

## Predicting the Effect of Cognitive Therapy for Depression: A Study of Unique and Common Factors

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The ability of several process variables to predict therapy outcome was tested with 30 depressed clients who received cognitive therapy with or without medication. Two types of process variables were studied: 1 variable that is unique to cognitive therapy and 2 variables that this approach is assumed to share with other forms of treatment. The client's improvement was found to be predicted by the 2 common factors measured: the therapeutic alliance and the client's emotional involvement (experiencing). The results also indicated, however, that a unique aspect of cognitive therapy (i.e., therapist's focus on the impact of distorted cognitions on depressive symptoms) correlated negatively with outcome at the end of treatment. Descriptive analyses that were conducted to understand this negative correlation suggest that therapists sometimes increased their adherence to cognitive rationales and techniques to correct problems in the therapeutic alliance. Such increased focus, however, seems to worsen alliance strains, thereby interfering with therapeutic change.

Despite support for the effectiveness of cognitive therapy for depression, researchers are still confronted with a high degree of uncertainty about its underlying processes of change (Whisman, 1993). As recently noted by Beck and Haaga (1992), the refinement of our understanding of the mechanisms of action in the treatment of depression will take a predominant place in the future of cognitive therapy. The present study is an attempt to better understand the process of change in cognitive therapy for depression.

As recommended by several workers in the field (e.g., Kazdin, 1986; Lambert, Shapiro, & Bergin, 1986), two types of processes were investigated: variables that are unique to cognitive

therapy and factors that this approach is assumed to share with other orientations. Cognitive therapists have developed a set of unique techniques for the treatment of depression, such as examination of the impact of distorted thoughts on client's mood, reality testing of false beliefs, reattribution, and search for alternative interpretations (Beck, Rush, Shaw, & Emery, 1979). Studies investigating the link between these techniques and treatment outcome, however, have obtained mixed results.

Although the degree of "purity" in the execution of cognitive therapy has correlated positively with outcome in one study (Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985), the adherence to the cognitive techniques and the skills of the therapists in applying these procedures were not related to improvement in another (DeRubeis, Evans, & Hollon, 1989). DeRubeis and Feeley (1990) found that one set of "concrete" techniques (e.g., setting up and following session agenda) predicted outcome but only when measured early in treatment. Furthermore, another set of techniques called "abstract" (e.g., encouraging client's independence) showed no relationship to client's change. Studies that have looked more specifically at certain elements of cognitive therapy have arrived at somewhat clearer results. For instance, the adherence to homework has been linked to better outcome (Burns & Nolen-Hoeksema, 1991), as has the challenging of distorted cognitions (Teasdale & Fennell, 1982).

One objective of the present study was to investigate the functional impact of another unique element of cognitive therapy: the therapist's focus on the client's intrapersonal functioning. Such a focus refers to connections or links made by the therapist between different aspects of the client's functioning. Reflecting the central element of the cognitive therapy model, these links include the impact of clients' distorted thoughts on their depres-

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sive symptomatology (e.g., affect, motivational, and behavioral patterns). Consistent with the behavioral components of cognitive therapy, these links also include the impact of the clients' actions (e.g., success experiences between sessions) on their mood and cognitions. In a preliminary study involving a small number of clients, the therapist's focus on intrapersonal functioning was found to be marginally related to improvement in cognitive-behavior therapy (Kerr, Goldfried, Hayes, Castonguay, & Goldsamt, 1992). This study is partly an attempt to replicate this result with a larger number of clients and a similar form of therapy.

Few attempts have been made to determine whether factors common to most treatments are related to outcome in cognitive therapy. The impact of the therapist's empathy in cognitive therapy for depression (Burns & Nolen-Hoeksema, 1992) suggests, however, that clients' change in this orientation is not due solely to the techniques prescribed in its treatment manual. In the present study, two factors that cut across different approaches were measured: therapeutic alliance and client experiencing.

The alliance refers to the quality of the client-therapist interaction, which has been recognized as an important ingredient of change in psychodynamic, humanistic, and cognitive-behavioral treatments (Goldfried & Padawer, 1982). Although several studies have specifically measured the predictive value of the therapeutic alliance in cognitive therapy, mixed results have been obtained (Arnkoff, Victor, & Glass, 1993). These mixed findings may, in part, be due to the fact that in most of these studies the instruments used to measure the alliance were derived from a psychodynamic definition of this construct, which may or may not reflect the nature of the therapeutic relationship in cognitive therapy. In fact, only one of these studies (i.e., Safran & Wallner, 1991) used a transtheoretical measure of the alliance (i.e., Working Alliance Inventory; WAI), which defines the alliance in terms of the strength of the client and therapist attachment, as well as of their collaboration in attempting to achieve agreed-upon goals (Bordin, 1979). Although client improvement was successfully predicted by the WAI, Safran and Wallner used a variant of cognitive therapy that puts specific emphasis on the exploration of the therapeutic relationship. Because the quality of the therapeutic bond may be more crucial in this type of treatment than in a more traditional form of cognitive therapy, an investigation of the effect of the alliance in the latter is still indicated.

The other common factor measured in the present study refers to the client's emotional involvement. For authors of different orientations, psychotherapeutic change implies significant affective processing and learning (e.g., Greenberg & Safran, 1987; Teasdale, 1993). As part of such emotional involvement, the clients' experiencing refers to their ability to focus on and accept their affective reactions. Although it is assumed to be an important element of change in a wide variety of treatments (Klein, Mathieu-Coughlan, & Kiesler, 1986), the predictive validity of client experiencing has been supported mostly in client-centered therapy (Orlinsky & Howard, 1986) and has never been studied in cognitive therapy. The importance of studying this process in cognitive therapy is particularly suggested by the growing conviction that affective processes in this approach

have been largely ignored by researchers and theorists (e.g., Mahoney, 1991).

## Method

### Design

The present study was based on data collected in the Cognitive-Pharmacotherapy Project (CPT; Hollon et al., 1992), which compared the effectiveness of four approaches to the treatment of depression: pharmacotherapy without maintenance, pharmacotherapy with maintenance, cognitive therapy, or a combination of cognitive therapy and pharmacotherapy. In the present study, only the process of cognitive therapy, with or without medication, was investigated.

### Clients

In CPT, 64 outpatients completed treatment (16 for each group), from an original sample of 107 individuals who had requested therapy. All patients met the Research Diagnostic Criteria (RDC; Spitzer, Endicott, & Robins, 1979) for major depressive disorder and had minimum scores of 20 on the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and 14 on the Hamilton Depression Rating Scale (HDRS; Hamilton, 1960). The exclusion criteria included past or current RDC criteria of schizophrenia, bipolar I affective disorder, organic brain syndrome, antisocial personality, panic disorder, generalized anxiety disorder, as well as criteria for substance abuse disorder within the past 12 months, a presence of psychotic or organic symptoms, an immediate hospitalization that was due to suicidal risk, and an IQ score of less than 80.

Most of the clients receiving cognitive therapy were female (78%), White (88%), employed (59.5%), and had a high school diploma (75.5%). The average age was 33.8 years, and 41% of the clients were married. The clients were moderately to severely depressed with a mean BDI and HDRS at intake of 28.97 ( $SD \pm 7.15$ ) and 24.17 ( $SD \pm 4.28$ ), respectively. No significant differences were found between the two conditions of cognitive therapy on demographic variables and pretreatment symptomatology. The present study is based on 30 of the 32 clients who completed cognitive treatment (15 in each condition), as the session transcripts for two clients were not available because of technical difficulties.

### Therapists

One clinical psychologist (male) and three social workers (2 male, and 1 female) served as therapists, each of whom treated 8 clients (4 in each of the two conditions). The therapists, who had no previous training in cognitive therapy, had a minimum of 8 years of practice. They received from 6 to 14 months of training, and supervision sessions were conducted throughout the study. Therapists did not differ with regard to adherence to cognitive techniques, quality of execution of cognitive therapy, and outcome measures (DeRubeis, Evans, & Hollon, 1989).

### Treatment

Cognitive therapy was conducted according to the guidelines of a manualized treatment (Beck et al., 1979). In the cognitive therapy condition without medication, clients were seen for an average of 15.4 sessions over an average period of 11.9 weeks; in the combined cognitive pharmacotherapy condition, clients received an average of 14.4 sessions of cognitive therapy over an average of 11.6 weeks. In the combined group, clients also received imipramine hydrochloride (up to 200-300 mg per day) and met once a week with a psychiatrist for drug management.

One transcribed and taped session was randomly selected for each client from the first half of treatment (between the fourth and the seventh sessions), as nearly 90% of the clients' improvement took place by midtreatment. The first three sessions of therapy were excluded from the selection pool to eliminate issues restricted to the beginning of treatment (e.g., assessment). Three 10-min segments for each of the selected sessions (taken from the beginning, middle, and end of the sessions) were coded with the process measures described below. Before the coding, the transcripts were edited by two graduate students so that non-clinically significant materials (e.g., scheduling issues) were eliminated.

### Outcome Measures

Clients were administered the BDI (Beck et al., 1961) before therapy, after 6 weeks (midtreatment), and after 12 weeks (end of treatment). They were also interviewed by an independent evaluator for purposes of completing the HRSD (Hamilton, 1960) and the Global Assessment Scale (GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976). For purposes of determining interrater reliability, HDRS and GAS ratings were compared with the ratings made from the videotape of a subset of these interviews by judges who were not made aware of the treatment conditions and the time of evaluation. High interrater reliability was obtained for both the HDRS ( $r = .96$ ) and the GAS ( $r = .84$ ) (Hollon et al., 1992).

### Process Measures

*The Coding System of Therapist Feedback (CSTF).* The CSTF (Goldfried, Newman, & Hayes, 1989) was used to measure the therapist's focus on the client's intrapersonal functioning. This focus refers to connections the therapist makes between different aspects of the client's functioning. In the present study, one particular type of link was coded, reflecting intrapersonal consequences. When intrapersonal consequence links are made, the therapist highlights the cause and effect between two components of the client's functioning, such as the impact of distorted cognitions on depressive affect or the effect of client's actions on his or her self-evaluation. Examples of this type of link include therapists' statements such as, "When you think of yourself as a failure, you become depressed," and "It seems that studying for and passing that test made you feel much better about yourself."

The therapist's turns are used as the unit of coding for the CSTF items. These items are coded using the written transcripts of the sessions. In earlier studies using the CSTF, interrater reliability has been mixed (Goldsamt, Goldfried, Hayes, & Kerr, 1992; Kerr et al., 1992). This led to the adoption of a more conservative method of data reduction than the use of average ratings. Using the consensus method recommended by Stiles (1986), we coded an item as having occurred if it had been scored by at least two of three independent coders. In addition to adopting this conservative method of data reduction, we used an extensive training period in the present study to increase the reliability. Each session was coded by three advanced graduate students randomly selected from a group of four. The coders were trained for more than 60 hr and showed an intraclass correlation of .74.

Despite the earlier reliability limitations, consensus scores derived from this coding system have revealed similarities, as well as divergences, in the process of psychodynamic, cognitive, and cognitive-behavioral therapies (Goldsamt et al., 1992; Kerr et al., 1992), and they have pointed to potential mechanisms of change in psychodynamic and cognitive-behavioral therapies (Kerr et al., 1992).

*Working Alliance Inventory (WAI).* The WAI (Horvath & Greenberg, 1986) is composed of 36 Likert-type items (7 points) reflecting three dimensions of the therapeutic relationship: Agreement on goals (e.g., "The client and therapist collaborated on setting the goals for the session"), agreement on tasks (e.g., "There is an agreement

about the steps taken to help improve client's situation"); and the therapeutic bond (e.g., "The client and therapist respect each other").

The WAI was scored using both the audiotapes and transcripts. Each session was coded by three advanced graduate students (other than the CSTF coders) after a training period of 30 hr. The interrater agreement was measured with the Finn's correlation coefficient, an index equivalent to the intraclass but accounting for the restricted variance in the data (Whitehurst, 1984). The level of agreement was .91. The data points used in the analyses of the WAI were the average ratings of the coders for each session coded.

Most of the studies concerning the psychometric qualities of the WAI have focused on the client's and therapist's self-report versions (Horvath & Greenberg, 1986). In a study by Tichenor and Hill (1989), however, an observer-based version of the measure (WAI-O) showed strong internal consistency ( $\alpha$  of .98), as well as convergent validity with other observer measures of the therapeutic alliance.

*Experiencing Scale (EXP).* The EXP (Klein, Mathieu, Gendlin, & Kiesler, 1969) is composed of 7 points, each describing a stage of the client's emotional and cognitive involvement in therapy. The gradual change from lower to higher stages represents an increase in clarity and immediacy of private events (e.g., feelings about the self). It also reflects a greater elaboration and integration of emotions toward the resolution of significant issues in the client's life.

At the lower stages of EXP, the client talks about events, ideas, or others (Stage 1); refers to self but without expressing emotions (Stage 2); or expresses emotions but only as they relate to external circumstances (Stage 3). At higher stages, the client focuses directly on emotions and thoughts about self (Stage 4), engages in an exploration of his or her inner experience (Stage 5), and gains awareness of previously implicit feelings and meanings (Stage 6). The highest stage (7) refers to an ongoing process of in-depth self-understanding, which provides new perspectives to solve significant problems.

Using both transcripts and audiotapes of sessions, the EXP was scored from the client's turns. Sessions were coded by two undergraduate coders randomly selected from a larger pool of four. The coders received 60 hr of training and showed a level of agreement of .88 (intraclass correlation). For each of the three segments of the coded sessions, the highest level of experiencing was obtained, and the average of these three scores served as data points in the analyses.

The validity of the scale has been supported by its correlation with some client variables, such as introspectiveness and cognitive complexity (Klein et al., 1986). As noted earlier, the scale has also been shown to predict client change, especially in client-centered therapy (Orlinsky & Howard, 1986).

## Results

In previous studies based on the same data set used in this study (e.g., DeRubeis et al., 1990; Evans et al., 1992), the two cognitive conditions (alone and in combination with medication) were combined to increase the power of statistical analyses. Before adopting the same strategy, we conducted a multivariate analysis of variance (MANOVA) using the treatment conditions as the independent variable and the three process variables as dependent variables. The MANOVA was significant,  $F(3, 26) = 4.67, p = .01$ , and the univariate tests revealed that the EXP was responsible for the rejection of the null hypothesis. As shown in Table 1, higher scores on this variable were obtained in cognitive therapy, compared with the combined condition. As a consequence, we conducted the remaining statistical analyses using the 30 clients as a single group but controlling statistically for the type of treatment.

Before conducting the statistical analyses, one process vari-

Table 1  
Means and Standard Deviations of Process Variables for Two Treatments

Process variable	Cognitive condition (n = 15)		Combined condition (n = 15)		F(1, 28)
	M	SD	M	SD	
Alliance	5.78	0.90	6.02	0.60	0.73
Experiencing	3.11	0.34	2.70	0.36	10.32**
Intra cons.	19.00	9.26	20.33	6.88	0.20

Note. Cognitive condition = cognitive therapy without medication; Combined condition = cognitive therapy with medication; Intra cons. = intrapersonal consequences.

\*\*  $p < .01$ .

able (WAI) and two outcome variables (HDRS and GAS at posttreatment) were logarithmically transformed to correct for skewed distributions and outliers.

#### Intercorrelation Among Process Variables

Table 2 depicts the partial intercorrelations among the process variables, once controlled for the type of treatment. No correlation was statistically significant.

#### Predictions of Treatment Outcome

A series of analyses were conducted to determine which of the process variables predicted change in each outcome variable measured at mid- and posttreatment. First, a series of partial correlations were performed to determine whether each single process variable predicted any of the outcome measures, once we controlled for pretreatment levels on these outcome measures and the type of treatment. If more than one of the predictors significantly predicted of the outcome variables ( $p < .05$ ), regression analyses were then conducted to determine the unique contribution of each of the significant predictors.

*Predictions of midtreatment outcome.* As Table 3 indicates, the therapeutic alliance was significantly related to client's improvement in terms of depressive symptoms (as measured by the HDRS) and global functioning (GAS). As none of the outcome measures at midtreatment were significantly predicted by any of the other process variables, no multiple regression analysis was conducted.

Table 2  
Partial Intercorrelations of Process Variables, Controlling for Type of Treatment (n = 30)

Process variable	1	2	3
1. Alliance	—	.32	-.30
2. Experiencing		—	-.02
3. Intra cons.			—

Note. Intra cons. = intrapersonal consequences. The raw scores of Alliance have been logarithmically transformed.

Table 3  
Second-Order Partial Correlations of Process Variables and Outcome, Controlling for Pretreatment Severity and Type of Treatment (n = 30)

Process variable	BDI	HDRS	GAS
Midtreatment			
Alliance	-.26	-.41*	.49**
Experiencing	-.23	-.22	.31
Intra cons.	.07	.07	.12
Posttreatment			
Alliance	-.42*	-.59**	.45*
Experiencing	-.47*	-.32	.20
Intra cons.	.26	.44*	-.26

Note. BDI = Beck Depression Inventory; HDRS = Hamilton Depression Rating Scale; GAS = Global Assessment Scale; Intra cons. = intrapersonal consequences. The raw scores of Alliance, HDRS (at posttreatment), and GAS (at posttreatment) have been logarithmically transformed. Higher scores on BDI and HDRS reflect more depressive symptomatology, and higher scores on GAS reflect better global adjustment.

\*  $p < .05$ . \*\*  $p < .01$ .

*Predictions of posttreatment outcome.* As also indicated in Table 3, the quality of the working alliance predicted improvement on all of the outcome measure at posttreatment. High level of experiencing was predictive of decreased symptomatology as measured by the BDI. The therapist's focus on the clients' intrapersonal consequences, however, was negatively related to positive change on the HDRS.

Hierarchical multiple regression analyses were conducted for the BDI and HDRS, as more than one process variable was significantly related to each of them. In these regression analyses, the increment in predictive validity of each significant process variable beyond that of others was tested, following a dominant analysis procedure where the predictive variables were entered before and after each other in the equations (Budescu, 1993). The type of treatment was controlled for in each of the regression analyses, by entering it first in the hierarchical equation. Because the pretreatment level of severity was not significant in any of the partial correlations reported earlier, it was not entered into the regression analyses.

With the BDI as the dependent variable, the unique contributions of the alliance and experiencing were tested, showing the alliance not significantly incremental over the experiencing,  $F$  change (1, 26) = 3.06,  $p = .09$ . The increment of predictive validity of the experiencing was significant above that of the alliance,  $F$  change (1, 26) = 4.90,  $p = .036$ . This indicates that, of the two variables, only the experiencing has a unique contribution to the variance explained for the BDI.

For the HDRS as the dependent variable, the unique contributions of the alliance and the therapist's focus on the intrapersonal consequences were tested. The therapist's focus on intrapersonal consequences did not significantly predict outcome above the alliance,  $F$  change (1, 26) = 3.03,  $p = .09$ , whereas the increment of predictive validity of the working alliance was significant above that of the focus on intrapersonal consequences,  $F$  change (1, 26) = 11.13,  $p < .01$ . This suggests that the alliance explains a unique part of the HDRS's variance,

whereas the predictive validity of the focus on intrapersonal consequences reflects its correlation with the alliance (i.e., their common variance). Consequently, once the alliance is controlled for, the focus on intrapersonal consequences fails to be significantly related to the HDRS.

### *Descriptive Analyses*

We conducted descriptive analyses to better understand the unexpected positive correlation between the therapist's focus on intrapersonal consequences and the higher level of depressive symptoms, as measured by the HDRS at posttreatment. These descriptive analyses were seen as relevant not only because such a focus is central to the cognitive therapy rationale but also because a similar type of intervention was previously found to correlate positively with symptomatic improvement in cognitive-behavioral therapy (Kerr et al., 1992). The descriptive analyses were conducted on the 15 sessions (out of 30) with the highest scores on interpersonal consequences focus. These 15 sessions were divided into two groups: those ( $n = 9$ ) with an alliance score below average (i.e., 5.90), and those ( $n = 6$ ) with an alliance score above average. Separate descriptive analyses for these two groups were suggested by the results of the previous multiple regression, which indicated that once the quality of the alliance was controlled for, the increment of variance predicted by the focus on intrapersonal consequences failed to achieve statistical significance. Such results suggest that it may not be the cognitive technique per se that was detrimental to the client's improvement but, perhaps, the application of the technique failed to take into account problems within the interpersonal context of therapy.

Examination of the nine sessions high in intrapersonal consequences and low in alliance revealed, as expected, numerous explicit signs of alliance strains (e.g., client's expression of negative sentiment regarding therapy, avoidance of therapeutic tasks, unresponsiveness to the therapist's interventions). Although therapists dealt with these alliance problems directly, they did not do so by investigating their potential source. Instead, they attempted to resolve the alliance problems by increasing their adherence to the cognitive therapy model.

In eight of these nine sessions, therapists explicitly focused clients' attention on intrapersonal consequences links that dealt with the role of cognitions in causing their negative emotions and on the importance of identifying and replacing these distorted thoughts. In all eight sessions, however, the clients disagreed with the relevance of dysfunctional thoughts for their problematic situation or showed reluctance to engage in any part of cognitive restructuring. In a typical example, a client reported having seen her husband driving his car accompanied by another woman. Although the client was very upset and expressed the need to talk about her emotional pain, the therapist engaged in repeated efforts to fit the client's experience into the distinct components of a cognitive therapy rationale—(A) situation leading to (B) thoughts, which lead to (C) emotions—and then focused on the causal role of the client's thoughts about her husband's unfaithfulness for her sadness and rage. While asserting that her thoughts and feelings were justified and refusing to engage in the cognitive therapy tasks, the client repeatedly attempted to talk about her distressing life event and the over-

whelming emotions related to it. After each of these attempts, the therapist reacted by reemphasizing the cognitive model, specifically refocusing on the impact of the client's distorted thoughts. This, in turn, was followed by clear signs of alliance strains (e.g., client's disagreement with therapeutic tasks), which then appeared to serve as cues for more attempts to persuade the client of the validity of the cognitive therapy rationale and effectiveness of its procedures.

In two of the eight sessions, markers of alliance strains (e.g., hostility of the client toward therapist; client's difficulty in talking about certain issues in therapy) became the focus of treatment. However, these strains in the alliance were treated by the therapist as a manifestation of the client's distorted thoughts. Consequently, therapists focused on what they viewed as the dysfunctional beliefs (e.g., lack of trust of client's toward the therapist) responsible for the client's reluctance to engage in cognitive therapy. These interventions led to further avoidance and unresponsiveness or more opposition toward the treatment.

In the last (ninth) session with a high intrapersonal consequence focus and low alliance, there was no repeated focus on the impact of distorted thoughts on negative emotions. To a large extent, the therapist in this session was attempting to facilitate an emotional shift through behavioral activation—a method of intervention that was not as central to cognitive therapy as cognitive restructuring but, important to its therapeutic rationale nevertheless (see Beck et al., 1979). Alliance problems seemed to emerge when the therapist repeatedly encouraged the client to apply for some specific jobs and the client showed clear reluctance to do so. Part of the therapist's response to this alliance strain (i.e., disagreement with the therapeutic task) was to highlight positive consequences that the client would derive from engaging in an active behavior related to a job search (e.g., feel better by gaining more income), thereby focusing on one type of intrapersonal consequence: the impact of action on other components of the self. These interventions, however, may have contributed to unresponsiveness by pressuring the client to engage in activities he did not feel ready to do. Thus, although the type of intrapersonal consequence focus in this session differed from the one used in the eight sessions described earlier, the same general intervention pattern prevailed in dealing with alliance problems. Rather than exploring aspects of the therapy or their own behaviors that may have contributed to the client's reluctance to engage in the cognitive therapy tasks, therapists increased their focused on these tasks in an attempt to motivate the client to change. Such interventions, however, may have inadvertently worsened the alliance problem it attempted to solve.

As for the six sessions with high intrapersonal consequences and high alliance, in all six of them the therapist focused on the client's beliefs and their impact on emotion, and the client actively engaged in the examination of his or her thoughts. Although there was disagreement between the therapist and the client, in that they had different perspectives on the veracity of the client's thoughts, such disagreements were part of the Socratic dialogue connected with the challenging of maladaptive beliefs. As opposed to most of the sessions described earlier, these disagreements were not about the cognitive therapy rationale and procedures per se, and therefore did not result in lower alliance ratings.

The descriptive analyses revealed yet another difference between the sessions high and low in alliance scores. Of the nine sessions rated low in alliance, only one (the last one described) showed a focus on the consequences of the client's actions on other aspects of their functioning, such as their thoughts or emotions. In contrast, this type of intrapersonal consequences involving the client's actual behavior was prevalent in five of the six sessions high in alliance scores. Most frequently, the therapist's emphasis was on encouraging the client to behave in a way that would help him or her cope with difficult interpersonal problems (e.g., marital conflict). As reflected in the alliance scores for these sessions, the client seemed to agree with both the tasks and goals of these interventions.

In light of the results of these descriptive analyses, an interaction term was computed from the alliance and intrapersonal consequences scores. The interaction term (corrected for multicollinearity) was entered in a hierarchical multiple regression, after its two constituents and the type of treatment were controlled for. The interaction, however, did not predict outcome above the contribution of the alliance and intrapersonal consequences (change in  $R = .21, p = .13$ ). This lack of significant increment of predictive validity is perhaps not surprising considering the degree of freedom lost by using multiple predictors and the small sample used in this study. Hence, it is likely that there was not enough power to statistically detect the contribution of the interaction.

### Discussion

This study has provided information regarding the predictive ability of common and unique factors in cognitive therapy. The therapeutic alliance and clients' emotional experiencing, assumed to be common to different psychotherapy approaches, were both found to be related to improvement. On the other hand, the focus on intrapersonal consequences (e.g., the link between distorted thoughts and negative emotions), which reflects an intervention focus unique to cognitive therapy, was positively related to depressive symptoms after therapy. Before going on to discuss the implications of these findings, we caution that the correlational nature of this study precludes any firm conclusion about the causal impact of the process variables studied on client change or lack thereof.

The results concerning the alliance extend the findings obtained by Safran and Wallner (1991) with a variation of cognitive therapy that places particular emphasis on the use of the therapist-client relationship as a key to the change process. With regard to client experiencing, our results are the first empirical findings that we know of pointing to the therapeutic value of clients' emotional involvement in cognitive therapy, thereby confirming the importance of the recent attention given to affective processes in the cognitive-behavioral movement (e.g., Mahoney, 1991; Teasdale, 1993). The mechanisms of change by which the experiencing leads to improvement, however, remain speculative. Teasdale (1993) has suggested that emotional experiencing in cognitive therapy may facilitate change by helping clients access and modify basic meaning structures. As hypothesized by Greenberg and Safran (1987), it is also possible that the experience of "primary feelings" (e.g., sadness) provides information to clients about their needs (e.g.,

desire to be close to others) and thereby facilitates behavioral change (e.g., motivating clients to increase social contacts).

As for the positive correlation between the therapists' focus on intrapersonal consequences and depressive symptoms after therapy, a series of regression analyses suggest that this correlation may be accounted for by problems in the alliance, because this correlation ceased to be significant when the quality of the alliance was controlled for. Descriptive analyses performed on sessions with the highest focus on intrapersonal consequences and low alliance scores lend support to this interpretation. An examination of these sessions suggests that some therapists dealt with strains in the alliance by increasing their attempts to persuade the client of the validity of the cognitive therapy rationale, as the client showed more and more disagreement with this rationale and its related tasks. In other instances, the therapist treated these strains as a manifestation of the client's distorted thoughts, which needed to be challenged. Such interventions led to repeated cycles characterized by the therapist's perseverance in the application of cognitive techniques and the client's increased unresponsiveness to the treatment.

Some tentative interpretations can be offered regarding the therapist's focus on intrapersonal consequences in cognitive therapy. First, it is possible that such a focus may not be suitable for certain types of problems. Most of the issues discussed in the sessions with high intrapersonal consequences and low alliance scores concerned emotionally laden but real interpersonal problems (e.g., infidelity). Instead of focusing on the client's distorted thoughts and their impact on emotions, it might have been better to facilitate the client's exploration of feelings, as suggested by the positive correlation found between the client's experiencing and symptomatic improvement. It might also have been helpful to provide concrete strategies for coping with such interpersonal distress which, as we discuss later, was done more frequently in the sessions high in intrapersonal consequences and high on alliance.

Second, it is conceivable that the therapists failed to use the cognitive model and techniques in a flexible way. Because the therapists were conducting a manualized treatment, they may have used some techniques more frequently or rigidly than they would have in a more naturalistic clinical context. This, in turn may have created or exacerbated alliance problems. This interpretation is consistent with the findings of Henry, Strupp, Butler, Schacht, and Binder (1993), who found that therapists using a form of psychodynamic therapy not only adhere to prescribed interventions (e.g., interpretation of transference), but at times also displayed a mechanical application of techniques and failed to be empathic and supportive. Thirdly, it may be that the interventions prescribed in cognitive therapy for correcting alliance problems are not always adequate. Therapists in this study followed Beck et al.'s (1979) guidelines, which specify that problems such as client apathy or opposition to the treatment should be addressed by challenging the client's distorted views of cognitive therapy that are responsible for these problems (Beck et al., 1979). To repair such problems, however, it may be more helpful to incorporate interpersonal and experiential interventions into cognitive therapy, as recommended by Burns (1993) and Safran and Segal (1990).

Preliminary descriptive analyses were also conducted on six sessions in which the emphasis on intrapersonal consequences

was carried out in the context of good therapeutic alliances. In these sessions, therapists focused on the role of cognitions in emotional distress, and clients were actively involved in the identification and challenge of thoughts causing negative emotions. However, it was also found that in all but one of these sessions therapists also focused considerably on the consequences of clients' behavior on other aspects of their functioning. By contrast, this type of intrapersonal consequence was frequent in only one of the nine sessions high in intrapersonal consequences but low in alliance scores. This type of therapeutic focus reflected the therapists' attempts to help clients deal with significant life stresses, such as what changes in behavior could lead to better ways of coping with interpersonal problems. The potential benefit of such interventions is suggested by a previous finding, obtained with the same data set, showing that the therapists' encouragement of client's between-session activities was positively related to outcome (Hayes et al., 1995). It remains to be determined, however, whether the client's improvement was primarily caused by the techniques aimed at facilitating action, the quality of the alliance, or an interaction between these two therapeutic components.

The results of the present study regarding intrapersonal consequences are inconsistent with the preliminary finding of Kerr et al. (1992), where there was a tendency for intrapersonal links to be related to improvement. These contrasting findings may be due to the fact that the type of treatment was not identical across the two studies. Because the emphasis in Kerr et al. was on behavioral interventions, it is possible that therapists focused primarily on a type of intrapersonal links (i.e., the effect of client's actions on other components of functioning) that was found in most of the sessions with high alliance. However, it is more likely that positive and negative outcome have less to do with the type of links focused on by the therapist than the way such interventions are conducted. As found in one of the sessions with high intrapersonal consequences and low alliance, the focus on client's actions and their consequences may sometimes contribute to the alliance problems when used without consideration of the client's readiness to engage in specific therapeutic tasks.

It should also be emphasized that although the descriptive analyses suggest that the application of cognitive techniques is not independent of what is taking place in the therapeutic relationship, quantitative analysis failed to show that the interaction between intrapersonal consequences and alliance predict outcome beyond the contribution of these two variables combined. This finding may be due to factors related to statistical power, such as the use of multiple predictors and the small sample of this study. Needless to say, more research should be conducted to confirm and possibly extend the present findings.

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