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## Patient Outcome Expectations and Credibility Beliefs as Predictors of the Alliance and Treatment Outcome

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PATIENT OUTCOME EXPECTATIONS AND CREDIBILITY BELIEFS AS  
PREDICTORS OF THE ALLIANCE AND TREATMENT OUTCOME

A Thesis Presented

By

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## ABSTRACT

### PATIENT OUTCOME EXPECTATIONS AND CREDIBILITY BELIEFS AS PREDICTORS OF THE ALLIANCE AND TREATMENT OUTCOME

SEPTEMBER 2011

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The clinical relevance of patients' psychotherapy outcome expectations has been substantiated by a fairly robust correlational literature. Furthermore, as a related yet distinct construct, patients' treatment credibility beliefs have also been associated with positive treatment outcomes. Addressing several methodological limitations of past research, the current study examined the influence on early adaptive process (patient-psychotherapist alliance quality) and early treatment outcome (patient distress level) of patients' outcome expectations and credibility beliefs, measured both statically and dynamically with a psychometrically sound self-report instrument. Patients were 110 adult outpatients receiving naturalistically delivered psychotherapy in a community mental health training clinic. The primary research questions were tested with a series of hierarchical multiple regression models, which revealed: (a) An increase in patients' initial outcome expectations (from baseline to post-session 1) was positively associated with patient rated alliance quality at session 7 ( $B = 1.28, p < .05$ ), and (b) early (post-session 1) outcome expectations ( $B = 1.13, p < .05$ ) and credibility beliefs ( $B = .83, p <$

.05) significantly predicted patient rated early alliance. The findings further underscore the clinical importance of patients' treatment beliefs, and they are discussed with respect to their empirical and clinical implications.

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## CHAPTER 1

### INTRODUCTION

Considering the abundant evidence that different treatments produce largely equivalent outcomes (Lambert & Archer, 2006; Lambert & Ogles, 2004), some researchers have implicated common treatment factors as being more instrumental in effecting change than specific treatment techniques (e.g., Ahn & Wampold, 2001; Hubble, Duncan, & Miller, 1999; Wampold, 2001, 2010). Consequently, there has been a growing trend toward making “the nonspecific specific,” so that common factors can be identified, taught, and utilized in order to enhance therapeutic effectiveness (Omer & London, 1988, p. 176).

Patients’ psychotherapy expectations have long been considered a common treatment factor (e.g., Frank, 1961; Goldfried, 1980; Goldstein, 1960; Grencavage & Norcross, 1990; Rosenzweig, 1936). As one prototypical type, patients’ *outcome expectations* reflect their prognostic beliefs or feelings about a treatment’s personal future efficacy (Constantino, Glass, Arnkoff, Ametrano, & Smith, 2011). Previous box count (Arnkoff, Glass, & Shapiro, 2002; Noble, Douglas, & Newman, 2001) and narrative (Greenberg, Constantino, & Bruce, 2006) reviews point to outcome expectations having a somewhat mixed association with treatment outcomes, although with more studies demonstrating a correlation between higher outcome expectations and favorable treatment outcomes than an inverse or null association. In a meta-analysis including 8,016 patients across 46 independent samples, there was a small, but significant positive effect (weighted  $r = .12$ ,  $p < .001$ ,  $CI_{.95} .10$  to  $.15$ ), suggesting that higher expectations of

a treatment's utility (often measured at baseline or early in treatment) are associated with greater posttreatment symptom reduction (Constantino et al., 2011).

Despite the modest, yet fairly robust association between outcome expectations and treatment outcome, little is known about the specific mechanisms through which expectancies exert their ameliorative influence. Several researchers have posited that higher outcome expectations may promote a more adaptive therapeutic alliance, which in turn would relate to better treatment outcome. Another common factor, the therapeutic alliance, is generally defined as the collaborative, working relationship between the patient and psychotherapist in the context of a quality bond (Constantino, Castonguay, Zack, & DeGeorge, 2010).

Several studies have partially supported the alliance mechanism hypothesis by demonstrating that early treatment outcome expectations are positively associated with alliance quality across various treatments for various problems. For example, patients' pretreatment outcome expectations were positively related to patient-rated early alliance in supportive-expressive psychotherapy for a heterogeneous patient sample, as well as patient-rated middle alliance across both supportive-expressive and cognitive therapy for the same sample (Connolly Gibbons et al., 2003). In another study, across both cognitive-behavioral therapy and interpersonal therapy for bulimia nervosa, outcome expectations assessed after session 1 were positively associated with both early- and middle-treatment patient-rated alliance quality (e.g., Constantino, Arnou, Blasey, & Agras, 2005).

Several other studies have demonstrated *direct* support for the alliance as a mediator (mechanism) of the outcome expectancy effect on treatment outcome; one

focused on patients with major depressive disorder in short-term individual psychotherapy or pharmacotherapy (Meyer et al., 2002), another on group psychotherapy for patients seeking grief counseling (Abouguendia, Joyce, Piper, & Ogrodniczuk, 2004), and another on patients with mixed diagnoses in short-term individual psychotherapy (Joyce, Ogrodniczuk, Piper, & McCallum, 2003). All three of these studies found evidence for alliance quality as at least a partial mediator of patient outcome expectancy effects.

In addition to prognostic outcome expectations, patients also have beliefs about a treatment's credibility, or how logical and plausible it seems (Constantino et al., 2011). Although outcome expectations for a given treatment may develop, at least in part, from how credible it seems (Hardy et al., 1995), credibility is often viewed as a distinct construct (Borkovec & Nau, 1972; Devilly & Borkovec, 2000). This seems especially plausible when considering that credibility develops from knowledge gained through direct experience or observation of a treatment, whereas outcome expectations might exist prior to having any contact with the psychotherapist or psychotherapy (Shulte, 2008; Tinsely, Bowman, & Ray, 1988). From another perspective, Devilly and Borkovec (2000) suggested that credibility reflects what a patient *thinks* will happen, which assesses *cognitive* processes (akin to logical reasoning), while expectations assess what a patient *feels* will happen, which assesses *affective* processes (akin to hope and faith).

Measured separately from outcome expectations, patients' credibility beliefs have also been associated with favorable outcome (albeit less frequently than outcome expectations) across various treatments and presenting problems. For example, early studies suggested that greater credibility beliefs were linked to positive therapy outcomes

in both simulated (Nau, Caputo, & Borkovec, 1974) and actual treatment contexts (Kirsch & Henry, 1977). More recently, treatment credibility ratings have predicted positive outcomes for patients receiving CBT for depression (Addis & Jacobson, 2000) and generalized anxiety disorder (Borkovec, Newman, Pincus, & Lytle, 2002). Treatment credibility has also been correlated with positive outcome for patients undergoing exposure therapy, eye movement desensitization and reprocessing, and relaxation training for individuals with posttraumatic stress disorder (Taylor, 2003).

Despite the evidence linking both patients' outcome expectations and credibility beliefs to adaptive psychotherapy processes and outcomes, these constructs have generally been the most conceptually and empirically neglected of the common factors in psychotherapy (Weinberger & Eig, 1999). Furthermore, the research on these constructs has been characterized by several notable limitations. First, many of the previous studies have been conducted in controlled clinical trials where outcome expectations and perceived credibility were assessed more as a manipulation check for perceptions of comparability among comparison treatments versus important active ingredients in their own right. Thus, there is a pressing need to measure and test expectation effects more primarily. Second, the patient samples in previous efficacy trials have generally been homogenous, thus limiting the external validity of the findings and underscoring the need for research in more ecologically valid naturalistic settings. Third, the measurement of outcome expectations and credibility beliefs has often been limited to one occasion at baseline or early treatment, with very little research examining expectations and credibility beliefs dynamically over time (Constantino et al., 2011; Dozois & Westra, 2005; Schulte, 2008). There is a pressing need to understand better the malleability of

expectations and credibility beliefs, and how such changes influence treatment process and outcome. Finally, expectancy and credibility measures have often been developed for specific studies with limited, if any, psychometric validation. Thus, additional research is needed using sounder measurement of outcome expectations and perceived treatment credibility. Reflecting specifically the shortcomings in both the conceptualization of and research on patient expectancies, Dozois and Westra stated:

...rather than seeking to understand the role and pathways through which expectancies influence psychotherapy outcome, researchers have typically viewed expectancies as nuisance variables to be ruled out in order that one might investigate differences in outcome attributable to particular techniques (Haaga & Stiles, 2000). Perhaps as a consequence, particular types of expectancy and the means through which expectancy may operate to influence outcome has not been aggressively researched to date (Weinberger & Eig, 1999)...few studies have emerged examining client differences in expectancies in relation to psychotherapy outcome, the temporal course of expectancies in treatment, mechanisms mediating expectancy and treatment change, or various potential influences on expectancy... (p. 1657).

The goal of the present study was to advance the literature by investigating outcome expectation and credibility effects in a manner that addressed the above methodological shortcomings. In particular, the study assessed, in a naturalistic treatment setting (with high generalizability), the influence of outcome expectations and credibility beliefs, measured both statically and dynamically with a psychometrically sound instrument, on adaptive early treatment process (patient-psychotherapist alliance quality)

and outcome (patient distress level). This study focused on the early phase of treatment given that both research (e.g., Dozois & Westra, 2005) and theory (e.g., Snyder, 2000) suggest that expectations play a particularly important role early in psychotherapy, and that a substantial portion of therapeutic change takes place during the early phase (Ilardi & Craighead, 1994).

The specific research questions included: (1) How much variance in early (session 7) treatment alliance quality and early (session 7) patient global distress is explained by patients' baseline outcome expectations and their *initial change* in these expectations from baseline to post session 1?<sup>1</sup> and (2) How much variance in early alliance and distress is explained by patients' post session 1 outcome expectations and credibility beliefs and their *gradual change* in these expectations and beliefs across early treatment (from session 1 to session 7)?

Consistent with the extant literature, I hypothesized that baseline treatment outcome expectations, as well as post session 1 outcome expectations and credibility beliefs, would be positively associated with early alliance quality and negatively associated with early distress (but in this case in the context of treatment-as-usual delivered in a naturalistic setting). Given that little research has examined the influence of *change* in outcome expectations and credibility beliefs on treatment process and outcome, these analyses were exploratory. By examining both initial change from baseline to session 1 (for outcome expectations) and more gradual change across the early part of treatment (for outcome expectations and credibility beliefs), this study provided initial information on the malleability of these treatment factors and their different associations with important early clinical outcomes.

## CHAPTER 2

### METHOD

Data for the current study derive from a subsample of a larger naturalistic database collected at the Psychological Services Center (PSC), an outpatient mental health training clinic operated by the Department of Psychology at the University of Massachusetts Amherst. Patients with a range of presenting conditions are treated at the PSC with the exception of individuals with acute suicidality or homicidality, florid psychosis, and/or *current* and *primary* substance dependence. Patients with these conditions are referred to a higher level of care and/or more specialized services. The current subsample included consecutive referrals to the PSC from September 2007 through September 2010 who attended at least the initial evaluation and the first treatment session.

#### Participants

**Patients.** Patients were 110 treatment-seeking adult outpatients who averaged 31.8 years of age ( $SD = 11.3$  years). The sample was predominantly female (58%), White (82%), currently unmarried or widowed (86%), employed or studying full-time (80%), and earning less than \$30,000 (53%). Thirty-three percent of the sample did not identify with a religion, 24% identified as Christian (10% Catholic, 10% Protestant, 4% other Christian), 6% as Jewish, 2% as Muslim, 2% as Buddhist, and 12% as other. Nineteen percent of the sample had never seen a psychotherapist before, while 21% reported having seen one therapist in the past and 60% reported having seen two or more previous therapists. Patients received a variety of diagnoses, with a mood disorder (46%) or an anxiety disorder (25%) being the most prevalent primary diagnoses. Eighty percent

of the sample had two or more Axis I conditions and 15% had a comorbid Axis II diagnosis. Most of the sample (97%) had never been hospitalized for mental health concerns.

Psychotherapists. Thirty-seven psychotherapists treated patients in this study. These clinicians included mostly graduate trainees ( $n = 24$ ) as well as several clinical respecialization and post-doctoral students ( $n = 11$ ) and several licensed psychologists ( $n = 2$ ). Therapists averaged 2.8 years of clinical practice experience ( $SD = 2.55$ , range 1 to 14 years), and ranged in age from 23 to 50 years old ( $M = 31.65$  years,  $SD = 7.4$  years). The majority of therapists were female (58%), and their ethnicities were as follows: Caucasian (62%), Hispanic/Latino(a) (12%), Asian (8%), East Indian (6%), African American (5%), and other (7%). On average, therapists saw 3 patients each ( $SD = 2.26$ , range 1 to 10). All trainees were supervised by licensed clinical psychologists according to customary procedures of the Clinical Psychology Doctoral Program at the University of Massachusetts Amherst. Therapists represented a range of theoretical orientations and conducted a range of treatment approaches. The group means for self-reported theoretical orientation influence (based on a scale ranging from 0, "Not at all," to 5, "Very much," were as follows: Analytic/Psychodynamic ( $M = 2.03$ ,  $SD = 1.46$ ), Behavioral ( $M = 3.37$ ,  $SD = 1.09$ ), Cognitive ( $M = 3.72$ ,  $SD = 0.93$ ), Humanistic/Experiential ( $M = 2.51$ ,  $SD = 1.45$ ), Systems Theory ( $M = 2.02$ ,  $SD = 1.28$ ), Interpersonal Theory ( $M = 2.71$ ,  $SD = 1.43$ ), Eclectic/Integrative ( $M = 3.44$ ,  $SD = 1.36$ ).

#### Measures

Most of the PSC patients' demographic and symptom information were collected using the adult version of the Treatment Outcome Package (TOP) developed by

Behavioral Health Laboratories (Kraus, Seligman, & Jordan, 2005). The TOP comprises a suite of self-report measures (discussed further below) used to assess a variety of behavioral symptoms, patient demographics, and case mix variables. The TOP has been well validated across an array of psychiatric patients and treatment settings, including outpatient naturalistic clinics similar to the one in the current study (Kraus et al., 2005).

Patient demographics, treatment history, and presenting diagnostic information. PSC patients' demographic characteristics and treatment history were assessed with the TOP Consumer Registration Form (TOP-CR; see Appendix A). Patient diagnostic information at baseline was clinician-assessed according to the Structured Clinical Interview for *DSM-IV* Axis I Disorders – Clinician Version (SCID-I-CV; First, Spitzer, Gibbon, & Williams, 1997) and the International Personality Disorder Examination (IPDE; Loranger, 1999). The SCID-I-CV includes a clinician-rated *Global Assessment of Functioning* (GAF), a 100-point scale on which higher scores indicate more adaptive functioning across psychological, social, and occupational domains (First et al., 1997).

Provider characteristics. PSC psychotherapists' demographic information, psychotherapy orientation, and clinical experience were assessed with the PSC's Provider Characteristic Form (PCF; see Appendix B).

Baseline outcome expectations. Patients indicated at baseline (prior to any contact with an assessor or their subsequently assigned psychotherapist) how much they expect to improve by the end of the treatment period on an 11-point scale (from 0% to 100% in 10-point increments). This item is part of the psychometrically sound Credibility/Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000) discussed next. This item (#4 on the CEQ), which is commonly used as a measure of outcome

expectancy on its own (e.g., Borkovec et al., 2002), possesses good face validity and has also been shown to predict treatment outcomes (e.g., Price, Anderson, Henrich, & Rothbaum, 2008). Furthermore, the item has a high factor loading with the CEQ multi-item expectancy factor (ranging from .79 to .89; Devilly & Borkovec, 2000).

During treatment outcome expectations and perceptions of treatment credibility. To assess outcome expectations and credibility beliefs after having contact with the psychotherapist and psychotherapy, patients completed the CEQ (Devilly & Borkovec, 2000; see Appendix C). The CEQ has been substantiated by principal components analysis and confirmatory factor analysis, with the latter establishing credibility and expectancy as distinct factors (Devilly & Borkovec, 2000). The credibility factor, reflecting a cognitively-based process, is based on patients' summed responses to three items measuring how logical the therapy seems, how successful one thinks it will be in reducing symptoms, and how confident one would be in recommending it to a friend with similar symptoms (the first three items in Set I of Appendix C). The items are rated on 9-point scales ranging from 1 (*Not at all logical/useful/confident*) to 9 (*Very logical/useful/confident*), with a total score possible range of 3 to 27. The credibility factor has shown high internal consistency (standardized alphas ranging from .81 to .86 across two studies), strong item-factor loadings (ranging from .62 to .78 across two studies), and good test-retest reliability ( $r = .75$  in one study) (Devilly & Borkovec, 2000). This factor has also predicted treatment outcomes in some studies (e.g., Borkovec et al., 2002). For the current study, the credibility factor's alpha was .87.

The CEQ expectancy factor, reflecting an affectively-based process, is based on patients' responses to three items reflecting how much they *think* they will improve by

the end of treatment, how much they *feel* therapy will help reduce their symptoms, and how much they *feel* they will improve by the end of treatment (the fourth item in Set I and the two items in Set II of Appendix C). Because one item is on the same 9-point scale as the credibility items and two are assessed on an 11-point scale (from 0% to 100% in 10-point increments), responses are first standardized before summing to render the expectancy total score. The expectancy factor has shown high internal consistency (standardized alphas ranging from .79 to .90 across two studies), adequate item-factor loadings (ranging from .53 to .85 across two studies), and good test-retest reliability ( $r = .82$  in one study) (Devilley & Borkovec, 2000). This factor has also predicted treatment outcomes in some studies (e.g., Devilly & Borkovec, 2000). For the current sample, the expectancy factor's alpha was .74.

Working alliance. To assess alliance quality, patients completed the short form of the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989; see Appendix D). The WAI is comprised of 12 items ranging from 1 (*Never*) to 7 (*Always*) and assesses three elements of the alliance: agreement on therapy goals, agreement on therapy tasks, and the patient-therapist bond. The WAI is commonly used to assess alliance and this short form has demonstrated sound psychometric properties (Tracey & Kokotovic, 1989). Given the high intercorrelations among the subscales (e.g., Klein et al., 2003), the total score (with a possible range of 12 to 84) was used in the present study. Higher scores reflect better alliances. For the current sample, the WAI's total score alpha was .89.

Patient distress. To measure their global distress level, patients completed the TOP Clinical Scales (TOP-CS; see Appendix E). The TOP-CS is comprised of 58 items

rated on a 6-point scale ranging from 0 (*None*) to 6 (*All*) to reflect degree of presence over the past two weeks. Global distress is calculated by averaging z-scores (i.e., standard deviation units relative to a normative sample) across each of the 12 clinical scales (i.e., depression, life quality, mania, panic, psychosis, substance abuse, social conflict, sexual functioning, sleep, suicidality, violence, and work functioning) that are derived from the TOP-CS. The TOP-CS has been shown to possess good psychometrics, sensitivity to change, and limited floor and ceiling effects (Kraus et al., 2005). Higher scores reflect more severe symptomatology.

#### Procedure

As part of standard PSC procedures, patients are first phone screened by a clinician trainee to determine clinical appropriateness for receiving treatment in the PSC. If deemed appropriate at this initial phase, patients undergo a comprehensive initial evaluation. The initial evaluation, conducted by a clinician trainee over the course of 2 to 3 hrs, involves the semi-structured diagnostic interviews for *DSM-IV-TR* Axis I and II disorders (i.e., SCID-I-CV and IDPE, respectively). Relevant to the current study, patients also complete the TOP-CR, TOP-CS, and the single outcome expectancy item at the initial baseline assessment. Following the initial evaluation, patients are assigned to a psychotherapist. Relevant to the current study, at the first therapy session, patients complete the TOP-CS prior to meeting with the therapist and then complete the CEQ and WAI following the session. Prior to session 7 patients complete the TOP-CS, CEQ, and WAI. For some patients seen earlier in this study's data collection period, their psychotherapists completed the PCF at the start of each academic year; thus, time since completion of the PCF varied depending on when a given patient enrolled into the study.

However, the PSC changed its protocol partway through the data collection period. Thus, for patients seen later, psychotherapists completed the PCF when beginning treatment with each new patient.

#### Data Analyses

Preliminary analyses. First, I calculated descriptive statistics for all study variables. Next, in order to determine if certain patient variables should be included as covariates in the primary analytic models, I conducted bivariate Pearson correlations to examine the associations between (a) patient demographic/diagnostic variables and early patient rated alliance (session 7) and (b) patient demographic/diagnostic variables and early patient rated distress level (session 7). Lastly, I calculated outcome expectancy and credibility difference scores to quantify observed change on these factors. These difference scores were calculated by subtracting earlier scores (baseline or post session 1) from later scores (post session 1 or post session 7); thus, positive difference scores indicate an increase on this variable over time, while negative scores indicate a decrease over time. The observed change scores were then included as predictors in the relevant main models described below. It is important to note that when assessing initial change in outcome expectations from baseline to post session 1, change scores were based on the single item expectancy measure (as this was the only index of outcome expectations measured at baseline and that was part of the CEQ assessed after session 1). When assessing gradual change over the early part of treatment (i.e., from session 1 to session 7), change scores were based on total scores for the CEQ's empirically derived expectancy and credibility scales.

Primary analyses. To examine multivariate associations, I conducted multiple linear regression analyses. First, I examined the association between baseline outcome expectations and patient rated alliance at session 7, followed by change in baseline outcome expectations (from baseline to post session 1) and patient rated alliance at session 7. Next, I looked at the association between post session 1 outcome expectations and patient rated alliance at session 7, followed by early change in outcome expectations (from post session 1 to post session 7) and patient rated alliance at session 7. Then, I examined the association between post session 1 treatment credibility ratings and patient rated alliance at session 7, followed by early change in treatment credibility ratings (from post session 1 to post session 7) and patient rated alliance at session 7. Next, I repeated all of the above regression analyses with patient rated distress at session 7 as the criterion variable.

Because there was an abundance of missing data, I used a method of multiple imputation (i.e., the substitution of simulated values for missing cases within a data set; Schafer & Graham, 2002) to increase the amount of viable cases. Descriptive statistics were drawn from the original data set; however, I conducted all other analyses on the imputed data set. Based on acceptable practice in the field (Schafer & Graham, 2002), I used five iterations of imputed data and report the average r-squared change estimate across these iterations as an assessment of strength of association (i.e., variance explained in the criterion from the predictor above and beyond baseline distress).

## CHAPTER 3

### RESULTS

#### Bivariate Associations

Patient demographic/diagnostic variables and early patient rated alliance (session 7). Descriptive statistics for patient demographic/diagnostic variables were as follows: age ( $M = 31.80$ ;  $SD = 11.30$ ), gender (male, 42%; female, 58%), dichotomized ethnicity (coded as Caucasian, 82% vs. minority, 18%), dichotomized marital status (coded as married, 14% vs. unmarried or widowed, 86%), dichotomized income level (coded as less than \$30,000 per year, 53% vs. more than \$30,000 per year, 47%), dichotomized employment status (coded as employed/studying full time, 80% vs. unemployed, 20%), dichotomized religious status (coded as identify with a religion, 46% vs. do not identify with a religion, 33%), global assessment of functioning ( $M = 60.93$ ,  $SD = 8.55$ ), number of physician visits in the past two months ( $M = 1.06$ ,  $SD = 1.52$ ), number of current prescriptions ( $M = 1.33$ ,  $SD = 1.84$ ), number of current psychiatric prescriptions ( $M = 0.50$ ,  $SD = 1.01$ ), dichotomized primary diagnosis (coded as anxiety or depression, 71% vs. other 29%), dichotomized axis I comorbidity (coded as two or more axis I diagnoses, 80% vs. fewer than two axis I diagnoses, 20%), and dichotomized axis II comorbidity (coded as axis II disorder present, 15% vs. no axis II disorder present, 85%). No patient demographic or diagnostic variables were significantly correlated with alliance at session 7 (see Table 1); thus, no patient/demographic variables were included as covariates in the corresponding primary analytic models described below.

Patient demographic/diagnostic variables and early patient rated distress level (session 7). No patient demographic or diagnostic variables were significantly correlated

with distress at session 7 (see Table 1); thus, no patient/demographic variables were included as covariates in the corresponding primary analytic models described below.

#### Multivariate Associations

Patient baseline outcome expectations as a predictor of patient alliance and distress ratings at session 7. The hierarchical regression model examining patient baseline outcome expectations in the prediction of patient alliance ( $M = 69.10$ ,  $SD = 10.04$ ) and distress ( $M = -0.003$ ,  $SD = 1.00$ ) ratings at session 7 included baseline distress ( $M = 10.02$ ,  $SD = 8.16$ ) as a predictor in Step 1 and patient baseline outcome expectations ( $M = 59.40$ ,  $SD = 23.76$ ) as a predictor in Step 2. See Table 2 for results. Alone, patient baseline distress explained just 1% of the variance in patient rated alliance, with a non-significant main effect. The addition of patient baseline outcome expectations explained just an additional 2% of the variance in patient rated alliance, with a non-significant main effect. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of patient baseline outcome expectations explained just an additional 1% of the variance in patient rated distress at session 7, with a non-significant main effect.

Initial change in patient baseline outcome expectations as a predictor of patient alliance and distress ratings at session 7. The hierarchical regression model examining *initial change* in patient baseline outcome expectations in the prediction of patient alliance and distress ratings at session 7 included baseline distress as a predictor in Step 1 and change in patient baseline outcome expectations ( $M = -6.45$ ,  $SD = 21.95$ ) as a predictor in Step 2. See Table 3 for results. Alone, patient baseline distress explained

just 2% of the variance in patient rated alliance, with a non-significant main effect. The addition of change in patient baseline outcome expectations explained an additional 10% of the variance in patient rated alliance, with a significant main effect ( $p < .05$ ). The variables were positively associated, suggesting that as levels of change in expectations from baseline to post-session 1 increase, so do patient alliance ratings at session 7, when controlling for baseline distress. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of change in patient baseline outcome expectations explained just an additional 1% of the variance in patient rated distress at session 7, with a non-significant main effect.

Patient early outcome expectations as a predictor of patient alliance and distress ratings at session 7. The hierarchical regression model examining patient *early* outcome expectations in the prediction of patient alliance and distress ratings at session 7 included baseline distress as a predictor in Step 1 and patient early outcome expectations ( $M = -.21$ ,  $SD = 2.59$ ) as a predictor in Step 2. See Table 4 for results. Alone, patient baseline distress explained just 2% of the variance in patient rated alliance, with a non-significant main effect. The addition of patient early outcome expectations explained an additional 10% of the variance in patient rated alliance, with a significant main effect ( $p < .05$ ). This effect suggests that higher early expectations (post-session 1) were associated with a stronger patient-rated alliance at session 7 when controlling for baseline distress. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of patient early outcome

expectations explained just an additional 1% of the variance in patient rated distress at session 7, with a non-significant main effect.

Change in patient early outcome expectations as a predictor of patient alliance and distress ratings at session 7. The hierarchical regression model examining *early change* in patient early outcome expectations in the prediction of patient alliance and distress ratings at session 7 included baseline distress as a predictor in Step 1 and change in patient early outcome expectations ( $M = .21, SD = 2.70$ ) as a predictor in Step 2. See Table 5 for results. Alone, patient baseline distress explained just 1% of the variance in patient rated alliance, with a non-significant main effect. The addition of change in patient early outcome expectations explained just an additional 4% of the variance in patient rated alliance at session 7, with a non-significant main effect. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of change in patient early outcome expectations explained just an additional 1% of the variance in patient rated distress at session 7, with a non-significant main effect.

Patient early credibility beliefs as a predictor of patient alliance and distress ratings at session 7. The hierarchical regression model examining patient early credibility beliefs in the prediction of patient alliance and distress ratings at session 7 included baseline distress as a predictor in Step 1 and patient early credibility beliefs ( $M = 22.10, SD = 4.08$ ) as a predictor in Step 2. See Table 6 for results. Alone, patient baseline distress explained just 1% of the variance in patient rated alliance at session 7, with a non-significant main effect. The addition of patient early credibility beliefs explained an additional 12% of the variance in patient rated alliance at session 7, with a

significant main effect ( $p < .05$ ). This effect suggests that higher perceptions of treatment credibility (post-session 1) were associated with a stronger patient-rated alliance at session 7 when controlling for baseline distress. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of patient early credibility beliefs explained just an additional 2% of the variance in patient rated distress at session 7.

Change in patient early treatment credibility beliefs as predictors of patient alliance and distress ratings at session 7. The hierarchical regression model examining *early change* in patient credibility beliefs in the prediction of patient alliance and distress ratings at session 7 included baseline distress as a predictor in Step 1 and change in patient early credibility beliefs ( $M = -.89, SD = 3.87$ ) as a predictor in Step 2. See Table 7 for results. Alone, patient baseline distress explained just 1% of the variance in patient rated alliance, with a non-significant main effect. The addition of change in patient early credibility beliefs explained just an additional 7% of the variance in patient rated alliance, with a non-significant main effect. However, this effect had a  $p$ -value of .07, suggesting, at a trend level, that as credibility beliefs from post-session 1 to post-session 7 increase so do patient alliance ratings at session 7, when controlling for baseline distress. Alone, patient baseline distress explained 41% of the variance in patient rated distress at session 7, with a significant main effect ( $p < .01$ ). The addition of early change in patient credibility beliefs explained just an additional 0.5% of the variance in patient rated distress at session 7, with a non-significant main effect.

## CHAPTER 4

### DISCUSSION

The aim of the present study was to explore the influence of outcome expectations and credibility beliefs, measured both statically and dynamically, on adaptive early treatment process (alliance quality) and outcome (distress level). The main findings are as follows: (a) An increase in patients' outcome expectations from baseline to post-session 1 was positively related to patient rated early (session 7) alliance quality, (b) post-session 1 outcome expectations were positively associated with early alliance, and (c) post-session 1 credibility beliefs were positively associated with early alliance. Additionally, at a trend level, an increase in patients' early credibility beliefs from post-session 1 to post-session 7 was positively related to early alliance.

This study provides novel information on how patients' outcome expectations change in the early treatment phase, and how such change influences other clinical variables. With specific respect to change in outcome expectations from baseline to post-session 1, patients' average ratings decreased, suggesting that their prognostications about receiving benefit from treatment were generally worse after meeting with their clinician for the first time than prior to having had any contact. There are several possible explanations for this result. For example, this might reflect a natural course of expectations, in that some patients will hold certain expectations prior to beginning a treatment course, only to revise them, and possibly in a negative direction, after having direct contact with the treatment and the therapist. Although this direction might be negative in a statistical sense, it is not necessarily negative in a clinical sense; that is, some patients might arrive at therapy with unrealistically high outcome expectations, and

having them become more realistic after the initial session might bode well for obtaining therapeutic benefit down the line. In fact, the early literature on expectations suggested that patients with moderate, as opposed to unrealistically high or low, outcome expectations had better treatment outcomes (see Noble et al., 2001).

Another possible explanation for the aggregate decrease in initial outcome expectations is that the therapists in this sample did not directly or indirectly attempt to foster their patients' outcome expectations, and that their patients' sense of expected benefit took a hit upon meeting with the therapist. Of course, I did not assess therapist *behavior* in this study, so it is impossible to know how therapists addressed expectations, if they did at all. Future research is required to examine the association between therapist behavior and its influence on patients' immediate expectations, as well as to understand better whether any decreases in initial outcome expectations are related to therapist neglect of this variable or, alternatively, therapist skill in bringing expectations more into line with reality.

Despite the aggregate decrease in outcome expectations from baseline to post-session 1, there was a positive association between an immediate increase in outcome expectations and patients' early (session 7) perceptions of the therapeutic alliance. This finding suggests that a very early bump in patients' beliefs that treatment will be helpful has a favorable influence on their perceptions of alliance quality, a variable that in turn has been robustly associated with overall treatment outcome (Hovarth, Del Re, Flückiger, & Symonds, 2011). This finding extends previous work demonstrating a positive association between early outcome expectations (measured statically) and early/middle alliance quality (e.g., Connolly Gibbons et al., 2003; Constantino et al., 2005) by

suggesting a beneficial influence on adaptive treatment process of a *dynamic increase* in outcome expectations.

It is possible that this beneficial influence, when outcome expectations do in fact increase, is connected to a process of early remoralization. As Frank (1961) suggested, individuals seeking psychotherapy are demoralized (i.e., feeling helpless and hopeless); through therapy (including, and perhaps especially, during initial contact), clinicians can provide them with a therapeutic relationship, a healing setting, and a specific rationale to explain the symptoms and to frame a treatment plan. Although this remoralization process likely continues throughout the course of treatment, the present findings suggest that very early remoralization in particular (to the extent that it is captured in initial shifts in outcome expectancy ratings) might strengthen the patient's sense of collaborative engagement in the early treatment process (i.e., alliance quality). This heightened engagement would be consistent with goal and expectancy theories, which state that people will be more motivated to engage in a task if they believe its outcome can be achieved (e.g., Carver & Scheier, 1998). In this case, the constructive engagement would be reflected in the collaborative working alliance (Constantino et al., 2005). It is interesting to note that across the early phase of treatment (from session 1 to 7), patients' outcome expectations actually increased on average; however, this increase was unrelated to alliance quality at 7, again suggesting that there might be something specifically potent, in terms of alliance development, with very early shifts (from before to just after initial contact with a therapist) toward higher outcome expectations.

In consideration of the above findings, it appears important that therapists assess and work toward fostering patient expectations during the initial contact. Assessment

strategies might involve pointed verbal questioning or the use of brief expectancy measures, such as the CEQ used in this study (see Constantino et al., 2011). Expectancy-enhancement strategies might include: (a) The use of explicit hope-inspiring statements that neither too quickly threaten a patient's self/other/world schemes nor promise an unrealistic speed or degree of clinical change (Constantino & Westra, in press; Kirsch, 1990), (b) the use of personalized expectancy-enhancement statements that capitalize on patients' strengths (Constantino, Klein, & Greenberg, 2006), (c) providing a non-technical research review on the forthcoming treatment (Constantino et al., 2006), and (d) foreshadowing the process of change, including possible alliance tensions and the nonlinear improvement trajectory for many conditions (Constantino et al., 2011).

Such strategies might help to foster a strong working alliance, while failing to do so might interfere with alliance development (and, thus, subsequent treatment effectiveness). It is also possible that patients with the lowest baseline outcome expectations are the ones most in need of expectancy enhancing interventions, as some research has suggested that these individuals, relative to their higher outcome expectancy counterparts, have a more difficult time remaining optimistic about their treatment in the face of alliance ruptures (Westra, Constantino, & Aviram, in press).

As hypothesized, the present findings suggest that patients with more positive early (post-session 1) outcome expectations have more favorable perceptions of early alliance quality. As noted above, this finding is consistent with previous studies that measured expectations at one particular point in time (e.g., Connolly Gibbons et al., 2003; Constantino et al., 2005). Coupled with the initial change findings, this result continues to lend credence to the importance of therapists making a concerted effort to

assess patients' outcome expectations early in the therapy process and to work toward enhancing such expectations in the service of building a stronger working relationship. Given that early outcome expectations, or any change in such expectations, were not significantly associated with early distress reduction, the present results lend further indirect support for the alliance as a potential mechanism through which early outcome expectations exert their influence on ultimate treatment outcomes (Abouguendia et al., 2004; Joyce et al., 2003; Meyer et al., 2002). It will be important for future work to continue to assess the pathways from expectancy to treatment outcome, and to provide direct tests of mediator variables. Unfortunately, the current data set, at the time of this study, had too few cases that had completed treatment to provide valid tests of expectancy-outcome associations, and whether alliance quality mediates such associations in this naturalistic sample. As this data set is evolving, though, this will be the focus of a future investigation.

Also as predicted, the results suggest that patients with more positive early (post-session 1) treatment credibility beliefs have more favorable perceptions of early alliance quality. This finding extends the credibility literature, which to date has demonstrated that patients with higher credibility beliefs also evidence lower dropout rates and higher levels of homework compliance (e.g., Addis & Jacobson, 2000; Kirsch & Henry, 1977) than patients who perceive their therapy as less credible. Given the current findings, and the paucity of credibility research as a whole, it will be important for future work to consider the possibility that the alliance is one mechanism by which credibility beliefs influence other psychotherapy process and treatment outcome variables. Clinically, and similar to outcome expectations, it seems that in order to develop the strongest working

relationship possible, therapists may also want to explicitly and systematically foster patients' credibility beliefs. To do so, it seems important to provide a clear rationale that links the intended treatment's goals, tasks, and processes in a logical and coherent manner (Frank, 1961). Further, the therapist should not assume that such connections have been made; rather, he or she should check in with the patient about his or her reaction. Depending on this reaction, the therapist might have to spend time educating or further socializing the patient to the treatment, or perhaps altering the treatment's goals and tasks to be more consistent with the patient's values and beliefs (Constantino et al., 2011). It is also important to note that a clear rationale might not only increase treatment credibility perceptions, but it can also simultaneously increase expectations for change (Ahmed & Westra, 2009).

Lastly, at a trend level, there was a positive association between an increase in patients' early credibility beliefs and patients' early (session 7) perceptions of the therapeutic alliance. To my knowledge, this is the first study to examine how shifts in credibility perceptions relate to another important treatment variable, and the findings provide some additional support (albeit at a trend level) for the important role of patients' early treatment beliefs in alliance development. It will be important for future research to continue to examine credibility perceptions over time (especially considering that, on average, patients' credibility beliefs decreased from session 1 to 7), and to uncover patient, therapist, and dyadic variables that are associated with momentary increases or decreases in credibility perceptions. For example, process research might be particularly useful to illuminate in a fine-grained manner patient-therapist exchanges that leave a patient feeling like the treatment seems less logical, useful, or helpful than before such

exchanges. These exchanges could then be empirically derived markers on which clinicians can be trained to respond with strategies aimed at restoring a patient's sense that the treatment is logical and plausible.

Several limitations characterize the present study. First, most therapists in the sample saw more than one patient, which might have led to some dependency in the data. However, I was unable to utilize a hierarchical linear modeling (HLM) approach to address this dependency (via nesting within therapists) because of low power at the therapist level and restricted between therapist variability. In future studies, with larger samples and less missing data, it will be important to nest patients within therapists to account for potential therapist effects in the statistical models.

Second, because pooled  $F$ -statistics and associated  $p$ -values were not provided across the multiple iterations for each imputed model, I was unable to interpret overall model statistics, and instead only interpreted individual predictor statistics. As the field reaches a consensus on the best method for calculating these values, it will be important to look at the pooled coefficients for the overall models in addition to the pooled coefficients for the individual predictors.

Third, no data were collected on in-session therapist behaviors, which means that I cannot rule out the possibility that therapist behaviors account for some of the variance in the outcome variables. In the future, it will be important to conduct process studies where videotaped therapy sessions are coded to understand better therapist, patient, and dyad in-session behaviors and how they relate to patients' treatment beliefs, and other clinically important process and outcome variables.

Fourth, the patient sample was diagnostically heterogeneous, which threatens the internal validity of the study. Although the heterogeneous nature of the sample is important for maintaining ecological validity, it is difficult to know whether or not unmeasured differences among patients confounded the results.

Finally, the present study is correlational in nature and does not imply causation in any sense. Yet, despite its limitations, this study had multiple strengths over previous investigations on patients' treatment beliefs. The strengths included using a naturalistic treatment setting (with high generalizability), measuring outcome expectations and credibility beliefs both statically and dynamically, and utilizing a psychometrically sound instrument for these predictor variables.

In sum, the current study not only supports past research that links outcome expectations to therapeutic alliance quality, but it also extends previous research on treatment beliefs in its demonstration of an association between initial *change* in patients' outcome expectations and the alliance, as well as patients' early credibility perceptions and the alliance. The composite findings continue to point to the clinical importance of common treatment factors such as expectations and credibility beliefs. Thus, it seems essential that we continue to promote hypothesis-driven, systematic research on these variables in order to further refute their seemingly misguided, yet oft referenced, status as non-specific, poorly understood, un-teachable treatment factors (Baker, McFall, & Shoham, 2009).

## FOOTNOTE

<sup>1</sup> As discussed below, the clinic from which the current dataset derives did not collect credibility data at baseline (which is consistent with the conceptualization that credibility reflects treatment beliefs obtained *through experience with* the psychotherapist and the psychotherapy). Thus, the first research question is confined to the outcome expectancy construct.

Table 1

Baseline Patient Characteristics as Correlates of Patient Alliance and Distress Ratings at  
Session 7

	<i>n</i>	<i>r</i>	
		Alliance	Distress
Demographics			
Age	110	.06	.07
Gender	110	-.002	.13
Dichotomized ethnicity	110	.02	-.06
Dichotomized marital status	110	.01	-.08
Dichotomized income	110	.17	.03
Dichotomized employment	110	.16	-.02
Dichotomized religious status	110	-.08	.02
Global symptom severity			
Global Assessment of Functioning (GAF)	110	.14	.09
General health & behavior history			
Physician visits (past 2 months)	110	-.05	-.09
Prescriptions (all)	110	-.12	-.14
Prescriptions (psychiatric)	110	-.02	-.07
Dichotomized primary diagnosis	110	-.01	-.01
Diagnostic comorbidity			
Dichotomized Axis I comorbidity	110	-.09	.07
Dichotomized Axis II comorbidity	110	.01	-.03

Table 2

Summary of Hierarchical Multiple Regression Analyses (n = 110) Predicting Patient Alliance and Distress Ratings at Session 7 from Patient Baseline Outcome Expectations

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .02$		
Baseline distress	-.12	.15
Baseline outcome expectations	.86	1.66
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline distress	-2.30**	.33
Step 2: $\Delta R^2 = .01$		
Baseline distress	-2.28**	.32
Baseline outcome expectations	-.96	3.58

\*\* $p < .01$ .

Table 3

Summary of Hierarchical Multiple Regression Analyses (n = 110) Predicting Patient Alliance and Distress Ratings at Session 7 from Initial Change in Patient Outcome Expectations

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .10$		
Baseline distress	-.17	.15
Initial change in outcome expectations	1.28*	.54
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline distress	-2.30**	.33
Step 2: $\Delta R^2 = .01$		
Baseline distress	-2.30**	.32
Initial change in outcome expectations	.99	1.78

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

Table 4

Summary of Hierarchical Multiple Regression Analyses (n =110) Predicting Patient Alliance and Distress Ratings at Session 7 from Patient Early Outcome Expectations

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .10$		
Baseline distress	-.17	.15
Early outcome expectations	1.13*	.45
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline Distress	-2.30**	.33
Step 2: $\Delta R^2 = .01$		
Baseline distress	-2.31**	.32
Early outcome expectations	.61	1.39

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

Table 5

Summary of Hierarchical Multiple Regression Analyses (n =110) Predicting Patient Alliance and Distress Ratings at Session 7 from Early Change in Patient Outcome Expectations

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .04$		
Baseline distress	-.07	.17
Early change in outcome expectations	.61	.65
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline distress	-2.30**	.33
Step 2: $\Delta R^2 = .01$		
Baseline distress	-2.27**	.31
Early change in outcome expectations	.39	1.53

\*\* $p < .01$ .

Table 6

Summary of Hierarchical Multiple Regression Analyses (n =110) Predicting Patient Alliance and Distress Ratings at Session 7 from Patient Early Credibility Beliefs

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .12$		
Baseline distress	-.13	.16
Early credibility beliefs	.83*	.34
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline distress	-2.30**	.33
Step 2: $\Delta R^2 = .02$		
Baseline distress	-2.29**	.32
Early credibility beliefs	-.47	1.31

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

Table 7

Summary of Hierarchical Multiple Regression Analyses (n = 110) Predicting Patient Alliance and Distress Ratings at Session 7 from Early Change in Patient Credibility Beliefs

Variable	B	SEB
Alliance at session 7		
Step 1: $R^2 = .01$		
Baseline distress	-.11	.16
Step 2: $\Delta R^2 = .07$		
Baseline distress	-.07	.16
Early change in credibility beliefs	.67	.35
Distress at session 7		
Step 1: $R^2 = .41$		
Baseline distress	-2.30**	.31
Step 2: $\Delta R^2 = .005$		
Baseline distress	-2.30**	.31
Early change in credibility beliefs	.02	.94

\*\* $p < .01$ .

APPENDIX A

TREATMENT OUTCOME PACKAGE – CONSUMER REGISTRATION FORM

1. What is your sex?

Female Male Transgender

2. What ethnic group do you belong to? (Mark all that apply)

Caucasian (White)

Hispanic

African-American

Asian

Native American Indian

East Indian

Other

3. What is your date of birth? Month\_\_ Day\_\_ Year\_\_\_\_

4. What is your current living situation? (Mark all that apply)

Homeless

Living alone

Living with parent(s)

Living with partner

Living with children

Living with other relatives

Living with friends

Living in a treatment program

Foster family

Other

5. What is your current marital status?

Single

Married

Divorced

Widowed

Separated

6. What is your current employment status?

Employed full-time

Employed part-time

Retired

Full-time student  
Unemployed, not looking for work  
Unemployed, looking for work  
Sheltered or support work  
Working, but not for money (e.g. homemaker)

7. What is the highest grade or degree you have finished?

Grade\_\_ **OR**

High school  
Business of trade school  
Two-year college  
Four-year college  
Masters  
Doctorate

8. What is your approximate current family income from all sources?

None to \$10,000  
10 to \$20,000  
20 to \$30,000  
30 to \$40,000  
40 to \$50,000  
50 to \$75,000  
75 to \$100,000  
100 to \$200,000  
>\$200,000

9. What is your religion?

Catholic (Christian)  
Protestant (Christian)  
Other Christian  
Muslim  
Hindu  
Jewish  
Buddhist  
Other  
None

10. How many times have you been hospitalized for mental health or substance abuse problems?

0 1 2 3 4 5 6 7 8 9 10 11 or more

11. How many different therapists have you seen for mental health or substance

concerns?

0 1 2 3 4 5 6 7 8 9 10 11 or more

APPENDIX B

PROVIDER CHARACTERISTICS FORM

**PART I: Demographics & Experience**

Current Age (enter in years): \_\_\_\_\_

Gender (mark applicable category):

Male \_\_\_\_\_

Female \_\_\_\_\_

Transgender \_\_\_\_\_

Ethnicity (mark all that apply):

Caucasian (White) \_\_\_\_\_

Hispanic \_\_\_\_\_

African-American \_\_\_\_\_

Asian \_\_\_\_\_

Native American Indian \_\_\_\_\_

East Indian \_\_\_\_\_

Other \_\_\_\_\_

Highest Current Degree \_\_\_\_\_

Years of Clinical Experience  
(beginning with year you began seeing your  
*own patients & including current year*) \_\_\_\_\_

**PART II: Orientation**

How much is your *current* therapeutic practice guided by each of the following theoretical frameworks?

	Not at all					Very Much
Analytic / Psychodynamic	0	1	2	3	4	5
Behavioral	0	1	2	3	4	5
Cognitive	0	1	2	3	4	5
Humanistic / Experiential	0	1	2	3	4	5

Systems Theory	0	1	2	3	4	5
Interpersonal Theory	0	1	2	3	4	5

To what extent do you *currently* regard yourself as having one *primary* orientation?

Not at all						Very Much
0	1	2	3	4	5	

To what extent do you *currently* regard your orientation as Eclectic/Integrative?

Not at all						Very Much
0	1	2	3	4	5	

Please describe your *current* theoretical orientation in the space below:

---



---



not at all

somewhat

very much

2. By the end of the therapy period, how much improvement in your symptoms do you really *feel* will occur?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

APPENDIX D

WORKING ALLIANCE INVENTORY – PATIENT VERSION

On the following page there are some sentences that describe some of the different ways a person might think or feel about his or her therapist. Please complete these ratings in terms of your experience with your therapist during the most recent session. As you read the sentences, mentally insert the name of your therapist in place of the \_\_\_\_\_ in the text.

---

	1	2	3	4	5	6
7	Never	Rarely	Occasionally	Sometimes	Often	Very Often
Always						

---

Use the above seven point scale for each item. If the statement describes the way you always feel (or think), circle the number '7'; if it never applies to you, circle the number '1'. Use the numbers in between to describe the variations between these extremes. This questionnaire is confidential; your therapist will not see your answers. Work fast; your first impressions are the ones we would like to see. Please don't forget to respond to every item.

- \_\_\_\_\_ 1. \_\_\_\_\_ and I agree about the things I will need to do in therapy to help improve my situation.
- \_\_\_\_\_ 2. What I am doing in therapy gives me new ways of looking at my problem.
- \_\_\_\_\_ 3. I believe \_\_\_\_\_ likes me.
- \_\_\_\_\_ 4. \_\_\_\_\_ does not understand what I am trying to accomplish in therapy.
- \_\_\_\_\_ 5. I am confident in \_\_\_\_\_'s ability to help me.
- \_\_\_\_\_ 6. \_\_\_\_\_ and I are working on mutually agreed upon goals.
- \_\_\_\_\_ 7. I feel that \_\_\_\_\_ appreciates me.
- \_\_\_\_\_ 8. We agree on what is important for me to work on.
- \_\_\_\_\_ 9. \_\_\_\_\_ and I trust one another.

- \_\_\_\_\_ 10. \_\_\_\_\_ and I have different ideas on what my problems are.
- \_\_\_\_\_ 11. We have established a good understanding of the kind of changes that  
would be  
good for me.
- \_\_\_\_\_ 12. I believe the way we are working with my problem is correct.

## APPENDIX E

### TREATMENT OUTCOME PACKAGE – CLINICAL SCALES

**Indicate how much of the time during the past two weeks you have . . .**

All Most A lot Some A little None

been satisfied with your relationships with others  
been satisfied with your daily responsibilities  
been satisfied with your general mood and feelings  
been satisfied with your life in general  
felt too much conflict with someone  
been emotionally hurt by someone  
felt someone else had too much control over your life  
had trouble falling asleep  
had nightmares  
awakened frequently during the night  
had trouble returning to sleep after awakening in the night  
had a paying job  
had conflicts with others at work or school regardless of fault  
missed work or school for any reason  
not been acknowledged for your accomplishments  
had your performance criticized  
not been excited about your work or school work  
physically hurt someone else or an animal  
had desires to seriously hurt someone  
had thoughts of killing someone else  
felt that you were going to act on violent thoughts  
felt no desire for, or pleasure in, sex  
felt sexually incompatible with your partner or frustrated by the lack of a partner  
felt emotional or physical pain during sex  
had trouble functioning sexually (having orgasms, ...)  
had a racing heart  
felt light-headed  
had shortness of breath  
had a dry mouth or trouble swallowing ("a lump in your throat")  
had sweaty hands (clammy) or cold hands or feet  
had to do something to avoid anxiety or fear (washing hands, ...)  
avoided certain situations due to fear or panic  
felt panic in places that would be hard to leave if necessary  
felt down or depressed  
felt little or no interest in most things  
felt guilty  
felt restless  
felt worthless  
felt tired, slowed down, or had little energy  
worried about things  
had trouble concentrating or making decisions  
noticed your thoughts racing ahead

inflicted pain on yourself  
felt rested after only a few hours of sleep  
thought about killing yourself or wished you were dead  
planned or tried to kill yourself  
felt you were better than other people  
felt on top of the world  
worried that someone might hurt you  
had unwanted thoughts or images  
seen or heard something that was not really there  
felt someone or something was controlling your mind  
spent more time drinking or using drugs than you intended  
neglected school, work, or other responsibilities because of using alcohol or drugs  
felt you wanted or needed to cut down on your drinking or drug use  
had your family, a friend, or anyone else tell you they objected to your alcohol or drug use  
found yourself thinking about a drink or getting high  
used alcohol or drugs to relieve uncomfortable feelings, such as sadness, anger, or boredom

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