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The therapeutic alliance in a naturalistic psychiatric setting: Temporal relations with depressive symptom change

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ABSTRACT

Objective: Numerous studies have reported associations between the therapeutic alliance and depressive symptom improvement in outpatient samples. However, little is known regarding the temporal relationship between the alliance and symptom change among relatively severely depressed patients receiving treatment in naturalistic, psychiatric hospital settings.

Method: Adult patients with major depression (n = 103) receiving combined cognitive behavioral therapy and pharmacological treatment at a psychiatric hospital completed repeated assessments of the therapeutic alliance and depressive symptoms, as well as a pretreatment assessment of their expectation of symptom improvement.

Results: Results indicated that the alliance and treatment outcome expectancies significantly predicted subsequent depressive symptom change. However, in a model in which prior symptom change and treatment outcome expectancies were statistically controlled, the alliance-outcome association was rendered nonsignificant. The alliance was significantly associated with prior symptom improvement.

Conclusions: Findings highlight the importance of controlling for plausible third variable and temporal confounds to minimize biased estimates of alliance-outcome associations in future studies. Overall, results were more consistent with the alliance being a consequence, rather than a cause, of symptom change. Finally, findings contribute to a growing body of evidence supporting the role of treatment outcome expectancies in predicting symptom improvement, even within our relatively severely depressed sample.

Perhaps no variable has received more attention in the psychotherapy literature than the therapeutic alliance. The most commonly cited definition of the alliance was first articulated by Bordin (1979), who argued that the construct consists of three components: 1) the *bond* between therapist and patient, 2) therapist-patient agreement on the *goals* of treatment, and 3) therapist-patient agreement on the *tasks* of treatment. Indeed, the most commonly used measure of the alliance, the Working Alliance Inventory (WAI; Horvath, Del Re, Flückiger, & Symonds, 2011; Horvath & Greenberg, 1986, 1989), consists of three corresponding subscales designed to assess these components (i.e., Bond, Goals and Tasks subscales).

Several meta-analytic reviews of the alliance-outcome literature have been published over the years (Horvath et al., 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Most recently, Horvath et al. (2011) reported a mean alliance-outcome correlation of .28, indicating that, when averaging across studies, higher alliance ratings are associated with greater symptom improvement. Although intriguing, it is important to note that the vast majority of alliance studies do not control for temporal confounds (Barber, 2009; Webb et al., 2011). In other words, most studies are not predicting subsequent symptom change. More specifically, in the typical alliance study, the alliance is assessed in the midst of treatment and correlated with symptom change from the beginning to the end of treatment. Within such a design, a significant alliance-outcome correlation may be due, at least in part, to the influence of prior symptom change on the alliance. When only considering those studies that have statistically controlled for temporal confounds, alliance-outcome associations are mixed, with

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some studies reporting that the alliance significantly predicts subsequent symptom change (e.g., Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000; Crits-Christoph, Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011; De Bolle, Johnson, & De Fruyt, 2010; Falkenström, Granström, & Holmqvist, 2013; Klein et al., 2003; Webb et al., 2011; Zilcha-Mano, Dinger, McCarthy, & Barber, 2013) and others failing to find such an association (e.g., DeRubeis & Feeley, 1990; Feeley, DeRubeis, & Gelfand, 1999; Puschner, Wolf, & Kraft, 2008; Strunk, Brotman, & DeRubeis, 2010, Strunk, Cooper, Ryan, DeRubeis, & Hollon, 2012).

In addition, in the bulk of alliance-outcome studies, ratings of the alliance are based on a single, or just a few, sessions (typically only assessed in the early phase of treatment; see Horvath et al., 2011). Studies using such designs implicitly assume that ratings of the alliance at one, or a few, sessions adequately represent the state of the alliance throughout treatment. A single-session "snapshot" may be sufficient to accurately capture the strength of the alliance. However, if the alliance is relatively unstable over the course of a given treatment, ratings based on only one or a few early sessions would yield unreliable estimates and, consequently, would likely result in relatively weak alliance-outcome associations. In addition, within these studies assessing the alliance at one or a few timepoints, alliance ratings are typically correlated with symptom change over the entire course of treatment, which may fail to capture the shorter-term impact of alliance on symptom improvement. Repeated alliance and symptom assessments over the full course of treatment would allow for a more comprehensive and fine-grained, as well as statistically powerful, test of alliance-outcome associations.

Third, the vast majority of alliance research is conducted within the context of outpatient settings or in carefully controlled clinical trials. Despite the vast body of alliance research published to date, we know surprisingly little about the extent to which the alliance predicts depressive symptom improvement among more severely depressed patients receiving treatment in naturalistic, "real-world" psychiatric settings. Research examining predictors and processes of depressive symptom change in such real-world treatment contexts, in which patients are not carefully selected based on inclusion/exclusion criteria inherent to clinical trials, are critical to informing our understanding of the mechanisms that account for symptom improvement in these naturalistic settings and to compliment data derived from trials.

The goal of the present study was to test the association between the alliance and symptom improvement in a sample of depressed patients while addressing the above mentioned gaps and limitations of prior alliance research. Specifically, we examined the association between the alliance and symptom change in 1) a naturalistic psychiatric setting treating severely depressed patients, while 2) statistically controlling for temporal confounds and 3) assessing both the alliance and depressive symptoms at multiple timepoints throughout treatment. In addition to controlling for temporal confounds, we also wanted to control for plausible third variable confounds of alliance-outcome associations. One can speculate about a number of possibly relevant third variable confounds. However, as others have highlighted, prior symptom change may be one particularly important variable for which to control in alliance-outcome research (Barber et al., 2000; Strunk et al., 2012). Namely, insofar as prior symptom change predicts *both* subsequent symptom change and alliance scores, it may represent an important third variable for which to control. Indeed, Strunk and colleagues found that the alliance significantly predicted subsequent symptom change in a sample of depressed outpatients. However, in a model in which prior symptom change was statistically covaried, the alliance-outcome association was no longer significant.

Similarly, to the extent that patient expectations of symptom improvement (i.e., *treatment outcome expectancies*) predict both stronger alliances and better treatment outcomes, they may also serve as an important third variable for which to statistically control. As stated by de la Fuente-Fernandez et al. (2001), "the simple act of receiving any treatment (active or not) may, in itself, be efficacious because of expectation of benefit" (p. 1164). Indeed, placebo processes, including the role of treatment outcome expectancies, have received an increased amount of attention in the depression literature in recent years (e.g., Fournier et al., 2010; Kirsch, 2010). Prior research has found that relatively more optimistic treatment outcome expectancies predict greater symptom improvement in depression treatment, including cognitive behavioral therapy (CBT; e.g., Meyer et al., 2002; Webb, Kertz, Bigda-Peyton, & Björgvinsson, 2013). Treatment outcome expectancies have also been shown to be positively correlated with alliance ratings (Constantino, Arnow, Blasey, & Agras, 2005; Joyce et al., 2003; Meyer et al., 2002). Thus, both prior symptom change and pretreatment expectancies may represent two important variables worth statistically controlling in models testing alliance-outcome associations.

As is typically the case in naturalistic psychiatric settings representing higher levels of patient care than outpatient treatment (e.g., inpatient, residential, partial hospitalization units), the psychiatric unit from which the current sample was drawn involved treatment from a multidisciplinary team – including psychologists, psychiatrists, case managers, social workers, occupational therapists and psychiatric nurses – providing group and individual therapy, as well as pharmacological treatment (see *Participants and Treatment Setting* below for details). In contrast, most prior research testing the association between alliance and treatment outcome has been based on individual, one-on-one psychotherapy in outpatient settings. Accordingly, given that patients received their treatment from a psychiatric team rather than a single individual therapist, the alliance with the treatment team as a whole was assessed. Although results from such research may not generalize to traditional outpatient settings, at the same time, the bulk of the alliance-outcome literature to date may not generalize to more acute settings (inpatient, residential, partial hospitalization units), which represent highly utilized – yet understudied – levels of psychiatric care.

We hypothesize that the alliance will significantly predict subsequent depressive symptom change in our sample (*Hypothesis 1a)*. However, after controlling for prior symptom change and treatment outcome expectancies, the association between the alliance and subsequent symptom change will no longer be significant (*Hypothesis 1b*). In addition, we expect that the alliance will be significantly positively correlated with prior symptom improvement (*Hypothesis 2*). Finally, informed by prior research, we hypothesize that patient treatment outcome expectancies, assessed pretreatment, will predict greater symptom change (*Hypothesis 3*).

Method

Participants and treatment setting

Participants were patients receiving treatment at the Behavioral Health Partial (BHP) Hospital Program, a partial hospitalization unit at McLean Hospital (Belmont, MA), a Harvard Medical School teaching hospital. To be included in the present study, patients had to be admitted to the BHP and complete the assessment battery described below. Inclusion criteria were that patients met criteria for a current, diagnosis of Major Depressive Disorder, excluding Bipolar Disorder (i.e., current or past Manic/Hypomanic episode), or a current or past Psychotic Disorder. A total of 103 patients (ages