automatic thoughts, the number of dysphoric moods, mood ratings, implied core beliefs, different types of implied core

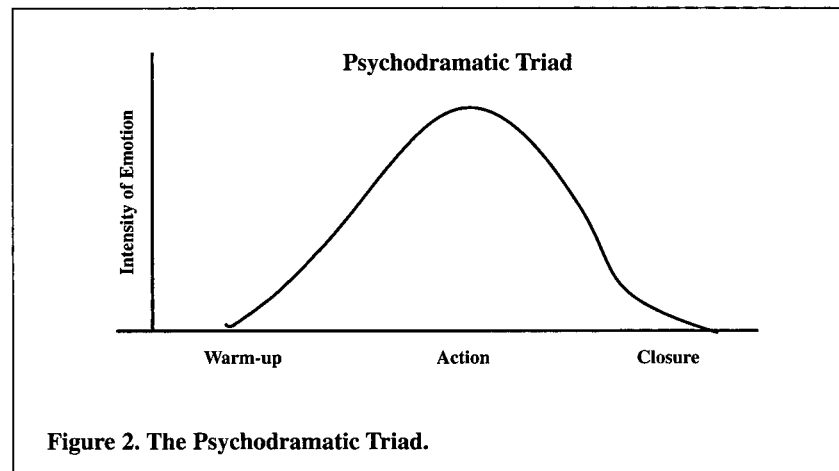


Figure 2. The Psychodramatic Triad.

beliefs–schemas, and the number of balanced thoughts written, and the resultant reduction in moods. Given that negative thought content is symptomatic of depression (Clark et al., 1999), we expected that many of those variables would be significantly correlated with the BDI-II scores and among themselves.

## Methods

### *Participants*

The participants were 40 undergraduate and graduate students (24 women and 16 men) enrolled in one of five group psychodrama courses taught at West Chester University between fall 1997 and fall 1999. Each course lasted 14 weeks, and the class sessions were 3 hr in duration. The same professor, who had extensive training in psychodrama, group therapy, and CBT, taught all five psychodrama courses.

The instructor typically began each class session by examining TRFs completed by students for that week and helping them to identify their core beliefs–schemas from their automatic thoughts and cognitive errors in thinking (J. S. Beck, 1995; Greensberger & Padesky, 1995). During the first and second group session, the instructor gave the students an explanation of their automatic thoughts and showed them how to identify them. Once that was accomplished, the instructor focused on the core beliefs that were prominent that week and used those to focus on a specific situation by using psychodramatic (e.g., role playing, role reversal, doubling) and cognitive–behavioral techniques (e.g., downward arrow technique; and specific homework, Socratic questioning, reframing, and advantage–disadvantage analysis; see J. S. Beck, 1995). Our main intent in using psychodrama procedures was to allow a protagonist, identified either by using sociometric methods combined with TRFs or by having someone volunteer, to examine a stressful situation that he or she had faced in the past week. The instructor guided the protagonist to an understanding of the source of his or her automatic thoughts and to ways of coping with both the negative automatic thoughts and comparable situations. Each class ended, following the psychodramatic model, with the sharing phase of personal experiences. Group members, in addition to the protagonist, identified similar tensions and reported how they coped or failed to cope with their situations.

### *Instruments*

The instruments used for the study were the Thought Record Form (TRF) of Greenberger and Padesky (1995) and the Beck Depression Inventory II (BDI-II) of A. T. Beck, Steer, and Brown (1996). The TRF consists of seven columns and is used to identify negative thoughts evoked by a particular situation. To

complete the TRF, the participant identifies a situation, along with recognizing, listing, and rating every mood on a scale of 0 to 100%. Following that, the participants record their automatic thoughts (very often those thoughts can be in the form of images, which can be visual); identify a hot thought; offer evidence that supports the hot thought as well as confirmation that does not support the hot thought; recognize alternative-balanced thoughts; and re-rate their moods on a scale of 0 to 100%. The TRF also lists guidelines (questions, statements, or both) within each column to help in the completion of each column.

The TRF yielded several variables of interest to the present study. We assessed the measures during the first three and the last 3 weeks of each course. The variables of the present study were as follows:

1. Number of distressing situations identified.
2. Number of negative moods identified (initial moods).
3. Average initial mood rating.
4. Number of automatic thoughts.
5. Number of implied core beliefs.
6. Number of implied different types of core beliefs.
7. Number of balanced thoughts.
8. Number of moods reported after completing the balanced thoughts (new moods).
9. Average new mood rating.

Average mood ratings were computed for the periods at the beginning of the TRF (i.e., initial moods, the column after situation) and at the end of the TRF (i.e., new moods, the column after balanced thoughts). We calculated the average mood ratings by adding all the ratings for each reported mood and dividing by the number of identified moods. In the situation in which an individual identified a positive mood (i.e., happy goals = 35%), we calculated the percentage of the opposite of the reported mood (i.e., not happy = 65%) to be consistent with the notion of negative moods, which was the variable of interest to the present study.

The BDI-II is a 21-item self-report measure of state of depression. Each item is followed by four statements that are ranked from 0–3. One determines a total score by adding the ratings corresponding to statements chosen for each item. The clinical cut-off scores for the BDI-II are as follows: Minimal depression = 0–13, mild = 14–19, moderate = 20–28, and severe = 29+. In a recent study with undergraduate psychology students, Dozois, Dobson, and Ahnberg, (1998) suggested new cut-off scores: Nondepressed = 0–12, dysphoric = 13–19, and dysphoric-depressed = 20–63. The BDI-II (and its predecessor instrument the BDI) is popularly used in studies on depression and is used widely in clinical settings. Many studies support its reliability and validity (see Dozois et al., 1998; A. T. Beck, Steer, & Brown, 1996; A. T. Beck, Steer, &

Garbin, 1988). For the purposes of this study, we computed an average BDI-II score for the first 3 weeks and again for the last 3 weeks of the course.

### *Procedure*

The students completed the BDI-II weekly at the beginning of each class. An exception to that routine was the fall 1997 class, which did not complete the BDI-II weekly. The students were introduced to the TRF gradually to ensure proper understanding of the terms involved and how to complete the form. For the first 3 weeks (not including the first day of the course, which was an introduction and explanation of the TRF), the students completed only the first three columns of the TRF in which they identified a potentially negative situation, recorded and rated the intensity of the emotions (moods) that they felt during the situation, and identified the automatic thoughts they experienced. For the remainder of the course, they completed the entire TRFs (all seven columns). Students, instructed to finish as many TRFs as needed, completed them as part of their weekly homework assignment.

### **Results and Discussion**

We had two main purposes in this study. Our first purpose was to evaluate whether the group classes had any impact on changes in the number of core beliefs, automatic thoughts, moods, and the BDI-II scores. Specifically, our aim was to determine whether the group class resulted in a decrease in the previously mentioned variables from the first 3 weeks to the last 3 weeks of the course. The final scores were the averages of the scores in the first and last 3 weeks, rather than just the first and the last week of the course because some students missed a class in the beginning or towards the end. More important, we believed that the average of the first 3 weeks would function as a better baseline period, given that that was the period during which the students received instructions on how to complete the TRFs. Furthermore, we assumed that the average data from the last 3 weeks would provide us with a more realistic assessment of change, especially because the last week of a course during any semester can be a source of stress for many students. Our second purpose in the study was to examine the correlation among the various measures derived from the TRFs and BDI-II scores.

Because the sample sizes from each class were small, we combined data from all classes for data analysis. Given the small sample size, we made no adjustment to control for Type 1 error for the number of tests conducted and we used an alpha of .05 to evaluate significance of each test. Sample sizes varied for different analyses because of the data missing from students who did not complete the TRFs or the BDI-II.

*Effects of the Group Course*

Table 1 contains the means, standard deviations, and results of the *t* test of the first 3 weeks and last 3 weeks of a group course on the BDI-II and the various TRF variables: number of negative situations, number of automatic thoughts, number of core beliefs, BDI scores, number of moods reported at the beginning of the TRFs, number of moods reported after the balanced thoughts, and the average rating of the moods at the beginning of the TRF and after their balanced thoughts. From the results in Table 1, we concluded that students significantly mentioned more situations in the beginning (first 3 weeks) of the course than at the end (last 3 weeks). The decrease in the number of situations mentioned by the students in their TRFs might have resulted from the various activities that the students participated in during the semester (including completing the TRFs). An explanation for those results could be that the students

**TABLE 1**  
Means, Standard Deviations, and Results of the *t* Tests  
of the First and Last 3 Weeks of the Course

Variable	<i>n</i>	First 3 weeks		Last 3 weeks		<i>t</i>	<i>p</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Situations	40	5.40	4.50	3.85	1.42	2.34	.024
Automatic thoughts	40	6.93	4.62	6.50	4.58	.510	.613
Core beliefs	40	4.70	4.27	4.30	2.88	.616	.541
BDI-II	33	5.11	6.32	5.02	7.83	.104	.918
Number of moods reported at the beginning of TRF	40	11.08	10.66	8.30	3.42	1.77	.085
Number of moods reported at the end of the TRF	15	4.13	2.53	8.20	4.50	-3.16	.007
Average mood rating at the beginning of TRF	40	70.13	14.74	72.17	17.81	-.718	.477
Average mood rating at the end of the TRF	15	38.24	20.67	45.35	14.01	-1.62	.127

*Note.* TRF = Thought Record Form. BDI-II = Beck Depression Inventory-II.

were able to cope with difficult situations in their life and were less likely to mention them as affecting them emotionally. An alternative explanation for the finding could be that students were busier at the end of the semester and spent less time and effort in completing their TRFs.

There were no significant differences in the number of automatic thoughts and in core beliefs from the first 3 weeks to last 3 weeks of the course (see Table 1). On the one hand, those results seem contrary to the extent that one would expect that a decrease in the number of situations should be concomitant with a decrease in automatic thoughts and core beliefs. Furthermore, one would also expect that completing the TRFs every week would result in decreases in the frequency of automatic thoughts and implied core beliefs, because such activities bring about greater awareness of the nature of one's maladaptive thinking. On the other hand, it is possible that the situations from the first 3 weeks were so qualitatively different, from those of the last 3 weeks that there was no generalization possible from the first to the last 3 weeks. Perhaps it was unreasonable to expect that the frequency of the automatic thoughts and implied core beliefs would decrease as a result of completing the TRFs over an extended period of time. It is possible that habitual patterns of thinking may not change but that what changes is the way one deals with them.

Another finding that was contrary to our expectations was that the BDI-II scores from the first 3 weeks did not differ from those of the last 3 weeks of the course (see Table 1). Those results might be thought of as somewhat disappointing given that the exercises pertaining to completing the TRFs (identifying situations, moods, automatic thoughts, becoming aware of core beliefs, completing balanced thoughts, re-rating moods) are specifically designed to facilitate a decrease in depression. The results might be better understood if we consider the nature of the sample used in this study—a group of university students, not a clinical patient group. More specifically, the BDI-II scores in the first 3 weeks were already quite low, leaving little, if any, room for improvement in those scores. We do not imply that the students did not benefit at all from completing the TRFs. They might, in fact, have learned a valuable strategy for coping with difficult situations. From the personal observations of the course instructor (personal communication), we know that many students made informal comments to him about the value of becoming aware of their moods, automatic thoughts, and their core beliefs, and of learning how to modify them in similar negative situations.

The number of moods reported at the beginning of the TRFs, the average mood rating at the beginning of the TRFs, and the average mood rating after writing balanced thoughts did not differ significantly from the first 3 weeks to the last 3 weeks of the course. Results shown in Table 1 suggest that there might have been less change in moods as a function of writing balanced thoughts in the last 3 weeks, relative to the first 3 weeks. To evaluate that possibility, we

computed the percentage change in mood as a result of writing balanced thoughts for each of the data sets (i.e., the first 3 and the last 3 weeks), using the formula suggested by Persons and Burns (1985). The formula is as follows:

$$\text{Percentage in change of mood} = \frac{\text{Initial Mood} - \text{New Mood}}{\text{Initial Mood}} \times 100.$$

A paired *t* test done on the percentage change in mood was significant,  $t(14) = 3.40$ ,  $p < .004$ ; mean percentage change week 1 = 94.18,  $SD = 3.31$ ; mean percentage change week 2 = 88.51,  $SD = 5.48$ . The smaller reduction in negative mood at the end of the course, relative to the beginning of the course, might have to do with novelty effects and expectation effects. In the beginning of the semester, the exercises are new, and students may exaggerate the effects of writing balanced thoughts, given that the main reason for writing them was to obtain a reduction in their negative mood. An 88% reduction, however, in negative moods as a result of writing negative thoughts could still be considered impressive, if one can assume that the ratings are valid.

The number of moods reported at the end of the TRFs, after writing balanced thoughts (column 7), was significantly lower during the beginning of the course than in the last 3 weeks (see Table 1). The number of moods reported in the beginning of TRFs was significantly greater than the number of moods reported after writing balanced thoughts (see Table 2). Although this was true for both the first and the last 3 weeks of the course, the difference was more dramatic in the former than in the latter. It is possible that in the beginning of the course, the students did not fully understand or follow the instructions on how to complete the TRFs. After they had written the balanced thoughts, students often failed to rate again every mood they had listed at the beginning of the TRFs. That may explain the decrease in the number of moods from the beginning to the end of the TRFs. A possibility exists that the moods that they mentioned at the beginning of the TRFs but did not repeat after writ-

**TABLE 2**  
Frequency of Moods Reported at the Beginning  
and End of the Thought Record Form (TRF)

Mood frequency	<i>n</i>	Beginning of TRF		End of TRF		<i>t</i>	<i>p</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
First 3 weeks	15	9.80	4.43	4.13	2.53	4.36	.001
Last 3 weeks	40	8.30	3.42	7.19	3.57	2.76	.009

ing balanced thoughts had dissipated, and consequently they did not list them again. That possibility suggests that writing balanced thoughts had a positive and immediate effect on the students in improving their moods.

Table 3 contains the means, standard deviations, and results of the *t* tests for the average mood rating at the beginning of the TRFs and at the end, after writing balanced thoughts. Students were instructed to complete only the first three columns of the TRF in the beginning of the semester, but 15 students did complete all seven columns in the first 3 weeks of classes. In both the first and the last 3 weeks of the class, the average mood rating improved as a function of writing balanced thoughts, which was true for both the TRFs completed in the first 3 weeks and those completed in the last 3 weeks of the course (see Table 3). The results suggest the positive and immediate impact of writing balanced thoughts on improving students' moods. It is interesting, however, that the average mood rating did not change from the first 3 weeks to the last 3 weeks of the course, whether one looked at the average mood rating at the beginning or at the end of the TRFs. In other words, although there were immediate effects from writing balanced thoughts, there were no long-term effects in improving mood ratings as a function of participating in the course activities. It is possible that the duration of the course was not long enough to have an impact on improving students' overall mood.

#### *Correlation Among the Various TRF Measures and the BDI-II Scores*

Given that we specifically designed the TRF to bring about improvement and thereby decrease depression, we wanted to determine if there was a relationship between each of the TRF variables and the BDI-II scores. Furthermore, because some of the variables derived from the TRFs have not been used in prior studies, we decided to examine how they correlated with each other. The variables intercorrelated were as follows: Number of situations

**TABLE 3**  
Average Mood Rating in the Beginning and End  
of the Thought Record Form (TRF)

Average mood	<i>n</i>	Beginning of TRF		End of TRF		<i>t</i>	<i>p</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
First 3 weeks	15	70.90	14.55	38.24	20.67	5.23	.000
Last 3 weeks	40	72.17	17.81	47.19	19.45	7.32	.000

mentioned, number of initial moods (i.e., listed in the beginning of the TRF), average initial mood rating, number of automatic thoughts mentioned, number of implied core beliefs (regardless of type), number of implied different types of core beliefs, number of balanced thoughts written, number of new moods (i.e., reported after the balanced thoughts), new mood average, and BDI-II scores. The intercorrelations, computed separately for the first 3 weeks and the last 3 weeks of the course, appear in Tables 4 and 5, respectively.

#### *TRF and the BDI-II*

The BDI-II correlated with four out of the nine TRF variables in the analysis of the first 3 weeks data (see Table 4) and six out of the nine variables in the analysis of the last 3 weeks data (see Table 5). In the first 3 weeks data, the BDI-II was correlated significantly ( $p < .05$ ) with the number of moods listed, the number of automatic thoughts listed, the number of implied core beliefs, and the number of different implied core beliefs. However, in the last 3 weeks of the course, the BDI-II correlated significantly with the number of situations mentioned, number of moods listed, number of implied core beliefs, number of automatic thoughts listed, and the number of new moods, resulting from writing of balanced thoughts; and with the new mood average, resulting from writing of balanced thoughts. In evaluating the correlations, one must keep in mind that some of the correlations might not have been significant either because of small sample sizes or the restricted range of the BDI-II scores, or both.

As expected, the number of automatic thoughts listed and the number of implied core beliefs in those thoughts were correlated significantly with the BDI-II scores in the first three and the last 3 weeks of the course, supporting Beck's theory of depression that a greater number of negative thoughts and core beliefs is likely to occur in more depressed individuals.

An unexpected finding was that although the BDI-II was significantly correlated with number of initial moods mentioned, it was not correlated significantly with the average initial mood rating, either in the first three or in the last 3 weeks. One would expect that higher depression scores should be associated with higher negative moods. More than likely, the lack of significance was a function of restriction of range effects on the BDI-II. Nevertheless, the BDI-II scores positively and significantly correlated with the number of new moods and the average new mood rating, suggesting that students with higher depression scores reported a higher frequency of negative moods and also that their average negative mood tended to be higher. Why the BDI-II scores did not correlate significantly with the initial average mood but did correlate with the average new mood is not clear. That difference in results could be attributed to chance.

TABLE 4  
Correlations Among Measures in the First 3 Weeks

Measure	1	2	3	4	5	6	7	8	9	10
1. Number of situations	—									
2. Number of moods	.946**	—								
3. Mood average	-.333*	-.408**	—							
4. Number of automatic thoughts	.838**	.839**	-.131	—						
5. Number of core beliefs	.874**	.878**	-.195	.959**	—					
6. Number of different core beliefs	.656**	.680**	-.115	.827**	.876**	—				
7. Number of balanced thoughts ( $n = 17$ )	.458	.467	.514*	.530*	.590*	.592*	—			
8. Number of new moods ( $n = 15$ )	-.038	.028	.381	.081	.276	.281	.763*	—		
9. New mood average ( $n = 15$ )	.256	.359	.090	.085	.225	.427 <sup>a</sup>	.499 <sup>a</sup>	.372	—	
10. BDI-II ( $n = 33$ )	.095	.390*	.253	.426*	.476**	.496**	.455 <sup>b</sup>	.161 <sup>a</sup>	-.022 <sup>a</sup>	—

Note. BDI-II = Beck Depression Inventory-II.  $n = 40$ , unless noted otherwise.

<sup>a</sup> $n = 14$ . <sup>b</sup> $n = 16$ .

\* $p = .05$  (2-tailed). \*\* $p = .01$  (2-tailed).

TABLE 5  
Correlations Among Measures in the Last 3 Weeks

Measure	1	2	3	4	5	6	7	8	9	10
1. Number of situations	—									
2. Number of moods	.657**	—								
3. Mood average	.005	-.137	—							
4. Number of automatic thoughts	.845**	.610**	.143	—						
5. Number of core beliefs	.754**	.630**	.258	.895**	—					
6. Number of different core beliefs	.610**	.434**	.254	.705**	.831**	—				
7. Number of balanced thoughts ( $n = 17$ )	.702**	.361*	.157	.759**	.719**	.601**	—			
8. Number of new moods ( $n = 15$ )	.542**	.771**	.195	.648**	.669**	.391*	.554**	—		
9. New mood average ( $n = 15$ )	.097	.220	.331*	.133	.244	.119	.008	.225	—	
10. BDI-II ( $n = 33$ )	.397*	.430*	.290	.531**	.642**	.339	.312	.514**	.436*	—

Note. BDI-II = Beck Depression Inventory-II.  $n = 40$ , unless noted otherwise.  
\* $p = .05$  (2-tailed). \*\* $p = .01$  (2-tailed).

*Correlations Among the TRF Variables*

The number of situations identified was positively and significantly ( $p < .05$ ) correlated with the number of moods, automatic thoughts, core beliefs, and implied different types of core beliefs mentioned in those same weeks. The number of automatic thoughts, the number of core beliefs, and the number of different types of core beliefs mentioned were positively and significantly correlated with each other. We expected that result because the more negative situations one identifies, the greater is the opportunity for automatic thoughts to occur and core beliefs to surface.

Two correlations were unexpected. The number of situations identified was negatively and significantly correlated with the number of moods listed and with the average negative mood in the data of the first 3 weeks, but it was not correlated in the data of last 3 weeks (see Table 4 and 5). In examining the data carefully, we found three extreme scores on the situations identified in the first 3 weeks. When those outliers were dropped from the analysis, the correlations became nonsignificant.

The number of moods was significantly correlated with the frequency of automatic thoughts, implied core beliefs, and number of implied different core beliefs. The average mood ratings for the two time periods (see also Table 6) were significantly correlated. Other than that, the mood ratings were uncorrelated with any of the other TRF variables. It is possible that mood ratings given by the students are not valid, in the sense that the students might not actually know how they felt in regards to the situations they mentioned. Possibly we need to consider a new way of assessing mood ratings.

**TABLE 6**  
Correlation Between First 3 Weeks and Last 3 Weeks Measures

Measure	<i>n</i>	<i>r</i>	<i>p</i>
Number of situations	40	.374	.018
Number of automatic thoughts	40	.481	.002
Number of core beliefs	40	.393	.012
Number of different types of core beliefs	40	.408	.009
BDI-II scores	33	.750	.000
Number of moods reported at the beginning of the Thought Record	40	.364	.021
Average mood rating at the beginning of the Thought Record	40	.504	.001
Average mood rating at the end of the Thought Record	15	.534	.040

*Note.* BDI-II = Beck Depression Inventory-II.

We found positive and significant relationships between the number of balanced thoughts and the number of automatic thoughts, and between the number of core beliefs and the number of different types of core beliefs. That is understandable because the number of alternative or balanced thoughts produced was in response to the number of negative automatic thoughts and core beliefs mentioned in the beginning of the TRF.

#### *Correlations of Variables Between the First and Last 3 Weeks*

We did one last analysis to see if the TRF-based variables and the BDI-II scores from the first to the last 3 weeks were correlated. In Table 6, the number of situations, automatic thoughts, core beliefs, and different types of core beliefs in the first 3 weeks of the class has a significant positive correlation with the corresponding measures in the last 3 weeks of the class. The students had a tendency to respond similarly in the first 3 weeks and the last 3 weeks.

#### **Summary and Conclusions**

Contrary to expectations, the average BDI-II scores from the first 3 weeks of the course to the last 3 weeks did not differ significantly. That nonsignificant difference might be attributable to our use of a group whose BDI-II scores were low to begin with (i.e., before they participated in the course) leaving little room, if any, for improvement. Students did report a lowering of negative moods, on the average, as result of writing balanced thoughts in each time period. The students reported no reduction of negative moods, on the average, at the end of the course as a function of completing TRFs every week. In other words, the students' average initial mood ratings before they wrote the balanced thoughts in the first 3 weeks and those of the last 3 weeks did not differ significantly, despite the fact that the students reported fewer stressful situations in the last 3 weeks than during the first 3 weeks (see Table 1). We concluded that, although the immediate positive effects of writing balanced thoughts did not transfer or generalize to situations reported in the last 3 weeks, possibly much longer-term interventions, longer than 14 weeks, are needed to see transfer effects. A clinically depressed group might achieve better results. The greater reduction in negative mood (about 94%) in the first 3 weeks, as a function of writing balanced thoughts, than in the last 3 weeks (about 86%), suggested to us that there might be both novelty and expectancy effects operative here. In the first 3 weeks, students learned a new technique; they knew that its purpose was to reduce the intensity of their negative mood. That is what they reported. But they failed to generalize that effect over many weeks in response to new situations. That explanation is also suggested by the similarity of responding to the TRFs, as indicated by the correlations

between the first and the last 3 weeks on the different variables (see Table 6). Those results, however, are not to be construed to suggest that the activity of writing balanced thoughts was not helpful. Students often indicated to the course instructor that they were more aware of their negative thoughts and how to combat them as a result of completing TRFs.

We did not expect that the intensity of moods would not be significantly correlated with such variables as the BDI-II or the frequency of automatic thoughts and core beliefs, in either time period (the first and last 3 weeks). Low sample sizes and the restriction of range effects might have caused the result. It is possible that the mood ratings might not be fully valid indicators of students' actual mood. In this study, the students listed a mood and then used a 0 to 100 scale to rate each mood. We observed that students did not often list the same moods before and after completing balanced thoughts. That response might mean either that they experienced fewer moods after writing balanced thoughts or simply forgot to include all of the same moods (see Table 1, particularly in the first 3 weeks). Therefore, modification in the way mood ratings are assessed might be needed. Perhaps a listing of moods should be provided, with clear instructions that each mood is connected to the situation and to their automatic thought. Using the Likert-type scale of 0 to 100 to assess moods is crucial in completing the TRF.

The result—that BDI-II scores significantly correlated with the number of automatic thoughts, number of core beliefs, and different types of core beliefs in both time periods—supports Beck's assumptions that negative thought content characterizes depression (see A. T. Beck, 1976; Clark et al., 1999).

We conclude that the results of this exploratory study must be regarded with caution because the sample size was small and was characterized by students with low initial BDI-II scores. We believe it would be helpful to gather additional data about how helpful students find the various exercises pertaining to the TRFs in coping with everyday situations in life, rather than to rely just on responses given to the TRFs. Researchers may find that completing the TRFs might not reduce BDI-II scores, participants might find it practicable to complete the TRFs as a useful coping strategy for dealing with upsetting situations.

#### REFERENCES

- Baucom, D., Sayers, S., & Scher, T. (1990). Supplementary behavioral marital therapy with cognitive restructuring and emotional expressiveness training: An outcome investigation. *Journal of Consulting and Clinical Psychology, 58*, 636–645.
- Beck, A. T. (1964). Thinking and depression: II. Theory and therapy. *Archives of General Psychiatry, 10*, 561–571.
- Beck, A. T. (1967). *Depression: Causes and treatment*. Philadelphia, PA: University of Pennsylvania Press.
- Beck, A. T. (1976). *Cognitive therapy of emotional disorders*. New York: American Library.

- Beck, A. T. (1987). Cognitive models of depression. *Journal of Cognitive Psychotherapy: An International Quarterly*, 1, 5–37.
- Beck, A. T., Brown, G., & Steer, R. A., (1987). Differentiating anxiety and depression: A test of cognitive content-specific hypothesis. *Journal of Abnormal Psychology*, 96, 179–183.
- Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety disorders and phobias*. New York: Basic Books.
- Beck, A. T., Freeman, A., & Associates (1990). *Cognitive therapy of personality disorders*. New York: Guilford Press.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Beck, A. T., Steer, R. A., & Brown, G. K., (1996). *Beck Depression Inventory Manual*. (2nd ed.). San Antonio, TX: Psychological Corporation.
- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8, 77–100.
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting and Clinical Psychology*, 42, 861–865.
- Beck, J. S. (1995). *Cognitive therapy: Basics and beyond*. New York: Guilford Press.
- Clark, D. A., Beck, A. T., & Alford, B. A. (1999). *Scientific foundations of cognitive therapy and therapy of depression*. New York: John Wiley.
- Dempsey, P. A. (1964). A unidimensional depression scale for the MMPI. *Journal of Consulting Psychology*, 28, 364–370.
- Dent, J., & Teasdale, J. D. (1988). Negative cognition and the persistence of depression. *Journal of Abnormal Psychology*, 97, 29–34.
- Dobson, K. S. (1989). A meta-analysis of the efficacy of cognitive therapy for depression. *Journal of Consulting and Clinical Psychology*, 57, 414–419.
- Dozois, D. J. A., Dobson, K. S., & Ahnberg, J. L. (1998). A psychometric evaluation of the Beck Depression Inventory-II. *Psychological Assessment*, 10(2), 83–89.
- Epstein, N., & Eidelson, R. J. (1981). Unrealistic beliefs of clinical couples: Their relationship to expectations, goals, and satisfaction. *American Journal of Family Therapy*, 9(4), 13–22.
- Greenberger, D., & Padesky, C. A. (1995). *Mind over mood: A cognitive therapy treatment manual for clients*. New York: Guilford Press.
- Haaga, D. A., Dyck, M. J., & Ernst, D. (1991). Empirical status of cognitive theory of depression. *Psychological Bulletin*, 110, 215–236.
- Hamilton, M. A. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry*, 23, 556–61.
- Hamilton, M. (1967). Development of a rating scale for primary depressive illness. *British Journal of Social and Clinical Psychology*, 6, 278–296.
- Hollander, C. (1978). A process for psychodrama training: The Hollander psychodrama curve. Denver, Colorado: Snow Lion Press.
- Hollon, S. D. & Kendall P. C. (1980). Cognitive self-statements in depression: Development of an automatic thoughts questionnaire. *Cognitive Therapy and Research*, 4, 383–395.
- Jones, R. G. (1968). *A factored measure of Ellis' irrational belief system, with personality and maladjustment correlates*. Unpublished doctoral dissertation, Texas Technological College, Lubbock.

- Karp, M., Holmes, P., & Tavon, K. (Eds.). (1998). *The handbook of psychodrama*. New York: Routledge
- Kendall, P. C. (1989). Anxious self-talk: Development of the Anxious Self-statement Questionnaire. *Cognitive Research and Therapy*, 56, 898–902.
- Kumari, N., & Blackburn, I. M. (1992). How specific are negative automatic thoughts to a depressed population? An exploratory study. *British Journal of Medical Psychology*, 65(2), 167–176.
- Leung, N., Waller, G., & Thomas, G. (2000). Outcome of group cognitive-behavior therapy for bulimia nervosa: The role of core beliefs. *Behaviour Research and Therapy*, 38, 145–156.
- Madonna, S., & Philpot, V. D. (1996). Self-statements, self-esteem, and locus of control in discriminating college students' scores on the Beck Depression Inventory. *Psychological Reports*, 78(2), 531–534.
- McRoberts, C., Burlingame, G.M., & Hoag, M.J. (1998). Comparative efficacy of individual and group psychotherapy: A meta-analytic perspective. *Group Dynamics: Theory, Research and Practice* 2, 101–178.
- Mizes, J. R., & Klesges, R. C. (1989). Validity, reliability and factor structure of the anorectic cognitions questionnaire. *Addictive Behaviors*, 14, 589–594.
- Nixon, C. D., & Singer, G. H. S. (1993). Group cognitive behavioral treatment for excessive parental self-blame and guilt. *American Journal on Mental Retardation*, 97(6), 665–672.
- Oei, T. P. S., & Sullivan, L. M. (1998). Cognitive changes following recovery from depression in a group cognitive-behaviour therapy program. *Australian and New Zealand Journal of Psychiatry*, 33, 407–415.
- Otto, M. W., Pollack, M. H., Penava, S. J., & Sucker, B. G. (1999). Group cognitive-behavior therapy for patients failing to respond to pharmacotherapy for panic disorder: A clinical case series. *Behaviour Research and Therapy*, 37, 763–770.
- Persons, J. B., & Burns, D. D. (1985). Mechanisms of action of cognitive therapy: The technical and interpersonal interventions. *Cognitive Therapy and Research*, 9(5), 539–551.
- Raskin, A., Schulterbrandt, J. G., Reatig, N., & McKeon, J. J. (1970). Differential response to chlorpromazine, imipramine, and placebo: A study of subgroups of hospitalized depressed patients. *Archives of General Psychiatry*, 23, 164–173.
- Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. *Journal of Consulting and Clinical Psychology*, 54(5), 653–660.
- Rush, A. J., Beck, A. T., Kovacs, M., & Hollon, S. (1977). Comparative efficacy of cognitive therapy and pharmacotherapy in the treatment of depressed outpatients. *Cognitive Therapy and Research*, 1, 17–38.
- Schmidt, N. B., Joiner, T. E., Jr., Young, J. E., & Telch, M. J. (1995). The Schema Questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research*, 9(3), 295–321.
- Steuer, J. L., Mintz, J., Hammen, C. L., Hill, M. A., Jarvik, L. F., McCarley, T., Motoike, P., & Rosen, R. (1984). Cognitive-behavioral and psychodynamic group psychotherapy in treatment of geriatric depression. *Journal of Consulting and Clinical Psychology*, 52, 180–189.
- Weissman, A. N., & Beck, A. T. (1978). *Development and validation of the Dysfunctional Attitude Scale: A preliminary investigation*. Paper presented at the meeting of the American Educational Research Association, Toronto, Ontario, Canada.

- Wierzbicki, M., & Bartlett, T. S. (1987). The efficacy of group and individual cognitive therapy for mild depression. *Cognitive Therapy and Research, 11*(3), 337-342.
- Wilson, G. T., & Fairburn, C. G. (1993). Cognitive treatment for the eating disorders. *Journal of Consulting and Clinical Psychology, 61*, 261-269.
- Young, J. E. (1990). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota, FL: Professional Resources Exchange.
- Young, J. E. (1994). *Cognitive therapy for personality disorders: A schema-focused approach* (2nd ed.). Sarasota, FL: Professional Resources Press.
- Zung, W. W. K. (1965). A self-rating depression scale. *Archives of General Psychiatry, 8*, 287-292.

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