Alliance Predicts Patients' Outcome Beyond In-Treatment Change in Symptoms

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The authors examined the relations among therapeutic alliance, outcome, and early-in-treatment symptomatic improvement in a group of 86 patients with generalized anxiety disorders, chronic depression, or avoidant or obsessive–compulsive personality disorder who received supportive–expressive dynamic psychotherapy. Although alliance at Sessions 5 and 10, but not at Session 2, was associated with prior change in depression, alliance at all sessions significantly predicted subsequent change in depression when prior change in depression was partialed out. The results are discussed in terms of the causal role of the alliance in therapeutic outcome.

One of the old controversies in psychotherapy research is the role of specific versus nonspecific factors in predicting therapeutic outcome. Data have been presented supporting both positions. For example, the role of specific techniques has been demonstrated in dynamic therapy (e.g., Barber, Crits-Christoph, & Luborsky, 1996; Crits-Christoph, Cooper, & Luborsky, 1988; Piper, Azim, Joyce, & McCallum, 1991) and in cognitive therapy (e.g., DeRubeis & Feeley, 1990). In the minds of many authors, the importance of nonspecific techniques, better described as common factors (Castonguay, 1993), to patients' outcome has been supported by the research on the collaboration and bond between therapist and patient—the therapeutic alliance (Bordin, 1979; Gaston, 1990).

The description and measurement of the therapeutic alliance have been a major focus of theoretical work and empirical studies in the past 2 decades (Gaston, 1990), and different measures of the alliance have been found to be successful predictors of outcome. In their comprehensive meta-analysis, Horvath and Symonds (1991) showed that the average effect size of the correlation between alliance and outcome from 24 studies was estimated as .26. This has been said to be a conservative estimate because they considered all nonsignificant reports in which the value of the correlation was not presented by the original authors as equal to .0. Alliance has been shown to be a significant predictor of outcome in different therapies. For example, Marmar, Gaston, Gallagher, and Thompson (1989) demonstrated that alliance assessed by the California Psychotherapy Alliance Scale (CALPAS) was related to outcome across three treatments (behavioral, cognitive, and brief dynamic).

This robust finding is nevertheless subject to interpretative difficulties. One of the most important alternative interpretations is that a positive alliance early in treatment might be associated with change that has already occurred in psychotherapy (i.e., patients who have improved after a few sessions will tend to view their therapists and therapy positively). In addition, early symptomatic improvement during therapy is likely to be a good predictor of further improvement. Thus, is it the therapeutic alliance that is the predictor of outcome, the early-in-treatment improvement, or are these two factors intertwined? By clarifying this issue, one can begin to sort out the potential causal mechanism of change in psychotherapy.

Causal inferences are always difficult to make concerning process variables such as the therapeutic alliance. In the context of a process variable such as the therapeutic alliance, three conditions have to be met to make a causal claim: nonspuriousness, covariation between alliance and the outcome measure, and temporal precedence of the alliance (Feeley, DeRubeis, & Gelfand, 1999; Judd & Kenny, 1981). Using correlational data, one can never rule out nonspuriousness, and there is always the possibility that a third variable is responsible for the observed association. Covariation between alliance and outcome has often been observed (e.g., Horvath & Symonds, 1991), but in most cases covariation was assessed without taking into account temporal precedence (e.g., Gaston, Thompson, Gallagher, Cournoyer, & Gagnon, 1998; Krupnick et al., 1996; Morgan, Luborsky, Crits-Christoph, Curtis, & Solomon, 1982). For example, Krupnick et al. predicted change in depression from intake to termination from alliance assessed at Session 3. Thus, the amount of symptom change from intake to the session in which alliance was measured was included as part of the overall change in symptom assessed. This inclusion weakens, if not nullifies, the causation claim that can be made concerning the impact of alliance on outcome. In conclusion, to make stronger causal statements regarding the causal role of alliance in predicting outcome, one needs to address two issues: change in symptoms after the alliance has been measured and the role of early symptomatic improvement on subsequent outcome.

Few investigators have attempted to address the question of whether alliance predicts subsequent change in symptoms, taking into consideration symptomatic change that has occurred before the measurement of alliance. Gaston, Marmar, Gallagher, and

Thompson (1991) examined whether therapeutic alliance (measured with the CALPAS) still predicted outcome, partialing out early symptomatic improvement and level of initial psychiatric severity. The results of their study are not only complicated but also equivocal, in part because the sample size was not large. Gaston and her colleagues' sample included 54 elderly depressed patients randomly assigned to three forms of psychotherapy (16 in behavior therapy, 17 in cognitive therapy, and 21 in short-term dynamic therapy). When Gaston et al. analyzed the data across treatments and partialed out initial level of symptoms and early-in-treatment improvement, their measure of the therapeutic alliance did not significantly predict outcome. Although the CALPAS did not significantly predict outcome in the entire sample, it did explain a moderate amount of variance above and beyond the effects of early improvement. At Session 5, the CALPAS explained 18% of the variance in subsequent change in depression, whereas at Sessions 10 and 15 it accounted for 5% and 13% of the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) change. In dynamic therapy, the CALPAS at Session 5 explained 18% of the variance in BDI change, whereas at Sessions 10 and 15 it explained 20% and 36% of the variance. Statistical significance at the conventional .05 level would have been difficult to achieve because of the small sample size of patients in dynamic psychotherapy. Thus, Gaston et al.'s study lacked the power to meaningfully address the question at hand.

Using the pilot data of the National Institute on Drug Abuse (NIDA) cocaine collaborative treatment study, Barber et al. (1999) examined whether the ability of the patients' alliance to predict change in cocaine use was due to symptomatic improvement (greater reduction in drug abuse) from intake to the time alliance was measured. They did not find a significant relationship between alliance and subsequent change in drug use at the standard $p < .05$ partialing out early symptomatic improvement in this group of substance-dependent patients receiving a variety of therapeutic interventions. Similar results were found in the NIDA cocaine collaborative treatment study itself (Barber et al., in press). In another study involving patients who received supportive–expressive psychotherapy for depression, Barber et al. (1996) also found that alliance did not predict subsequent change in depression although the competent delivery of interpretative (expressive) techniques did predict outcome over and beyond change in early symptomatic improvement.

DeRubeis and Feeley (1990) examined the relations between cognitive therapy techniques, alliance, and outcome in a group of 25 depressed patients who received cognitive therapy (CT). They found that clinical ratings of the helping alliance did not predict subsequent change in depression and that alliance was predicted by earlier symptomatic improvement. Feeley et al. (1999) recently replicated some of those earlier results on a different sample of 25 depressed patients who received cognitive therapy as part of a clinical trial. They found that alliance at Weeks 7 to 9 was predicted by prior change in symptoms but that alliance from the last quadrant of CT was not associated with prior change in symptoms. Because alliance did not predict subsequent change in symptoms in these two samples, Feeley et al. did not have to test the hypothesis that the alliance predicted subsequent change in symptoms over and beyond what was predicted by change in symptoms from intake to the time alliance was assessed.

Thus, by examining previous research that has carefully assessed the sequence of alliance and outcome, we discovered a seemingly recurrent finding that alliance does not predict subsequent change in symptoms. Each of these studies, however, had some limitations. Among other things, some of these studies used small samples and thus lacked power to detect significant findings (Barber et al., 1996; DeRubeis & Feeley, 1990; Gaston et al., 1991); some focused on cognitive therapy, which may not emphasize the relationship between therapists and clients as much as other therapies (DeRubeis & Feeley, 1990; Feeley et al., 1999); and some included only cocaine-dependent patients whose treatment response might not be affected by the therapeutic alliance (Barber et al., 1999). Thus, we decided to examine the question of whether the alliance would predict outcome, partialing out early-in-treatment improvement in a relatively large sample of non-substance-dependent patients receiving dynamic therapy, which has historically emphasized the role of the therapeutic alliance (e.g., Gaston et al., 1991; Luborsky, 1984). Furthermore, we also examined whether one can predict early-in-treatment levels of therapeutic alliance from earlier improvement in depression. To tease out the possible confounds concerning whether prior improvement or alliance drives subsequent change in depression, we repeatedly measured depression and alliance at different points in time. Depression levels were assessed at intake, at every session, and at the different evaluation assessments, such as a treatment termination. The alliance was measured at the ends of Sessions 2, 5, and 10. Within this design, we tested the hypothesis that alliance predicts subsequent change in depression, partialing out prior change in depression that might be influencing patients' ratings of alliance.

Method

Participants

Patients for the current study participated in four open trials of dynamic therapy for specific psychiatric disorders. Eighty-eight patients who had met primary *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; *DSM–III–R;* American Psychiatric Association, 1987) diagnostic criteria for chronic depression (major depressive disorder for 2 years or dysthymia and major depressive disorder, $n = 11$; Luborsky et al., 1996), generalized anxiety disorders (GAD; $n = 44$; Crits-Christoph, Connolly, Azarian, Crits-Christoph, & Shappell, 1996), or avoidant ($n = 19$) or obsessive–compulsive ($n = 14$) personality disorder (Barber, Morse, Krakauer, Chittams, & Crits-Christoph, 1997) and who had filled out the appropriate measures of alliance and depression at Sessions 2 or 5 were included in the present study. Exclusion criteria included bipolar disorders, alcohol or drug abuse, psychotic symptoms, schizophrenia, organic brain syndrome, current active suicide potential, and medical contraindication. Forty-six women (54%) and 42 men (46%) with a mean age of 38.4 years ($SD = 11.8$; range = 19 to 66 years) participated in these studies. They were referred to the project by the various clinics of the Department of Psychiatry, by self-referral, or in response to advertisements in the community. Irrespective of treatment study, experienced diagnosticians assessed and diagnosed all patients by means of structured interviews for Axis I and II disorders. Eighty-six percent of patients were Caucasian. Forty-six percent were married, 35% were single, and 14% were divorced, the remaining 5% were separated, widowed, or cohabitating. In terms of employment, 56% worked full time, 13% worked part time, 7% were homemakers, 9% were unemployed, 10% were full-time students, and 3% were part-time students.

Treatment

The patients received between 16 and 52 sessions of supportive–expressive dynamic therapy, depending on the specific pilot study in which

they were enrolled. Participation in the different studies depended on the patient's primary diagnosis. GAD patients received 16 sessions of treatment and 3 booster sessions, chronically depressed patients had 20 sessions, and patients with personality disorder were invited to come for 52 sessions. All treatments were delivered once a week. The manual-guided form of psychodynamic psychotherapy was a time-limited version of supportive–expressive psychoanalytic psychotherapy (Luborsky, 1984; Luborsky & Mark, 1991) that was specifically adapted for each patient group (Barber, 1990; Crits-Christoph, Crits-Christoph, Wolf-Palacio, Fichter, & Rudick, 1995; Luborsky, Mark, Hole, Popp, Goldsmith, & Cacciola, 1995). Therapists were specifically trained by means of these special adaptations of the general supportive–expressive manual. In this form of dynamic therapy, therapists provide a supportive environment in which to explore patients' thoughts and feelings. When indicated, they identify and interpret the patients' central relationship themes and examine the contributions of these themes to the patients' symptoms.

Therapists

Treatment was delivered by 15 psychodynamically oriented psychotherapists; many of them were experienced practitioners from various training backgrounds (eight psychologists, four psychiatrists, and three social workers) who had received group supervision by experts in the delivery of supportive–expressive therapy. Therapists delivered treatments in only one study protocol, except three of the four therapists involved in the GAD pilot study were also therapists in the study for patients with personality disorder.

Measures

The BDI. The BDI is a 21-item self-report measure of depression. It is a widely used, reliable measure of depressive symptoms (see Beck, Steer, & Garbin, 1988, for a review). The BDI as a measure of dysphoric mood and depressive symptoms was chosen as our measure of change for all patients because these feelings are also found in anxious patients and in patients with comorbid personality disorders. In addition, in all pilot studies the BDI was completed at each individual session.

The CALPAS. The CALPAS is a 24-item self-report questionnaire that measures the strength of the patient–therapist therapeutic alliance. According to Gaston (1990), alliance is a multidimensional construct consisting of four elements captured in the CALPAS's four subscales: (a) the patient's capacity to work purposefully in therapy, (b) the patient's affective bond with the therapist, (c) the therapist's empathic understanding and involvement, and (d) the agreement between patient and therapist on the goals and tasks of treatment. Each item is rated on a 6-point Likert scale ranging from 1 (*I strongly feel it is not true*) to 6 (*I strongly feel it is true*). Relatively high intercorrelations among CALPAS subscales have been commonly observed (e.g., Barber et al., 1999; Hatcher & Barends, 1996). In the present sample, for example, the intercorrelations among the subscales ranged from .55 to .70 with a median of .63 at Session 5 ($n = 98$). A factor analysis of the subscales similarly indicated one factor explaining 73% of the variance underlying the subscales, which is consistent with other researchers' findings (e.g., Hatcher & Barends, 1996). In the present sample, the internal consistency of the CALPAS (Cronbach's alpha) was .86, .90, and .91 for Sessions 2, 5, and 10, respectively. Because of these findings and to reduce the number of statistical analyses, we used only the CALPAS total score.

Procedure

Patients filled out the CALPAS at the end of Sessions 2, 5, and 10 and then after each fifth additional session. We focused only on the first 3 assessments of the alliance because for many patients treatment was relatively short. The alliance questionnaires were returned directly to the investigators and were not seen by the therapists. The patients also filled out the BDI during each assessment interview (intake and termination) and

before each psychotherapy session. Termination BDI was obtained at the termination assessment. Because that assessment occurred after 16 weeks for the GAD patients, after 20 weeks for the chronically depressed patients, and after 52 weeks for the patients with personality disorders, we decided to use two different times for Time 2 assessment. The first Time 2 score, which we termed the *4-month assessment,* was the BDI score obtained at the termination date for the GAD and chronically depressed patient groups and the BDI score obtained at the 4-month midphase assessment that was conducted on all patients included in the two personality disorder projects. The second Time 2 score, termed *termination BDI,* was the BDI obtained at the actual termination assessment of all patients.

Data Analyses

Analyses of the alliance data were conducted by means of hierarchical multiple regressions, introducing first the covariates. To report these results, we describe the part correlations between alliance and the relevant symptom variable (BDI, Month 4, and termination scores), controlling for covariates and including the baseline level of the dependent variable (BDI at intake). The covariates considered for inclusion were based on the fact that patients had been recruited to the different studies depending on their main diagnosis and that the treatment they received was targeted to that disorder, and the length of treatment depended on the diagnosis. Thus, we initially checked whether being assigned to any particular pilot study was associated with outcome. We also considered the relationship between outcome and the number of sessions received and initial psychiatric severity as assessed by the General Assessment of Functioning (American Psychiatric Association, 1987). We found that, for most analyses, being included in the chronic depression study and the number of sessions were associated ($p < .15$) with outcome, and thus these two variables were kept as covariates in all analyses. In addition, the General Assessment of Functioning and the intake Hamilton Rating Scales for Depression (Hamilton, 1960) and for Anxiety (Hamilton, 1959) did not differ significantly across the four pilot studies.

For purposes of clarifying the presentation of some of the analyses and their discussions, we termed two change scores subsequent and prior change in depression (see also DeRubeis & Feeley, 1990). The *subsequent change score* is the residualized termination BDI score adjusted for the session BDI score in which alliance was assessed. The *prior change score* is the residualized session BDI score in which alliance was assessed adjusted for intake BDI score.

Results

The mean level of the depression and alliance measures at intake, Sessions 2 and 5, and termination appear in Table 1. We first examined whether BDI changed significantly in all the pilot

Table 1
Mean Levels of Depression and CALPAS Total Scores at the Different Assessment Times

Time	Beck Depression Inventory		CALPAS total	
	M	SD	M	SD
Intake	20.4	9.2		
Week 2	16.0	10.7	5.7	0.7
Week 5	14.3	10.3	5.8	0.8
Week 10	12.5	9.9	5.9	0.8
Month 4	10.8	9.5		
Termination	9.3	9.4		

Note. CALPAS = California Psychotherapy Alliance Scale (patient self-report).

studies and found that BDI changed significantly from intake to the Month 4 assessment, $F(1, 83) = 27.0, p < .001$, but we found no differential change between the pilot studies, $F(3, 83) < 1.0$. In addition, patients' BDI scores at Month 4 were clinically equivalent to a normative sample, $t(290) = 3.72, p < .05$ (Kendall, Marrs-Garcia, Nath, & Sheldrick, 1999; Lightfoot & Oliver, 1985). We obtained very similar results when conducting the same analyses using the BDI at the termination assessment. Alliance scores, however, were very stable (e.g., CALPAS at Sessions 2 and 5 correlated .70, $n = 82, p < .001$), and did not change in magnitude, $t = .80, n = 82, ns$.

Does Alliance Predict Subsequent Change in Depression?

We used multiple regression analysis to predict residualized subsequent change in depression from the session in which alliance was assessed to Month 4. In the first step, we introduced the covariates (the number of sessions and participants being referred to the chronic depression pilot study), controlling for intake BDI, whereas on the second step we introduced the alliance score. We computed these analyses separately for Sessions 2, 5, and 10. The higher the CALPAS score at Sessions 2, 5, and 10, the greater the decrease in the BDI score from the session the CALPAS was assessed to the Month 4 assessment. We found the same results when we examined change in BDI from the session in which alliance was assessed to the end of treatment. Table 2 (columns 2 and 3) presents the part correlations between the alliance at different sessions and subsequent change in depression, controlling for the aforementioned covariates. We then examined the relation between alliance level and prior change in depression.

Is Therapeutic Alliance Associated With Prior Change in Depression?

We found that the alliance at Session 2 was not significantly related to prior change in depression (part $r = -10, ns$). Alliance, however, was associated significantly with residualized prior change in depression when alliance was assessed later in treatment. At Session 5, the part correlation was $-.27$ ($n = 88, p < .05$), and at Session 10, it was $-.23$ ($n = 78, p < .05$).

Thus, there seems to be a role for early symptomatic improvement during early phase of therapy, but not very early in treatment, to have an impact on alliance levels. The most important hypothesis to be tested remained.

Does Alliance Predict Subsequent Change in Depression, Partialing Out Prior Change in Depression?

Hierarchical regression analysis was used to predict residualized change in BDI from the time alliance was assessed to Month 4. In Step 1, we introduced the covariates. In Step 2, we introduced the residualized prior change in depressive symptoms from intake with the time alliance was assessed. In Step 3, we introduced the alliance score. As shown in Table 2 (columns 4 and 5), we found that the CALPAS predicted residualized subsequent change in depression, partialing out prior change in depression. We found similar results when we examined change in the BDI from the session in which alliance was measured to the termination assessment.

Discussion

In this relatively large sample of outpatients who received supportive–expressive dynamic therapy, we replicated the often-reported finding that measures of the therapeutic alliance from the early phase of treatment predicted the outcome of psychotherapy (e.g., Hartley & Strupp, 1983; Luborsky, McLellan, Woody, O'Brien, & Auerbach, 1985). In contrast to other studies, however, we predicted symptom change after alliance was assessed. With a few exceptions (Barber et al., 1999; DeRubeis & Feeley, 1990; Feeley et al., 1999; Gaston et al., 1991), previous studies have mostly looked at change in outcome from intake to termination rather than examining change in outcome from the time alliance was assessed until the time outcome was assessed. Thus, we have shown for the first time that alliance at Sessions 2, 5, or 10 significantly predicted subsequent change in symptoms in dynamic therapy.

Furthermore, we have shown that the greater decrease in depressive symptoms from intake to the time alliance is assessed is associated with higher alliance level, albeit not very early in treatment (e.g., at Session 2). Alliance at Session 2 was not the likely result of prior symptomatic improvement perhaps because not much symptomatic improvement had occurred up to that point. We found, however, that alliance at either Session 5 or Session 10 was strongly associated with prior symptomatic improvement. Thus, at times when alliance is predicted by prior symptomatic improvement, it seems reasonable to take into consideration the role of early symptomatic improvement on subsequent symptom change. A further analysis indicated that alliance at Session 2, 5, or 10 predicted subsequent change in depression (i.e., from ses-

Table 2

Part Correlations Between Alliance and Change in Depression Controlling for Initial Levels and Other Covariates

CALPAS session	Alliance prediction of subsequent change in depression				Alliance prediction of subsequent change in depression partialing out prior change in depression			
	Month 4	n	Termination	n	Month 4	n	Termination	n
Session 2	$-.35****$	83	$-.30***$	84	$-.33***$	83	$.30**$	84
Session 5	$-.21*$	88	$-.25*$	87	$-.21*$	88	$-.23*$	87
Session 10	$-.30*$	78	$-.33***$	77	$-.32***$	78	$-.30***$	77

Note. Covariates in the hierarchical multiple regression analyses were number of treatment session and being or not being in the chronic depression pilot study. CALPAS = California Psychotherapy Alliance Scale total score (patient self-report).
$* p \leq .05.$ $** p < .01.$ $*** p < .005.$ $**** p < .001.$

sion 2, 5, or 10 to Month 4 or to termination), partialing out prior improvement (i.e., from intake to session 2, 5, or 10, respectively). Using a different language, we found that when we equated patients in terms of the amount of initial symptomatic improvement at session 2, 5, or 10, those who reported higher alliance subsequently improved more.

These results suggest that although the alliance early in treatment might be influenced by prior symptomatic improvement, the alliance remains a significant predictor of further improvement even when prior change in depression is partialed out. The role of the alliance as a potential causal factor in patients' improvement is consistent with the theoretical and therapeutic role suggested by various psychodynamic and experiential theorists. Early on, Alexander and French (1946) suggested that the corrective emotional experience provided by a warm, listening, understanding, and dedicated therapist was conducive to therapeutic cure. Luborsky (1984) also proposed that the therapeutic alliance was one of the three curative factors of dynamic therapy.

This study illustrates five important issues in investigating the relations between therapeutic alliance and outcome:

1. Symptomatic improvement is associated with level of alliance in a complex manner. Patients who improved symptomatically tended to have a stronger bond and collaboration with their therapists, and that, in turn, led to subsequent improvement in depression.

2. Partialing out this major part of the variance might make it more difficult to find significant predictive results, especially with moderate size samples as those used by Gaston et al. (1991) and Barber et al. (1996).

3. Using data collected at multiple points in time allows one to derive cautious causal inferences (Barber et al., 1996; DeRubeis & Feeley, 1990). For example, our results suggest that greater symptomatic improvement through Session 5 or 10 of time-limited supportive–expressive dynamic therapy led to higher levels of therapeutic alliance, and that, in turn, alliance was associated with further symptomatic improvement. Averaging alliance data across sessions might have prevented us from deriving these conclusions. Thus, it would be of great interest if these results could be replicated with existing datasets in which data have already been averaged.

4. Because of the complex nature of the relations between symptomatic improvement and alliance through which these two intricately intertwined processes may amplify each other rapidly, these two variables might need to be measured during each session. In fact, research can be conducted not only at the level of whole sessions but also in terms of changes within sessions. The study of the repair of the disrupted therapeutic alliance (Safran, Crocker, McMain, & Murray, 1990) is exactly the kind of research that will bear on the issue of how therapists can respond to increase the alliance and therefore achieve better outcomes in a larger number of patients. Future research will undoubtedly focus on the efficacy of various techniques aimed at increasing the therapeutic alliance early in treatment.

5. Future researchers may also consider controlling for prior symptomatic improvement in assessing the relation of alliance (and other process variables) to outcome because whatever our definitions of alliance are, they do not refer to symptomatic improvement.

The present findings might not hold for other kinds of outcome measures (such as changes in core conflicts, clinician ratings of depression, or general functioning), other facets of the alliance construct, other methods of measuring alliance, other forms of psychopathology, or other forms of psychotherapy. For example, therapists' reports of the alliance have not been as predictive of outcome as patients' self-report of the alliance (Horvath & Symonds, 1991). Also, alliance might not seem to be a strong predictor of outcome in cocaine-dependent patients (Barber et al., 1999; Carroll, Nich, & Rounsaville, 1997). Alliance might play a curative role in dynamic therapy but not in other forms of psychotherapy. For example, DeRubeis and Feeley (1990) and Feeley et al. (1999) did not find that observer ratings of the alliance predicted subsequent change in depression in cognitive therapy. Another limitation of the present study is that we included only patients who stayed in therapy long enough to provide an alliance data point and outcome data. Patients with different diagnoses tended to drop out differentially, for example, Barber et al. (1997) reported that patients with avoidant personality disorders were not as likely as patients with obsessive–compulsive personality disorders to stay in treatment for the entire year. Thus, patients who leave therapy early for one reason or another might not show the same pattern of results. A final limitation of the current study is that one cannot rule out all third-variable confounds. For example, it is possible that patient characteristics not assessed in our sample, such as capacity for good interpersonal relationships, are associated with both greater therapeutic alliance and outcome.

The results from the present study reiterate the importance of asking more specific research questions and conducting appropriate analyses for answering these questions while keeping time in mind. The research question has changed from whether therapeutic alliance during the first few weeks of psychotherapy predicts outcome to the question of whether therapeutic alliance predicts outcome independently of (or beyond) early symptomatic improvements (and beyond other factors related to outcome; Barber et al., 1999; DeRubeis & Feeley, 1990; Gaston et al., 1991) to the question of what is the intertwined and sequential relationship between alliance and patients' improvement. These questions are important because most theorists addressing the concept of the therapeutic alliance tend to distinguish it from symptomatic improvements. As research in this area develops further, more sophisticated data analytic techniques such as structural equation modeling can be used to disentangle the complex relationship between symptomatic improvement and therapeutic alliance, provided that adequate sample sizes exist and sufficient previous research on the parameters involved in the causal models is available.

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