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Is the Therapeutic Alliance Associated with and Predictive of Treatment Retention and Outcome Among Latinos?: A Secondary Analysis of an RCT of Behavioral Activation for Latinos with Depression Versus Treatment-as-Usual

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ANALYSIS OF AN RCT OF BEHAVIORAL ACTIVATION FOR LATINOS WITH

DEPRESSION VERSUS TREATMENT-AS-USUAL

by

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ABSTRACT

IS THE THERAPEUTIC ALLIANCE ASSOCIATED WITH AND PREDICTIVE OF
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The University of Wisconsin-Milwaukee, 2016
Under the Supervision of Professor Bonita Klein-Tasman

A robust association between the therapeutic alliance and various forms of psychotherapy outcome has been demonstrated. The therapist-client alliance has been shown to be associated with and predictive of dropout and depression symptom change with primarily U.S. White samples. The current study examines whether the alliance is associated with retention, as measured by dropout and session attendance, and depression change in a sample of low-income Spanish-speaking Latinos in the U.S. who received Behavioral Activation for Latinos (BAL) with depression or treatment-as-usual (TAU). Given the proposition that BA treatment fosters the alliance systematically throughout treatment, and that usual treatment was not guided by a protocol that required systematic implementation of alliance-fostering techniques, BAL was expected to evidence higher alliance scores compared to TAU. Alliance was also examined as a predictor of these outcome variables. For BAL, alliance scores were expected to predict lower likelihood of dropout, higher session attendance, and higher depression change after controlling for early gains when compared to TAU. Findings in support of the alliance as a predictor of retention and outcome

would point to potential areas of intervention for improving psychotherapy treatment retention and depression outcome in Latino communities. Current findings did not show that the alliance was associated with or predicted retention or depression change for this sample. Methodological limitations of this study are discussed.

To

my parents, Oscar Rolando and Miriam Francisca,

and my husband, Miguel

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

Is The Therapeutic Alliance Associated With and Predictive of Treatment Retention and

Outcome Among Latinos? A Secondary Analysis of an RCT of Behavioral Activation for

Latinos with Depression Versus Treatment-as-usual

Premature Termination of Mental Health Services Among Latinos

Psychotherapy dropout studies have demonstrated that almost half of all clients terminate

treatment prematurely (Wierzbicki & Pekarick, 1993). People of color in particular are

disproportionately represented within this client subset as these clients tend to drop out of

treatment as early as the first session (Sue, 1998). Latinos have also been found to drop out of

treatment more quickly than non-Hispanic Whites (LaRoache, 2002). As it relates to depression

treatment in particular, a number of researchers have reported lower rates of retention among

Latinos over the years (e.g., Miranda & Cooper, 2004; McFarland & Klein, 2005), although

some inconsistent data have been obtained. Specifically, findings by Fortuna, Alegría, and Gao

(2010) contradicted repeatedly reported findings on the lower rates of retention for Latinos.

Results obtained from a national sample of respondents who reported receiving formal mental

health treatment for depression in the last year indicated that Latinos are not significantly less

likely to be retained in care as compared to their non-Latino White counterparts. However,

retention was defined as attending at least four visits or remaining in treatment during a 12-

month period.

Factors that may contribute to the problem of mental health treatment retention among

Latinos and other people of color have been identified (e.g., Fortuna et al., 2010; Gallagher-

Thompson, Solano, Coon, & Arean, 2003; Snowden & Yamada, 2005; U.S. Department of

Health and Human Services, 2001). For the most part, empirical evaluation of the hypotheses

generated to explain why Latinos terminate prematurely has not been conducted (Snowden &

Yamada, 2005).   Proposed strategies to decrease attrition among Latinos and other minorities have been identified as well and little evidence is available to evaluate the impact of the proposed interventions. Thus, there is a need to understand the barriers to continued treatment that may help guide intervention. In addition to considering system-level factors, the discussion on the potential contributors to premature termination and possible avenues for intervention to target treatment continuity should focus on individual-level factors. These include provider, client-provider, and intervention-related components (Snowden & Yamada, 2005).

Potential barriers to retention often cited include inadequacy of services provided to ethnic minorities, lack of ethnic/racial matching between patient and provider, and unfulfilled treatment expectations (e.g., Fortuna et la., 2010). The Surgeon General's report (U.S. Department of Health and Human Services, 2001) suggested that cultural misunderstandings and difficulties in communication between the client and provider are probable barriers. The alliance (i.e., working alliance, helping alliance, or therapeutic alliance; Horvath & Bedi, 2002), has been proposed to be a means of addressing the problem of premature termination among people of color and Latinos in particular (e.g., Cardemil & Battle, 2003; Falicov, 2000; S. Sue, 1988; Snowden & Yamada, 2005). To be specific, it has been suggested that the strengthening of the alliance between a Latino client and provider in treatment could help prevent premature termination and positively impact treatment outcome.

The Alliance and Its Relation to Retention and Outcome

The alliance is one of a set of factors that comprise the therapeutic relationship, a broad construct that is thought to play a considerable role in the course of psychotherapy treatment (Horvath & Bedi, 2002). Interest in the therapeutic relationship by researchers and clinicians alike arose as a result of a search to identify pantheoretical factors that might help explain the

comparable benefits of psychotherapy irrespective of treatment modality. Interest in therapeutic

relationship factors was also propelled by research based on the person-centered theory that

suggested that the therapeutic relationship was a core component of change in psychotherapy

(e.g., Rogers, Gendlin, Kiesler, & Truax, 1967). However, consistent findings that supported an

association between the therapeutic relationship and various measures of outcome fueled and

have maintained interest in relationship factors as potential contributors to the course of

treatment (Horvath & Bedi, 2002).

The alliance has been one of the most often studied relational elements (Lambert &

Barley, 2001) and it has predominated psychotherapy process research (Castonguay,

Constantino, & Holtforth, 2006). The results of meta-analyses have shown that the alliance is

moderately yet robustly related to treatment outcome across treatment, client, and problem type

(Horvath & Bedi, 2002; Horvath, Del Re, Flückiger, & Symonds, 2011a; Horvath & Symonds,

1991; Martin et al., 2000). It has also been suggested that the alliance plays a role in rates of

attrition and premature termination (e.g., Horvath, Del Re, Flückiger, & Symonds, 2011b).

The robust association between the alliance and outcome has served as the basis for the

assertion that the alliance is central to psychotherapy outcome. However, critics have noted that

the consistent finding alone does not lend support for the alliance as a cause of change. To

determine whether or not the alliance has a causal role in treatment, researchers have

investigated whether a positive alliance temporally precedes and predicts outcome, rather than

simply co-occurring with outcome (Zuroff & Blatt, 2006). Early studies examining the alliance

as a predictor of change did suggest that it played a causal role with regard to treatment outcome

(e.g., Gaston, Thompson, Gallagher, Cournoyer, & Gagnon, 1998; Krupnick, Sotsky, Simmens,

Moyer, & Elkin, 1996). However, methodological issues put these findings into question as the

3

studies were limited in their ability to support the temporal precedence of the alliance given that change that occurred before the measure of alliance was taken and change that occurred subsequently were confounded (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000).

More methodologically stringent studies provided inconsistent results on the nature of the relationship of alliance to outcome when using early measures of alliance and statistically controlling for early symptom change (e.g., DeRubeis & Feeley, 1990; Feeley, DeRubeis, & Gelfand, 1999; Gaston, Marmar, Gallagher, & Thompson, 1991; Marmar, Gaston, Gallagher, & Thompson, 1989). However, a review of the studies suggests that relatively small sample sizes represent a limitation as the power to detect significant findings is constrained (Barber et al., 2000). More recent studies that have addressed the methodological limitations of the initial alliance research have lent more convincing support for the alliance as a contributor to change. However, findings across studies are not consistent.

Barber et al. (2000) examined whether the alliance is a predictor of outcome while controlling for improvement early in treatment using a relatively large patient sample that received supportive-expressive dynamic therapy, a modality that emphasizes the role of the therapeutic alliance. The question of whether the therapeutic alliance was predicted by early symptom change was also examined. The alliance measured early in treatment was supported as a predictor of subsequent symptom change. It was also found that a greater decrease in depression from intake to the time of alliance assessment is associated with greater alliance. However, although early alliance is impacted by early symptom change, the alliance continued to be a predictor of further improvement when controlling for prior depression change.

Klein et al. (2003) examined the relationship between the therapeutic alliance and depression treatment outcome after controlling for early change in depression and prognostically

4

relevant patient characteristics. The sample consisted of 341 chronically depressed patients treated with the cognitive-behavioral analysis system of psychotherapy (CBASP) with and without medication. Results revealed that early alliance significantly predicted later symptom change when controlling for prior and concurrent depressive symptom levels and patient characteristics. These included gender, chronicity, comorbid anxiety, substance use, personality disorders, highest level of social functioning in the previous five years, and history of abuse and neglect in childhood. Regarding reverse causation results, early levels and improvement in depression did not influence the early alliance. Inconsistent with previous findings, depression change was not found to predict the middle alliance but did have an independent effect on the late alliance, suggesting that there may be reciprocal effects between alliance and depression change. Nevertheless, Klein et al. (2003) concluded that, during the early phase of treatment, the alliance has a greater impact on depression change than depression has on alliance change. Moreover, the effect of depression change on the alliance emerges later in treatment. To date, Klein et al.'s (2003) results have lent the most substantial evidence for the causal effect of the alliance on outcome as it has been the most methodologically sound study.

Zuroff and Blatt (2006) later conducted an evaluation of the relation between the alliance and other dimensions of the early therapeutic relationship and various measures of outcome, controlling for any effects of early clinical improvement, using data from the NIMH-funded Treatment of Depression Collaborative Research Program. In particular, they examined the impact of patient perception of the quality of the therapeutic relationship and patient contribution of the therapeutic alliance on outcome. Findings did not demonstrate that the patient contribution to the alliance predicted outcome over and above its shared variance with early change. The authors concluded that it would be incorrect to interpret their findings as support

for the notion that the alliance does not have an impact on outcome given that the magnitude of the effect of the variable may be underestimated when shared variance with early change is removed from the alliance measure.

If taken together, the most stringent studies conducted to date suggest mixed findings on the alliance as a predictor of outcome. However, a factor that complicates the process of determining whether the alliance does impact outcome is the use of instruments based on varied definitions of the alliance. As Horvath and Bedi (2002) noted, within the alliance research, the measure has defined the construct. For instance, while Klein et al. (2003) examined the alliance as defined in the abbreviated version (Tracey & Kokotovic, 1989) of the patient form of the Working Alliance Inventory (Horvath & Greenberg, 1989) based on Bordin's conceptualization of the alliance (1979), Zuroff & Blatt (2006) examined the process variable as defined by the modified version (Krupnick et al., 1994) of the Vanderbilt Therapeutic Alliance Scale (VTAS; Hartley & Strupp, 1983) based on a dynamic conceptualization of the alliance. Given the use of measures based on distinct models of the alliance in these large studies, and in alliance studies in general, it is difficult to meaningfully interpret their findings in relation to one another. Thus, it may be most appropriate to limit findings and interpretations of the alliance and its relation to retention or outcome to the alliance construct as defined by the measure in a given study. The consistent use of a single robust model of the alliance could potentially lead to a body of research on the alliance-retention and –outcome relations with findings that could be meaningfully compared and interpreted. A robust model has been identified.

Variations in the Alliance Construct

A number of alliance instruments, and thus, conceptualizations exist. The studies included in the most recent meta-analysis that examined the alliance-outcome relation helped

identify over thirty distinct alliance measures (Horvath et al., 2011a). However, four core alliance measures exist. These include the California Psychotherapy Alliance Scale (CALPAS; Gaston & Marmar, 1994), Penn Helping Alliance Questionnaires (HAq; Alexander & Luborsky, 1987), Vanderbilt Psychotherapy Process Scale (VPPS; O'Mally, Suh, & Strupp, 1983), and the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). Together, these have been used in over 65% of studies on the alliance. The HAq and the WAI and the conceptualizations of the alliance underlying them are presented to exemplify differences in at least two of the models.

The HAq and variations of the scale were developed by Luborsky and colleagues to measure Luborsky's (1976) conceptualization of the alliance. Luborsky proposed that the development of the alliance between the therapist and client occurred across two phases. The first involved the client's belief that the therapist has the potential to offer help and the therapist's provision of a relationship characterized by warmth, support, and care, both of which would contribute to the development of a secure holding relationship to initiate therapeutic work. The second phase involved the client's trust and confidence in the therapy process; dedication of time, energy, and effort to the therapeutic work; dedication to the underlying therapy concepts, such as the definition of the problem; and openness to sharing the responsibility for the treatment process.

The WAI (Horvath & Greenberg, 1989) was designed to capture Bordin's (1979) pantheoretical conceptualization of the alliance. Unlike Luborsky's (1976) theory, Bordin's (1979, 1994) model more clearly moved away from psychodynamic assumptions. At the center of Bordin's model is the development of a collaborative alliance between the therapist and the client, in which three components need to be achieved to develop the alliance. These are

agreement on the therapeutic goals, agreement on the tasks to achieve the stated goals, and the bond between the two parties.

Both models underlying the HAq and the WAI emphasize the role of characteristics of the relationship between the therapist and the client that facilitate the work of therapy and the relationship features that focus on therapeutic work itself. Examples of the former in the HAq model include therapist warmth and support. An example within the WAI model is the bond between the therapist and client. Examples of the latter within the HAq model include dedication to the therapeutic work and concepts and within the WAI these include agreement on the goals and tasks of therapy. However, the models place different emphasis on these features of the alliance. Whereas the HAq places greater emphasis on the alliance characteristics that focus on the relationship between the therapist and the client, the WAI places greater emphasis on the characteristics of the alliance that have to do with the therapeutic work. This demonstrates one way in which the models of the alliance may vary.

On both theoretical and pragmatic grounds, Bordin's (1979, 1994) model is considered the most robust. It has been thought to hold the greatest promise as the foundation for current alliance theory and research (Hatcher & Barends, 2006). Horvath & Bedi (2002) provided a working definition of the alliance based on both Bordin's model and the consensual definition developing in the field. The definition emphasized and elaborated the key components of Bordin's model and, with the exception of the assertion that it is a conscious aspect of the therapeutic relationship, did not add any novel components or dimensions. The field's move toward a shared understanding of the alliance that reflects Bordin's model suggests that further investigations may benefit from use of Bordin's concept. Moreover, it has been described as the most pantheoretical model because it can be applied to a broader set of treatments given that the

8

domains of interest are relevant to all modalities (Horvath et al., 2011b). As it relates to its utility in research, the model has also been considered to provide the most useful operational definition of the alliance (Tichenor & Hill, 1989).

As previously noted, Horvath & Greenberg (1989) further operationalized Bordin's (1979) model through their development of the WAI (Horvath & Greenberg, 1989). Thus, the WAI is the most consistent with the alliance conceived as the engagement in collaborative and purposive work. In evaluating its psychometric properties, Tichenor and Hill (1989) found that the WAI-O demonstrated high internal consistency, demonstrated high inter-rater reliability, and correlated highly with other alliance measures examined. Cecero, Fenton, and Frankforter, Nich, & Carroll (2001) also found support for the WAI-O's internal consistency, reliability, and correlation with other alliance constructs. Thus, the Bordin model and the measure derived from it seem to be the indicated theory and instrument for use in future alliance research. The WAI's use in 40% of studies in Martin, Garske, & Davis's (2000) meta-analysis (with the next most commonly used measure, the CALPAS [Gaston & Marmar, 1994], at 25%) suggests that there is some consensus on the benefit of using this model and derived measure over others.

Relevance of the Alliance in Working with Latinos

Investigators have proposed a number of possible contributors of and strategies for addressing the observed problem of Latino treatment retention and other health care service disparities. Among these was the notion that treatments might be generally ineffective with ethnic minority clients and that perhaps changes needed to be made in the way that psychotherapy was conducted with members of culturally distinct groups (e.g., S. Sue, 1988). Questions regarding whether treatment could be effective with members of these groups arose especially in considering treatment provided by White therapists. Racial/ethnic-matching, or the

matching of clients of a given racial or ethnic group with a therapist with the same group membership, was proposed as one potential solution that might positively impact treatment engagement and outcome (e.g., S. Sue, 1988).

The matching hypothesis has been called into question. In a meta-analysis of seven studies, Maramba and Hall (2002) found small effect sizes for dropout rates, length of treatment, and post-treatment level of functioning. Clients paired with therapists of the same ethnicity were less likely to drop out of therapy than clients paired with therapists of a different ethnicity but the significant effect size was small ($r = .03$). With regard to utilization, clients who were matched with a therapist of the same ethnicity attended more sessions compared with mismatched clients but the significant effect size was small for this variable as well. With regard to level of functioning scores, the effect size of ethnic match on termination scores was small and non-significant. Based on the small effect sizes of ethnic match on dropout and utilization rates, the authors concluded that ethnic match was not a clinically significant predictor of a decrease in dropout after the first session or of an increase in the number of sessions attended. Given the non-significant effect size of ethnic match on level of functioning, the authors concluded that ethnic match was not a clinical predictor of psychotherapy improvement.

S. Sue (1988) speculated that weak or conflicting results would likely be found between ethnic match and outcome. In particular, he considered that ethnicity was a variable that was distally relevant to psychotherapy and that more proximal variables should be studied in relation to process and outcome. Ethnicity, he suggested, says little about individual characteristics of the players interacting in a therapy session, such as attitudes, experiences, and behaviors, to name a few, that could impact treatment. He proposed examining more proximal variables that are associated with ethnicity, such as culture, and their relation to treatment retention and

10

outcome. In addition to encouraging an examination of proximal variables associated with ethnicity to understand any association between ethnic match and treatment, S. Sue proposed that other variables having to do with the relationship itself be examined as well. S. Sue (1998) proposed variables that might underlie associations between lower dropout rates and longer stays in treatment and ethnically matched relationships, such as higher levels of rapport and comfort.

The need for studies that examine the role of communication and relationship variables across ethnic and racial groups in clinical visits has been noted (Cooper & Powe, 2004). Alegría et al. (2013) examined how communication patterns vary across racial and ethnic patient-therapist dyads in mental health intake sessions and its association with treatment continuance, or attending the next scheduled appointment. Latino concordant dyads were found to engage in more patient-centered communication and scored higher on the therapeutic alliance (specifically, the WAI-O bond scale) than other groups. The authors concluded that communication patterns explained the role of ethnic concordance for treatment continuance and proposed that improved intercultural communication in cross cultural encounters appeared significant for retaining Latinos and other minorities in care.

Rosen et al. (2012) sought to examine the association between relational processes, namely interpersonal complementarity, and cultural match early in the therapeutic relationship. Their hypothesis that racial/ethnic match of clients and providers would result in greater levels of complementarity was only partially supported. The authors noted that their findings were inconsistent with previous findings which have supported the association between outcomes associated with ethnic match and create doubt as to the advantages of matched relationships. The results of their qualitative findings led them to conclude that relational variables offer

providers and clients the opportunity to work effectively early in treatment across social identities, such as race and ethnicity.

The work by Alegria et al. (2013) and Rosen et al. (2012) answers S. Sue's (1988) call for the examination of variables other than ethnicity to understand problems of treatment retention and outcome among culturally distinct groups. Their findings suggest the value of and need for the continued examination of these and related variables, such as the alliance, and their association to treatment engagement and outcome with samples derived from these populations.

Relationship variables, as they relate to mental health service problems, have been theorized to hold particular salience for Latinos and other culturally distinct groups. Specifically, members of these groups have been said to place critical value on interpersonal relationships (Arredondo & Perez, 2003; Falicov, 2009). The importance of interpersonal relating among Latinos is represented in constructs such as *familismo* and *simpatía*. According to Falicov (1998), most Latinos adhere to a relational worldview that shapes their sense of self and grounds their identity in family, community, and other collective contexts. As a result, Latinos generally adhere to *familismo*, or the tendency to extend kinship relationships beyond the boundaries of their nuclear family (e.g., Ayon, Marsiglia, & Bermudez-Parsai, 2010; Comas-Diaz, 2006). *Simpatía* refers to a warm and personal interaction style with others, an approach to interpersonal interactions that Latinos expect, appreciate and respond to well (Marin & Marin, 1991). Given the theorized importance of these constructs for Latinos, investigators have recommended addressing these cultural values to develop strategies to retain Latinos in psychotherapy studies (e.g., Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996) and treatment in general (e.g., Gallagher-Thompson et al., 2003). Indeed, treatments have been

12

modified to facilitate and encourage the development of the alliance to address these cultural values and thereby increase the cultural sensitivity of treatments (Falicov, 2009).

Addressing the cultural values of *familismo* and *simpatía* is consistent with a conceptualization of the alliance which places greater emphasis on the general relational characteristics of the relationship between the therapist and the client, such as the degree of warmth, care, and trust. The concept of the alliance as defined by Luborsky (1976) can be said to be relevant to working with Latinos in psychotherapy given the stated importance of addressing Latino cultural constructs having to do with interpersonal interactions. These cultural constructs found among Latinos also suggest that the alliance, as defined by Bordin (1979), is relevant in working with Latinos in psychotherapy given that the bond between the therapist and the client is considered a key component of the alliance.

Data on race/ethnicity concordant relationships and participatory decision making in the medical setting are suggestive of the importance of the development of collaborative client-therapist relationships. Copper-Patrick (1999) examined the association between race or ethnic concordance or discordance and patient ratings of physicians' participatory decision-making style through a survey of 1,816 adult managed care primary care practice patients in a large urban area. Individuals in patient-physician race-concordant relationships rated their physicians' participatory decision-making styles as significantly more participatory than patients in race-discordant relationships. In addition, data suggested that patients of all racial and ethnic groups wanted their physicians to allow them to participate in medical decision-making. These findings are significant given that participatory-decision making has been found to be associated with continuity-of-care and better clinical outcomes (Kaplan, 1996; Steward, 1995).

Benefit of race/ethnic client-provider match may stem from participatory engagement, or greater collaboration between the client and therapist. Thus, the alliance as defined by Bordin (1979) may represent a proximal variable to relationship matching that may help understand and address the problem of Latino treatment retention. At this time, there is a need to determine whether the alliance is associated with outcome and the nature of that relationship.

The Alliance and its Relation to Retention and Outcome with Latinos

Although it has been proposed that the alliance may play a key role in improving Latino treatment retention, and despite support for its role in leading to symptom change, little research has been conducted on the alliance with Latino psychotherapy clients to date. The body of literature is comprised of studies that use the alliance as an indicator of another variable or studies that examine the alliance and its relation to treatment variables other than retention and outcome. Samples used are comprised of individuals of various ages and thus does not focus on adults. For instance, the alliance has been examined as an indicator of intervention satisfaction with a small sample of low-income women (D'Angelo et al., 2009), an indicator of acceptability of telepsychiatric treatment compared to treatment as usual among low-income Latinos (Chong & Moreno, 2012), a predictor of risk of violent behavior among short-term psychiatric patients in which Latinos comprised less than 5% of the sample (Beauford, McNiel, & Binder, 1997), and in relation to satisfaction with services with low-income, Spanish-speaking Latinas (Paris, Añez, Bedregal, Andres-Hyman, & Davidson, 2005).

The existing research suggests that an association between the alliance and outcome exists (Harris, 2011) and that it may be predictive of psychotherapy outcome among Latinos. Shirk, Gudmundsen, Kaplinski, and McMakin (2008) examined the predictive relationship between the alliance and outcome in treatment for adolescent depression using a sample that was

22% Latino. In particular, they examined whether the alliance predicted changes in medication adherence and on a self-report measure of depression. A significant association between adolescent reported alliance and changes in depression were observed after controlling for number of sessions completed. Therapist reported alliance was only marginally related to outcome but was predictive of the number of sessions completed. A modest relation with outcome was observed ($r = .26$).

Bernal, Bonilla, Padilla-Cotto, and Perez-Prado (1998) examined whether the alliance was associated with effectiveness, partially defined as changes in the presenting problem, using a sample of patients with depression at the time of treatment. The sample was primarily comprised of Puerto Rican women. They found that the alliance accounted for 45% of the variance of effectiveness outcome in a large sample of Puerto Rican therapy clients. A limitation of the study is that the alliance ratings were produced by clients retrospectively.

Cordaro, Tubman, Wagner, and Morris (2012) examined whether the alliance was significantly predictive of client participation and completion of intervention using two measures of the construct, including the WAI-O goals subscale. They used a sample of predominantly Latino adolescents (77.5%) participating in a substance abuse intervention which was not mandated. Results demonstrated that the WAI-O goals subscale was predictive of completion status.

Further research on whether an association does in fact exist between the alliance and retention and outcome among Latinos, and the nature of any identified association, is needed. Findings in support of the association between the alliance and these treatment variables, and in particular of the process variable as a predictor of these variables, hold considerable implications. Support for a predictive relationship between treatment retention and outcome

would suggest the potential for a causal relationship. This, in turn, would suggest the utility of

targeting the alliance in addressing the problem of treatment retention and potentially improving

outcome among Latinos. One strategy for addressing premature termination by targeting the

alliance is by training therapists to improve their alliances with clients. Efforts to train therapists

to strengthen the alliance have in fact been made (see Crits-Christoph, Gibbons, Crits-Christoph,

Narducci, Schamberger, & Gallop, 2006). Another strategy is to identify treatments that may

inherently encourage and help maintain the client-therapist alliance. After all, data suggest that

the degree to which the alliance impacts treatment across modalities varies (Beckner, Vella,

Howard, & Mohr, 2007). Disseminating and implementing such a treatment among Latino

communities may be one way of effectively addressing premature termination.

Behavioral Activation for Latinos: Promising Retention and Outcome Findings

Behavioral Activation for Depression (BA; Martell, Addis, & Jacobson, 2001) has

preliminary garnered support as a treatment with potential to successfully target treatment

discontinuance and improve outcome in Latino communities. The general accumulated evidence

in support of BA has led to its designation as a well-established validated treatment in

accordance with the standards established by the American Psychological Association's Division

12 Task Force on the Promotion and Dissemination of Psychological Procedures to empirically

evaluate psychological treatments (Chambless et al., 1998).

According to Martell et al. (2001), depression is the result of decreased environmental

reinforcement that maintains healthy, non-depressed behavior, which in turn leads to a decrease

in a person's engagement in life, as observed through a decline in activation behaviors. The

decrease in activation is associated with depressed mood (Manos, Kanter, & Busch, 2010). The

depression then leads to more avoidance behavior that maintains the cycle of depression. The

cycle is reversed by helping clients increase their activation behaviors and decrease their avoidance behaviors. Clients receive positive reinforcement through the process of re-engaging in life through these behavioral changes.

In presenting the BA rationale for treatment, therapists explain that depression can be targeted by engaging in action and disengaging from avoidance, and that action can be taken to solve problems and increase pleasure and meaning in life. Therapists work collaboratively with clients to determine whether BA is the appropriate treatment option for the client. If BA seems to be a good fit for the client, the therapist and client work collaboratively to identify problems that are likely contributing to the depression and to schedule specific activation assignments to target them in treatment. Progress with behavioral activities is tracked and obstacles to activity completion are identified and addressed in order to help clients successfully complete activation assignments from session to session. The goal for developing the BAL with depression treatment protocol was to retain the core treatment techniques so as to preserve the treatment's theorized mechanism of change (Martell et al., 2001).

BAL was recently evaluated in a hybrid efficacy and effectiveness trial in which it was compared with an ecologically valid comparison condition in a community mental health setting. Administrators and therapists at the primarily Latino-serving community clinic reported that the modal number of sessions attended was one (Kanter, Santiago-Rivera, Rusch, Busch, & West, 2010), consistent with the reported challenge of retaining minority patients in treatment after the initial visit (Alegria et al., 2013). When adapting the BA model for Latinos with depression, a protocol was developed to maximize efficiency of training, facilitate the flexible implementation of the approach, and emphasize the ongoing assessment and consideration of client values in identifying and scheduling activation assignments (Santiago-Rivera et al., 2008; Kanter et al.,

17

2008). In line with meeting these objectives, modifications of the approach included the simplification of the treatment rationale, limited reliance on written assignments, removal of acronyms due to inability to translate them meaningfully, and the emphasis of family and community resources and procedures for encouraging and overcoming obstacles to session attendance (Kanter et al., 2014).

TAU therapists were asked to implement strategies they would ordinarily use to treat depression and to do so to the best of their abilities. Providers implemented a diverse set of techniques based on their theoretical orientations and training. Results of a series of exploratory analyses were performed using one of two measures of treatment integrity developed for the trial which help characterize the nature of TAU treatment. Using therapist post-session reports, results suggested that, more so than in the BAL condition, the TAU condition was characterized by encouragement of social support, provision of empathy and validation, assessment, relaxation, discussion or inclusion of family, case management, solution-focused work, and a focus on skills. Although BAL techniques were implemented in the TAU condition, they did not occur as an integrated set of techniques. Results using an objective adherence rating scale were consistent with therapist self-reports and showed that BAL therapists were significantly more likely to adhere to the BAL protocol than were the TAU therapists. Moreover, results demonstrated that very little BAL technique was implemented by TAU therapists (Kanter et al., 2014).

The randomized trial was conducted with a sample of primarily monolingual Spanish-speaking Latinos. Of the 70 participants who completed an eligibility assessment, 43 were randomized to condition, with 21 assigned to BA for Latinos and 22 assigned to TAU. Significant differences between the groups were not observed on randomization or other demographic and clinical characteristics. The full sample was primarily comprised of female

(79.1%), foreign-born (79.1%) clients of Mexican origin (67.4%) with an average age of 38.1 (SD=10.8). Over half of the clients were married or in common law (53.5%), unemployed (53.5%), and severely depressed at the start of treatment (60.5%).

BAL's performance with regard to engagement and retention is noteworthy given the repeatedly cited problem of Latino treatment retention (e.g., Snowden & Yamada, 2005). However, the mechanism through which BAL improved treatment retention in the current study is unknown (Kanter et al., 2014). As Kanter et al. (2014) discussed, it may be the case that BAL therapists made a greater effort to encourage session attendance given that the BAL treatment protocol directs therapists to allocate time to discuss the importance of session attendance in treatment and to include session attendance to clients' activation assignments. Otherwise, therapists in both conditions followed clinic protocol on reaching out to clients who missed sessions or to remind clients of an upcoming session.

The development of the alliance early in treatment and its maintenance represents another possible mechanism through which BAL may have retained clients. As discussed in the next section, the specific BAL treatment package may foster the development and maintenance of the alliance at the level of process and technique. The BAL protocol explicitly encourages a collaborative style for carrying out all treatment activities and is comprised of techniques that inherently help develop agreement on goals and tasks and the development of the bond between the therapist and client. Given that the collaborative approach and techniques are systematically implemented throughout treatment, opportunities for strengthening the alliance are present during the whole course of therapy. Compared to other treatment approaches, protocolized or unprotocolized, BAL may create greater opportunity for the development and strengthening of the alliance.

TAU, to which BAL was compared in the above referenced RCT, is a condition in which a blend of techniques were implemented, likely with considerable variation across clients and within client cases. On face value, techniques used may have contributed to the alliance, such as the demonstration of empathy and validation (observed in both conditions to the same extent) and encouragement of emotional experiencing and focus on spirituality/religion (observed in TAU more than in BAL). In particular, these techniques may contribute to the development and strengthening of the bond between the therapist and the client. From a conceptual standpoint, it is unclear whether TAU could have contributed to the agreement on goals and tasks. As previously discussed, TAU therapists did implement BAL-specific techniques. It is possible that TAU therapists implemented non-BAL-specific and BAL-specific techniques in a collaborative and alliance-building fashion. It is difficult to be know whether they did take an alliance-building approach, and if they did, to what extent. In contrast, given that the BAL protocol emphasizes the collaborative implementation of technique and systematic use of techniques that foster the alliance, it would be expected that BAL therapists engaged in behaviors that served to form a strong alliance throughout treatment.

The alliance may also be a mechanism through which BAL may have produced better outcomes among Latinos with a greater number of attended sessions. Although strong evidence exists to support the efficacy of various treatments, very little data exists to support explanations for how or why these treatments lead to symptom change (Kazdin, 2007). Treatments are often presumed to work as a function of the theorized or proposed mechanisms of change. However, it is plausible that our empirically supported treatments are mediated by non-specific factors (such as the alliance), specifics, or an interaction between non-specifics and specifics. BA is an example of a well-established empirically supported treatment for which our knowledge about

how or why it works is sparse (Manos, Kanter, & Busch, 2010). BA's theorized mechanism of change is activation, the process through which a client engages in activities that re-establish, potentially increase, and maintain contact with sources of environmental reward. Limited data exist to support activation as the process that produces change in BA. Preliminary findings suggest that BA's mechanism may account for observed changes in BA in approximately 50% of cases (e.g., Manos, Kanter, & Luo, 2011). More sophisticated mediator research is needed to evaluate BA's mechanism (Manos, Kanter, & Busch, 2010). Nevertheless, other variables may, in part, account for change. The alliance may be one plausible mechanism as BA is designed to be implemented in the context of collaborative and purposive work.

Congruence between BA and Bordin's Model of the Alliance

To review, Bordin's model describes three core components of psychotherapy that facilitate the development of collaborative and purposive work. According to Bordin, the degree of the alliance is based on the level of agreement about the client's presenting problems and solutions to address them (agreement on goals). Alliance also depends on agreement on the tasks that must be completed to achieve the goals (agreement on tasks). Finally, the alliance depends on the level of trust and attachment necessary to achieve the goals and complete the tasks of treatment. The underlying assumptions are that the alliance focuses on the intended work of therapy and that it is interpersonal in nature, taking place in an interactive relationship (Hatcher & Barends, 2006). Thus, Bordin's model provides a framework that allows the assessment of the degree or level to which the therapist and client work together to pursue the predetermined treatment aims and plan. In addition, Bordin provided formulations that could allow the development and maintenance of the alliance. Namely, he proposed that (1) the alliance is, explicitly and implicitly, actively negotiated throughout treatment; (2) that different therapies

require negotiations on activities and commitments specific to the treatment types while still requiring agreement on goals and tasks; and that (3) strains or ruptures require repair in order to achieve successful treatment (Hatcher & Barends, 2006).

A review of BA suggests that this treatment approach may help to foster the alliance between therapists and clients. Consistent with other therapies, BA emphasizes the importance of developing a good therapeutic relationship that is characterized by warmth, empathy, and genuineness. Particularly emphasized is the importance of developing an alliance with the client. In practice, therapists are encouraged to collaborate with the client to carry out the treatment work across all treatment components that are relevant to addressing a particular client's depression (Kanter, Bowe, Baruch, and Busch, 2010). Although non-specific components within BA encourage the strengthening of the alliance (e.g., providing the rationale), specific BA components do too. In a review of the empirical literature on BA's specific treatment components, Kanter and colleagues (2010) identified and described activity monitoring, assessment of life goals and values, activity scheduling, skills training, relaxation training, contingency management, procedures targeting verbal behavior, and procedures targeting avoidance (Kanter et al., 2010). Although all of the treatment components offer therapists an opportunity to work in collaboration with the client, the BA components that are consistently found across all forms of BA, activity monitoring and scheduling, are particularly well-suited for nurturing the therapist-client alliance. In order to proceed from session to session, the client and therapist must develop a shared understanding of the nature of the problem through the process of monitoring activity, and of the goals and strategies that may help target the problem through the process of identifying and scheduling activities. In addition, the goals and values assessment,

which is more emphasized in some variants of BA than others (Kanter et al., 2010), sets up a context in which the therapist can more easily engage in an alliance-building process.

An application of the Bordin model-based WAI-S items suggests that the process of applying the assessment techniques used to track the client's pre-treatment activity and understand the client's goals and values and the activation technique of activity scheduling may strengthen agreement between the client and therapist on the therapy's goals and tasks, and foster the bond between them.

Seen as a prerequisite for behavior change modification, activity monitoring is an intervention that supports behavior change and is not intended to promote behavior change on its own (Kanter et al., 2010). Activity monitoring can foster the bond, measured as increased confidence in the therapist's ability to help (WAI-S Item 5), because it exhibits to the client the treatment rationale. Specifically, the concept that a meaningful relation exists between activity and mood is highlighted. Through activity monitoring and if the client has bought into the BA treatment rationale, the client and therapist can objectively evaluate the activity assessment data and identify areas where the client may have disengaged from life and which may be targeted for activation. The process of together evaluating the data objectively may increase the likelihood that the client and the therapist will arrive at the same or similar conclusions as to what the treatment goals should be (Item 6). In conducting an evaluation with the WAI, this would remove or prevent doubts from forming about what the participants are trying to accomplish (Item 4) and would establish an understanding between the participants on the kinds of changes that would be good for the client (Item 11). The same process would help identify the specific behaviors that should be targeted in order to accomplish the outlined goals. In this way, a WAI

observer would view the therapist and client as agreeing on the steps to take to improve the client's situation and as having confidence in the usefulness of the therapeutic activity.

Most BA treatments involve a discussion of client's treatment goals but only a subset of these specifically assess both the client's goals and values in order to guide activation assignments (Kanter et al., 2010). Brief Behavioral Activation Treatment for Depression (BATD; Lejuez, Hopko, & Hopko, 2001) uses a structured protocol to identify and clarify the client's values of importance to derive specific value statements which suggest specific activation assignments that are consistent with the value statement. To a lesser degree, other versions of BA also incorporate values in order to guide activation, including BA by Martell et al. (2001; Kanter et al., 2010), the variant of BA used in the trial with Latinos. Since it is used in guiding activation, the values assessment is conducted early in treatment. For many clients, addressing values and completing activation assignments that are based on the discussed values lends deep personal meaning to the tasks and goals of treatment. In completing the values assessment, a therapist would again increase the likelihood of strengthening the alliance as assessed by the WAI. Specifically, using the values assessment would likely result in working toward mutually agreed upon goals and tasks, where the risk of the presence of different ideas on the nature of the client's problems and the means to treat them would potentially be low. Furthermore, identifying personally meaningful goals and scheduling value-based activation tasks may demonstrate to the client that the therapist aims to work together with the client through the incorporation of his or her values, thereby building mutual trust or the bond (Item 9).

Activity scheduling is the main technique used within behavioral treatments for depression which is designed to increase contact with available sources of positive reinforcement. In contemporary BA, activities that are functionally important are scheduled.

Thus, these are not necessarily pleasant or enjoyable and can serve to help the client engage in value-based activity or as alternatives to avoidance and rumination. In identifying and scheduling assignments, therapists are explicitly encouraged to work collaboratively with the client. They are discouraged from dictating or defining activation assignments for clients (Kanter, Bowe, et al., 2010). The manner in which activities are assigned further fosters collaboration. BA by Martell et al. (2001) utilizes graded task assignments. For instance, Martell et al. (2001) encourage activities that allow the client to strengthen their behavioral repertoire, namely verbal or imaginal rehearsal of assigned tasks, such as role-play and identification of obstacles for task completion. In implementing the graded approach, the therapist would use assessment information and obtain client feedback to identify a graded improvement in the client's behavior and to determine the next behavioral assignment to schedule that both challenges the client and produces a sense of accomplishment. The activity scheduling process inherently involves the therapist and client agreeing that the problem being targeted is important (Item 8) and the correct one to work on (Item 12), important conditions for establishing an alliance according to the WAI.

Current Study

The current project examined the association between early alliance, using the WAI-O-S (Tichenor & Hill, 1989), and retention and outcome in the RCT in which BA for Latinos (BAL) was compared to TAU with a sample of Spanish-speaking Latinos. Constructs examined were those identified by Tracy & Kokotovic (1989), which included an overall Alliance scale and its subscales, Goals, Tasks, and Bonds, and the constructs identified by Andrusyna et al. (2001), namely the Acceptance/Confidence and Relationship scales. It was hypothesized that therapist-

client dyads in the BAL condition were expected to develop a stronger alliance compared to dyads in the TAU condition, as reflected across alliance scales/subscales.

Given that the alliance is considered to be a relevant construct across treatment approaches, it was hypothesized that the alliance constructs would be associated with retention, as measured by dropout status and number of sessions attended, and outcome, as measured by depression change, for both BAL and TAU. With regard to dropout, it was expected that lower alliance scores would be observed among clients who dropped out of treatment for both conditions. With regard to number of sessions attended, it was expected that higher alliance scores would be associated with greater number of sessions attended for both conditions. With regard to subsequent depression change, it was expected that higher alliance scores would be associated with greater depression change.

Further, while it was hypothesized that alliance constructs would predict retention and outcome for both conditions, it was hypothesized that the effect of alliance on retention and outcome would depend on the level of condition. In particular, it was hypothesized that higher alliance scores would be predictive of decreased likelihood that a client would drop out of treatment for both conditions, and that the likelihood would be lower in BAL compared to TAU. With regard to session attendance, it was hypothesized that higher alliance scores would predict a higher number of sessions attended for the BAL condition compared to the TAU condition. With regard to depression outcome, it was expected that higher alliance scores would predict greater depression change in the BAL compared to the TAU condition. These hypotheses were based on the notion that BA treatment encourages and fosters the development and maintenance of the alliance when its techniques are implemented in a systematic and integrated fashion (such as in the BAL RCT). They were also based on the observation that techniques that could

function to foster the alliance, such as BA-specific techniques, were not cohesively and systematically implemented within the TAU condition.

Method

Participants

Client data for the current study were obtained from the hybrid efficacy and effectiveness trial that compared BAL with TAU in the community setting. The study protocol for that trial was approved by the Institutional Review Boards of the University of Wisconsin-Milwaukee and the Sixteenth Street Community Health Center (SSCHC), collaborative partner and site of the trial. Written informed consent was obtained from all clients before initiating study participation. Clients were invited to participate in the study if they were between the ages of 18 and 65 years old, self-identified as Latino, met criteria for major depression according to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev. [DSM-IV-TR]; American Psychiatric Association, 2000) as measured by the Mini International Neuropsychiatric Interview version 5.0.0 (MINI; Sheehan et al., 1998) and obtained a score of 16 or greater on the 17-item Hamilton Rating Scale for Depression (Miller, Bishop, Norman, & Maddever, 1985).

Referred clients were excluded if they reported current anti-depressant medication use, required immediate inpatient hospitalization, or had an organic brain syndrome, intellectual or developmental disability, a lifetime diagnosis of psychosis or bipolar disorder, or probable alcohol abuse problem. Clients were low-income, primarily Spanish-speaking Latinos who sought services at the SSCHC and were referred to the study by on-site general medical providers. Figure 1 presents the flow of study participants.

A subset of 36 of the total 43 participants were included in the current study. Participant exclusion was primarily due to the unavailability of therapy session audio recordings, primarily due to drop-out. Specifically, five participants did not attend a single session, one participant attended a session that was not recorded, and one participant was excluded given that sessions for the participant were exclusively conducted in English.

Treatment

Treatment for all participants consisted of up to 12 sessions, which were generally scheduled each week for 50 minutes. Treatment was shorter compared to other BAL studies given that clinic partners expressed concern regarding the feasibility of carrying out therapy of a longer duration. Treatment was carried out over a longer period of time if needed by a client, such as to accommodate challenges with scheduling. As discussed above, the BA treatment was based on the original BA model (Martell et al., 2001). However, the specific protocol implemented simplified the treatment procedures to maximize efficiency of training and emphasize the flexible implementation of the approach. In addition, the client's cultural values were continuously assessed and findings informed treatment implementation on a case-by-case basis. TAU therapists were asked to provide treatment for depression as they typically do. As stated previously, treatment integrity analyses indicated that BAL therapists adhered more to BAL than did the TAU therapists and suggested very little implementation of BAL techniques by TAU therapists.

Treatment adherence findings showed that all five BAL-specific techniques measured on a Global Session Checklist (GSC; developed for this study) occurred in 29.8% of BAL sessions, and four of five techniques occurred in another 33.8% of BAL sessions. However, no TAU session showed four or more BAL-specific techniques. Instead, 35.5% of TAU sessions showed

one BAL-specific technique, again, more compared to BAL. Also, 36.3% of TAU sessions

evidenced no BAL-specific technique, more compared to BAL. Techniques not specific to BAL

that were observed in TAU more than in BAL were encouragement of emotional experiencing,

exploration of childhood events, cognitive restructuring, and focus on spirituality/religion.

Techniques not specific to BAL observed in both conditions include provision of empathy and

validation, encouragement of social support, discussion or inclusion of family, and solution-

focused work, among others.

Therapists

SSCHC mental health providers implemented treatment. The therapists recruited were

randomly assigned to function as BAL (*n*=4) or TAU therapists (*n*=4). Randomization of

therapists to condition helped minimize potential pre-existing differences, such as those based on

engagement, willingness to learn, or availability. BAL therapists received training before the

start of the trial. Specifically, the BAL therapists received a 16-hour long training from the study

primary investigator and co-investigator. From then forward, therapists were provided with

equivalent experiences through the end of the trial. Therapists within each condition met weekly

for one-hour consultation sessions to review study cases. Thus, therapists in both conditions

participated in equivalent consultation hours during the course of the study. Study therapists did

not participate in joint consultation meetings during the trial in order to prevent leakage between

conditions.

BAL therapists were all female and varied with regard to degree earned, licensure, age,

and years of experience working with Latinos. They included one therapist with a master's

degree in social work with a clinical practice license (36 years old, 9 years of experience

working with Latinos), one therapist with a master's degree in social work in the process of

obtaining licensure (29 years old, 4 years of experience), one therapist with a master's degree in marriage and family therapy with a clinical practice license (62 years old, 38 years of experience), and one therapist with a master's degree in counseling psychology with a clinical practice license (39 years old, 13 years of experience). Two of the BAL therapists identified as Latina/o and two identified as White. Three of the four TAU therapists were female. TAU was provided by one therapist with doctoral degree in clinical psychology with a clinical practice license (49 years old, 5 years of experience working with Latinos), one therapist with a doctoral degree in counseling psychology with a clinical practice license (48 years old, 18 years of experience), one therapist with a master's degree in social work with a clinical practice license (65 years old, 15 years of experience), and one therapist with a master's degree in social work working toward obtaining licensure (31 years old, 5 years of experience). One of the TAU therapists identified as Latina/o, one as Native American, and two as White.

Measures

Only RCT measures relevant to the current proposal are presented.

Alliance. The therapist and client versions of the Working Alliance Inventory were developed by Horvath and Greenberg (1989) and were designed to yield three alliance scales, which correspond to Bordin's three model components (i.e., Goal, Task, and Bond). Tracey and Kokotovic (1989) shorted the measure from thirty-six to twelve items. Through an adaptation of the pronouns, Tichenor and Hill (1989) created the observer version. In the current study, the short observer-rated version was used (WAI-O-S; Appendix A).

The scales/subscales identified by Tracey and Kokotovic (1989) and Andrusyna et al., (2001) using the WAI-O-S were used for analyses. The former authors obtained adequate support for a definition of the alliance that is comprised of a General Alliance factor and three

aspects of the alliance, Goals, Tasks, and Bond (Appendix B), a structure that closely aligns with Bordin's model. Given that the latter authors examined the measure items' factor structure in CBT, their constructs, comprised of the Acceptance/Confidence and Relationship scales, were also examined (Appendix C). The relationship between the therapist and client is captured by the Relationship scale and the agreement between the therapist and client and the client's confidence in the therapist are captured by the Agreement/Confidence scale. As Andrusyna et al. (2001) noted, the factor analysis does not necessarily suggest that the concepts of Goal and Task are not distinct concepts. Their findings suggest that both types of items are associated and seem to be independent of most of the Relationship items.

The scale consists of 12 items scored using a 7-point Likert-type scale that ranges from never (1) to always (7). The scale has demonstrated high internal consistency (α=.98) and high inter-rater reliabilities (.75 to .92) for the observer version of the measure. Tracey and Kokotovic's (1989) General Alliance scale's internal consistency for the current study is α = .97. The internal consistency values for the sub-factors are: Goals, .93; Tasks, .95; and Bond, .89. Andrusyna et al.'s (2001) Acceptance/Confidence and Relationship scales have internal consistencies of .97 and .83, respectively.

Depression. The Beck Depression Inventory-II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996) is a 21-item self-report inventory that is most widely used to measure depression severity. The Spanish version has been validated with bilingual and college student samples (Novy, Stanley, Averill, & Daza, 2001 and Wiebe & Penley, 2005, respectively) and has demonstrated good internal consistency. A high correlation between responses on the English and Spanish language version has been observed (Novy et al., 2001). The BDI-II depression scores that will be used in the current study were derived from data obtained before the start of treatment (i.e.,

Pre-treatment BDI-II); at the beginning of the 2nd session (or 1st, if the 2nd was unavailable; i.e., Current BDI-II), the session used to derive alliance scores; and at the end of treatment or the last session (if an end-of-treatment BDI-II score was unavailable; i.e., Last BDI-II). Data from these time points were used to derive two depression change variables, prior and subsequent depression change, for analyses examining predictors of outcome. The internal consistency (α) of this scale was .95.

Retention. Dropout status will be used as one measure of retention and was measured as a dichotomous variable. Treatment completion was defined as attending at least 10 sessions as per the open trial of BAL (Kanter, Santiago-Rivera et al., 2014). Retention was also defined as number of sessions attended.

Procedures

Coding. To examine the proposed hypotheses in the current study, raters used the WAI-O-S to derive alliance ratings early in treatment (i.e., Session 2). If a session was missing (i.e., no session held or session was not recorded), the previous session recording was coded to make up for the missing session recording, if available. The relatively short treatment implemented (up to twelve sessions) and the average session attendance was taken into consideration in selecting this early alliance assessment time point. Thirty-six sessions were coded to derive early ratings of the alliance.

Raters generated alliance ratings using the WAI-O-S. Four undergraduate student raters were recruited and two of these were trained to reliability using a pre-specified criterion level for the WAI-O-S. The two raters are native and fluent Spanish-speakers of Mexican origin. Both raters were blind to the research question. Training was conducted by the student investigator (SI) under the supervision of the research advisor (J. Kanter). The raters were provided with a

coding manual adapted from manuals developed by Darchuck, Wang, Fende, Anderson, & Horvath (2000) and Berk, Safran, Muran, & Eubanks-Carter (2010) that described the behavioral operational definitions concretely for each rating.

Training consisted of a total of 34 hours of training. Training began with literature review and introduction to the manual (2 hours), followed by weekly two-hour meetings in which raters discussed ratings for two 10-minute intervals rated by raters independently before each meeting. The objective of the discussion was to arrive at a consensus regarding the appropriate rating for each item. This procedure was implemented throughout training and up until reliability was achieved. To examine reliability, a total of 12 10-minute intervals were coded independently and used in the initial reliability calculation, in which the average scores of the two raters were compared to the alliance total score derived by the SI, the criterion rater. Rater drift was assessed at the midpoint of the coding phase of the study (i.e., after half of the therapy sessions were rated). To examine rater drift, a total of 10 10-minute intervals were coded independently and statistically analyzed using the same procedure used for the initial reliability calculation.

Data Analyses

Interrater Agreement. Inter-rater reliability was assessed for all of the alliance scales/subscales using the intraclass correlation (ICC) coefficient. Both the two-way mixed average measures absolute agreement and consistent agreement methods were used. Agreement between the primary raters and the criterion rater, and between the primary raters, was also calculated using two-way mixed single measures. The same procedures used to examine interrater reliability were used to examine rater drift. Level of agreement was assessed using criteria established by Fleiss (1981). The rater average score was deemed to be reliable with the

criterion rater if ICC ≥ .7, which is suggestive of strong interrater agreement.   Primary raters were deemed reliable based on ICC results observed using the General Alliance factor average scores.

Descriptive statistics. Independent samples *t*-tests and chi-square tests for independence were used to compare treatment conditions on predictor and dependent variables.

Retention analyses. The association between the alliance scales/subscales and dropout was examined using Point-Biserial correlation analyses. The alliance as a predictor of dropout status was examined using hierarchical binary logistic regression (LR). LR analyses were conducted to examine whether Condition, each alliance scale/subscale, and their interaction predicted dropout status, for a total of six LR analyses. Of particular interest was whether the interaction term as a significant predictor of this retention variable. In Block 1, Condition and the alliance variable were entered. In Block 2, the Condition x alliance variable interaction term was entered. A sample of 85 is needed to achieve 80% power at a .05 significance level.

Pearson's r correlations were conducted to examine whether the alliance variables were significantly associated with number of sessions attended. Hierarchical multiple regression (HMR) was used to examine whether the continuous retention variable, number of sessions attended, was predicted by Condition, the alliance variable, and their interaction. A total of six HMR analyses were conducted, one for each of the alliance scales/subscales of interest. In Step 1, Condition and the alliance variable was entered. In Step 2, the interaction term was entered. Power analyses parameters included an anticipated effect size of .15, power level of .8, and a probability level of .05; results suggested a minimum required sample size of 56.

Outcome analyses. The alliance as a predictor of symptom change was examined using HMR. Two symptom change scores were labeled subsequent and prior change in depression,

consistent with previous studies examining the alliance as predictor of outcome (see Barber et al., 2000). *Subsequent change* is the residualized termination depression score (i.e., Last BDI-II) adjusted for the session depression score in which the alliance was measured (i.e., Current BDI-II) and *prior change* was the residualized session BDI-II score in which alliance was assessed (i.e., Current BDI-II) adjusted for the depression score at pre-treatment (i.e., Pre-treatment BDI-II). HMR was used to examine whether the alliance early in treatment predicts subsequent change when controlling for prior change in depression. In Step 1, prior depression change was entered. In Step 2, Condition and the alliance variable was introduced. In Step 3, the interaction term was added. Continuous variables were centered and categorical variables were coded. Analyses were computed for early alliance as measured by the six scales/subscales for a total of six HMR analyses. Power analyses parameters included an anticipated effect size of .15, power level of .8, and a probability level of .05; results suggested a minimum required sample size of 57.

Predictive analyses were conducted for purposes of beginning to explore whether alliance scales/subscales predict the questions of interest. It is acknowledged that this study was insufficiently powered to examine prediction hypotheses given the size of the sample.

Results

Participant Characteristics

Table 1 shows demographic and clinical characteristics for the final sample ($N = 36$). Results of chi-square tests for independence and independent-samples *t*-tests showed no difference between conditions on categorical and continuous variables, respectively. Participants were largely female, in their late 30s, born abroad, and of Mexican origin. Over half of the sample was married or in a common law relationship and unemployed. On average, participants

attained 10 years of education. Over one third of the sample earned an income of less than

$10,000 at the time of the study. Before the start of treatment, the average participant was

experiencing depression symptoms in the severe range. By the last session or shortly after

treatment, the average participant reported depression symptoms in the mild range. Depression

symptoms were moderate to severe, on average, at Session 2 (or 1), or the session at which the

alliance was assessed.

Interrater Agreement

      Establishing Agreement. Table 2 shows the results of intraclass correlation coefficient

analyses to assess agreement between raters. After training, interrater reliability was established

by examining absolute agreement between the primary raters' average score and the criterion

rater's score on the General Alliance factor (i.e., alliance total score). Results showed that raters'

achieved good absolute agreement based on this variable. Subsequent analyses were conducted

to examine absolute and consistent agreement on all alliance scale/subscales. Consistent

agreement on the General Alliance factor was found to be excellent. Results showed excellent

absolute and consistent agreement between the criterion score and primary raters' average score

on the Goals subscale and the Agreement/Confidence scale as well. Absolute and consistent

agreement was good on the Bond subscale and the Relationship scale and fair on the Tasks

subscale.

      Rater drift. Drift among raters was assessed through ICC analyses; results are found in

Table 2. Negative values are due to a negative average covariance among items that violates

reliability model assumptions. Across alliance scales/subscales, absolute agreement between the

criterion scores and primary raters' average scores was poor. Consistent agreement was fair on

the General Alliance factor, Relationship scale, Bond subscale, and the Tasks subscale, and poor on the Goals subscale and Agreement/Confidence scale.

All but one set of scale/subscale scores produced by the raters were strongly, positively associated, Goals, $r = .48$; all others, $r = .57$ to .64, at the $p < .01$, 2-tailed, level. In other words, the scores produced by the raters independently were strongly associated in the expected direction. When looking at the scale/subscale scores for each rater by condition, the set of scores for most scales/subscales were strongly associated in the expected direction for the BAL condition, $r = .49$ to .67, $p < .05$. For the BAL condition, the sets of scores for the Goals subscale were not associated, $r = .4$, $p = .1$. For the TAU condition, the sets of scores for all scales/subscales were strongly associated in the expected direction, $r = .69$ to .84, $p < .01$.

Descriptive Statistics

Table 3 presents a description of the study variables by condition. Significant differences by condition were not observed for any of the predictor variables. As such, unlike hypothesized, no differences between the conditions were observed on the alliance scale/subscales. A significant difference was observed on one of the dependent variables. A significant difference was observed between condition on number of sessions attended, $t(34) = 2.86$, $p < .01$, two-tailed, $\eta^2 = .19$, representing a large effect. The difference between conditions on subsequent depression change (i.e., BDI-II at last session – BDI-II at session in which the alliance was measured) trended toward significance, $t(34) = -1.83$, $p = .08$, two-tailed.

Predictor variables.

Alliance scale. A comparison of the mean for Alliance scale (5.92) and the 5% Trimmed Mean (5.99) suggests that any extreme score is not having a strong influence on the mean (95% CI = 5.66/6.18). Alliance variable's skewness value is -1.35 (*SE* = .39) and suggests negative

skewness; values are clustered at the high end (i.e., higher alliance). Its kurtosis is 2.24 ($SE =$ .77) and indicates that the distribution is rather peaked, or clustered in the center. Results of the Kolmogorov-Smirnov test ($p = .03$) shows that the data violate the assumption of normality (i.e., $p < .05$). Visual inspection of the histogram shows that the scores are not reasonably normally distributed. This is supported by inspection of the normal probability plot, as some of the observed values are not plotted against the expected value in a reasonably straight line. The histogram reveals that scores are clustered just under 5 and just under 7. The variable's range is 3.42 (Min = 3.5, Max = 6.92) and appears to be restricted given the variable's 1-7 scale. Inspection of the histogram and boxplot do reveal outliers or extreme scores. Specifically, two scores appear to be outliers (i.e., Alliance = 3.5 and 4). Given that these scores are within the range of possible scores for this variable, these data points are included in the analyses.

For the BAL condition, the Alliance mean (5.96, $SE = .19$, 95% CI = 5.55/6.37) and 5% Trimmed Mean (6.04) do not appear to be very different. The Alliance variable's skewness (-1.56, $SE = .54$) indicates negative skewness, with values clustered at the higher end of the alliance scale. Its kurtosis (3.6, $SE = 1.04$) indicates a rather peaked distribution, with values clustered in the center. The Kolmogorov-Smirnov test does not suggest that the assumption of normality is violated ($p = .2$). However, visual inspection of the histogram and normal probability plot do not suggest that the data are relatively normally distributed. Scores are clustered between 5 and 7, and the range appears to be restricted (3.42, Min = 3.5 and Max = 6.92). The data include one outlier (Alliance = 3.5). Given that the score is within the range of possible scores for this variable, this data point is included in the analyses.

For the TAU condition, the Alliance mean (5.88, $SE = .17$, 95% CI = 5.52/6.24) and 5% Trimmed Mean (5.94) do not appear to be very different. The Alliance variable's skewness (-

1.23, *SE* = .54) for this condition indicates negative skewness, with values clustered at the higher

end of the alliance scale. Its kurtosis (1.48, *SE* = 1.04) indicates a peaked distribution, with

values clustered in the center. The Kolmogorov-Smirnov test does not suggest that the

assumption of normality is violated (*p* = .17). However, visual inspection of the histogram and

normal probability plot suggest that the data are relatively normally distributed. Although scores

are clustered between 5 and 7, with some scores in the left tail of the distribution. The range

appears to be restricted (2.75, Min = 4 and Max = 6.75) for this condition as well. The data

include one outlier (Alliance = 4). Given that the score is within the range of possible scores for

this variable, this data point is included in the analyses.

   Goals subscale. A comparison of the mean for Goals subscale (5.98) and the 5%

Trimmed Mean (6.03) suggests that any extreme score is not having a strong influence on the

mean (95% CI = 5.72/6.23). The Goals variable's skewness value is -1.12 (*SE* = .39) and

suggests negative skewness; values are clustered at the high end (i.e., higher alliance). Its

kurtosis is 1.27 (*SE* = .77) and indicates that the distribution is rather peaked, or clustered in the

center. Results of the Kolmogorov-Smirnov test (*p* = .15) shows that the data do not violate the

assumption of normality (i.e., *p* > .05). Visual inspection of the histogram and normal

probability plot suggest that the scores are not reasonably normally distributed. The histogram

reveals that scores are clustered between 5 and 7. The variable's range is 3.13 (Min = 3.88, Max

= 7) and appears to be restricted given the variable's 1-7 scale. Inspection of the histogram and

boxplot do reveal outliers or extreme scores. Specifically, two scores appear to be outliers (i.e.,

Goals = 3.8 and 4). Given that these scores are within the range of possible scores for this

variable, these data points are included in the analyses.

Tasks subscale. A comparison of the mean for the Tasks subscale (5.99) and the 5%

Trimmed Mean (6.06) suggests that any extreme score is not having a strong influence on the

mean (95% CI = 5.71/6.26). The Tasks variable's skewness value is -1.59 (*SE* = .39) and

suggests negative skewness; values are clustered at the high end (i.e., higher alliance). Its

kurtosis is 3.97 (*SE* = .77) and indicates that the distribution is rather peaked, or clustered in the

center. Results of the Kolmogorov-Smirnov test (*p* = .19) shows that the data do not violate the

assumption of normality (i.e., *p* > .05). Visual inspection of the histogram and normal

probability plot suggest that the scores approximate a normal distribution. The histogram reveals

that scores are clustered between 5 and 7. The variable's range is 4 (Min = 3, Max = 7) and

appears to be restricted given the variable's 1-7 scale. Inspection of the histogram and boxplot

do reveal an outlier (i.e., Tasks = 3). Given that the score is within the range of possible scores

for this variable, the data point is included in the analyses.

Bond subscale. A comparison of the mean for the Bond subscale (5.8) and the 5%

Trimmed Mean (5.87) suggests that any extreme score is not having a strong influence on the

mean (95% CI = 5.54/6.06). The Bond variable's skewness value is -1.32 (*SE* = .39) and

suggests negative skewness; values are clustered at the high end (i.e., higher alliance). Its

kurtosis is 1.8 (*SE* = .77) and indicates that the distribution is somewhat peaked, or clustered in

the center. Results of the Kolmogorov-Smirnov test (*p* = .02) shows that the data do violate the

assumption of normality (i.e., *p* < .05). Visual inspection of the histogram and normal

probability plot suggest that the scores are not reasonably normally distributed. The histogram

reveals that scores are clustered between 5 and 7. The variable's range is 3.25 (Min = 3.5, Max

= 6.75) and appears to be restricted given the variable's 1-7 scale. Inspection of the histogram

and boxplot do reveal outliers or extreme scores. Specifically, two scores appear to be outliers

(i.e., Bond = 3.5 and 3.88). Given that these scores are within the range of possible scores for this variable, these data points are included in the analyses.

Agreement/Confidence scale. A comparison of the mean for the A/C scale (5.95) and the 5% Trimmed Mean (6.01) suggests that any extreme score is not having a strong influence on the mean (95% CI = 5.68/6.22). The A/C variable's skewness value is -1.19 (*SE* = .39) and suggests negative skewness; values are clustered at the high end (i.e., higher alliance). Its kurtosis is 1.9 (*SE* = .77) and indicates that the distribution is somewhat peaked, or clustered in the center. Results of the Kolmogorov-Smirnov test (p = .2) shows that the data do not violate the assumption of normality (i.e., $p > .05$). Visual inspection of the histogram and normal probability plot suggest that the scores approximate a normal distributed. The histogram reveals that scores are clustered between 5 and 7. The variable's range is 3.56 (Min = 3.44, Max = 7) and appears to be restricted given the variable's 1-7 scale. Inspection of the histogram and boxplot do reveal an outlier (i.e., A/C = 3.44). Given that the score is within the range of possible scores for this variable, the data point is included in the analyses.

Relationship scale. A comparison of the mean for the Relationship scale (5.83, *SE* = .12) and the 5% Trimmed Mean (5.91) suggests that any extreme score is not having a strong influence on the mean (95% CI = 5.91/6.07). The A/C variable's skewness value is -1.66 (*SE* = .39) and suggests negative skewness; values are clustered at the high end (i.e., higher alliance). Its kurtosis is 2.81 (*SE* = .77) and indicates that the distribution is somewhat peaked, or clustered in the center. Results of the Kolmogorov-Smirnov test (p = .0) shows that the data do violate the assumption of normality (i.e., $p < .05$). Visual inspection of the histogram and normal probability plot suggest that the scores are not reasonably normally distributed. The histogram reveals that scores are clustered between 4.5 and 7. The variable's range is 3 (Min = 3.67, Max

= 6.67) and appears to be restricted given the variable's 1-7 scale. Inspection of the histogram and boxplot do reveal outliers or extreme scores. Specifically, two scores appear to be outliers (i.e., Relationship = 3.67 and 3.83). Given that these scores are within the range of possible scores for this variable, these data points are included in the analyses.

Dependent variables.

Number of sessions attended. A comparison of the mean for number of session attended (6.83) and the 5% Trimmed Mean (6.87) seems to suggest that any extreme score is not having a strong influence on the mean. NSA's skewness value is .00 (*SE* = .39). Its kurtosis is -1.62 (*SE* = .77) and indicates that the distribution is relatively flat, or that too many cases are in the extremes. Results of the Kolmogorov-Smirnov test (*p* = .005) shows that the data violate the assumption of normality (i.e., *p* < .05). Consistent with this finding, visual inspection of the histogram shows that the scores do not appear to be reasonably normally distributed. This is supported by inspection of the normal probability plot, as the observed values for each score are not plotted against the expected value in a reasonably straight line. Inspection of the histogram and boxplot do not reveal outliers or extreme scores. Although SPSS identified low (i.e., NSA = 1, *n* = 2; NSA = 2, *n* = 3) and high (i.e., NSA = 12, *n* = 12), these values are within the range of possible scores for NSA.

Subsequent depression change. A comparison of the mean for SDC (-12.11) and the 5% Trimmed Mean (-11.7) suggests that any extreme score is not having a strong influence on the mean. SDC's skewness value is -.57 (*SE* = .39), which suggests a distribution of scores with non-zero negative skewness, indicating that scores are clustered at the high end. Its kurtosis is -0.04 (*SE* = .77) and indicates that the distribution is somewhat flat, or that too many cases are in the extremes. Results of the Kolmogorov-Smirnov test (*p* = .2) indicates that the data are fairly

42

normally distributed (i.e., $p > .05$). Consistent with this finding, visual inspection of the histogram shows that the scores appear to approximate a normal distribution. This is supported by inspection of the normal probability plot, as most of the observed values for each score are plotted against the expected value in a reasonably straight line. Inspection of the boxplot does not reveal outliers or extreme scores. SPSS identified low (i.e., SDC = -44 to -29, $n = 5$) and high (i.e., SDC = 0 to 11, $n = 5$) values. Two of these (i.e., SDC = -44 and 11) sit on their own in the histogram, but given that they are within the range of possible scores for SDC, they are not deemed outliers.

Therapist Effects

Alliance scale/subscale scores for each therapist were compared to scores obtained by other therapists in the same condition. Detailed results obtained for the therapist who achieved the lowest scale/subscale scores within each condition are reported (as suggested by the minimum score). With regard to the Alliance scale, Therapist 1 ($n = 4$, $M = 5.35$, $SD = 1.31$) helped develop an alliance with individual clients that was comparable to the alliance developed by other therapists in the BAL condition ($n = 14$, $M = 6.13$, $SD = .59$), $t(16) = -1.76$, $p = .1$. With regard to the Goals subscale, Therapist 1 ($n = 4$, $M = 5.56$, $SD = 1.15$) showed agreement on goals that was comparable to that achieved by other BAL therapists ($n = 14$, $M = 6.16$, $SD = .63$), $t(16) = -1.4$, $p = .18$. On the Tasks subscale, Therapist 1 ($n = 4$, $M = 5.22$, $SD = 1.51$) achieved agreement on tasks that was comparable to that observed among other BAL therapists ($n = 14$, $M = 6.18$, $SD = .68$), $t(16) = -1.89$, $p = .08$. Although not significant, this finding shows a trend that suggests that Therapist 1 achieved somewhat lower agreement on tasks compared to other BAL therapists. On the Bond scale, Therapist 1 ($n = 4$, $M = 5.28$, $SD = 1.3$) develop a bond with clients that did not statistically differ from the bond developed by other therapists with their

individual clients ($n = 14$, $M = 6.05$, $SD = .52$), $t(16) = -1.86$, $p = .08$. However, this finding suggests that Therapist 1 trended toward developing a relatively weaker bond with clients compared to peers.

Therapist 1 ($n = 4$, $M = 5.35$, $SD = 1.35$) achieved agreement with, and obtained the confidence of, individual clients to the same relative extent as other BAL therapists ($n = 14$, $M = 6.16$, $SD = .65$), $t(16) = -1.73$, $p = .1$. Therapist 1 ($n = 4$, $M = 5.38$, $SD = 1.2$) developed a relationship with individual clients that was of a comparable strength to that developed by other BAL therapists with their clients ($n = 14$, $M = 6.04$, $SD = .45$), $t(16) = -1.76$, $p = .1$. Trends observed when comparing Therapist 1 to other BAL therapists disappear when an outlier case (i.e., case ID = 89) is excluded from these analyses.

BAL Therapist 3, 7, and 8 obtained alliance scale/subscale scores that were comparable to the other therapists in the same condition.

Within the TAU condition, Therapist 9 ($n = 5$, $M = 5$, $SD = .68$) developed an alliance with individual clients that was not as strong as that developed by other therapists in the same condition ($n = 13$, $M = 6.22$, $SD = .36$), $t(16) = -5.02$, $p < .01$. With regard to the Goals subscale, Therapist 9 ($n = 5$, $M = 5.03$, $SD = .77$) showed less agreement on goals with individual clients than that achieved by other TAU therapists with their clients ($n = 13$, $M = 6.27$, $SD = .4$), $t(16) = -4.57$, $p < .01$. On the Tasks subscale, Therapist 9 ($n = 5$, $M = 5.18$, $SD = .61$) achieved lower agreement on tasks when compared to other TAU therapists ($n = 13$, $M = 6.33$, $SD = .36$), $t(16) = -5.05$, $p < .01$. On the Bond scale, Therapist 9 ($n = 5$, $M = 4.8$, $SD = .7$) develop a bond with clients that was not as strong as that developed by other therapists with their individual clients ($n = 13$, $M = 6.07$, $SD = .38$), $t(16) = -4.99$, $p < .01$. These findings hold even when an outlier (i.e., case ID = 108) is excluded from these analyses.

Therapist 9 ($n = 5$, $M = 5.02$, $SD = .64$) did not achieve agreement with, and did not obtain the confidence of, individual clients to the same extent as other TAU therapists ($n = 13$, $M = 6.26$, $SD = .4$), $t(16) = -5.01$, $p < .01$. Therapist 9 ($n = 5$, $M = 4.93$, $SD = .82$) developed a relationship with individual clients that was of lower strength to that developed by other TAU therapists with their clients ($n = 13$, $M = 6.1$, $SD = .31$), $t(16) = -4.54$, $p < .01$. Trends observed when comparing Therapist 1 to other BAL therapists disappear when an outlier case (i.e., case ID $= 89$) is excluded from these analyses.

TAU Therapist 4 and 5 obtained alliance scale/subscale scores that were comparable to those obtained by other therapists in the same condition. However, Therapist 6 obtained scores that reflected stronger alliance ($n = 5$, $M = 6.47$, $SD = .3$; other, $n = 13$, $M = 5.66$, $SD = .71$), $t(16) = 2.43$, $p = .03$; agreement on goals ($n = 5$, $M = 6.5$, $SD = .42$; other, $n = 13$, $M = 5.7$, $SD = .76$), $t(16) = 2.2$, $p = .04$; agreement on tasks ($n = 5$, $M = 6.58$, $SD = .24$; other, $n = 13$, $M = 5.79$, $SD = .67$), $t(16) = 2.54$, $p = .02$; and emotional bond ($n = 5$, $M = 6.33$, $SD = .26$; other, $n = 13$, $M = 5.48$, $SD = .75$), $t(16) = 2.43$, $p = .03$, with individual clients compared to other therapists in the same condition. Moreover, Therapist 6 obtained higher A/C ($n = 5$, $M = 6.52$, $SD = .37$), $t(16) = 2.54$, $p = .02$, and Relationship ($n = 5$, $M = 6.3$, $SD = .18$), $t(14.92) = 3.23$, $p < .01$, scores compared to the other TAU therapists (A/C, $n = 13$, $M = 5.68$, $SD = .71$; Relationship, $n = 13$, $M = 5.58$, $SD = .75$).

Retention

Dropout status (DS).

Associations. As Table 4 shows, significant Point-Biserial correlations were not found between DS and the alliance scales and subscales, $r_{pb} = -.26$ to $-.2$, $p = .13$ to $.23$. Significant correlations between DS and the alliance variables were not revealed when analyses were

conducted within condition either, BAL, r_{pb} = -.09 to -.17 to -.33, p = .49 to .73; TAU, r_{pb} = -.27 to -.33, p = .18 to .29. However, results suggested that achieving dropout status is associated with a decrease in an alliance variable, or lower values tended to occur among participants who dropped out of treatment. While not significant, it may be useful to note that there is indication in the data that remaining in treatment is associated with higher scores on the alliance scales and subscales, as the negative correlations are all consistent with the expected pattern of lower alliance predicting increased drop out.

Independent-samples t-tests were conducted to further explore alliance and dropout status by condition. Results showed that, for the BAL condition, participants who dropped out did not significantly differ from those who remained in treatment on any of the alliance variables, t (16) = .35 - .71, p = .49 to .73, two-tailed. Likewise, t-tests showed that TAU participants that dropped out did not significantly differ from TAU participants who did not drop out on the alliance variables, t (16) = 1.1 – 1.39, p = .18 to .29, two-tailed.

Hierarchical logistic regressions. Results of logistic regression analysis showed that the full model to assess the impact of Condition, Alliance scale, and their interaction on the likelihood that a client would drop out of treatment was not significant, Model χ^2 (3, N = 36) = 3.99, p = .26. Findings from Block 1 that assess the impact of Condition and the Alliance scale on the likelihood that a client would drop out of treatment accounted for 13% of the variance in the outcome variable, but this model did not significantly differ from the null model, χ^2 (2, N = 36) = 3.63, p = .16. In other words, the new model with the predictor variables did not explain more of the variance in the dropout variable compared to the null, and is therefore not an improved model for predicting dropout. Results of the individual predictors showed that there was no significant effect of Condition, *Wald* = 1.87, *df* = 1, p = .17, or Alliance, *Wald* = 1.55, *df*

46

= 1, p = .21, or that they did not make a statistically significant contribution to predicting

dropout. However, findings for Condition show that the effect of this variable is positive, B =

1.04. TAU participants are 2.83 times (or 183%) more likely to drop out of treatment than BAL

participants. The effect for Alliance was negative, B = -.61, suggesting that an increase in

Alliance is associated with decreased odds of dropping out. Specifically, a one unit increase in

Alliance decreased the odds of dropout by a factor of .55 (or 45%).

Findings from Block 2 to assess the impact of Condition, the Alliance, and their

interaction on the likelihood that a client would drop out of treatment accounted for 15% of the

variance in the outcome variable, but this model did not significantly differ from the model in

Block 1, Block χ^2 (1, N = 36) = 0.36, p = .55; see Table 5 for logistic regression model statistics.

In other words, the addition of the Condition x Alliance interaction did not contribute to

improving the model for predicting dropout. None of the predictors made a significant

contribution to predicting dropout; see Table 6 for individual predictor statistics. Given the

nonsignificant interaction term, the effect of Alliance on DS is not significantly different for each

level of Condition.

Results of logistic regression analysis showed that the full model to assess the impact of

Condition, the Goals subscale, and their interaction on the likelihood that a client would drop out

of treatment was not significant, Model, χ^2 (3, N = 36) = 3.89, p = .27. Findings from Block 1

that assess the impact of Condition and the Goals subscale on the likelihood that a client would

drop out of treatment accounted for approximately 13% of the variance in the outcome variable,

but this model did not significantly differ from the null model, χ^2 (2, N = 36) = 3.49, p = .18. In

other words, the new model with the predictor variables did not explain more of the variance in

the dropout variable compared to the null, and is therefore not an improved model for predicting

dropout. Results of the individual predictors showed that there was no significant effect of Condition, *Wald* = 1.81, *df* = 1, *p* = .18, or Goals, *Wald* = 1.41, *df* = 1, *p* = .24, or that they did not make a statistically significant contribution to predicting dropout. Although not significant, findings for Condition show that the effect of this variable is positive, *B* = 1.04 and that TAU participants are 2.76 times (or 176%) more likely to drop out of treatment than BAL participants. The effect for Goals was negative, *B* = -.59, suggesting that an increase in Goals is associated with decreased odds of dropping out. Specifically, a one unit increase in Goals decreased the odds of dropout by a factor of .56 (or 44%).

Findings from Block 2 to assess the impact of Condition, the Goals, and their interaction on the likelihood that a client would drop out of treatment accounted for 14% of the variance in the outcome variable, but this model did not significantly differ from the model in Block 1, Block χ^2 (1, N = 36) = 0.4, *p* = .53. In other words, the addition of the Condition x Goals interaction did not contribute to improving the model for predicting dropout. None of the predictors made a significant contribution to predicting dropout. Given the nonsignificant interaction term, the effect of Goals on DS is not significantly different for each level of Condition.

The full model to assess the impact of Condition, the Tasks subscale, and their interaction on the likelihood that a client would drop out of treatment was not significant, Model, χ^2 (3, N = 36) = 3.89, *p* = .27. Block 1 findings that assess the impact of Condition and the Tasks subscale on the likelihood that a client would drop out of treatment accounted for approximately 14% of the variance in the outcome variable. However, this model did not significantly differ from the null model, χ^2 (2, N = 36) = 3.76, *p* = .15, and thus was not an improved model for predicting dropout over the null. Results of the individual predictors showed that they did not make a

statistically significant contribution to predicting dropout, Condition, $Wald = 2.13$, $df = 1$, $p = .14$; Tasks, $Wald = 1.65$, $df = 1$, $p = .2$. Although not significant, findings for Condition show that the effect of this variable is positive, $B = 1.12$ and that TAU participants are 3.08 times (or 208%) more likely to drop out of treatment than BAL participants. The effect for Tasks was negative, $B = -.59$, suggesting that an increase in Tasks is associated with decreased odds of dropping out. Specifically, a one unit increase in Tasks decreased the odds of dropout by a factor of .55 (or 45%).

Findings from Block 2 to assess the impact of Condition, the Tasks, and their interaction on the likelihood that a client would drop out of treatment accounted for 16% of the variance in the outcome variable. The model, however, did not significantly differ from the model in Block 1, Block χ^2 (1, N = 36) = 0.62, $p = .43$. Thus, the addition of the Condition x Tasks interaction did not contribute to improving the model for predicting dropout. None of the predictors made a significant contribution to predicting dropout. Given the nonsignificant interaction term, the effect of Tasks on DS is not significantly different for each level of Condition.

The full model to assess the impact of Condition, the Bond subscale, and their interaction on the likelihood that a client would drop out of treatment was not significant, Model, χ^2 (3, N = 36) = 3.63, $p = .31$. Block 1 findings that assess the impact of Condition and the Bond subscale on the likelihood that a client would drop out of treatment accounted for approximately 13% of the variance in the outcome variable. However, this model did not significantly differ from the null model, χ^2 (2, N = 36) = 3.48, $p = .18$, and thus was not an improved model for predicting dropout over the null. Results of the individual predictors showed that they did not make a statistically significant contribution to predicting dropout, Condition, $Wald = 1.68$, $df = 1$, $p = .2$; Bond, $Wald = 1.42$, $df = 1$, $p = .23$. Although not significant, findings for Condition suggest that

the effect of this variable is positive, $B = .98$ and that TAU participants are 2.66 times (or 166%) more likely to drop out of treatment than BAL participants. The effect for Bond was negative, $B = -.58$, suggesting that an increase in Bond is associated with decreased odds of dropping out. Specifically, a one unit increase in Bond decreased the odds of dropout by a factor of .56 (or 44%).

Findings from Block 2 to assess the impact of Condition, the Bond subscale, and their interaction on the likelihood that a client would drop out of treatment accounted for 13% of the variance in the outcome variable. The model, however, did not significantly differ from the model in Block 1, Block χ^2 (1, N = 36) = 0.15, $p = .7$. Thus, the addition of the Condition x Bond interaction did not contribute to improving the model for predicting dropout. None of the predictors made a significant contribution to predicting dropout. Given the nonsignificant interaction term, the effect of Bond on DS is not significantly different for each level of Condition.

The full model to assess the impact of Condition, the Agreement/Confidence scale, and their interaction on the likelihood that a client would drop out of treatment was not significant, Model, χ^2 (3, N = 36) = 3.88, $p = .27$. Block 1 findings that assess the impact of Condition and the Agreement/Confidence scale on the likelihood that a client would drop out of treatment accounted for approximately 13% of the variance in the outcome variable. However, this model did not significantly differ from the null model, χ^2 (2, N = 36) = 3.47, $p = .18$, and thus was not an improved model for predicting dropout over the null. Results of the individual predictors showed that they did not make a statistically significant contribution to predicting dropout, Condition, *Wald* = 1.91, *df* = 1, $p = .17$; Agreement/Confidence, *Wald* = 1.4, *df* = 1, $p = .24$. Although not significant, findings for Condition suggest that the effect of this variable is

positive, $B = 1.05$ and that TAU participants are 2.85 times (or 182%) more likely to drop out of treatment than BAL participants. The effect for Agreement/Confidence was negative, $B = -.56$, suggesting that an increase in Agreement/Confidence is associated with decreased odds of dropping out by a factor of .57 (or 43%).

Findings from Block 2 to assess the impact of Condition, the Agreement/Confidence scale, and their interaction on the likelihood that a client would drop out of treatment accounted for 14% of the variance in the outcome variable. The model, however, did not significantly differ from the model in Block 1, Block χ^2 (1, N = 36) = 0.41, p = .52. Thus, the addition of the Condition x Agreement/Confidence interaction did not contribute to improving the model for predicting dropout. None of the predictors made a significant contribution to predicting dropout. Given the nonsignificant interaction term, the effect of Agreement/Confidence on DS is not significantly different for each level of Condition.

The full model to assess the impact of Condition, the Relationship scale, and their interaction on the likelihood that a client would drop out of treatment was not significant, Model, χ^2 (3, N = 36) = 4.23, p = .24. Block 1 findings that assess the impact of Condition and the Relationship scale on the likelihood that a client would drop out of treatment accounted for approximately 15% of the variance in the outcome variable. However, this model did not significantly differ from the null model, χ^2 (2, N = 36) = 4.09, p = .13, and thus was not an improved model for predicting dropout over the null. Results of the individual predictors showed that they did not make a statistically significant contribution to predicting dropout, Condition, *Wald* = 1.75, *df* = 1, p = .19; Relationship, *Wald* = 1.93, *df* = 1, p = .17. Although not significant, findings for Condition suggest that the effect of this variable is positive, $B = 1.01$ and that TAU participants are 2.74 times (or 174%) more likely to drop out of treatment than BAL

participants. The effect for Relationship was negative, $B = -.75$, suggesting that an increase in Relationship is associated with decreased odds of dropping out by a factor of .48 (or 52%).

Findings from Block 2 to assess the impact of Condition, the Relationship scale, and their interaction on the likelihood that a client would drop out of treatment accounted for 15% of the variance in the outcome variable. The model, however, did not significantly differ from the model in Block 1, Block χ^2 (1, N = 36) = 0.14, $p = .7$. Thus, the addition of the Condition x Relationship interaction did not contribute to improving the model for predicting dropout. None of the predictors made a significant contribution to predicting dropout. Given the nonsignificant interaction term, the effect of Relationship on DS is not significantly different for each level of Condition.

All logistic regression models were found to be a good fit for the data.

Number of sessions attended (NSA).

Associations. As seen in Table 4, correlation results show that NSA was not significantly related to any of the alliance variables, $r = .14$ to .19, $p = .27$ to .42. Although not significant, findings suggest a possible positive relationship between alliance variables and the number of sessions attended by a client. Significant relationships between alliance variables and NSA were not observed when the data were examined by condition either, BAL, $r = .13$ to .19, $p = .46$ to .61; TAU, $r = .12$ to .19, $p = .46$ to .63.

Hierarchical multiple regressions. Table 7 presents the results of hierarchical multiple regression models to examine the hypothesized alliance predictors of NSA. The hierarchical multiple regression model to assess whether Condition and the Alliance scale predict the number of sessions attended by a client was significant, $F(2, 33) = 4.49$, $p = .02$, with the model accounting for 21.4% of the variance in NSA. The addition of the Condition x Alliance

interaction term in Step 2 resulted in a significant overall model for predicting NSA, $F(3, 32) =$ 2.9, $p = .05$. However the interaction term did not account for additional variance in NSA, as the variance accounted for remained 21.4%, after the effects of Condition and Alliance were removed, $\Delta R^2 = .0$, $\Delta F(1, 32) = .0$, $p = .99$. Table 8 shows the results of proposed individual predictors of number of sessions attended. Only Condition was a significant predictor of NSA, $B = -3.39$, $t(32) = -2.76$, $p = .01$, indicating that individuals in the TAU condition attended 3.39 fewer sessions compared to individuals in the BAL condition. Although not significant, Alliance results, $B = 0.73$, $t(32) = 0.67$, $p = .51$, suggested that for every 1 unit increase in alliance, there is a 0.67 unit increase in NSA.   The interaction between Condition and Alliance was not a significant predictor of NSA either, $B = 0.02$, $t(32) = 0.01$, $p = .99$, indicating that the effect of Alliance on NSA does not depend on the level of Condition.

The HMR model to assess whether Condition and the Goals subscale predict NSA was significant, $F(2, 33) = 4.38$, $p = .02$, with the model accounting for 21% of the variance in NSA. The addition of the Condition x Goals interaction term in Step 2 did not result in a significant overall model for predicting NSA, $F(3, 32) = 2.83$, $p = .054$. The interaction term did not account for additional variance in NSA, as the variance accounted for remained 21%, after the effects of Condition and Goals were removed, $\Delta R^2 = .0$, $\Delta F(1, 32) = 0.002$, $p = .96$. Only Condition was a significant predictor of NSA, $B = -3.38$, $t(32) = -2.74$, $p = .01$, indicating that individuals in the TAU condition attended 3.38 fewer sessions compared to individuals in the BAL condition. Although not significant, Goals results, $B = 0.62$, $t(32) = 0.54$, $p = .59$, suggested that for every 1 unit increase in agreement on goals, there is a 0.62 unit increase in NSA.   The interaction between Condition and Goals was not a significant predictor of NSA

either, $B = 0.08$, $t(32) = 0.05$, $p = .96$, indicating that the effect of agreement on goals on NSA does not depend on the level of Condition.

The HMR model to assess whether Condition and the Tasks subscale predict NSA was significant, $F(2, 33) = 4.55$, $p = .02$, with the model accounting for 21.6% of the variance in NSA. The addition of the Condition x Tasks interaction term in Step 2 did result in a significant overall model for predicting NSA, $F(3, 32) = 2.96$, $p = .05$. The interaction term did not significantly account for additional variance in NSA, as the variance accounted for was 21.7%, after the effects of Condition and Tasks were removed, $\Delta R^2 = .001$, $\Delta F (1, 32) = 0.04$, $p = .84$. Only Condition was a significant predictor of NSA, $B = -3.48$, $t(32) = -2.84$, $p = .01$, indicating that individuals in the TAU condition attended 3.48 fewer sessions compared to individuals in the BAL condition. Although not significant, Tasks results, $B = 0.61$, $t(32) = 0.66$, $p = .51$, suggested that for every 1 unit increase in agreement on tasks, there is a 0.61 unit increase in NSA. The interaction between Condition and Goals was not a significant predictor of NSA either, $B = 0.33$, $t(32) = 0.21$, $p = .84$, indicating that the effect of agreement on tasks on NSA does not depend on the level of Condition.

The HMR model to assess whether Condition and the Bond subscale predict NSA was significant, $F(2, 33) = 4.48$, $p = .02$, with the model accounting for 21.4% of the variance in NSA. The addition of the Condition x Bond interaction term in Step 2 did result in a significant overall model for predicting NSA, $F(3, 32) = 2.91$, $p = .05$. However, the interaction term did not significantly account for additional variance in NSA, as the variance accounted for was 21.5%, after the effects of Condition and Bond were removed, $\Delta R^2 = .001$, $\Delta F (1, 32) = 0.04$, $p = .84$. Only Condition was a significant predictor of NSA, $B = -3.32$, $t(32) = -2.69$, $p = .01$, indicating that individuals in the TAU condition attended 3.32 fewer sessions compared to

individuals in the BAL condition. Although not significant, Bond results, $B = 0.89$, $t(32) = 0.78$, $p = .44$, suggested that for every 1 unit increase in the strength of the bond between a therapist and a client, there is a 0.89 unit increase in NSA. The interaction between Condition and Bond was not a significant predictor of NSA either, $B = -0.32$, $t(32) = -0.2$, $p = .85$, indicating that the effect of the bond between a therapist and a client on NSA does not depend on the level of Condition.

The same pattern of results were obtained with the Andrusyna et al. (2001) AC and Relationship scales. The HMR model to assess whether Condition and the A/C scale predict NSA was significant, $F(2, 33) = 4.48$, $p = .02$, with the model accounting for 21.3% of the variance in NSA. The addition of the Condition x A/C interaction term in Step 2 did result in a significant overall model for predicting NSA, $F(3, 32) = 2.9$, $p = .05$. However, the interaction term did not significantly account for additional variance in NSA, as the variance accounted for was 21.4%, after the effects of Condition and A/C were removed, $\Delta R^2 = .00$, $\Delta F (1, 32) = 0.01$, $p = .93$. Only Condition was a significant predictor of NSA, $B = -3.4$, $t(32) = -2.77$, $p = .01$, indicating that individuals in the TAU condition attended 3.4 fewer sessions compared to individuals in the BAL condition. Although not significant, A/C results, $B = 0.64$, $t(32) = 0.63$, $p = .53$, suggested that for every 1 unit increase in the agreement between the therapist and client on aspects of therapy and the client's confidence in the therapist, there is a 0.64 unit increase in NSA. The interaction between Condition and A/C was not a significant predictor of NSA either, $B = 0.14$, $t(32) = 0.9$, $p = .93$, indicating that the effect of A/C on NSA does not depend on the level of Condition.

The HMR model to assess whether Condition and the Relationship scale predict NSA was significant, $F(2, 33) = 4.47$, $p = .02$, with the model accounting for 21.3% of the variance in

NSA. The addition of the Condition x Relationship interaction term in Step 2 did result in a

significant overall model for predicting NSA, $F(3, 32) = 2.92$, $p = .05$. However, the interaction

term did not significantly account for additional variance in NSA, as the variance accounted for

was 21.5%, after the effects of Condition and Relationship were removed, $\Delta R^2 = .001$, $\Delta F (1, 32)$

$= 0.06$, $p = .81$. Only Condition was a significant predictor of NSA, $B = -3.36$, $t(32) = -2.73$, $p =$

.01, indicating that individuals in the TAU condition attended 3.36 fewer sessions compared to

individuals in the BAL condition. Although not significant, Relationship results, $B = 1.01$, $t(32)$

$= 0.79$, $p = .43$, suggested that for every 1 unit increase in the strength of the relationship

between the therapist and client, there is a 1.01 unit increase in NSA. The interaction between

Condition and Relationship was not a significant predictor of NSA either, $B = -0.42.$, $t(32) = -$

0.24, $p = .81$, indicating that the effect of the strength of the relationship on NSA does not

depend on the level of Condition.

Depression Symptoms

Subsequent depression change (SDC).

Associations. As is shown in Table 4, significant relationships were not found between

the alliance variables and SDC, $r = -.19$ to $-.28$, $p = .1$ to .27. Although not significant, results

suggested a possible negative relationship between alliance variables and SDC, where increases

in alliance scales and its components may be associated with decreases in subsequent depression

change. Results by condition did not show significant associations either, BAL, $r = -.34$ to $-.22$,

$p = .17$ to .38; TAU, $r = -.21$ to $-.11$, $p = .4$ to .66.

Hierarchical multiple regressions. Table 9 shows the results of the hierarchical multiple

regression analyses conducted to determine whether the alliance variables predicted change in

depression that occurred between the point at which the alliance was measured and the end of

treatment. The HMR model to assess whether Condition and the Alliance scale predict

subsequent depression change, after controlling for prior depression change (PDC), was not

significant, $F(3, 32) = 2.16$, $p = .11$, with the model accounting for 16.8% of the variance in

subsequent depression change. The addition of the Condition x Alliance interaction term in Step

3 did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.67$, $p = .18$. The

interaction term did not account for significantly greater variance in SDC, as the variance

accounted for was 17.7%, after the effects of PDC, Condition, and Alliance were removed, $\Delta R^2 =$

0.01, $\Delta F (1, 31) = 0.35$, $p = .56$.   Table 10 shows the results of the proposed individual

predictors of subsequent depression change when controlling for prior depression change.

Neither the control variable nor the hypothesized independent predictor variables significantly

accounted for the variance in subsequent depression change. Although not significant, the result

for Condition, $B = 6.8$, $t(31) = -1.04$, $p = .31$, suggests that TAU participants evidence greater

SDC by 6.8 units compared to BAL participants. Although not significant, the result for

Alliance, $B = -5.1$, $t(31) = -1.47$, $p = .15$, suggests that for every 1 unit increase in the strength of

the alliance between the therapist and client, there is 5.1 unit decrease in SDC. The result for the

Condition x Alliance interaction term was also not significant, $B = 3.14$, $t(31) = 0.59$, $p = .56$,

indicating that the effect of Alliance on SDC does not depend on the level of Condition.

The HMR model to assess whether Condition and the Goals subscale predict SDC, after

controlling for PDC, was not significant, $F(3, 32) = 1.83$, $p = .16$, with the model accounting for

14.6% of the variance in SDC. The addition of the Condition x Goals interaction term in Step 3

did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.4$, $p = .26$. The

interaction term did not account for significantly greater variance in SDC, as the variance

accounted for by the final model was 15.3%, after the effects of PDC, Condition, and Goals were

removed, $\Delta R^2 = 0.01$, $\Delta F (1, 31) = 0.26$, $p = .61$. Neither the control nor the hypothesized

independent predictor variables significantly accounted for the variance in subsequent depression

change. Although not significant, the result for Condition, $B = 6.77$, $t(31) = 1.69$, $p = .1$,

suggests that TAU participants evidence greater SDC by 6.77 units compared to BAL

participants. Although not significant, the result for Goals, $B = -4.27$, $t(31) = -1.14$, $p = .26$,

suggests that for every 1 unit increase in agreement on goals, there is 4.27 unit decrease in SDC.

The result for the Condition x Goals interaction term was also not significant, $B = 2.75$, $t(31) =$

0.52, $p = .61$, indicating that the effect of agreement on goals on SDC does not depend on the

level of Condition.

The HMR model to assess whether Condition and the Tasks subscale predict SDC, after

controlling for PDC, was not significant, $F(3, 32) = 2.63$, $p = .07$, with the model accounting for

19.8% of the variance in SDC. The addition of the Condition x Tasks interaction term in Step 3

did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.98$, $p = .12$. The

interaction term did not account for significantly greater variance in SDC, as the variance

accounted for by the final model was 20.3%, after the effects of PDC, Condition, and Tasks were

removed, $\Delta R^2 = 0.01$, $\Delta F (1, 31) = 0.22$, $p = .65$. Neither the control nor the hypothesized

independent predictor variables significantly accounted for the variance in SDC. Although not

significant, the result for Condition, $B = 7.24$, $t(31) = 1.87$, $p = .07$, suggest that TAU

participants evidenced greater SDC by 7.24 units compared to BAL participants. Although not

significant, the result for Tasks, $B = -5.12$, $t(31) = -1.74$, $p = .09$, suggested that for every 1 unit

increase in agreement on tasks, there is a 5.12 unit decrease in SDC. Result for the Condition x

Tasks interaction term was also not significant, $B = 2.37$, $t(31) = 0.47$, $p = .65$, indicating that

any effect of agreement on tasks on SDC does not depend on the level of Condition.

The HMR model to assess whether Condition and the Bond subscale predict SDC, after controlling for PDC, was not significant, $F(3, 32) = 2.01$, $p = .13$, with the model accounting for 15.9% of the variance in SDC. The addition of the Condition x Bond interaction term in Step 3 did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.59$, $p = .2$. The interaction term did not account for significantly greater variance in SDC, as the variance accounted for by the final model was 17%, after the effects of PDC, Condition, and Bond were removed, $\Delta R^2 = 0.01$, $\Delta F (1, 31) = 0.43$, $p = .52$. Neither the control nor the hypothesized independent predictor variables significantly accounted for the variance in SDC. Although not significant, the result for Condition, $B = 6.51$, $t(31) = 1.63$, $p = .11$, suggests that TAU participants evidenced greater SDC by 6.51 units compared to BAL participants. Although not significant, the result for Bond, $B = -5.1$, $t(31) = -1.39$, $p = .18$, suggests that for every 1 unit increase in the strength of the bond between the therapist and the client, there is a 5.1 unit decrease in SDC. Result for the Condition x Bond interaction term was also not significant, $B = 3.47$, $t(31) = 0.65$, $p = .52$, indicating that any effect of therapist-client bond on SDC does not depend on the level of Condition.

The HMR model to assess whether Condition and the Agreement/Confidence scale predict SDC, after controlling for PDC, was not significant, $F(3, 32) = 2.18$, $p = .11$, with the model accounting for 17% of the variance in SDC. The addition of the Condition x A/C interaction term in Step 3 did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.68$, $p = .18$. The interaction term did not account for significantly greater variance in SDC, as the variance accounted for by the final model was 17.8%, after the effects of PDC, Condition, and A/C were removed, $\Delta R^2 = 0.01$, $\Delta F (1, 31) = 0.31$, $p = .59$. Neither the control nor the hypothesized independent predictor variables significantly accounted for the variance in

SDC. Although not significant, the result for Condition, $B = 6.85$, $t(31) = 1.74$, $p = .09$, suggests that TAU participants evidenced greater SDC by 6.85 units compared to BAL participants. Although not significant, the result for A/C, $B = -4.8$, $t(31) = -1.47$, $p = .15$, suggested that for every 1 unit increase in the strength of the agreement between the therapist and client and the client's confidence in the therapist, there is a 4.8 unit decrease in SDC. Result for the Condition x A/C interaction term was also not significant, $B = 2.82$, $t(31) = 0.55$, $p = .59$, indicating that any effect of A/C on SDC does not depend on the level of Condition.

The HMR model to assess whether Condition and the Relationship scale predict SDC, after controlling for PDC, was not significant, $F(3, 32) = 1.99$, $p = .14$, with the model accounting for 15.8% of the variance in SDC. The addition of the Condition x Relationship interaction term in Step 3 did not result in a significant overall model for predicting SDC, $F(4, 31) = 1.59$, $p = .2$. The interaction term did not account for significantly greater variance in SDC, as the variance accounted for by the final model was 17%, after the effects of PDC, Condition, and Relationship were removed, $\Delta R^2 = 0.01$, $\Delta F (1, 31) = 0.47$, $p = .5$. Neither the control nor the hypothesized independent predictor variables significantly accounted for the variance in SDC. Although not significant, the result for Condition, $B = 6.66$, $t(31) = 1.68$, $p = .1$, suggests that TAU participants evidenced greater SDC by 6.66 units compared to BAL participants. Although not significant, the result for Relationship, $B = -5.68$, $t(31) = -1.39$, $p = .18$, suggested that for every 1 unit increase in the strength of the relationship between the therapist and client, there is a 5.68 unit decrease in SDC. Result for the Condition x Relationship interaction term was also not significant, $B = 3.94$, $t(31) = 0.69$, $p = .5$, indicating that any effect of Relationship on SDC does not depend on the level of Condition.

Discussion

Overview

This study sought to examine whether the therapeutic alliance between a therapist and a client, as defined by Bordin et al. (1979) and measured by the WAI-O-S, was associated with and predicted treatment retention and outcome in a sample of depressed Latinos who were treated with BAL or TAU. In particular, it sought to examine whether the scales/subscales identified by Tracey and Kokotovic (1989) and Andrusyna et al. (2001) were associated with and predicted dropout status, number of sessions attended, and subsequent depression change when controlling for prior change in depression. Results of the current evaluation suggest that the General Alliance factor and its subscales, agreement on goals (Goals), agreement on tasks (Tasks), the therapeutic bond (Bond) between the therapist and the client (Tracey & Kokotovic, 1989) are not associated with nor predict retention and outcome for this sample. The alliance scales identified in CBT treatment, agreement on the goals and tasks of therapy and client confidence in the therapist's ability to help (Agreement/Confidence), and the interpersonal relationship between the therapist and the client (Relationship; Andrusyna et al. 2001) are not associated with nor predict these variables either. Moreover, no support was obtained for the hypotheses that the predictive effect of the alliance scale/subscale on dropout status, session attendance, or subsequent depression change would depend on type of treatment.

The hypothesis that differences in the strength of the alliance would be observed by condition was not supported either. Although the alliance is considered a pantheoretical construct, not an outcome of a particular intervention, the form it takes and the length of time over which it forms is thought to depend on the type of therapy and stage of treatment (Bordin, 1994). BAL therapist-client dyads were expected to show stronger alliance (i.e., higher scores)

early in therapy compared to TAU therapist-client dyads. BA treatment for depression, such as the version evaluated in the RCT from which this study's data are derived, has been theorized to help develop and strengthen the alliance. BA guides therapists to take a collaborative approach in working with clients and is comprised of components that, when implemented successfully, are thought to inherently foster the alliance. Given that therapists are encouraged to take a collaborative approach throughout treatment and that the alliance-fostering techniques are implemented systematically and continuously from start to end, opportunities to strengthen the alliance are theorized to occur often and from the beginning of BA treatment, continuously creating opportunity for developing a strong alliance. As such, a strong alliance would be expected even early in treatment.

Examination of the techniques used in TAU treatment suggested that strategies were used that could viably lend to the development of an adequate alliance between the Latino client and therapist. Techniques that, from a conceptual standpoint, can be seen to contribute meaningfully to strengthening the alliance are encouragement of emotional experiencing (TAU > BAL) and provision of empathy and validation (TAU = BAL). Intuitively, these seem relevant for strengthening the bond between the therapist and the client, but not for establishing agreement on goals and tasks. While TAU therapists may have adopted a collaborative approach to implementing other techniques, including BAL-specific techniques, it was not possible to know whether therapists did take this approach prior to evaluation of the alliance for the current secondary analysis. However, TAU therapists' use of BAL-specific techniques, thought to foster the alliance, was piece-meal and unsystematic. Partial and sporadic use of BAL-specific techniques in TAU was expected to translate into relatively limited opportunity to foster the alliance throughout treatment.

Even so, the alliance scales/subscale scores were not found to be higher for BAL compared to TAU based on a comparison of each condition's mean alliance score. Both sets of therapist-client dyads showed *some evidence for* to *considerable evidence for* the alliance, as measured by the scales/subscales. These findings suggest that within both conditions, therapist and clients engaged in behaviors that led to the development of a relatively strong alliance. Thus, therapists (and clients) in both conditions seem to have adopted a collaborative stance in carrying-out the work of therapy, or that the techniques implemented in both conditions fostered opportunities to solidify the alliance. As discussed above, therapists in both conditions reported using general techniques such as demonstration of empathy or validation that could strengthen aspects of the alliance, such as the bond. BAL components theorized to foster alliance may not have contributed to further strengthening the alliance, above and beyond that fostered by shared techniques. Despite the absence of a protocol to guide the consistent or systematic implementation of a specified set of techniques believed to foster the alliance, the varied work of therapy in TAU appears to have led to noteworthy agreement on goals and tasks, and the bond between the therapist and the client.

Treatment Retention

Given that Bordin's (1979) model of the alliance is deemed a pantheoretical construct, relevant to all treatment modalities, observation of an association with treatment retention was expected regardless of condition. A statistically significant association between the alliance and retention, as measured by dropout status and number of sessions attended, was not observed in the current Latino sample.

Previous research has shown an association between the alliance and retention, measured as dropout. Horvath, Del Re, Flückiger, & Symonds (2011b) conducted a meta-analysis on the

association between the alliance and various types of outcome including premature termination, defined as dropout. Their meta-analysis was based on 201 published (153 peer-reviewed articles, 5 chapters) and unpublished (43, mostly dissertations) studies conducted between 1973 and 2009. When looking specifically at the relation between alliance and dropout, Horvath and colleagues observed an aggregated effect size of $r = .16$, $p = .001$, 95% CI .062/.262. Although the effect sizes of the non-significant findings from the current study ($r_{pb} = -.09$ to $-.17$ to $-.33$, $p = .49$ to .73) are in the range of those found in the meta-analysis, it is difficult to ascertain if these effect sizes are interpretable in light of the existing research. One interpretation is that, because the effect sizes are equivalent, we may have a Type II error in the current study, hampered by limited power. This interpretation would be that the current findings, although not significant, suggested a possible association that is consistent with the literature and the current study's hypothesis. It appears that remaining in treatment may be associated with higher alliance scale/subscale scores for the current sample.

Moreover, it seems that greater number of sessions attended may be related to higher alliance scores. Although not significant, the associations observed within each condition occurred as expected as well. These speculations are put forth with caution given that no statistically significant findings were observed.

However, this speculative interpretation of the current non-significant findings in light of the published meta-analysis is not encouraged. This is not only because the findings in the current study are not significant, but also because (based on what is reported in the meta-analysis) it is unknown how the data were prepared and analyses were conducted in studies included in the meta-analysis. A dearth of research exists on the association between the alliance

and session attendance, and existing and accessible research does not support an association (e.g., Katz, 2001); as such, previous findings are not discussed in relation to current findings.

The difference in the results obtained in the current study and those observed in previous studies on the alliance-dropout association may stem from methodological differences between the current study and previous studies. The twenty-five studies included in the meta-analysis that examined the alliance in relation to premature termination (i.e., dropout) did so in the context of various treatments and client problems; none focused exclusively on the treatment of depression. Dropout as an outcome measure was almost exclusively utilized in studies of clients with substance use problems. Twelve of these studies measured the alliance using a variation of the WAI and of these, only one used an observer version of the measure. Effect sizes for this subset of studies that defined the alliance according to the WAI ranged from .01 to .38.

Thus, the current study examined the alliance-retention association using a methodological approach that was distinct from previous research that investigated this association. For this study, the association was examined in the context of a specific treatment for depression using the observer version of the WAI-S. Although the demographic composition of the samples used in the twenty-five studies was not reported, given the widely noted limited inclusion of minority samples, it is unlikely that these studies included a meaningful number of Latino participants. As such, to the author's knowledge, this is the first study that has examined the association between the alliance and measures of retention, both dropout and session attendance, with a primarily Spanish-speaking Latino adult sample. Furthermore, it is the first study to examine this association in community mental health context, setting in which Latinos tend to receive mental health care and in which issues of retention are noted. This is suggested by a review of the Latinos and alliance literature to date.

Results of analyses that examined whether the early alliance scales/subscales predicted retention for BAL and TAU were not surprising in light of correlation findings. In this study, alliance early in treatment, as captured by the various scales/subscales, did not predict dropout status and number of sessions attended when using statistical analyses used for purposes of prediction. Of particular interest here, alliance did not predict these retention variables differently in BAL compared to TAU. Given that the development of the alliance has been said to be related to type of treatment (e.g., Bordin, 1994) and that BAL has been theorized to foster the alliance systematically, increases in alliance were expected to predict higher session attendance in BAL more so than in TAU. Also, increases in alliance were expected to reduce the likelihood of dropout more so in BAL than in TAU. To this author's knowledge, these specific questions have not been examined by prior research. Research on alliance as a predictor of retention appears focused on treatment in general, and does not ask whether any effect is dependent on treatment. Research on whether the alliance predicts number of sessions attended is very limited. One study was identified in which therapist-rated alliance predicted session attendance in CBT for adolescents (Shirk et al., 2008).

Prior research that has identified alliance as a predictor of dropout is varied with regard to methods employed to examine the alliance as a predictor of this variable. Results of a meta-analysis of 11 studies of adult individual psychotherapy demonstrated a moderately strong relationship between the therapeutic alliance and drop out from psychotherapy ($d = .55$; Sharf, Primavera, Diener, 2010). Authors concluded that the clients with weaker therapeutic alliance were more likely to drop out of treatment, and proposed the client-therapist interaction variable was a predictor of dropout from psychotherapy. A review of the individual study results reported in the meta-analysis suggested that the studies examined whether mean alliance scores of clients

who dropped out and clients who completed treatment were significantly different from each other. Kegel and Flückiger (2015) compared the global alliance ratings of completers and dropouts over time using hierarchical linear modeling, and a sample of psychotherapy outpatients in the private practice setting with various disorders treated with CBT. Results suggested that, on average, patients who dropped out of treatment, rated the process variable lower throughout the course of treatment compared to completers. The alliance was also found to predict lower odds of dropout in a sample of patients with chronic and recurrent depression who participated in treatment that combined cognitive therapy and antidepressant medication. The alliance was assessed using the WAI-O-S total score as measured in the first three CT sessions. The findings attained using survival analysis were not accounted for by covariates reflecting symptom change over the period during which the alliance was assessed or differences in patients' regimens (Cooper et al., 2016). Thus, research designed to answer the question of whether alliance predicts dropout is limited.

The question of whether the alliance predicts dropout, or retention more generally, among Spanish populations continues to be limited. Botella and colleagues (2008) set out to examine predictors of therapeutic outcome and process with a primarily female adult sample in Spain. They hypothesized that the strength of the alliance for patients who terminate treatment prematurely would be weaker than among patients determined to complete treatment successfully. As in the studies included in the alliance-dropout meta-analysis presented above (Sharf et al., 2010), they compared the average WAI-S score of completers and dropouts at session 1, 2, and 3, and found that alliance was weaker among clients that dropped out of treatment during these initial sessions. The author concluded that lower alliance strength in the first three sessions proved to be a risk factor for termination. Using a U.S. sample of primarily

Latino adolescents receiving treatment for substance use (non-mandated), Cordaro et al. (2012) examined whether alliance scales/subscales, as measured by the WAI-S and the Vanderbilt Psychotherapy Process Scale-Short (VPPS-S; Smith, Hilsenroth, Baity, & Knowles, 2003) predicted completion status. Their descriptive discriminant function analysis (DDA) showed that the WAI-S Goals subscale, followed by the Tasks and Bond subscales, predicted client completion status. Classification results confirmed that 79.3% of cases were correctly classified using the WAI-S subscale scores, an improvement over the 20.7% of cases correctly classified by chance. VPPS-S subscales were also predictive of completion status. Logistic regressions were performed to confirm DDA findings; results showed that completion status was best predicted by the WAI-S goals subscale and the VPPS-S Therapist Warmth and Friendliness and the Patient Participation subscales. Research with Latinos that examines the alliance as a predictor of session attendance was not found.

The current study represented an attempt to build on the existing literature with the question of whether relational process variables like the alliance impact treatment retention in important ways. First, this study made a preliminary attempt at examining whether the alliance predicts retention. Second, this study examined whether the alliance predicts other measures of retention or successful treatment engagement, like the number of sessions attended. Of the studies presented directly above, none of them expanded their definition of successful engagement. Third, this is one of few studies that attempts to answer whether alliance predicts retention in the context of a specific CBT treatment for adult depression. A review of the studies included in Horvath et al.'s (2011) meta-analysis shows that the individual studies on the alliance-premature termination association included mixed samples with regard to client problem. Moreover, only two of these studies examined this association in the context of CBT.

The dearth of this literature is made salient when considering that these studies do not necessarily examine the alliance as a predictor of premature termination. Fourth, to the author's knowledge, this is the only study that examines whether alliance predicts depression in BA treatment for depression. Fifth, this was an initial attempt to examine whether the effect of alliance on retention variables depends on type of treatment for depression.

Interest in examining the alliance in relation to retention was born from the observed challenge of retaining monolingual Spanish-speaking Latinos in treatment for depression offered in the community setting during the RCT BAL trial from which the data for this study were derived. This observation, in combination with the repeatedly cited problem of retaining Latinos in mental health treatment in the U.S., suggested the need to identify factors that may contribute to poor retention (or conversely, successful retention) because results could suggest avenues for intervention and the prevention of early (and potentially premature) termination. As such, the sixth contribution of this research is that it is, to the author's knowledge, an initial attempt to understand whether the therapeutic alliance, and relational process variables generally, play a role in whether or not a Latino clients stays in psychotherapy treatment. Seventh, and relatedly, it is an initial attempt at examining the effect of the alliance on retention within community mental health, the setting which tends to serve the U.S.'s urban, low-income, and minority population.

Treatment Depression Change

According to Horvath et al. (2011b), the relationship between the alliance and depression treatment outcome is generally relatively high. Per their 2011 meta-analysis comprised of studies from 1973 to 2009, the relation between the alliance and depression treatment outcome, as measured by the BDI, had an aggregated effect size of $r = .409$, $p < .001$, 95% CI .304/.505.

In the current study, the alliance scales/subscales were not significantly associated with depression treatment outcome, measured as BDI-II depression change beyond early therapy gains (i.e., subsequent change after controlling for prior change). Given that the alliance and subsequent depression change were not significantly associated, it is difficult to compare findings to the association observed in the Horvath et al. (2011b) meta-analysis. However, this study's findings do not appear to be consistent with the associations observed in the meta-analysis (in contrast to the study's alliance-retention findings discussed above).

Although not significant, the pattern of findings suggests a trend that is contrary to what was expected. Namely, whereas it was expected that increases in alliance scales/subscales would be associated with higher depression change scores, the opposite may be true in the current study. Non-significant results appear to suggest that increases in alliance were related to reductions in depression change. The same pattern of alliance-depression change correlation results were observed for both conditions, with no significant alliance-outcome association observed. Of course, given that these findings were not significant, attempting to cautiously interpret the results observed may lead to misguided speculation, as discussed above when speculating on the consistency of the current study's alliance-retention findings with the previous literature. Thus, the conservative conclusion, assuming valid scores of the alliance and valid BDI-II scores, is that the current findings are not supportive of the notion that alliance is associated with treatment outcome in this sample.

The studies included in Horvath et al.'s (2011b) meta-analysis that were used to examine the alliance-BDI association differed methodologically from the current study in a few important ways. While the current study employed the WAI-S to derive alliance scales/subscales, only two of twelve studies used this measure; most used the CALPAS (Gaston & Marmar, 1994). Of the

two studies in which the WAI was used, one examined the association in the context of CBT and the other in interpersonal psychotherapy. In these two studies, alliance ratings made by the client were used whereas in this study, ratings derived by observers were used. As alliance researchers have pointed out, the considerable heterogeneity in research findings is very likely due in large part to the wide range of methods used to assess the alliance and outcome variables (Horvath et al., 2011a). An important additional distinction between previous studies and this study is that it was conducted with an entirely Latino, Spanish-speaking sample.

The findings that the alliance scale/subscales did not predict subsequent depression change, after controlling for prior change, with the current Latino sample is not surprising in light of alliance-depression change findings obtained. To answer the question of whether alliance predicts depression treatment outcome, the current study employed methodology used in the most rigorous studies that have aimed to answer this question to date (e.g., Barber et al., 2000; Klein et al., 2003). That is, early depression treatment gains were controlled for in the prediction analyses. According to Horvath et al., (2011b), the question of whether the alliance contributes to outcome beyond early gains has been largely resolved by previous research such as the studies after which this one was modeled. However, this claim may be strained given that the most rigorous studies in this literature have been conducted with overwhelmingly Caucasian samples. Barber et al. (2000) obtained support for alliance as a predictor of improvement after controlling for prior depression change with a sample that was 85% Caucasian and 73% occupationally engaged full-time. Klein et al. (2003) obtained evidence for the causal effect of alliance on outcome when controlling for prior gains and patient characteristics with a sample that was 93% Caucasian. Given that it is unclear that these findings generalize to samples of

other, less studied populations, such as Latinos, the question of whether the alliance (as defined with non-Latinos samples) predicts outcome remains unanswered.

The alliance-outcome literature with Latino samples continues to be sparse. Although alliance measures have been used to examine a number of questions with Latino adult samples, very little has been done to understand the provider-client alliance impact on mental health treatment variables. One study that has laid the groundwork was conducted with a small (N = 10) sample of low-SES, Spanish-speaking Latinos with diagnoses of major depression. Participants received a brief (two-session) course of motivational interviewing designed to improve anti-depressant medication adherence and reduce BDI-II depression severity. Alliance, as measured by the WAI observer form, was significantly correlated with both outcome measures, .455 and .467, respectively (Harris, 2011). With a 22% Latino sample of adolescents (N = 54), Shirk et al. (2008) found that that adolescent-rated alliance early in treatment was predictive of depression symptom change in CBT. The current study aimed to build on this work by expanding the research on the alliance as a predictor of mental health treatment for adult Latinos, and give rise to research on the alliance as a predictor of psychotherapy outcomes for members of this population. Findings that suggest that the alliance may have a causal impact on depression treatment outcome for Latinos would point to the alliance as a means of improving treatment outcome for members of this population. This work would have the potential to help address the depression treatment disparities that continue to exist among Latinos (Collado, Lim, & MacPherson, 2016).

As suggested throughout this section, differences in this study's results compared to the alliance-retention and alliance-depression treatment outcome literature findings may stem from the extensive variation in research methods used to examine these questions. An analysis

conducted with 25% of studies included in the Horvath et al. (2011b) meta-analysis suggested

that almost half (R^2= 0.46) of the total variance of the alliance-outcome relations was accounted

for by the individual and joint effects of type of alliance rater (client, therapist, or observer),

alliance measure (e.g., WAI [Horvath & Greenberg, 1989], VPPS [O'Mally, Suh, & Strupp,

1983], CALPAS [Gaston & Marmar, 1994]), and three major indexes of outcome (BDI [Beck,

Ward, Mendelson, Mock, & Erbaugh, 1961], dropout, and Symptom Checklist-90 [Derogatis &

Savitz, 2000]). Also observed was that the joint effect of the alliance measure × alliance rater

interaction contributed to $R^2\Delta$ of .023. An examination of the alliance variables seemed a logical

step in light of the current study's divergent findings.

Limitations

   Examination of predictor variables. The normality of the alliance scale/subscale data

was assessed. Across variables, the values for each scale/subscale were clustered at the high end

of the 1 to 7 scale (where the highest score suggests very strong evidence for the alliance) and

tended to have a somewhat peaked distribution that was clustered near the center. Visual

inspection of each variable's histogram showed that more than half did not appear to be normally

distributed. These variables included the General Alliance factor, the Goals and Bond subscales,

and the Relationship scale. However, results of a statistical test used to assess violation of the

assumption of normality showed that the General Alliance factor, the Bond subscale, and the

Relationship scale do violate the assumption of normality.

   Values for all variables show a restricted range, with scores clustered between 4.5 and 7.

Minimum scores ranged between 3 and 3.88 and maximum scores ranged from 6.67 to 7. Thus

the data suggest a ceiling effect, suggesting that some variance in the predictor variables may not

have been captured. Given that the data do not appear to be normally distributed and show a

restricted range, it seems prudent to assume that alliance scale/subscale scores obtained from this sample are different from the scores observed in the population.

Each one of the variables contained one to two outliers, which were associated with two participants (one from each condition). Outliers were kept in the analysis given that the scores were within the range of possible scores for each variable. Exclusion of these data points may have been carried out with confidence had the distributions reasonably approximated normality for the variables. Moreover, a comparison of the mean for each variable to its trimmed mean suggested that these extreme scores did not have an influence on the mean.

The alliance scales/subscales showed very high significant correlations, which calls into question whether or not the scores reflect distinct constructs. With the exception of the Tasks-Goals, Bond-Goals, Relationship-Goals, Relationship-Tasks, and Relationship-Agreement/Confidence correlations, correlations were at or above .95. In fact, the General Alliance factor and the Agreement/Confidence scale obtained a perfect correlation of 1.

Interrater agreement challenges. Raters achieved strong agreement after initial training and prior to coding study data based on results obtained from General Alliance factor scores (i.e., mean of all 12 WAI-S items). Interrater reliability for the other scale/subscales was examined and showed that the primary raters and the criterion rater demonstrated very strong agreement on the Goals subscale and strong agreement on the Agreement/Confidence scale. However, suboptimal agreement was observed for the Bond subscale and the Relationship scale. Agreement was poorest for the Tasks subscale.

Findings of the Relationship scale and Bond subscale may not be surprising in light of difficulty encountered during training with applying ratings for items that make up this scale and subscale. Specifically, the rater team encountered difficulty behaviorally defining constructs used

to define the bond between the therapists and the client. The manual contained anchors that made reference to concepts such as empathy and warmth, and encouraged raters to consider whether a therapist demonstrated these toward the client using both verbal and non-verbal therapist behaviors. However, these behaviors were not further defined in the manual. Attempts were made to help clarify these concepts to maximize the likelihood of agreement for these items, including identifying behaviors that would evidence demonstration of empathy and warmth. These behaviors were noted by raters in order to apply the new behavioral definitions in rating subsequent sessions. Nevertheless, rater report suggested that they continued to be challenged in applying bond/relationship items, particularly Rater 2. Findings show that Rater 2 showed the poorest agreement with the criterion rater on these variables when compared to Rater 1 at the end of training.

Raters found the behavioral anchors for Goals and Tasks items to be sufficiently well-defined. Less difficultly deriving ratings was reported by raters. The observation that agreement was very high on the Goals subscale might stem from greater clarity on the therapist and client behaviors that suggest agreement on goals of therapy. However, the same was not observed on the Tasks scale, as would have been expected. At the outset of training, raters appeared to vary considerably in their views of what comprised a therapy task. During training, Tasks subscale items were extensively discussed in order to add clarity to what constitutes a task of therapy. It may be the case that raters continued to have different definitions of tasks of therapy that led to differences in observing therapist-client agreement on tasks.

By mid-point in the rating phase of this study, primary raters and the rater were observed to drift considerably, such that it cannot be said that agreement existed on any of the alliance scales/subscales. This calls into question whether the alliance scores used for this study are valid

measures of the alliance scales/subscales. In other words, since the score produced by the raters do not coincide with the theorized "true" scores for the alliance variables, it is unclear whether raters' scores actually capture the constructs of goals, tasks, bond, and so forth. The reliability of the scores is also called into question as it is unclear that an average score produced by the raters (or the criterion rater) early in the coding project is comparable to the score produced by the end of the project on data that theoretically should obtain the same score. Due to time constraints, raters did not retrain after drift was observed.

Predictive analyses. The a-priori sample size calculations indicated that the current study sample was not sufficiently large to achieve the desired power at the desired level of significance. Moreover, the assumption of normality of the continuous predictor variables was not met. These limitations may also have contributed to the results obtained.

Alliance raters. Objective raters of the alliance were selected given that this method was the only option for obtaining alliance ratings for this sample. However, confidence in the use of objective rater scores existed given findings that client and observer ratings appear to be comparable (Clients $r = 0.28$ [$k = 109$]; Observer $r = 0.295$ [$k = 47$]; Horvath et al., 2011). It has been suggested that these types of raters produce alliance scores that provide better prediction of therapy outcome compared to therapist raters; differences did not reach statistical significance (Horvath & Bedi, 2002; Horvath & Symonds, 1991).

Use of objective observers requires considerable resources, especially when the goal is to conduct a rigorous study. This type of project requires an extensive amount of time (e.g., preparation of session recordings for rater use; development of transcripts; training of raters; time spent coding) compared to studies that use client- or therapist-derived alliance ratings. It also requires considerable financial resources (such as those used to purchase transcripts for the

current study to ensure ratings were based on actual data, as opposed to rater perception of data).

Although extensive efforts were made to invest the needed amount and types of resources to ensure the collection of quality alliance rater data, limits to the resources available may have hindered this objective. For instance, funding to hire and financially reward raters was unavailable for this study. Funding to do this may have ensured consistent rater engagement throughout the coding phase of the study. At times, raters found it difficult to balance other responsibilities such as coursework or paid employment with coding project responsibilities. Limited rater time to put forth toward this project may have impacted how much they invested in ensuring accurate codes, such as by asking criterion rater/student investigator questions about behavioral anchors. Moreover, and particularly relevant to the current study, funding could have supported more extensive training that extended beyond a few hours a week for two months, and facilitated the raters completing their ratings in a shorter time-frame, minimizing the problem of rater drift. Thus, limited resources and raters' competing demands may have interfered with their ability to engage to a sufficient degree in this project.

Observer selection criteria included the ability to speak Spanish fluently and native acquisition of the language (e.g., primary language spoken in home during development). Prior to being invited to join the project, potential raters were partially interviewed in Spanish by student investigator, who is fluent in Spanish. Thus, it seems unlikely that poor quality alliance ratings were the result of limited ability of raters to understand and interpret therapy session data in Spanish. One consideration may be that differences in Spanish-language variants may have limited accurate interpretation of data, such as sayings, words, meaning of words, and so forth, that are specific to a certain variant of the language. Although the sample was primarily of Mexican origin and the raters were either of Mexican origin, or had extensive experience

77

communicating with people of Mexican origin, none of the therapists identified as Mexican. It is not possible to rule out the possibility that differences in language negatively impacted the alliance ratings obtained.

The question of whether there is an advantage to working with raters with experience in the provision of psychotherapy was considered. This study's raters were undergraduate research assistants with no prior experience in a health care field as providers. Attempts were made to hire raters with clinical training, such as graduate students in the field of social work. Time and financial constraints were barriers to hiring this type of individual, as potential graduate student raters needed participation on this project to contribute to meeting other needs (e.g., earning money). Ultimately, it was decided that prior experience in psychotherapy or a related field was unnecessary if a behavioral alliance rater manual with clearly defined anchors was utilized. Moreover, assuming that there were advantages to hiring raters with prior psychotherapy-relevant experience seemed questionable. Prior experience of rater A did not guarantee that interpretations of behavioral anchors would coincide with prior experience and anchor interpretations of rater B.

Training.

Current study manual. The coding manual used for this study was adapted from manuals that were co-developed by researchers who have conducted extensive work on the therapeutic alliance, including J. D., Safran, J. C. Muran, and A. Horvath. The behavioral descriptors for the anchors for each of the 12 WAI-S items were adopted from the manual developed by Darchuk et al., (2000) given that review of the anchors indicated that they were the most behavioral anchors available. Early in the coding process, it became apparent that the anchors left considerable room for interpretation, particularly with regard to anchors for items

78

that comprise the bond subscale. The descriptor for anchor 5 of Bond item 3 (*There is mutual liking between the client and the therapist.*) states, "Participants react with warmth toward each other for most of the session… The therapist's tone is empathic and encouraging for the most part." Questions arose as to the behavioral forms of warmth and empathy, and about what a therapist might to do to be "encouraging for the most part."

To ensure accurate application of the ratings, elaborating the anchors for this study would have facilitated the training and coding process and may have, in turn, led to strengthening the quality of the alliance ratings obtained. Had the training period been extended, training meetings could have served as a setting in which raters could have together clarified the anchors. In the absence of extensive training time, a more fully elaborated set of behavioral anchors were likely needed. However, even a manual that has been thoroughly revised to clearly delineate behaviors of interest would present challenges to raters with regard to achieving inter-rater reliability.

Challenges to measuring the alliance may still arise in using an improved version of the current manual. With regard to the restricted range of the data observed in this study, it could be the case that raters' scores approximated the "true" alliance score for each dyad and that scores, therefore, do exist between 4.5 and 7. If true, this would suggest the need for changes to the scale on which alliance is rated such that the variability that exists between 4.5 and 7 is captured by the scale.   In other words, it's possible that the alliance for dyads of Spanish-speaking therapists and Latino clients is in general very high and very rarely moves towards lower scores on the scale. If that is the case, then it would be important to make more of a distinction between the quality of the alliance between, say, 4 and 5, by describing what it means to attain a score of 4.25 or 4.75, for instance. The current manual, without scale modification, may be suited for therapist-client dyads that are more likely to experience interactions described by anchors that

reflect *some evidence against the alliance* (score = 3) to *very strong evidence against the alliance* (score = 1), such as samples that include dyads comprised of clients with cluster B disorders.

Examples of the alliance. Alternatively, the problem of restricted range that arose in this study may be due to limited application of the ratings to the Latino therapist-client dyad data. Review of raters' scores during training shows that they were also restricted in range, ranging from 4 to 7. This points to the raters not having trained to apply ratings from 1-3 sufficiently. One solution might have been to identify sessions that were certain to evidenced varying degrees of alliance prior to the start of training. For instance, sessions would be selected such that some would obtain an overall alliance score of 1.5, some a score of 3.5, and so forth. Using these sessions with existing "true" alliance ratings would help raters discriminate between sessions with very poor, average, and high alliance. Moreover, this strategy would have helped determine beforehand what very poor alliance looks like for the particular sample.

Alliance concept applicability to Latinos. Limitations in the alliance data may stem from a poor fit between the manual's behavioral anchors and what the raters observed. In other words, raters may have used a measure of the alliance that did not enable them to capture the alliance as it manifests among therapist-client dyads that are comprised of Latino clients. The question of whether it is appropriate to use the WAI-O-S manual with this sample was considered early in the development of this study. Given this study's results, it seems important to consider whether future studies aiming to study the alliance with Latinos using an observer measure should employ a manual that attempts to capture variance that is unique to members of the Latino population or subpopulations. In particular, findings that the alliance data are restricted in range and suggest a ceiling effect may be addressed by efforts to measure the

alliance more accurately. Measuring aspects of the alliance that tend to surface among therapist-Latino client dyads could help identify what the alliance may look like at lower ratings of the scale and may help identify what the alliance looks like between scale ratings.

Harris's (2011) research on the alliance and anti-depressant treatment adherence and depression change represents among low-income Latino adults is an initial important attempt at defining the WAI-O anchors based on the nature of the alliance with members of this population. Results from grounded theory analyses showed that the bond could be further defined as the therapist acceptance of the client and therapist enhancement of client self-confidence. Based on these findings, therapist behaviors were identified, such as displays of affirmation and therapist interest in the client. Future research on the alliance among Latinos should consider better understanding the nature of the alliance in dyads that include Latino clients to achieve a sound measure with regard to statistical utility and validity of construct.

Future Directions

Future examination of the questions of interest with the current sample of therapist-client dyads will need to consider the sample size in selection methods to attempt to answer the questions of interest. Given the small sample size, any result obtained using the statistical methods here employed to examine whether the alliance predicts outcome and retention would be called into question. Perhaps an approach that examines the relationship between the predictor variable and outcome variable throughout the course of therapy at the client (as opposed to group) level may be better suited for a sample of this size. The goal could be to examine whether the alliance at Session N predicts depression change after Session N + 1. In particular, the researcher could observe whether changes in the alliance precede changes in the outcome variable as expected throughout the course of therapy.

A study that examines the questions of interest using a similar methodology to the one employed in this study with a large enough sample should consider the finding that the relationship between the alliance and outcome grows in magnitude as the alliance and outcome are measured closer in time (Horvath et al., 2011b). To take the question of whether the alliance predicts retention as an example, future studies should consider deriving measures of the alliance toward or at the end of treatment and then examine those data in relation to dropout. The alliance early in treatment may have been of little or no relevance to dropout even a couple of sessions after session 2, source of the current study's alliance ratings.

The proposed methods would require data on the alliance at different points in time during therapy. As discussed previously, obtaining observer-based ratings of the alliance is intensive with regard to resources. Thus, use of more rigorous designs that require more than one alliance data point should consider obtaining client-based alliance ratings. Although observer-based ratings have generally been considered the ideal type of rating (compared to self-report, by a therapist or client), data do suggest that observer ratings may be comparable to client-based ratings.

Research designed to better understand the construct of the alliance in the Latino context may be a useful next step. Given the limited research on the alliance with Latinos, qualitative study of the alliance might help us understand whether current definitions of the construct are missing aspects of the alliance that exist in therapist-Latino client dyads. This research might help identify which existing alliance definition might best capture the alliance as it exists in this population, or might point to the need to develop a more accurate definition of the alliance in therapist-Latino client dyads.

Conclusion

The current study found no evidence to support associations between the therapeutic alliance and treatment retention and outcome in a sample of depressed Latinos who were treated with BAL or TAU. It is premature, however, to conclude from this study that no association exists. Given the limitations of the alliance scale/subscale ratings and the design of the study, it does not seem possible to derive definitive conclusions from the data generated by this project with regard to the questions the study was aiming to answer. Therefore, the need to examine these questions persists. Identifying factors that may contribute to depression treatment retention and outcome among Latinos may point to interventions for improving retention and outcome and thereby address significant unmet therapeutic needs of this population.

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Table 1

Participant Demographic and Clinical Characteristics

	N	BAL (*n* = 18)	TAU (*n* = 18)	Full Sample (*n* = 36)
Female	36	13 (72.22)	15 (83.33)	28 (77.8)
Age	35	40.28 (10.62)	37.29 (9.4)	38.83 (10.01)
Married or in common law	35	10 (55.56)	11 (61.11)	21 (58.3)
Mexican origin	35	13 (72.22)	14 (77.78)	27 (75)
Puerto Rican origin	35	5 (27.78)	2 (11.11)	7 (19.4)
Born or raised abroad	35	16 (88.89)	13 (72.22)	29 (80.6)
Years of education	33	10.67 (3.09)	8.67 (4.15)	9.76 (3.69)
Unemployed	34	10 (55.56)	11 (61.11)	21 (58.3)
Income under $10,000	32	6 (33.33)	7 (38.89)	13 (36.1)
BDI-II				
Pre-treatment	36	33.11 (8.76)	30.5 (10.1)	31.81 (9.41)
Last session	36	14.33 (15.85)	18.17 (13.8)	16.25 (14.77)
Alliance rating session	36	30.06 (10.36)	26.67 (13.35)	28.36 (11.9)

Note. M (SD) and *n (%)* presented for continuous variables and categorical variable, respectively. No significant differences were observed between conditions. Pre-treatment = BDI-II score before the start of treatment. Last session = BDI-II score immediately after the end of treatment or at the last session attended. Alliance rating session = BDI-II at the session rated to derive alliance scores.

Table 2

Interrater Reliability Established Prior to Rating and at Rating Mid-point

Variable	Absolute				Consistency			
	ICC_{avg}	ICC_1	ICC_2	ICC_{1_2}	ICC_{avg}	ICC_1	ICC_2	ICC_{1_2}
Pre-rating								
Alliance	.74	.56	.52	.56	.75	.61	.51	.61
Goals	.83	.71	.65	.83	.88	.82	.67	.92
Tasks	.52	.18	.5	.52	.57	.21	.52	.51
Bond	.66	.55	.29	.62	.64	.53	.29	.64
Agreement/Confidence	.75	.52	.64	.79	.77	.57	.64	.9
Relationship	.65	.6	.22	.61	.63	.61	.2	.62
Rating mid-point								
Alliance	.12	-.01	.1	-.3	.51	-.03	.45	-.33
Goals	.2	-.5	.4	-.8	.39	-.67	.63	-.7
Tasks	.1	.06	.04	-.56	.44	.13	.19	-.58
Bond	.21	.24	.02	.54	.47	.41	.07	.66
Agreement/Confidence	.04	-.21	.16	-.87	.17	-.41	.49	-.81
Relationship	.21	.24	.02	.54	.47	.41	.07	.66

Note. Two-way mixed average measures method was used to obtain ICC_{avg}, ICC_1, and ICC_2, absolute and consistent agreement. Two-way mixed single measures method was used to obtain ICC_{1_2}, absolute and consistent agreement. ICC_{avg} = agreement between the primary raters' average score and the criterion score; ICC_1 = agreement between primary rater 1 and the criterion

rater; ICC_2 = agreement between primary rater 2 and the criterion rater; ICC_{1_2} = agreement

between primary raters 1 and 2. Pre-rating = agreement established before the start of alliance

rating data collection and after raters were trained; rating mid-point = agreement observed after

half of the sessions were rated.

Table 3

Description of Study Variables by Condition

Variable	BAL (*n* = 18)	TAU (*n* = 18)	Total (*N* = 36)
Alliance	5.96 (0.83)	5.88 (0.72)	5.92 (0.76)
Goals	6.03 (0.78)	5.92 (0.76)	5.98 (0.76)
Tasks	5.97 (0.96)	6.01 (0.68)	5.99 (0.82)
Bond	5.88 (0.78)	5.72 (0.75)	5.8 (0.76)
Acceptance/Confidence	5.98 (0.88)	5.92 (0.73)	5.95 (0.8)
Relationship	5.89 (0.7)	5.78 (0.72)	5.83 (0.7)
Dropout	4 (22.22)	8 (44.44)	12 (33.33)
Number of sessions attended*	8.56 (3.76)	5.11 (3.46)	6.83 (3.97)
Prior depression change	-3.06 (10.1)	-3.83 (11.66)	-3.44 (10.76)
Subsequent depression change	-15.72 (14.23)	-8.5 (8.91)	-12.11 (12.26)

Note. M (SD) and *n* (%) presented for continuous variables and categorical variable, respectively.

* p < .01, two-tailed.

Table 4

Correlations for the Control, Predictor, Retention, and Outcome Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Alliance	–									
2. Goals	.98**	–								
3. Tasks	.98**	.93**	–							
4. Bond	.98**	.94**	.95**	–						
5. Agreement/Confidence	1**	.98**	.98**	.97**	–					
6. Relationship	.96**	.92**	.93**	.98**	.93**	–				
7. Dropout status[a]	-.22	-.21	-.21	-.22	-.2	-.26	–			
8. Number of sessions attended	.16	.16	.14	.19	.16	.17	-.8**	–		
9. Prior change	-.05	-.07	-.03	-.06	-.05	-.07	-.35*	.33*	–	
10. Subsequent change	-.24	-.19	-.28	-.23	-.24	-.22	.3	-.39*	-.17	–
N	36	36	36	36	36	36	36	36	36	36

[a]r_{pb} = Point-Biserial correlation coefficient

p < .05, two-tailed. **p* <.01, two-tailed.

Table 5

Evaluation of Logistic Regression Models for Predicting Dropout and Variance Accounted For by Model

Model/Block	Step			Block			Model			Goodness-of-fit			R^2
	χ^2	df	p	χ^2	df	p	χ^2	df	p	χ^2	df	p	
Alliance													
Block 1	3.63	2	.16	3.63	2	.16	3.63	2	.16	3.18	7	.87	.13
Block 2	0.36	1	.55	0.36	1	.55	3.99	3	.26	4.01	7	.78	.15
Goals													
Block 1	3.49	2	.18	3.49	2	.18	3.49	2	.18	5.02	7	.66	.13
Block 2	0.4	1	.53	0.4	1	.53	3.89	3	.27	5.97	7	.54	.14
Tasks													
Block 1	3.76	2	.15	3.76	2	.15	3.76	2	.15	8.55	7	.29	.14
Block 2	0.62	1	.43	0.62	1	.43	4.38	3	.22	6.16	7	.52	.16
Bond													
Block 1	3.48	2	.18	3.48	2	.18	3.48	2	.18	4.71	6	.58	.13
Block 2	0.15	1	.7	0.15	1	.7	3.63	3	.31	5.12	6	.53	.13

Agreement/Confidence

Block 1	3.47	2	.18	3.47	2	.18	3.47	2	.18	6.94	7	.44	.13
Block 2	0.41	1	.52	0.41	1	.52	3.88	3	.27	5.57	7	.59	.14

Relationship

Block 1	4.09	2	.13	4.09	2	.13	4.09	2	.13	5.62	7	.59	.15
Block 2	0.14	1	.71	0.14	1	.71	4.23	3	.24	4.73	7	.69	.15

Note. Model statistics compare the new model to the baseline (null). Step and Block compare the Log-

likelihoods of the newest model to the previous model. Goodness-of-fit is evaluated using the Hosmer and

Lemeshow Test. R^2 = Nagelkerkes's R^2

Table 6

Logistic Regression Results of Proposed Individual Predictors of Dropout

	Block 1						Block 2					
Variables	*B*	*SE*	Wald's χ^2	*df*	*p*	*exp (B)*	*B*	*SE*	Wald's χ^2	*df*	*p*	*exp (B)*
Condition	1.04	0.76	1.87	1	.17	2.83	4.56	6.07	0.56	1	.45	95.3
Alliance	-0.61	0.49	1.55	1	.21	0.55	-0.34	0.66	0.27	1	.6	0.71
Condition x Alliance							-0.6	1.02	0.34	1	.56	0.55
Condition	1.02	0.76	1.81	1	.18	2.76	4.84	6.24	0.6	1	.44	126.58
Goals	-0.59	0.5	1.41	1	.24	0.56	-0.26	0.72	0.13	1	.72	0.77
Condition x Goals							-0.65	1.04	0.39	1	.54	0.52
Condition	1.12	0.77	2.13	1	.14	3.08	5.75	6.15	0.88	1	.35	315.47
Tasks	-0.59	0.46	1.65	1	.2	0.55	-0.33	0.56	0.34	1	.56	0.72
Condition x Tasks							-0.78	1.02	0.58	1	.45	0.46
Condition	0.98	0.76	1.68	1	.2	2.66	3.13	5.74	0.3	1	.59	22.9
Bond	-0.58	0.49	1.42	1	.23	0.56	-0.39	0.69	0.32	1	.57	0.68
Condition x Bond							-0.38	0.99	0.14	1	.71	0.69

Condition	1.05	0.76	1.91	1	.17	2.85	4.7	5.87	0.64	1	.42	109.61
Agreement/Confidence	-0.56	0.47	1.4	1	.24	0.57	-0.29	0.63	0.21	1	.64	0.75
Condition x Agreement/Confidence							-0.62	0.99	0.4	1	.53	0.54
Condition	1.01	0.76	1.75	1	.19	2.74	3.39	6.41	0.28	1	.6	29.7
Relationship	-0.75	0.54	1.93	1	.17	0.48	-0.54	0.76	0.51	1	.48	0.58
Condition x Relationship							-0.41	1.1	0.14	1	.71	0.66

Table 7

Evaluation of Hierarchical Multiple Regression Models for Predicting Number of Sessions Attended

Model/Step	F	df_1	df_2	p	R^2
Alliance					
Step 1	4.49	2	33	.02	.21
Step 2	2.9	3	32	.05	.21
Goals					
Step 1	4.38	2	33	.02	.21
Step 2	2.83	3	32	.054	.21
Tasks					
Step 1	4.55	2	33	.02	.22
Step 2	2.96	3	32	.05	.22
Bond					
Step 1	4.48	2	33	.02	.21
Step 2	2.91	3	32	.05	.22
Agreement/Confidence					
Step 1	4.48	2	33	.02	.21
Step 2	2.9	3	32	.05	.21
Relationship					
Step 1	4.47	2	33	.02	.21
Step 2	2.92	3	32	.05	.22

Table 8

Hierarchical Multiple Regression Results of Proposed Individual Predictors of Number of Sessions Attended

Variable	Step 1					Step 2				
	B	*SE B*	β	*t*	*p*	*B*	*SE B*	β	*t*	*p*
Condition	-3.39	1.21	-0.43	-2.8	.01	-3.39	1.23	-0.43	-2.76	.01
Alliance	0.74	0.8	0.14	0.92	.37	0.73	1.08	0.14	0.67	.51
Condition x Alliance						0.02	1.65	0.002	0.01	.99
Condition	-3.38	1.21	-0.43	-2.78	.01	-3.38	1.23	-0.43	-2.74	.01
Goals	0.66	0.81	0.13	0.81	.42	0.62	1.15	0.12	0.54	.59
Condition x Goals						0.08	1.65	0.01	0.05	.96
Condition	-3.48	1.21	-0.44	-2.88	.01	-3.48	1.22	-0.44	-2.84	.01
Tasks	0.72	0.75	0.15	0.97	.34	0.61	0.93	0.13	0.66	.51
Condition x Tasks						0.33	1.61	0.04	0.21	.84
Condition	-3.32	1.22	-0.42	-2.73	.01	-3.32	1.23	-0.43	-2.69	.01
Bond	0.74	0.81	0.14	0.91	.37	0.89	1.14	0.17	0.78	.44
Condition x Bond						-0.32	1.65	-0.04	-0.2	.85

Condition	-3.4	1.21	-0.43	-2.81	.01	-3.4	1.23	-0.43	-2.77	.01
Agreement/Confidence	0.7	0.77	0.14	0.91	.37	0.64	1.02	0.13	0.63	.53
Condition x Agreement/Confidence						0.14	1.59	0.02	0.09	.93
Condition	-3.36	1.21	-0.43	-2.77	.01	-3.36	1.23	-0.43	-2.73	.01
Relationship	0.79	0.88	0.14	0.9	.37	1.01	1.27	0.18	0.79	.43
Condition x Relationship						-0.42	1.78	-0.05	-0.24	.81

Table 9

Evaluation of Hierarchical Multiple Regression Models for Predicting Subsequent

Depression Change

Model/Step	F	$df1$	$df2$	p	$R2$
Alliance					
Step 1	0.99	1	34	0.33	0.03
Step 2	2.16	3	32	0.11	0.17
Step 3	1.67	4	31	0.18	0.18
Goals					
Step 1	0.96	1	34	0.33	0.03
Step 2	1.83	3	32	0.16	0.15
Step 3	1.4	4	31	0.26	0.15
Tasks					
Step 1	0.99	1	34	0.33	0.03
Step 2	2.63	3	32	0.07	0.2
Step 3	1.98	4	31	0.12	0.2
Bond					
Step 1	0.99	1	34	0.33	0.03
Step 2	2.01	3	32	0.13	0.16
Step 3	1.59	4	31	0.2	0.17
Agreement/Confidence					
Step 1	0.99	1	34	0.33	0.03
Step 2	2.18	3	32	0.11	0.17

Step 3	1.68	4	31	0.18	0.18
Relationship					
Step 1	0.99	1	34	0.33	0.03
Step 2	1.99	3	32	0.14	0.16
Step 3	1.59	4	31	0.2	0.17

Table 10

Hierarchical Multiple Regression Results of Proposed Individual Predictors of Subsequent Depression Change When Controlling

for Prior Change

Variable	Step 1					Step 2					Step 3				
	B	*SE B*	β	*t*	*p*	*B*	*SE B*	β	*t*	*p*	*B*	*SE B*	β	*t*	*p*
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.19	0.18	-0.17	-1.05	.3	-0.19	0.19	-0.17	-1.04	.31
Condition						6.79	3.91	0.28	1.74	.09	6.8	3.95	0.28	1.72	.1
Alliance						-3.75	2.59	-0.23	-1.45	.16	-5.1	3.48	-0.32	-1.47	.15
Condition x Alliance											3.14	5.28	0.13	0.59	.56
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.19	0.19	-0.17	-1.04	.31	-0.2	0.19	-0.17	-1.03	.31
Condition						6.77	3.96	0.28	1.71	.1	6.77	4.01	0.28	1.69	.1
Goals						-2.91	2.65	-0.18	-1.1	.28	-4.27	3.75	-0.26	-1.14	.26
Condition x Goals											2.75	5.35	0.12	0.52	.61
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.19	0.18	-0.17	-1.04	.31	-0.19	0.18	-0.17	-1.04	.31
Condition						7.26	3.83	0.3	1.89	.07	7.24	3.88	0.3	1.87	.07
Tasks						-4.34	2.37	-0.29	-1.83	.08	-5.12	2.94	-0.34	-1.74	.09

Condition x Tasks											2.37	5.1	0.09	0.47	.65
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.19	0.19	-0.17	-1.05	.3	-0.19	0.19	-0.17	-1.03	.31
Condition						6.5	3.95	0.27	1.65	.11	6.51	3.99	0.27	1.63	.11
Bond						-3.45	2.64	-0.21	-1.31	.2	-5.1	3.68	-0.32	-1.39	.18
Condition x Bond											3.47	5.32	0.15	0.65	.52
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.19	0.18	-0.17	-1.04	.31	-0.19	0.19	-0.17	-1.04	.31
Condition						6.84	3.9	0.28	1.75	.09	6.85	3.94	0.28	1.74	.09
A/C						-3.65	2.48	-0.24	-1.47	.15	-4.8	3.27	-0.31	-1.47	.15
Condition x A/C											2.82	5.1	0.12	0.55	.59
Prior change	-0.19	0.19	-0.17	-0.99	.33	-0.2	0.19	-0.17	-1.06	0.3	-0.19	0.19	-0.17	-1.03	.31
Condition						6.66	3.94	0.28	1.69	0.1	6.66	3.97	0.28	1.68	.1
R						-3.67	2.85	-0.21	-1.29	0.21	-5.68	4.1	-0.33	-1.39	.18
Condition x R											3.94	5.74	0.16	0.69	.5
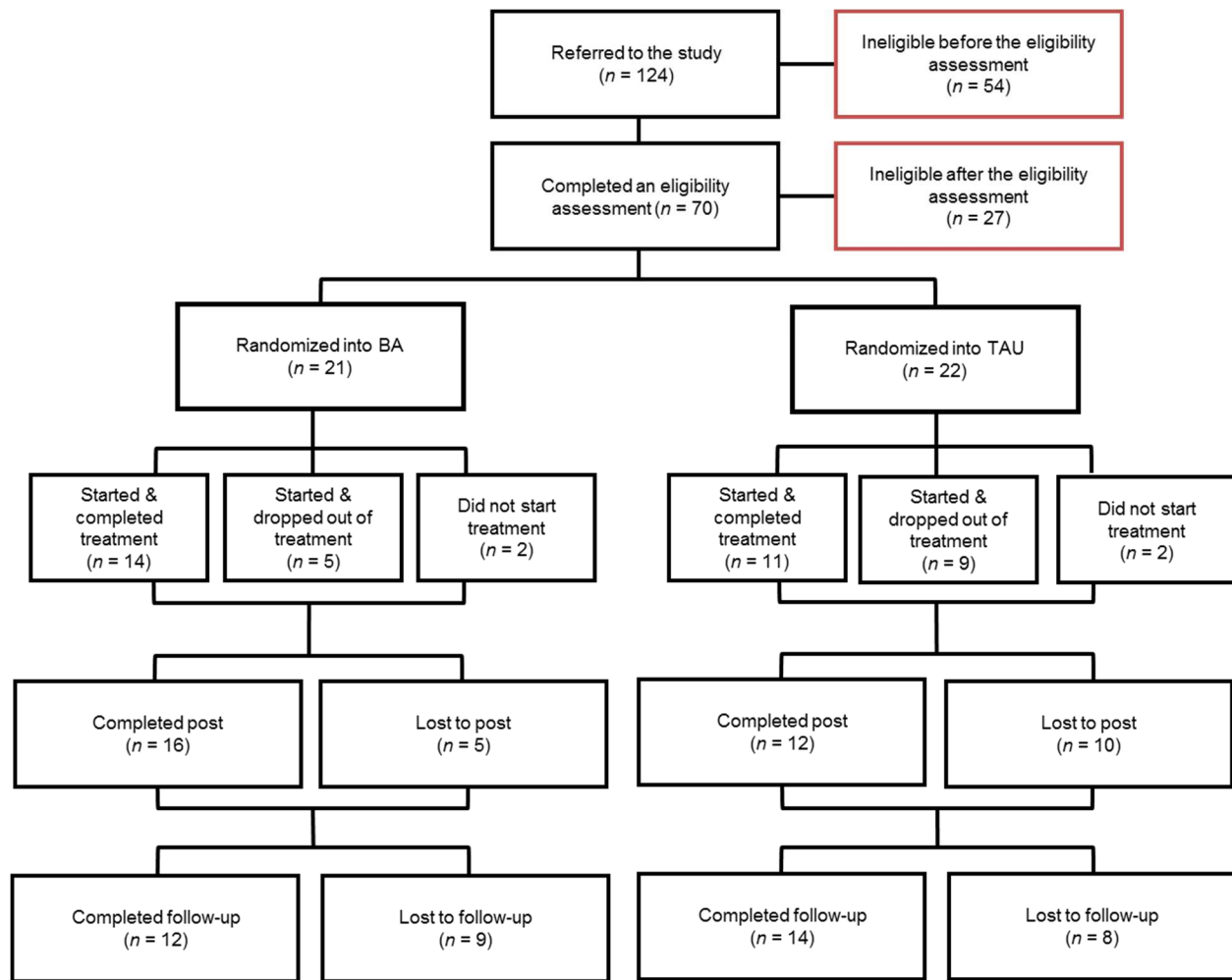
Figure 1. Flow of Study Participants

Working Alliance Inventory
Shortened Observer-Rated Version
(WAI-O-S)

Therapist ID:_____   **Client ID:** _____   **Session ID:** _____
Rater ID: _____   **Date:** _____ **Time Point (circle one): Early Mid Late**

After observing the session, rate the following items:

1. There is agreement about the steps taken to help improve the client's situation.

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

2. There is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem).

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

3. There is mutual liking between the client and therapist.

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

4. There are doubts or a lack of understanding about what participants are trying to accomplish in therapy.

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

5. The client feels confident in the therapist's ability to help the client.

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

6. The client and therapist are working on mutually agreed upon goals.

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

7. The client feels that the therapist appreciates him/her as a person.

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

8. There is agreement on what is important for the client to work on.

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

9. There is mutual trust between the client and the therapist.

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

10. The client and therapist have different ideas about what the client's real problems are.

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

11. The client and therapist have established a good understanding of the changes that would be good for the client.

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

12. The client believes that the way they are working with his/her problem is correct.

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

Appendix B

Three sub-factors of the pan-theoretical General Alliance factor as measured by the WAI-O-S reported by Tracey and Kokotovic (1989)

Sub-factor 1: Goal

4. There are doubts or a lack of understanding about what participants are trying to accomplish in therapy.

6. The client and therapist are working on mutually agreed upon goals.

10. The client and therapist have different ideas about what the client's real problems are.

11. The client and therapist have established a good understanding of the changes that would be good for the client.

Sub-factor 2: Task

1. There is agreement about the steps taken to help improve the client's situation.

2. There is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem).

8. There is agreement on what is important for the client to work on.

12. The client believes that the way they are working with his/her problem is correct.

Sub-factor 3: Bond

3. There is a mutual liking between the client and therapist.

5. The client feels confident in the therapist's ability to help the client.

7. The client feels that the therapist appreciates him/her as a person.

9. There is mutual trust between the client and the therapist.

Appendix C

Two factors of the CBT alliance as measured by the WAI-O-S reported by Andrusyna et al. (2001).

Factor 1: Agreement/Confidence

Goal

4. There are doubts or a lack of understanding about what participants are trying to accomplish in therapy.

6. The client and therapist are working on mutually agreed upon goals.

10. The client and therapist have different ideas about what the client's real problems are.

11. The client and therapist have established a good understanding of the changes that would be good for the client.

Task

1. There is agreement about the steps taken to help improve the client's situation.

2. There is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem).

8. There is agreement on what is important for the client to work on.

12. The client believes that the way they are working with his/her problem is correct.

Bond

5. The client feels confident in the therapist's ability to help the client.

Factor 2: Relationship

Bond (remaining Bond items)

3. There is mutual liking between the client and therapist.

7. The client feels that the therapist appreciates him/her as a person.

9. There is mutual trust between the client and the therapist.

Manual for the
Working Alliance Inventory – Shortened Observer-rated Version (WAI-O-S)

Adapted from:

Darchuck, A., Wang, V., Weibel, D., Fende, J., Anderson, T., & Horvath, A. (2000). Manual for the Working Alliance Inventory – Observer Form (WAI-O): Revision IV. Unpublished manual. Ohio University. Retrieved from http://wai.profhorvath.com/

Berk, E. A., Safran, J. D., Muran, J. C., & Eubanks-Carter, C. (2010). Unpublished manual for the Segmented Working Alliance Inventory Observer-based Measure (S-WAI-O). The New School for Social Research and Beth Israel Medical Center. Retrieved from http://www.safranlab.net/

Theoretical Background

This coding system is grounded in Bordin's (1979) theoretical model of the therapeutic alliance, which comprises agreement on the goals of treatment, agreement about how to reach those goals within treatment (task), and the personal bond between the client and therapist. Bordin's conceptualization of the therapeutic alliance has been adopted by many psychotherapy researchers, including Horvath and Greenberg (1989) who developed the Working Alliance Inventory (WAI). The original WAI is a 36-item measure designed to assess the degree of agreement on tasks and goals as well as the quality of the bond between the client and therapist. There are many iterations of the WAI including client, therapist, and observer versions. Tracey and Kokotovic (1989) shortened these scales from 36 items to 12 items (WAI-S). Tichenor and Hill (1989) adapted the pronouns from the client and therapist forms to modify the WAI to be rated by observers (WAI-O). The shortened observer-rated version of the WAI (WAI-O-S) is closely based on Bordin's (1979) model and is a widely used and accepted alliance scale (Andrusyna et al., 2001).

Rating Scale Background

These guidelines rely greatly on the original guidelines set forth by Raue and colleagues (1997b), but we also made some significant additions and departures from those guidelines. One change is a departure from Horvath's (1982) original rating procedure as well as Raue and colleagues' (1997) guidelines. Typically, observers are to assume a good alliance and therefore subtract from the rating when evidence is present. Research has indicated that the WAI-O has relatively little variability in ratings (Raue, Goldfried, & Barkham, 1997). In addition, they noted that the mean score of all sessions observed was 6.04 out of a total possible score of 7, which is indicative of an ideal alliance. It can be argued that a restricted range of scores due to a possible ceiling effect may be a significant hindrance to the validity of the WAI-O. Our guidelines assume an average alliance between client and therapist, and thus ratings for all items have a starting point at "4-No Evidence," the middle point of the scale.

To accommodate this change, the anchor labels used by the current WAI-O (i.e., "Never" to "Always") were changed to reflect the amount of evidence present in the segment observed (i.e., 1 = "Very strong evidence against", 7 = "Very strong evidence"). By adjusting the anchor labels and the starting point for each item, we believe that raters can more accurately observe the alliance because they will look for positive and negative aspects of the alliance.

To develop a balanced scale that incorporates evidence for and against the factor in question, it appeared necessary to anchor the extreme scores of the scale with bipolar adjectives relevant to each item. For example, the item "There is a mutual liking between the client and therapist" calls for "open dislike" at a rating of 1 and "overt statements of liking" for a rating of 3. Using this format, discussion of the extent or severity of the opposing adjectives is included at each point in the scale.

With this in mind, we developed descriptions for each of the points on the scale for each item. These descriptions include behavioral indicators present at each level, as well as descriptions of the extent or severity of the item in question.

The resulting guidelines provide a thorough explanation of the relevant factors in each item, and provide conceptual boundaries between the items. By using the middle point of the scale as a starting point and focusing on the severity of opposing adjectives, raters are provided with clear distinctions between the points on the scale which may allow raters to more reliably detect subtle changes in the alliance. Although these guidelines are designed to give observers a more thorough understanding of what is meant by each item, we feel that we have left considerable room for subjective perceptions of the alliance. In this respect, both overt behavioral observations and observers' impressions can be accounted for in the final rating of each item.

These guidelines must be empirically examined before any of the above claims can be supported. Specifically, studies comparing the construct validity, interrater reliability, and scale intercorrelations of the WAI-O when scored with and without these guidelines should be conducted. In addition, the efficiency of using this rather lengthy manual must be evaluated. Currently, we are in collaboration with the original developer of the WAI in order to ascertain the construct validity of these guidelines.

An example of the Likert ratings:

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Training Coding Procedure

1. Listen to the session audio recording and follow the session using the transcript. In listening to the session, consider non-verbal communication, namely tone of voice.

2. At every ten minute interval of the session, pause the recording and code the twelve items of the measure. Each item is rated on a seven-point Likert scale, with four being No Evidence or Equal Evidence; one being Very Strong Evidence Against; and seven being Very Strong Evidence for. Be sure to assume an average alliance, which would be coded as a four, and deviate from this score only when there is evidence for or against an item within the segment. When coding, be sure to read the detailed Likert ratings for each item in order to facilitate inter-rater reliability. Please remember that the examples in the anchors are just that—

examples. Please infer from the examples in order to code. Note: Items 4 and 10 have a negative valence.

It will important that you can point to the specific session data that informed your rating for each item. To do this, you may take notes on the time points that capture the content that justify your rating. You may also mark your transcript so that you can reference your in-transcript notes in justifying your ratings during training meetings or at any other time.

3. Continue to code the session in ten-minute intervals, using separate score sheets for each 10-minute interval. Feel free to take breaks between intervals as it is important to code each interval as its own unit. It may be helpful to take notes during each segment to help remember what happened during that segment. Note: If the final interval is less than 5 minutes long, consider the content of the end part of the session in rating the items for the previous interval. For instance, if the session is 64 minutes long, consider minutes 61-64 in rating the items for the 50:01-60 minute interval. If the final interval is five minutes or longer, rate for a new interval. In this case, you would score the items of the scale for a 60:01-70 minute interval.

4. At the end of the session, rate the items of the measure in evaluating the content of the entire session to derive an overall session score.

Study Coding Procedure

Once reliability has been established, rate the 12 items of the WAI-O-S at the end of the session to produce an overall score. Otherwise, follow the procedure used during training.

WAI-O-S Items with Defined Anchors

1. **Within this interval (or across the session),** *there is agreement about the steps taken to help improve the client's situation.*

    1 =   Client directly states that tasks and goals are not appropriate, and does not generally agree on homework or in-session tasks. The client argues with the therapist over the steps that should be taken. The client refuses to participate in the tasks. *(Very strong evidence against)*

    2 =   Client is hesitant to explore and does not follow therapist guidance. The client withdraws from the therapist and appears to merely "go through the motions", without being engaged or attentive to the therapist or the task. *(Considerable evidence against)*

3 = The client appears to be unsure as to how the tasks pertain to his/her goals, even after some clarification by the therapist. The client may seem either ambivalent or unenthusiastic about the tasks in therapy, and appears passively resistant to the tasks (e.g., limited participation). *(Some evidence against)*

4 = *No evidence or equal evidence regarding agreement and/or disagreement.*

5 = Client follows exploration willingly with few or no therapist clarifications needed. The client becomes invested in the process, and is an active participant in the task. There is a sense that both parties have an implicit understanding of the rationale behind the tasks in therapy. *(Some evidence for)*

6 = Client openly agrees on tasks and may be enthusiastic about participating in tasks. Both participants are acutely aware of the purpose of the tasks and how the tasks will benefit the client. To this end, the client uses the task to address relevant concerns and issues. *(Considerable evidence for)*

7 = Repeated communication of approval and agreement, both before and after the task is completed. The client may respond enthusiastically to interventions, gains insight, and appears extremely confident that the task and goal are appropriate. *(Very strong evidence for)*

2. **Within this interval (or across the session),** *there is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problems).*

1 = Participants repeatedly argue over the task. The client refuses to participate in the task, claiming that it is of no use to his/her goals. There is tension between the therapist and the client, and issues are not explored. *(Very strong evidence against)*

2 = Client does not engage or invest in the task of the session, though he/she may not openly dispute the usefulness of the task. The client fails to explore issues with openness. *(Considerable evidence against)*

3 = Client is hesitant to participate, but eventually becomes invested in the task. The therapist is able to accurately convey the rationale behind the activity so that the client is then able to understand how the task is relevant to his/her current concerns. *(Some evidence against)*

4 = *No evidence or equal evidence regarding agreement and/or disagreement.*

5 = Client does not question the usefulness of the task and engages in the task almost immediately. *(Some evidence for)*

6 = Participants engage in a meaningful task that addresses a primary concern of the client. The client may remark, "I never thought of that before" or something to this effect. *(Considerable evidence for)*

7 = Participants remark how important/useful the task is. There is openness to exploration of the task and perhaps enthusiastic collaboration between the participants. *(Very strong evidence for)*

3. *There is a mutual liking between the client and therapist.*

1 = There is open dislike between the participants. Overt hostility is apparent. Arguing and disparaging comments may be present. Neither participant displays concern for the other, and there is a noticeable coldness between them. *(Very strong evidence against)*

2 = Therapist fails to show concern for the client. This may be reflected in the therapist's forgetting of important details of the client's life. The client may question whether the therapist disapproves of him/her. *(Considerable evidence against)*

3 = Although not verbalized, there appear to be stresses in the relationship between the participants. In particular, the therapist rarely/never reacts warmly toward the client, nor does the therapist reinforce healthy outside behaviors very often. The relationship seems relatively cold and mechanical. *(Some evidence against)*

4 = *No evidence or equal evidence regarding mutual liking and/or disliking.*

5 = Participants react with warmth toward each other for most of the session. The therapist is actively involved in exploration of emotions and/or is aware of important details of the client's life. The therapist's tone is empathic and encouraging for the most part. *(Some evidence for)*

6 =   Participants react warmly toward each other throughout the session. The therapist encourages healthy behavior and continually expresses what seems to be genuine concern for the client. *(Considerable evidence for)*

7 =   Therapist appears genuinely interested in the client's life, including hobbies and other outside interests. The therapist constantly reinforces positive behavior and displays positive regard for the client consistently during the session. The client may state "I really feel like you care about me" or something to that effect. *(Very strong evidence for)*

4. ***There are doubts or a lack of understanding about what participants are trying to accomplish in therapy.***

1 =   Participants are clearly working successfully towards the same identifiable goals. Relevance of long-term goals are apparent to both participants. They may discuss goals in order to praise the therapeutic process or comment on its usefulness. *(Very strong evidence against)*

2 =   Participants discuss long-term goals, agree, and work on them. Little discussion is needed on this topic. Any concerns are immediately addressed and therapy session is adjusted to meet the needs of the client. *(Considerable evidence against)*

3 =   Participants may not make mention of long-term goals, but seem to be working toward the same objective. *(Some evidence against)*

4 =   *No evidence or equal evidence regarding confusion and/or understanding.*

5 =   Participants may have minor disagreements on long-term goals. Specific tasks may be questioned or resisted. The client may voice a general dissatisfaction. *(Some evidence for)*

6 =   Participants may need to pause several times to adjust long-term goals. Therapy is interrupted, and several interventions may be questioned. The therapist may assume an "expert" role, and thus may discount the client's ideas for therapy. The client may become despondent and withdraw emotionally from therapy. *(Considerable evidence for)*

7 =   Participants identify different goals, question each other's priorities for therapy, and are unable to compromise on a solution. The client may state his/her reason

for attending therapy that evokes a negative response from the therapist. The client may also express strong displeasure for in-session goals as they might relate to long-term goals. *(Very strong evidence for)*

5. *The client feels confident in the therapist's ability to help the client.*

1 =   Client expresses extremely little or no hope for therapy outcome. The client questions the therapist's ability to a great extent. The client is resistant to therapist suggestions or attempts to help. *(Very strong evidence against)*

2 =   Client expresses considerable doubts, frustration, and pessimism, and may question therapist directly about his/her qualifications or understanding of the client's experience. *(Considerable evidence against)*

3 =   Client expresses some doubts about the usefulness of therapy, in regards to the therapist, process, or outcome. The client may doubt that the therapist is truly understanding his/her problems or doubt the interventions/homework/etc. given during a problem-solving phase. *(Some evidence against)*

4 =   *No evidence or equal evidence regarding client confidence and/or doubt.*

5 =   Client expresses some confidence in the therapist's ability, either by praise or an optimistic view about the outcome of the therapy as the result of a collaborative process (rather than thinking that the client him/herself is doing all of the work). *(Some evidence for)*

6 =   Client believes in the therapist's competence level to a great extent, and this may be evident in the client's expressions about the usefulness of therapy or praise of the therapist. *(Considerable evidence for)*

7 =   Participants completely agree upon goals through extremely productive discussions of more than one relevant topic. Participants almost always reach closure on current topic that the client recognized as a goal, before shifting to another relevant topic. *(Very strong evidence for)*

6. *The client and therapist are working on mutually agreed upon goals.*

1 =   Topics change constantly and abruptly without consideration of the other, mostly after interruptions by either participant. There is a good deal of clashing over the

appropriateness, definitions, and/or boundaries of the client's goals. *(Very strong evidence against)*

2 = Topics shift somewhat frequently before resolution or closure. The therapist may interrupt and redirect focus onto a less relevant topic without prompting from the client. Friction between the participants may become evident – one or both may show dissatisfaction with the change in topics or the pace of therapy in general. *(Considerable evidence against)*

3 = Some shifts are induced from a relevant to another relevant or non-relevant topic by either participant before closure has been established for the original topic. This is indicated by interruptions or ignoring the other's statement and moving on. *(Some evidence against)*

4 = *No evidence or equal evidence regarding collaboration on in-session goals.*

5 = Some evidence that participants are making progress towards in-session goals via discussion of relevant topics. *(Some evidence for)*

6 = Considerable progress made towards goals through thoughtful discussion of topics that both participants agree are relevant. Participants frequently agree with each other about what they are currently doing, as indicated by either verbal or non-verbal behaviors. *(Considerable evidence for)*

7 = Participants completely agree upon goals through extremely productive discussions of more than one relevant topic. Participants almost always reach closure on current topic that the client recognized as a goal, before shifting to another relevant topic. *(Very strong evidence for)*

7. *The client feels that the therapist appreciates him/her as a person.*

1 = Client accuses the therapist of being uncaring, inconsiderate, and inattentive to his/her concerns several times. *(Very strong evidence against)*

2 = Client perceives the therapist as mechanical, distant, and/or uncaring, by voicing these concerns to the therapist. Client may demonstrate some contempt. *(Considerable evidence against)*

3 = Client expresses some doubts about whether the therapist cares for him/her, by subtlety mentioning this to the therapist in passing during discussion of other topics. The client may show some nonverbal signs of withdrawal, displeasure, or frustration, in response to feeling unappreciated. *(Some evidence against)*

4 = *No evidence or equal evidence regarding client's feelings about therapist appreciation or disregard.*

5 = Therapist expresses some nonjudgmental acceptance, warmth, empathy, personal interest, and/or sensitivity to the client and his/her situation that the client responds to in some fashion. *(Some evidence for)*

6 = Some direct client acknowledgement of therapist warmth, acceptance, and/or understanding. The client feels concern/support from the therapist and is comfortable and at ease during most of the session. *(Considerable evidence for)*

7 = Client seems to feel that the therapist likes him/her, and expresses gratitude for the relationship or compliments the therapist's ability to empathize. *(Very strong evidence for)*

8. *There is agreement on what is important for the client to work on.*

1 = Therapist does not allow client to move on to different topics or the participants become very confrontational about the therapy process. *(Very strong evidence against)*

2 = Considerable disagreement is evident between the participants on what the client should be doing in therapy, through directly voiced opinions about therapy productivity that conflict with the other's views about it. *(Considerable evidence against)*

3 = Some disagreement is present between the participants on what the client should be working on currently or in the future. The client may want to spend a different percentage of the session time on certain topics than does the therapist. *(Some evidence against)*

4 = *No evidence or equal evidence regarding agreement and/or disagreement.*

5 =   Client is somewhat responsive to the therapist's intention and the therapist is somewhat responsive to client focus or need. The therapist facilitates client exploration to some extent. *(Some evidence for)*

6 =   Therapist is frequently willing to explore client issues and is very receptive to modifications by the client. No indication that a participant responds negatively to the other's exploration of topics and/or issues. *(Considerable evidence for)*

7 =   Participants seem to consistently agree on the importance and appropriateness of the tasks and issues, openly agree to work on certain issues, and demonstrate flexibility by following each other's leads when integrating new topics into the session. *(Very strong evidence for)*

9. *There is mutual trust between the client and therapist.*

1 =   Client states outright that he/she does not trust the therapist at all. The client does not openly discuss any significant issues. The therapist demonstrates a complete lack of confidence in the client's ability to discuss significant issues. *(Very strong evidence against)*

2 =   Participants are considerably distrustful of each other. The client is very guarded in disclosing any intimate content, while the therapist also shows a lack of comfort. Questions concerning trust may arise. *(Considerable evidence against)*

3 =   Participants are somewhat distrustful of each other. Client is a bit guarded in terms of content disclosed. Therapist may show a few signs of lack of comfort about the therapy situation. *(Some evidence against)*

4 =   *No evidence or equal evidence regarding mutual trust between the participants.*

5 =   Some willingness by the client to disclose personal concerns and some therapist acceptance of the client's statements at face value. The therapist does not override or interrupt a client's train of thought by redirecting focus. *(Some evidence for)*

6 =   Client is receptive to therapist reflections, challenges, and/or suggestions, and discloses a considerable amount of more intimate/relevant information regarding his/her problem(s). The therapist seems comfortable with the overall situation

129

and is not defensive at all. The client may express confidence in the therapist. *(Considerable evidence for)*

7 = Participants seem to have complete faith in each other, such as through an explicit statement of faith. The client is very comfortable about disclosing extremely intimate details or problems, and the therapist seems to feel extremely comfortable. *(Very strong evidence for)*

10. *The client and therapist have different ideas about what the client's real problems are.*

1 = Participants consistently agree on the nature of the client's problems and goals. Congruency in problem solving is clearly evident. Both often identify the same issues. Participants feel that the session is very productive. *(Very strong evidence against)*

2 = There is considerable agreement on the client's true problems. The therapist is willing to explore client problems and/or current feelings, and the client openly follows and/or provides the direction of the discussion. *(Considerable evidence against)*

3 = Participants show some agreement about the issues that the client faces. *(Some evidence against)*

4 = *No evidence or equal evidence regarding agreement and/or disagreement.*

5 = Participants show some disagreement about what the client's problems are. Either may question the other's response regarding client problems. *(Some evidence for)*

6 = One participant brings up a topic but the other ignores it or disagrees with its relevance. Confrontations of some sort arise as a result. There may be signs that one or both participants become defensive at times. *(Considerable evidence for)*

7 = Client either strongly disagrees or argues with therapist about what his/her problems really are. The therapist may refer to what he/she believes is the "real problem" and may thereby discount the client's perceptions of the problem. The therapist abruptly shifts topics and/or constantly interrupts with no regard for the client's concerns or current state. *(Very strong evidence for)*

11. *The client and therapist have established a good understanding of the changes that would be good for the client.*

1 = Participants misunderstand each other. They have open disagreements about the process of change. The client voices concerns that he/she seems to be moving towards changes that he/she does not want or that the methods being used will not lead the client towards desired changes. *(Very strong evidence against)*

2 = Client expresses doubts that he/she can change or about methods the therapist is suggesting to bring about change. The client voices some concerns about the change process. *(Considerable evidence against)*

3 = Client may be going through what seems to be productive exercises, but it is not clear to the client and/or therapist how change will occur. It may seem that the client does not see how the process will help him/her. *(Some evidence against)*

4 = *No evidence or equal evidence regarding understanding and/or misunderstanding.*

5 = There is some evidence that the participants understand changes that would be good for the client. Understanding may be gathered from compliance and other non-verbal signs of understanding and need not be explicitly stated. *(Some evidence for)*

6 = Participants discuss where the client stands and where he/she is going, through discussion of the client's current situation, desired goals, and methods for achieving them. *(Considerable evidence for)*

7 = Both the process and ultimate changes hoped for have been made explicit. Throughout the session the participants have open discussions of the client's goals and therapy methods for achieving these goals. At the end of the session they may summarize progress made towards the goals. Everything they do seems to fit within their treatment plan. *(Very strong evidence for)*

12. *The client believes that the way they are working with his/her problem is correct.*

1 = Client questions the process and does not believe in the tasks he/she is doing. The participants make little or no progress. The client openly disagrees with the therapist. It may appear that more time is spent arguing than doing therapy. *(Very strong evidence against)*

2 =   Participants often disagree but seem to be able to work together for part of the session. The client expresses some doubts about the therapy process. *(Considerable evidence against)*

3 =   Client sometimes voices concerns about a technique, but he/she usually resolves the difference and finds something else to work on for most of the session. *(Some evidence against)*

4 =   *No evidence or equal evidence regarding client beliefs about his/her problem being handled correctly and/or incorrectly.*

5 =   Client expresses some agreement about certain tasks in therapy. This agreement can be expressed by compliance and other non-verbal signs of agreement and need not be explicitly stated. *(Some evidence for)*

6 =   Client expresses considerable agreement with the way the therapist and client are working. The client may become more actively involved in therapy, make suggestions to further the tasks of therapy, or voice satisfaction about the work. *(Considerable evidence for)*

7 =   Client is thrilled with the way the therapist and client are working on the problem. The therapy is close to the client's ideal therapy. The client either voices his/her level of satisfaction and/or displays high levels of collaboration and perhaps enthusiasm. *(Very strong evidence for)*

Working Alliance Inventory
Shortened Observer-Rated Version
(WAI-O-S)

Transcript & Recording _____ **Rater ID:** _____ **Rating date:** _____ **ID:**	
Rating Type (circle one): Interval Overall Session **If interval, which (e.g., 0-10, 10:01-20)?:** _____	

At each ten minute interval (or at the end of the session), rate the following items:

*13. **There is agreement about the steps taken to help improve the client's situation.***

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

*14. **There is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem).***

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

*15. **There is mutual liking between the client and therapist.***

1	2	3	4	5	6	7

Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

16. There are doubts or a lack of understanding about what participants are trying to accomplish in therapy.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

17. The client feels confident in the therapist's ability to help the client.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

18. The client and therapist are working on mutually agreed upon goals.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

19. The client feels that the therapist appreciates him/her as a person.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

20. There is agreement on what is important for the client to work on.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

21. There is mutual trust between the client and the therapist.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

22. The client and therapist have different ideas about what the client's real problems are.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

23. The client and therapist have established a good understanding of the changes that would be good for the client.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

24. The client believes that the way they are working with his/her problem is correct.

1	2	3	4	5	6	7
Very strong evidence against	Considerable evidence against	Some evidence against	No evidence or equal evidence	Some evidence for	Considerable evidence for	Very strong evidence for

Notes:

References

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Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36,* 223-233.

Raue, P. J., Castonguay, L. G., Newman, M., Gaus Binkley, V., Shearer, D., & Goldfried, M. R. (1991). Guidelines for the Working Alliance Inventory—Observer Form (WAI-O). Unpublished manuscript. State University of New York at Stony Brook.

Raue, P. J., Goldfried, M. R., & Barkham, M. (1997). The therapeutic alliance in psychodynamic interpersonal and cognitive—behavioral therapy. Journal of Consulting and Clinical Psychology, 65, 582-587.

Safran, J.D. & Muran, J.C. (1996). The resolution of ruptures in the therapeutic alliance. Journal of Consulting and Clinical Psychology, *64*, 447-458.

María Magdalena Santos

EDUCATION & TRAINING

2016 - 2018	Expected Postdoctoral Fellowship	University of Southern California, Department of Psychology, Culture and Mental Health Lab, Los Angeles, CA; PI: Steven R. Lopez, Professor of Psychology and Social Work
2016	Expected Ph.D.	University of Wisconsin-Milwaukee (UWM) Department of Psychology, Clinical Psychology Program, Milwaukee, WI; APA-accredited
2016	Clinical Internship	Southwest Consortium Doctoral Psychology Internship, a program of the New Mexico Veterans Affairs Health Care System, Indian Health Service-Albuquerque Service Unit, and the University of New Mexico Hospital, Albuquerque, NM; APA-accredited
2013	M.S.	UWM Department of Psychology, Clinical Psychology Program Milwaukee, WI; APA-accredited
2008	B.A.	University of California, Los Angeles (UCLA) Department of Political Science, Los Angeles, CA

RESEARCH ACTIVITIES

Publications

Peer-reviewed Publications

Esparza Lizarazo, N., Muñoz-Martínez, A. M., **Santos, M. M.**, & Kanter, J. W. (2015). A within subjects evaluation of the effects of functional analytic psychotherapy on in-session and out-of-session client behavior. *The Psychological Record*. doi: 10.1007/s40732-015-0122-7

Kanter, J. W., Santiago-Rivera, A. L., **Santos, M. M.**, Nagy, G., López, M., Diéguez Hurtado,

G., & West, P. (2014). A randomized hybrid efficacy and effectiveness trial of Behavioral Activation for Latinos with depression. *Behavior Therapy*. doi: 10.1016/j.beth.2014.09.011

Kanter, J. W., Puspitasari, A. J., **Santos, M. M.**, & Nagy, G. A. (2012). Behavioural activation: history, evidence, and promise. *The British Journal of Psychiatry, 200*, 361-363. doi: 10.1192/bjp.bp.111.103390

Submitted for Review

Nagy, G. A., **Santos, M. M.**, Diéguez-Hurtado, G., Puspitasari, A. J., Kanter, J. W., & Santiago-Rivera, A. (in preparation). *Preliminary results of a bilingual, modular, active learning training of Behavioral Activation for Spanish-speaking community therapists.*

Reyes Ortega, M. A., Kanter, J. K., Arango de Montis, I., **Santos, M. M.**, & Kuczynski, A. (under review). *Online functional analytic psychotherapy intervention impacts on burnout reduction and organizational climate improvement.*

Santos, M. M., Nagy, G. A., Diéguez Hurtado, G., West, P., Santiago-Rivera, A. L., Lee, H. J., & Kanter, J. W. (under review). *Acculturative stress as a moderator of treatment engagement and retention in Behavioral Activation and treatment as usual for Latinos with depression.*

Santos, M. M., Rae, J. R., Nagy, G. A., Dieguez Hurtado, G., West, P., Santiago-Rivera, A., & Kanter, J. W. (under review). *A single-subject session-by-session evaluation of Behavioral Activation's mechanism of action.*

In Preparation

Pérez, V., **Santos, M. M.**, & López, S. R. (in preparation). *Functional outcomes in Mexican American patients with schizophrenia: The role of recovery expectations and self-identity.*

Nagy, G. A., **Santos, M. M.**, Kanter, J. W., & Lopez, S. R. (in preparation). *Applying a process-oriented model of cultural competence to cognitive-behavioral therapy.*

Nagy, G. A., **Santos, M. M.**, Lopez, S. R., & Kanter, J. W. (in preparation). Online training of cultural competence skills for mental health professionals.

Ribas, A. C., Lopez, S. R., Sheinbaum, T., **Santos, M. M.**, & Benalcázar, A. (in preparation). *Towards evidence-based cultural competence: A coding system of clinicians' in-session behaviors.*

Santos, M. M., Nagy, G. A., Romero, L., Santiago-Rivera, A., Kanter, J. W., Diéguez Hurtado, G., & West, P. (in preparation). *RCT of Behavioral Activation for Latinos with depression: Lessons learned in conducting community-based participatory research.*

Book Chapters

139

Kanter, J. W., Puspitasari, A., **Santos, M. M.**, & Nagy, G. (2014). Social work and behavioral activation. In *Mindfulness and Acceptance in Social Work*. Oakland, CA: New Harbinger Publications.

Santiago Rivera, A. L., Benson Flórez, G., **Santos, M. M.**, & López, M. (2015). Latinos and depression: measurement issues and assessments. In K. Geisinger (Ed.), *Psychological Testing of Hispanics*.

Presentations

Workshops Conducted

Dieguez-Hurtado, G., **Santos, M. M.**, & Nagy, G. A. (2016, October). *Implementing Behavioral Activation for Latinos with depression in a social work context*. Workshop to be conducted at the 42nd Annual Conference of the National Association of Social Workers, Wisconsin Chapter, Milwaukee, WI.

Dieguez Hurtado, G., Nagy, G. A., & **Santos, M. M.** (2016, April). *Implementing Behavioral Activation for Latinos with depression in a social work context*. Workshop to be conducted at the 2016 Annual Conference of the Latino Social Workers Organization and the NYU Silver School of Social Work, New York, NY.

Santos, M. M., Nagy, G., & Dieguez-Hurtado, G. (2015, April). *Implementing Community-Based Behavioral Activation for Latinos with Depression*. Workshop conducted at the Annual Convention of the Wisconsin Psychological Association, Middleton, WI.

Lopez, S., Nagy, G., **Santos, M.**, & Kanter, J. (2013, November). *Cultural Competence in Cognitive-Behavioral Therapy: A Process, Skills-Based Model*. Workshop conducted at the Forty-seventh Annual Conference of the Association for Behavioral and Cognitive Therapies, Nashville, TN.

Kanter, J. W., Dieguez-Hurtado, G., **Santos, M. M.**, Nagy, G. A., & Puspitasari, A. J. (2012, October). *Maximizing Your Effectiveness in Behavioral Activation for Latinos*. Workshop conducted for the 2012 Annual Conference of the National Association of Social Workers, Wisconsin Chapter, Brookfield, WI.

Oral Presentations

Nagy, G. A., **Santos, M. M.**, Dieguez Hurtado, G., West, P., Santiago-Rivera, A., & Kanter, J. W. (2015, November). *BA for depressed Latino adults in the context of a bilingual community clinic: Findings and lessons to inform dissemination & implementation research*. In R. Hershenberg (Chair), Recent Advancements in the Dissemination of Behavioral Activation. Symposium presented at the Forty-ninth Annual Convention of the Association for Behavioral and Cognitive Therapies, Chicago, IL.

Reyes, M. A., Kanter, J. W., & **Santos, M. M.** (2015, July). *Reducing burn-out and improving organizational climate in a BPD Clinic with FAP therapist training*. In G. Holman (Chair), Training Therapists in Awareness, Courage, and Love: New Data for the Functional Analytic Psychotherapy Group Training Model. Symposium presented at the Association for Contextual Behavioral Science 13th Annual World Conference, Berlin, Germany.

Santos, M. M., Nagy, G. A., Romero, L., Santiago-Rivera, A., Kanter, J. W., Diéguez Hurtado, G., & West, P. (2014, October). *RCT of Behavioral Activation for Latinos with depression: A model for community-based participatory research*. Paper presented at the Biennial Conference of the National Latino/a Psychological Association, Albuquerque, NM.

Santos, M. M., Chowdhury, M., López, S. R., & Lara-Muñoz, M. (2014, April). *Duration of Untreated Psychosis (DUP) in a Mexican Sample of Patients with Psychotic Disorders*. Paper presented at the Ninety-fourth Annual Convention of the Western Psychological Association, Portland, OR.

Kanter, J. W., Santiago-Rivera, A., **Santos, M. M.**, Lopez, M., Nagy, G., Dieguez, G., & West, P. (2012, November). Outcomes and mechanisms of action of a randomized controlled trial of behavioral activation for Latinos with depression in a community clinic. In C. Hunnicutt-Ferguson (Chair), *Mechanisms and explanatory processes for major depressive disorder: A research update*. Symposium conducted at the Forty-sixth Annual Conference of the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Barrio, C., Durazo, N., & **Santos, M.** (2009, June). *Primeramente Dios: The Salience of Spirituality and Religiousness in Mexican Immigrant Families dealing with Schizophrenia in a Family Member*. Paper presented at the Fourth North American Conference on Spirituality and Social Work, Los Angeles, CA.

Santos, M., & Lopez, S.R. (2008, May). *Congruency of Expectations for Recovery of Persons with Schizophrenia and their Caregivers*. Paper presented at the Eighth Annual Stanford Undergraduate Psychology Conference, Stanford, CA.

Selected Poster Presentations

Santos, M. M., Rae, J., Nagy, G. A., Diéguez-Hurtado, G., West, P., Santiago-Rivera, A., & Kanter, J. W. (2015, April). *Single-subject session-by-session evaluation of Behavioral Activation (BA) for depression's mechanism of action*. Poster presented at the Eighty-Seventh Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Nagy, G. A., **Santos, M. M.**, Romero, L., Santiago-Rivera, A., Kanter, J. W., Diéguez Hurtado, G., & West, P. (2014, October). *Examining the feasibility of delivering Behavioral Activation in a community setting for low-income, Spanish-speaking Latinos*. Poster

presented at the Biennial Conference of the National Latino/a Psychological Association, Albuquerque, NM.

Santos, M. M., Nagy, G. A., Kanter, J. W., & Santiago-Rivera, A. L. (2014, April). *Predictive Validity of the Spanish Version of the Behavioral Activation for Depression Scale – Short Form (BADS-SF)*. Poster presented at the biannual Latino Researchers Conference, New York, NY.

Valadez, F., Santos, M. M., Chowdhury, M., López, S. R., & Lara-Muñoz, M. (2014, April). *Examining the association between the duration of untreated psychosis and symptom severity in a Mexican outpatient sample*. Poster presented at National Conference on Undergraduate Research at the University of Kentucky, Lexington, KY.

Nagy, G., Santos, M., Lopez, S., & Kanter, J. (2014, April). *Efficacy of a cultural competence training module infused in online, modular training of Behavioral Activation in increasing multicultural awareness, knowledge, and skills*. Poster presented at the annual Wisconsin Psychological Association Convention, Middleton, WI.

Canido, K., Morales, C., Valadez, F., Nagy, G., Santos, M., Kanter, J. (April 2014). *Retention and Attrition of Low-Income, Spanish-Speaking Latinos in Behavioral Activation Treatment*. Poster presented at the UW System Symposium, Milwaukee, WI.

Santos, M. M., Kanter, J. W., & Luo, W. (2013, November). *Validation of the Behavioral Activation for Depression Scale – Short Form (BADS-SF) with Latinos*. Poster presented at the Forty-seventh Annual Conference of the Association for Behavioral and Cognitive Therapies, Nashville, TN.

Santos, M. M., Nagy, G, Harper, S., López, S., Kanter, J., Morales, C., Trejo, V., Walsh, A., & Drame, N. (2013, November). *Exploring the Relationship Between Therapist's Knowledge, Awareness and Skill in Multicultural Issues in Therapy and a Subjective Assessment of Cultural Competence via a Role Play Assessment*. Poster presented at the Forty-seventh Annual Conference of the Association for Behavioral and Cognitive Therapies, Nashville, TN.

Nagy, G. A., Morales, C., Trejo, V., Harper, S., Fero, L., Verzal, M., Puspitasari, A. J., Santos, M., & Kanter, J. W. (2013, April). *The effectiveness of a modular, face-to-face training in Behavioral Activation for community therapists who serve depressed Latinos*. Poster presented at the annual Wisconsin Psychological Association Convention, Middleton, WI.

Santos, M. M., Nagy, G. A., Lopez, M., Kanter, J. W., & Santiago-Rivera, A. (2013, April). *Examining the moderating effect of immigration-related stress on outcome of Behavioral Activation for Latinos with depression*. Poster presented at the annual Wisconsin Psychological Association Convention, Middleton, WI.

Santos, M. M., Nagy, G. A., Sotelo, V. I., Czajkowska, K. K., Velazquez, A., Lopez, M., Santiago-Rivera, A., & Kanter, J. W. (2012, November). *Treatment outcome and retention in a randomized controlled trial of behavioral activation for Latinos with depression in a community clinic*. Poster presented at the Forty-sixth Annual Conference of the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Santos, **M. M.**, Lopez, M., Nagy, G. A., Kanter, J. K., Santiago-Rivera, A., Dieguez, G., & West, P. (2012, November). *Does activation mediate change in an RCT of behavioral activation for Latinos with depression? Evaluation of a treatment's mechanism of action in a community setting.* Poster presented at the Forty-sixth Annual Conference of Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Nagy, G. A., **Santos, M. M.**, Lopez, M., Czajkowska, K. K., Sotelo, V., Velazquez, A., Kanter, J. W., & Santiago-Rivera, A. (2012, November). *Do cultural variables moderate the effectiveness of a Behavioral Activation intervention for depressed Latinos?* Poster presented at the Forty-sixth Annual Conference of Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Arellanes, M., **Santos, M.**, Taylor-Hill, H., and Eisenhower, A. (2008, May). *The relationship between parental attributions and stress by type of child behavior problem.* Poster session presented at the Seventeenth Annual University of California, Los Angeles Psychology Undergraduate Research Conference, Los Angeles, CA.

Santos, M., & Lopez, S.R. (2007, August). *Living with schizophrenia: expectations for the future.* Paper presented at the 2007 University of California Berkeley McNair Scholars Symposium, Berkeley, CA.

Selected Research Positions

Graduate Student Researcher, Center for the Science of Social Connection (CSSC), Department of Psychology, University of Washington, Seattle, WA. Advisor: Jonathan W. Kanter, Ph.D., Research Associate Professor

July 2013 - present   *Project: The Therapeutic Alliance in a Sample of Depressed Latinos Treated with Behavioral Activation and Treatment-as-Usual*

- Designed study to examine whether the therapeutic alliance, as measured by the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989), predicts outcome and retention in a sample of Spanish-speaking Latinos treated with Behavioral Activation treatment for depression or treatment as usual
- Trained and manage undergraduate researchers who prepare data for coding out-of-state
- Trained coders to reliably and validly utilize the observer form of the WAI to derive alliance ratings and oversee data generation process
- Manage data set and will conduct all statistical analyses
- Will carry-out write-up of results

August 2014 –   *Project: Single-subject Evaluation of Functional Analytic*
June 2015   *Psychotherapy's (FAP) Mechanism of Change*

- Co-designed a study to examine FAP's theorized mechanism that suggests a therapist's reinforcement of client behavior occurring in session produces improvements in target client behavior outside of session through a single-subject A/A+B design.
- Facilitated IRB review and approval of study

Graduate Student Trainee, NIH/NCMHD-funded MHIRT Latino Mental Health Research Training Program, Department of Psychiatry, Benemérita Universidad Autónoma de Puebla, Mexico. Advisor: Steven R. Lopez, Ph.D., Professor, Department of Psychology, University of Southern California Dornsife College

June 2012 - present

Project: Understanding Psychosis Treatment Delay in Patients with Schizophrenia and Schizoaffective Disorder
- Co-designed qualitative study to examine factors that may have contributed to latency between the onset of symptoms and the initiation of treatment in a sample of Mexican patients with the specified psychotic disorders
- Obtained IRB review and approval at institutions engaged in research
- Co-developed Spanish-language semi-structured interview to collect data on possible contributors to treatment delay
- Conducted interviews with patients with psychotic disorders and their key relatives
- Led and completed qualitative data analysis to identify possible contributors to delay
- Currently preparing manuscript of findings

Graduate Student Researcher, Kanter Laboratory & Depression Treatment Specialty Clinic, Department of Psychology, University of Wisconsin-Milwaukee, Milwaukee, WI. PI: Jonathan W. Kanter, Ph.D., Associate Professor

September 2011- May 2013

Project: Validation of the Behavioral Activation for Depression Scale - Short Form (BADS-SF) with a U.S. Latino sample
- Oversaw data entry and managed data set
- Designed validation study
- Conducted data analyses to confirm BADS-SF factor structure and examined reliability and validity
- Produced written report of findings and prepared findings for presentation

October 2011 - June 2012

Project: Pilot of Behavioral Activation for Latino Men with Depression

- Facilitated development of relationship with community partners, United Community Center, a Milwaukee, WI agency that primarily serves low-income Latinos
- Enabled effective communication with partners for duration of project
- Designed study to examine the feasibility of implementing BA in group format in the community setting
- Coordinated all study activities, such as participant recruitment, participant assessments, treatment group logistics, among others
- Conducted pre-, mid-, and post-treatment assessments, and coordinated training of second assessor
- Managed data set and examined data

Research Assistant, School of Social Work, University of Southern California, Los Angeles, CA. PI: Concepción Barrio, Ph.D., Associate Professor

September 2008 – August 2010

Project: Culturally Based Family Intervention for Mexican Americans (CFIMA) Study
- Conducted structured and qualitative interviews of consumers with schizophrenia and their primary caregivers to facilitate assessment of intervention effectiveness
- Conducted qualitative examination of the interface between religion, Mexican-American culture, and mental illness
- Developed a qualitative interview to explore the pathway to mental health care of people with schizophrenia

Research Mentoring

October 2014 – April 2015

Understanding the Nature of the Therapeutic Alliance Among Spanish-speaking Dyads with Low and High WAI Scores
Graduate student mentor; Supervisor: Bonnie Klein-Tasman, Ph.D., Professor, Department of Psychology, UWM
Guided undergraduate psychology students through literature review, study design, data analysis, discussion of findings and relevance for psychotherapy services, and presentation of findings at undergraduate conference.

October 2013 – April 2014

Examination of the Association Between the Duration of Untreated Psychosis and Symptom Severity in a Mexican Outpatient Sample
Graduate student mentor; Supervisor: Bonnie Klein-Tasman, Ph.D., Professor, Department of Psychology, UWM

Conducted literature review meetings, guided undergraduate researcher through formulation of research question, data analysis through SPSS, interpretation of findings, and preparation of poster presentation.

CLINICAL POSITIONS

Psychology Intern, Southwest Consortium Doctoral Psychology Internship, Department of Veterans Affairs New Mexico VA Health Care System, Albuquerque, NM

Expected dates: January 2016 – July 2016	*Military Trauma Treatment Program (MTTP; major rotation)* • Assess and treat primarily male OEF/OIF/OND veterans with combat, military sexual, and other adult and childhood traumas, and with comorbid PTSD and SUD • Provide Prolonged Exposure and Cognitive Processing Therapy to individual clients • Co-facilitate CPT groups • Co-facilitate groups on military sexual trauma and skills-based groups, such as "PTSD 101" that provides brief psychoeducation and information on PTSD • Conduct full diagnostic mental health assessments for presentation during treatment team meetings
Expected dates: January 2016 – July 2016	*Women's Stress Disorder Treatment Team (WSDTT)* • Assess and treat female veterans with sexual, combat, and other adult and childhood traumas • Provide Prolonged Exposure and Cognitive Processing Therapy to individual clients in-person and through telehealth technology • Co-facilitate PE (innovative use of exposure in group), CPT, PsychEd, Skills, and Intimacy groups • Conduct clinical interviews and personality assessments for diagnostic clarification and treatment planning (CAPS-5, MMPI2, MCMI3, BDHI, BDI-II); provide feedback on results
Expected dates: January 2016 – July 2016	*Assessment Clinic* • Psychodiagnostic, personality, and neuropsychological assessment
July 2015 – present	*Inpatient Psychiatry – Ward 7 (major rotation)* • Developed group treatment modules to help Veterans engage in active recovery based on Behavioral Activation for depression by Kanter et al. (2009)

- Facilitated and co-facilitate psychotherapy process group for higher functioning Veterans
- Co-facilitated psychotherapy group for Veterans with a wide range of disorders and at different levels of functioning and symptom severity
- Delivered brief psychotherapy interventions to individual patients that focused on bridging inpatient and outpatient care
- Conducted psychodiagnostic, personality, and neuropsychological assessments of Veterans admitted to inpatient unit or residential treatment
- Collaborated with multidisciplinary team to develop case conceptualization and develop consistent treatment plans

July 2015 – present

Psychotherapy Clinic (Year-long practicum)
- Provide long-term individual psychotherapy designed to help Veteran meet personally meaningful goals and achieve symptom reduction
- Conceptualize cases through active consideration of various factors, such as developmental history, biological factors, culture, among others

May 2014 – May 2015

Training Clinician, Center for the Science of Social Connection (CSSC), Department of Psychology, University of Washington, Seattle, WA

- Provided collaborative individual psychotherapy to address specific client problems and increase social connectedness
- Delivered psychotherapy for pairs (e.g., romantic partners, friends) to increase interpersonal connectedness
- Trained primarily in Functional Analytic Psychotherapy (FAP; Kohlenberg & Tsai, 1991)
- Developed case conceptualization informed by behavioral, cognitive-behavioral, humanistic, and psychodynamic orientations
- Delivered services in English or Spanish based on client need

June 2013 – December 2013

Practicum Intern, Sixteenth Street Community Health Centers (SSHC), Behavioral Health Services, Milwaukee, WI

- Provided individual psychotherapy to Latino adult and adolescent clients with depression and anxiety disorders with limited resources and who were often low functioning
- Delivered evidenced-based treatments (e.g., BA and PE)
- Conceptualized cases functionally by targeting problem behaviors and shaping improvement behaviors through use of empirically-supported techniques

- Conducted psychodiagnostic and neuropsychological evaluations in Spanish

Practicum Student, Department of Psychology, University of Wisconsin-Milwaukee, Milwaukee, WI

September 2012 – May 2013

Assessment Practicum
- Provided individual psychotherapy to members of the community seeking low-cost services
- Trained in CBT for Social Anxiety, techniques derived from Dialectical Behavior Therapy, Behavioral Activation for depression by Martell, Addis, & Jacobson under C. Martell & J. Kanter, techniques from Brief Behavioral Activation Treatment for Depression, and Acceptance and Commitment Therapy, and treatment delivery that targeted common factors
- Obtained NIMH-funded specialized clinical training in scientifically validated assessment and intervention

January 2012 – May 2012

Intervention Training Practicum
- Trained in empirically supported interventions such as Prolonged Exposure (PE), Problem-Solving Therapy (PST), and Interoceptive Exposure (IE)
- Implemented intervention techniques and received feedback during training sessions

July 2011 – June 2012

Second Year Assessment Practicum
- Sharpened interview, test administration, and scoring skills; developed effective communication skills for presenting findings through writing, feedback sessions, and multidisciplinary teams presentations; used research literature for interpretation and to guide use of cognitive, personality, psychopathology, and other measures
- Conducted evaluations for learning disabilities and student accommodations; differential diagnosis; and cognitive disability and needs assessment to inform an Individualized Educational Plan (IEP)

August 2010 – May 2011

First Year Assessment Practicum
- Administered and scored WAIS-IV; WIAT-III; Woodcock-Johnson-III, Cognitive and Achievement (standard and extended); MMPI; NEO Personality Inventory (NEO); Personality Assessment Inventory (PAI); Stroop; Test of Word Reading Efficiency (TOWRE); and Structured Clinical Interview for the DSM-IV Axis I and II disorders (SCIDS I and II), among others.
- Honed psychosocial interviewing skills

PROFESSIONAL DEVELOPMENT

April 2015 – June 2015	**Functional Analytic Psychotherapy Practicum, Department of Psychology, University of Washington** FAP graduate student therapist clinical practicum comprised of weekly 3-hour didactic training and experiential exercises.
May 2014	**Functional Analytic Psychotherapy Intensive, Department of Psychology, University of Washington** FAP intensive workshop that involved didactic training and experiential exercises.
April 2014 – June 2014	**Clinical Colloquia, Psychological Services and Training Center, Department of Psychology, University of Washington** Presentations on Mindfulness Based Relapse Prevention (MBRP), dissemination and implementation of evidence-based treatments, working with the chronically homeless populations, Emotionally Focused Therapy (EFT) with lesbian couples, and the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders, among other topics.
May 2013 - July 2013	**Multicultural Mental Health Guidelines and Ethics, School of Education, University of Wisconsin-Milwaukee** Discussed multicultural factors that shape individuals, such as oppression, power and privilege, and ethnic identity development, among others, to understand how these factors influence world view, marginalization, and health and mental health disparities. Engaged in self-reflection on how these concepts apply to the lives of my clients and me to facilitate culturally sensitive provision of care to diverse populations.
March 2012	**Acceptance and Commitment Therapy Workshop, Association for Contextual Behavioral Science Annual Convention, Chicago, IL** Attended an 8-hour training conducted by Patty Bach, Ph.D.

GRANTS & FELLOWSHIPS

2012 - 2015	**Graduate School Advanced Opportunity Program Fellowship, University of Wisconsin-Milwaukee.** Awarded: Yearly full tuition remission, 9-month stipend, and $1000 for conference travel
2012	**NIH/NCMHD-funded Minority Health & Health Disparities International Research Training (MHIRT) Latino Mental Health Research Training Program Fellowship, University of Southern California; Benemérita Universidad Autónoma de Puebla, Mexico; & Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Mexico.** Awarded: $9,000 stipend for 11-week research program in Mexico
2011	**Sigma Xi Grants-in-Aid of Research Grant, The Scientific Research Society.** Awarded: $1000 to support master's project data collection
2011	**John and Lynn Schiek Research Award in Behavior Analysis, University of Wisconsin-Milwaukee.** Awarded: $1000 to support independent study data collection

AWARDS & HONORS

2014	**Student Success Award, Student Success Center, University of Wisconsin-Milwaukee.** Nominated by undergraduate students and awarded for continuous dedication to the academic success of learners.
2013	**The Margaret Bernauer Psychology Research Award, Wisconsin Psychological Association Annual Convention.** Awarded in recognition of poster presentation.

UNIVERSITY & PROFESSIONAL SERVICE

2014	Planning Committee Member, 2014 Forum on Latino/a Affairs Conference, University of Wisconsin-Milwaukee

PROFESSIONAL MEMBERSHIPS

2014 – present   National Latino Psychological Association, Graduate Student Member
2010 – 2011

2012 – 2013   The Society for the Psychological Study of Social Issues, Graduate
Member

2011 – present   Association for Behavioral and Cognitive Therapies, Student
Membership

2008 – 2011   American Psychological Association, Student Affiliate