2011

The Alliance-Outcome Association in CBT and Usual Care for Youth Depression Delivered in Community Settings

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THE ALLIANCE-OUTCOME ASSOCIATION IN CBT AND USUAL CARE FOR
YOUTH DEPRESSION DELIVERED IN COMMUNITY SETTINGS

A thesis defense submitted in partial fulfillment of the requirements for the degree of
Master of Science at Virginia Commonwealth University

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May 2011

Acknowledgements

I want to thank Dr. McLeod, Dr. Southam-Gerow, and Dr. Roberson-Nay for working with me to develop and refine this defense. I want to thank the coders for their contributions. Thank you to my mom and grandparents for your endless support.

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Abstract

THE ALLIANCE-OUTCOME ASSOCIATION IN CBT AND USUAL CARE FOR YOUTH
DEPRESSION DELIVERED IN COMMUNITY SETTINGS

By Shelley Beth Avny, B.S.

A thesis defense submitted in partial fulfillment of the requirements for the degree of Master of
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Director of Thesis: Bryce D. McLeod, Ph.D.
Assistant Professor
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The child-therapist alliance is believed to be a critical ingredient of successful

psychotherapy for youth depression. However, only a few studies have examined the association

between the alliance and clinical outcomes in the treatment of youth depression. The present

thesis examined the alliance-outcome association in two treatments for youth depression:

cognitive-behavioral therapy (CBT) and usual clinical care (UC). Data were from an

effectiveness trial conducted in six community clinics (see Weisz et al., 2009). Forty-one youth

were randomly assigned to receive CBT or UC from community clinicians. The observed early

alliance, alliance shifts, and self-reported alliance did not significantly predict child- or parent-

reported depression outcome. However, the direction and strength of the alliance-outcome

associations differed across alliance methodology (self- and observer-report) and condition (CBT

and UC). Early child alliance did significantly predict treatment satisfaction. Implications and

limitations of the results are discussed.

The Alliance-Outcome Association in CBT and Usual Care for Youth Depression Delivered in

Community Settings

Youth depression is a serious and pervasive disorder that is associated with poor psychosocial functioning, school problems, and substance abuse (Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2003; Puig-Antich et al., 1993; Rohde, Lewinsohn, & Seeley, 1991). Most importantly, depressed youth are at increased risk for suicide, with approximately 60% reporting suicidal thoughts and 30% attempting suicide (Brent, Baugher, Bridge, Chen, & Chiappetta, 1999). These factors highlight the need for effective interventions for the treatment of youth depression. Unfortunately, a recent meta-analysis revealed that treatments for youth depression produce modest effects that do not differ across treatment type or setting (Weisz, McCarty, & Valeri, 2006). Indeed, Weisz and colleagues concluded that treatments for youth depression may lag behind treatments for other youth emotional and behavioral problems in terms of overall magnitude of treatment benefit (Weisz et al., 2006). These findings have naturally led researchers to call for research to focus upon ways to optimize the impact of treatments for youth depression.

Identifying specific treatment processes that facilitate positive child or adolescent (hereafter the term youth will be used to refer to children and adolescents unless distinction need to be made) outcomes may aid efforts to optimize the delivery and impact of treatment for youth depression. One treatment process that warrants increased attention is the alliance. The alliance is typically conceptualized as a positive, supportive bond between the client and therapist and client-therapist agreement on therapeutic tasks and goals (Bordin, 1979; Luborsky, 1976).

In the adult psychotherapy field, findings have revealed a consistent association between the alliance and outcome across treatment and problem types (Horvath & Bedi, 2002; Martin, Garske, & Davis, 2000). Though only a handful of studies have examined the alliance in child psychotherapy, the available evidence does suggest that the strength of the alliance-outcome association in child psychotherapy is comparable to the effects generated in the adult psychotherapy field (Shirk & Karver, 2003; Karver et al., 2006). Thus, a strong child-therapist alliance marked by trust, agreement about therapeutic goals, and participation in therapeutic activities is hypothesized to be important for treatment outcomes in youth psychotherapy.

A strong child-therapist alliance (herein referred to as the *child alliance*) may be instrumental in promoting positive outcomes in psychotherapy for youth depression. The symptoms of depression, such as hopelessness, low energy, and poor motivation, can make it difficult to engage youth in treatment (Brent et al., 1997). A strong alliance may therefore play an important role in maximizing youth participation in therapeutic activities, something that may be particularly important in cognitive behavioral treatments that emphasize skill building (Chu & Kendall, 2004; Kendall & Ollendick, 2004). Moreover, a relationship marked by warmth and support may promote openness and trust, which may be important in supportive treatments. For these reasons, examining whether the alliance is linked with positive outcomes in treatments for youth depression may help identify ways to enhance treatment outcomes for this population.

The goal of the present study was to investigate the alliance-outcome association in two treatments for youth depression delivered in practice settings: cognitive-behavioral therapy (CBT) and usual care (UC). The present study aimed to build upon the existing knowledge of the role the alliance plays in psychotherapy for youth depression. Though a strong child alliance was

hypothesized to promote positive outcomes in psychotherapy for youth depression, studies have produced mixed findings.

   To my knowledge, only three studies have examined the alliance-outcome association in psychotherapy for youth depression. First, Shirk and colleagues (2008) examined the alliance-outcome association in a sample of 54 adolescents treated with manual-guided CBT who met diagnostic criteria for a depressive disorder. Results indicated that a strong adolescent-reported alliance was significantly associated with reductions in depressive symptoms over the course of treatment. Second, Karver and colleagues (2008) examined the alliance-outcome association in a sample of 23 adolescents with depressive symptoms and a suicide attempt. Participants were randomly assigned to receive one of two manual-guided treatments: CBT or nondirective supportive therapy (NST). Findings indicated that a strong alliance was associated with symptom reductions in CBT ($r = -.33$), but a strong alliance was associated with increased symptomatology in NST ($r = .12$). Third, Kaufman and colleagues (2005) examined the extent to which CBT-specific measures and nonspecific therapeutic measures, such as the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989), account for reduced depression. Ninety-three adolescents with comorbid major depressive disorder (MDD) and conduct disorder were randomly assigned to receive one of two manual-guided treatments: CBT or life skills tutoring. Findings indicated that only one factor (e.g., the rate of automatic negative cognitions specific to CBT) mediated treatment for depression symptoms. The alliance was not established as a mediator given that a higher alliance by the third session did not predict post-treatment symptom change in the CBT condition.

   Together, these three studies provide some evidence that the alliance may play a role in the outcome of CBT for youth depression. Though Kaufman and colleagues did not find a

significant alliance-outcome relation there are a few factors that may explain why their findings differed. First, participants were recruited from the juvenile correction system. Few studies have evaluated the alliance-outcome association in samples pulled from the juvenile correction system, but existing evidence suggests that the magnitude of the alliance-outcome association may be smaller in this population than other samples (see e.g., Florsheim, Shotorbani, Guest-Warnick, Barratt, & Hwang, 2000). Second, the CBT program was delivered in a group format. Comparisons of the alliance-outcome association in group- vs. individual CBT programs for child anxiety have revealed that the alliance-outcome association is weaker in group treatments (see Lerner, Mikami, & McLeod, in press; Liber et al., 2010). These factors differentiate this study from Karver and colleagues (2006) and Shirk and colleagues (2008) and may explain the mixed findings. Thus, the available evidence suggests that the alliance may play a role in the process and outcome of CBT for youth depression.

Interestingly, the evidence suggests that the alliance-outcome association may be more robust in CBT than in supportive treatments (see Karver et al., 2008). At first glance, these findings seem counterintuitive, since relationship factors are hypothesized to play a prominent role in supportive treatments (cf. Shirk et al., 2008). Caution is warranted, however, when interpreting these findings. Karver and colleagues (2008) note that methodological factors (e.g., construct overlap) may have influenced the alliance-outcome relation in the supportive treatments. It therefore may be premature to conclude that the alliance does not play a significant role in supportive treatments for youth depression.

The present study expands on the aforementioned studies by elucidating the role of the alliance in both CBT and UC among community therapists treating youth depression. The sample from the present study was drawn from a larger effectiveness trial comparing CBT to UC

delivered in community based practice settings (Weisz et al., 2009). Weisz and colleagues (2009) found that CBT provided by community therapists did not outperform UC. Despite more than 70% of youth in both conditions no longer meeting diagnostic criteria for a depressive disorder after treatment, there were no significant differences between conditions in treatment effectiveness.

This study was the first to investigate the alliance-outcome association in UC for youth depression. Past studies suggest that the alliance may play an important role in the process and outcome of UC for youth externalizing (Hawley & Garland, 2008) and internalizing (McLeod & Weisz, 2005) problems. It therefore was posited that the alliance may promote positive youth outcomes in UC for youth depression. Moreover, investigating the alliance-outcome association in CBT and UC advances knowledge in the field. First, the findings provide information on the relative importance of the child alliance in CBT and UC for youth depression. Second, examining whether the quality of the alliance differs in the CBT and UC conditions helps evaluate whether implementing a manual-guided treatment impacts the quality of the alliance in UC. Clinicians have raised concerns that utilizing manuals in community settings might negatively influence the alliance (Addis, 1997). Thus, comparing the alliance-outcome association in UC and CBT helps identify effective elements of treatment delivered in practice settings and generate information that may aid efforts to transport evidence-based treatments (EBTs) to practice settings.

To assess the alliance-outcome relation, I employed three methodological features intended to strengthen the interpretability of the findings. First, this study relied upon ratings of the child alliance by trained observers to minimize potential sources of measurement bias (e.g., demand characteristics; McLeod & Weisz, 2005). Past studies investigating the alliance-outcome

association in treatments for youth depression have primarily relied upon self-report measures. Though self-report measures offer a number of advantages, they also may be influenced by the tendency for youth to say nice, or not so nice, things about their therapist. Second, child alliance was assessed during treatment rather than at post-treatment to help establish temporal precedence of the alliance and outcome variables (Feeley, DeRubeis, & Gelfand, 1999). Third, the alliance was assessed at three different time points to examine the alliance-outcome association over the course of treatment. Taken together, this study contributes to the body of knowledge on the degree to which the alliance predicts outcome in treatment for youth depression.

The present study aimed to build on the existing knowledge of the role the alliance plays in psychotherapy for youth depression. Specifically, this study examined the alliance-outcome association in CBT and UC for youth depression in community-based service settings. This study expanded on extant knowledge by contributing to the limited body of literature that currently exists in the field. This study represented the first effectiveness trial to examine the alliance-outcome association in CBT compared to UC for youth with depression.

Literature Review

The literature review will begin with a review of the public health significance of youth depression, a discussion of recent evidence on treatments for youth depression, and the importance of developing effective treatments for this population. The review will continue with a discussion of the call for increased attention to the alliance, the perceived importance of the alliance in community practice, and the components of the alliance. Next, evidence on the alliance-outcome association in adult psychotherapy will be reviewed. Research on the alliance-outcome association in youth psychotherapy will follow, including the results of two comprehensive meta-analyses. The literature review will continue with evidence on the alliance-

outcome association in CBT for youth depression, followed by research on the alliance-outcome association in CBT for other youth populations. Next, studies examining the alliance-outcome association in UC will be reviewed. The literature review will conclude with the methodological issues currently confronting the field, followed by an overview of the present study.

Youth Depression

Approximately 20% of individuals are estimated to have at least one major depressive episode by the end of adolescence (Lewinsohn, Rohde, & Seeley, 1998). Among prepubertal children, the prevalence rates for a depressive disorder are between 1% and 2% (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003), and this figure increases to 3% to 8% in adolescents (Reinherz, Glaconia, Lefkowitz, & Pakiz, 1993). Research indicates that depressive disorders during childhood are recurrent (McCauley, Mitchell, Burke, & Moss, 1993) and are most responsive to combined psychotherapy and pharmacotherapy (TADS, 2004). Depression is impairing to a youth's psychosocial functioning, family system, and parent-child interactions (Stark, Napolitano, Swearer, & Schmidt, 1996). Comorbidity with anxiety, ADHD, substance abuse, and conduct disorder is typical in depressed youths (Angold, Costello, & Erkanli, 1999). Most importantly, youth depression is associated with self-destructive and life threatening behaviors (Kovacs, Goldston, & Gatsonis, 1993). Taken together, these factors highlight the need for effective interventions for the treatment of youth depression.

Treatment for Youth Depression

Recent evidence suggests that treatments for youth depression may lag behind treatments for other emotional and behavioral disorders in magnitude of effect. The most comprehensive meta-analysis completed to date on the outcomes of psychotherapy for youth depression yielded a d-type effect size of .34 (Weisz et al., 2006), considered a "small" effect (Cohen, 1988). This

effect size is significantly smaller than those revealed in previous meta-analyses on psychotherapy for youth depression that ranged from .72 to 1.27 (e.g., Lewinsohn & Clarke, 1999; Michael & Crowley, 2002; Reinecke, Ryan, & DuBois, 1998). Furthermore, CBT did not produce superior effects to alternative treatments (e.g., relaxation training). Compared to meta-analyses focusing upon other disorders (e.g., anxiety and disruptive behavior disorders; In-Albon & Schneider, 2006; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005), results from Weisz and colleagues yielded significantly smaller effects. Effects among research therapists did not significantly differ from practicing clinicians; similarly, youth treated in research settings did not fare better than those treated in clinical service settings. Findings from Weisz and colleagues highlight the need for continued research on enhancing all treatments for youth depression across research and community settings.

The Child-Therapist Alliance

Identifying specific treatment processes that facilitate positive child outcomes may aid efforts to optimize the delivery and impact of treatment for youth depression. One treatment process that warrants increased attention in youth psychotherapy research is the therapeutic alliance. The quality of the client-therapist alliance is believed to be a critical ingredient of successful psychotherapy. The alliance has been credited for improving motivation to work on problems, persistence in therapy, compliance with tasks, and positive outcomes (e.g., Bordin, 1979; Horvath & Luborsky, 1993; Shirk & Saiz, 1992; Stark, Rouse, & Livingston, 1991). However, the EBT movement in youth psychotherapy has resulted in an emphasis on therapeutic interventions overshadowing attention to common factors, such as the alliance (Krupnick et al., 1996). Consequently, there has been a call from researchers and practitioners in youth

psychotherapy to expand research on the role of the alliance in the therapeutic process and outcome.

Generally, clinicians view the alliance as being a critical component of therapy and assert that acquiring a solid understanding of the alliance should be a high priority among researchers (Kazdin, Siegel, & Bass, 1990). In fact, in a study of more than 1000 child clinicians, over 90% identified their relationship with the child as "extremely" or "very" related to change (Kazdin et al., 1990). Additionally, problems in the therapeutic relationship are the most frequently endorsed reason for discontinuing treatment in outpatient-referred youth, relative to family and clinic practical problems, staff and appointment problems, time and effort concerns, treatment not needed, and money issues (Garcia & Weisz, 2002). Unfortunately, the role of the alliance in youth psychotherapy is not well understood due to a lack of research (Kendall & Ollendick, 2004).

Conceptual Model of the Child Alliance

Figure 1 proposes a pathway through which the alliance predicts outcome. The figure demonstrates a theoretical model of the interaction and interrelatedness of the three alliance dimensions that facilitate therapeutic involvement (Karver et al., 2008) and subsequently, therapeutic outcome (Karver et al., 2006; Shirk & Karver, 2003). This model provides a conceptual framework within which the study aims and hypotheses were developed.

The left side of the model represents therapy inputs. Therapy inputs can include qualities of children (i.e., inhibited temperament; Kagan, Reznick, & Snidman, 1988), parents (e.g., treatment expectations; Nock & Kazdin, 2001), and therapists (i.e., attitudes toward manualized treatments; Aarons, 2004). Each participant in therapy potentially brings characteristics into therapy that may influence the development and quality of the alliance.

The second section represents the child alliance. According to Shirk and Saiz (1992) the alliance represents a more mature form of the therapeutic relationship. Several components of the alliance have been studied, all of which are believed to contribute to outcomes in youth psychotherapy. *Bond* refers to the affective elements of the alliance, or the degree to which the child likes the therapist. *Task* refers to the degree to which the child agrees with or participates in the therapeutic tasks. *Goal* refers to the collaborative effort and agreement between the child and therapist in establishing therapeutic goals.

Theoretically, the quality of each alliance component has the potential to influence other components. For example, the bond with the therapist may facilitate agreement on tasks and goals (Digiuseppe, Linscott, & Jilton, 1996). Youth who feel supported in their relationship with their therapist are more likely to trust the tasks and goals that are being presented. It is also posited that there is interplay between goals and tasks, such that children who lack insight into their problems or are ambivalent/unready for treatment (e.g., goals) are less likely to agree with the tasks of treatment (Diguiseppe et al., 1996). A strong bond with the therapist may assuage this uneasiness, potentially promoting agreement with tasks and collaborative goal-setting (Diguiseppe et al.,1996). On the contrary, agreement on goals and tasks may precede the development of a bond, as openness and trust may develop once feeling respected and heard in their needs and goals. Each of these three domains (bond, task, and goal) is important to incorporate into the alliance definition, as they potentially influence one another and play a unique role in the alliance-outcome association (Diguiseppe et al., 1996). Although it is recognized that the parent-therapist alliance may also play an important role in the clinical outcome of child psychotherapy (see e.g., McLeod & Weisz, 2005), the present thesis focuses exclusively on the child alliance.

The third portion of the model represents therapeutic involvement. Involvement refers to cooperating with, engaging in, and completing therapeutic tasks (Karver, Handelsman, Fields, & Bickman, 2005). Involvement differs from the alliance in that the alliance refers to the relational aspects of the therapy process whereas involvement is the client activity on specific treatment tasks (Karver et al., 2008). A strong alliance has been suggested to facilitate involvement (Shirk & Karver, 2006), and involvement has been found to significantly predict treatment gains (Chu & Kendall, 2004). The stronger the alliance, the more likely the youth is to involve themselves and engage in the therapeutic procedures necessary to facilitate change. Theoretically, the child alliance predicts a positive therapeutic outcome via involvement in therapy (Karver et al., 2008; Kendall, 2006; Shirk, 2001).

The last portion of the model represents post-treatment outcomes. Outcome can be characterized into five different domains (see Hoagwood, Jensen, Petti, & Burns, 1996), including symptoms/diagnoses (a reduction from baseline or a loss of diagnoses), functioning (ability to meet the demands of home, school, peer group, or neighborhood), consumer satisfaction (the child's experience and/or satisfaction with services received), environments (changes in a specific aspect in the child's environment as a result of therapy), and systems (degree of service use patterns following treatment). This paper will primarily focus upon outcome in terms of depressive symptom reduction and diagnostic changes, but will also examine outcomes such as externalizing symptoms and treatment satisfaction.

Child Alliance

Inputs
•Client Characteristics
•Parent Characteristics
•Therapist Characteristics

Bond

Task

Goal

Client Involvement

Clinical Outcomes

•Symptoms/ Diagnoses
•Functioning
•Consumer Satisfaction
•Environments
•Systems
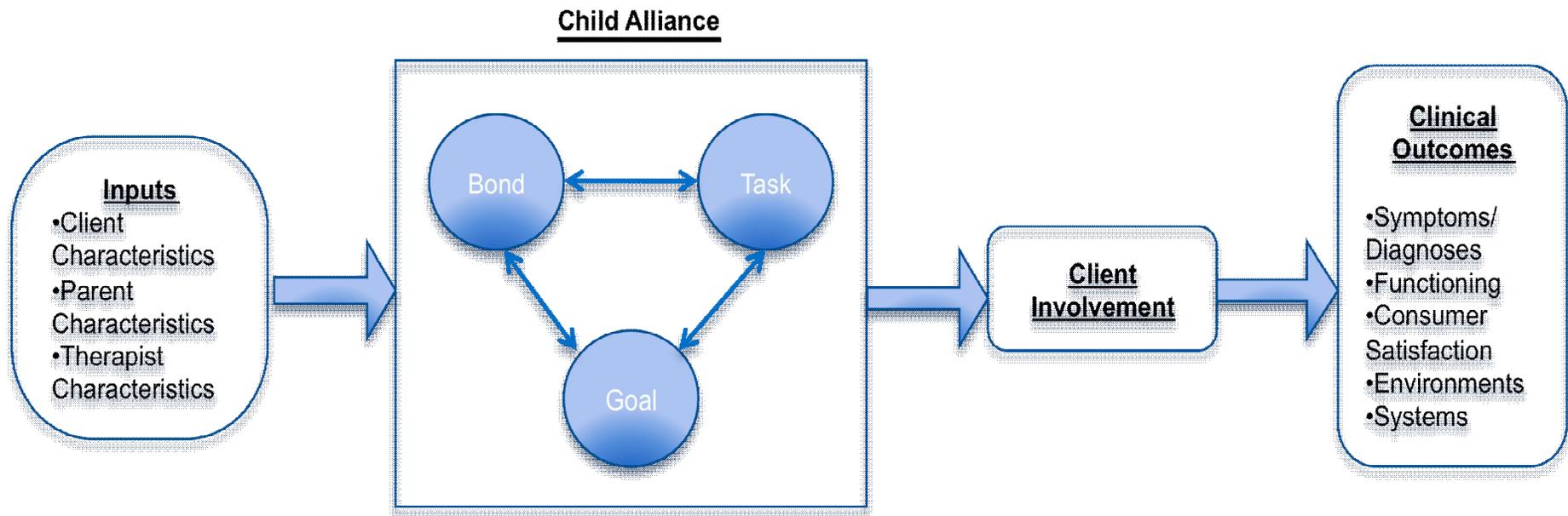
Figure 1. Theoretical Model of the Alliance, Participation, and Outcome

The Alliance-Outcome Association in Adult Psychotherapy

The adult psychotherapy literature has yielded robust findings on the relation between the alliance and outcome. Two meta-analyses have been conducted on the association in the adult literature. Together, they found that the alliance accounts for 5-7% of the variance in adult psychotherapy outcomes (Horvath & Symonds, 1991; Martin et al., 2000). In their meta-analysis, Horvath and Symonds (1991) found a small effect size of $r = .26$ across 24 studies. Martin and colleagues (2000) expanded on this finding in a more recent meta-analysis and found a small effect size of $r = .22$ across 79 studies. In both studies, the alliance was consistently associated with outcome across diagnosis, treatment length and modality, and time point at which the alliance is assessed (Horvath & Symonds, 1991; Martin et al., 2000). Taken together, results from the two meta-analyses suggest that the strength of the alliance is consistently, albeit modestly, related to outcome in adult psychotherapy.

The Alliance-Outcome Association in Youth Psychotherapy

There have been significantly fewer studies conducted on the alliance-outcome association in youth psychotherapy. Two meta-analytic reviews have summarized the collective findings from the alliance-outcome literature, highlighted methodological concerns, and proposed directions for future research.

Shirk and Karver (2003) conducted a meta-analysis of 23 studies (18 published manuscripts and 5 unpublished dissertations) examining therapeutic relationship variables in relation to outcome. Studies were categorized by age (child or adolescent), type of treatment (behavioral or nonbehavioral), mode of treatment (individual, family, parent training), treatment structure (manualized or nonmanualized), and context of therapy (service or research). Methodological moderators that were explored included timing and source of measurement of

relationship variables, measurement domain and source of outcome variables, shared versus

cross-source associations, and study design and effects. The authors used product-moment

correlation coefficient and derived a small weighted ES of $r = .22$. Though the authors concede

this may be an inflated estimate due to a shared variance effect (e.g., the alliance and outcome

measures are completed by the same informant), relationship variables were modestly related to

outcome across diverse types and modes of treatment. In fact, the only substantive moderator

was type of problem, such that a stronger relation was found for children with externalizing than

internalizing disorders. The authors suggest that this consistency across a variety of domains

lends support to the therapeutic relationship representing a common factor in therapy. The

primary and relatively substantial limitation was it was not feasible to focus exclusively upon

studies that evaluated the alliance since only nine studies focused upon the alliance. Therefore, it

is unclear if the effect size is a function of the alliance or other relationship variables.

Karver and colleagues (2006) addressed this limitation in a later meta-analysis examining

the role relationship variables play in child psychotherapy. The meta-analysis included 49 studies

(encompassing behavioral, cognitive-behavioral, family therapy, psychodynamic, and play

therapy) and produced an overall weighted effect size of $r = .17$. The alliance was examined in

14 studies, 10 of which examined the alliance-outcome association. The ES varied across the 10

studies ($r = .05-.49$) and produced a weighted mean ES of $r = .21$, mirroring the adult literature

(Martin et al., 2000). The findings from Karver and colleagues (2006) suggest that the alliance

may be an important aspect of the therapeutic process.

The goal of the present study is to investigate the alliance-outcome association in two

treatments for child depression delivered in practice settings: CBT and UC. Given growing

support for the alliance as an ingredient in the therapeutic process, there is increasing interest in

clarifying the role the alliance plays in youth psychotherapy. The current study will provide the unique opportunity to examine whether the alliance differentially predicts outcomes in manual-guided CBT and UC for youth depression. The resulting knowledge may aid in the optimization of treatment delivered in practice settings.

The Alliance-Outcome Association in CBT for Youth Depression

CBT offers promise in treating youth depression; however, there is room for bolstering the effects of CBT for youth depression. One way to optimize treatment effects may be to clarify the role that the alliance plays in the process and outcome of CBT for youth depression.

The characteristics of depressed youth may make it difficult to deliver CBT and optimize treatment success. For example, depressed youth typically approach therapy with feelings of hopelessness thereby limiting motivation (Brent et al., 1997). CBT requires participation and motivation to produce optimal results (Chu & Kendall, 2004). The alliance may therefore play an important role in CBT for youth by promoting participation in CBT-specific tasks (e.g., skill building) that are crucial for positive outcomes (Chu & Kendall, 2004; Kendall & Ollendick, 2004). In fact, Shirk (2001) posits that the alliance may be necessary for completing the active elements of CBT and may be a reliable predictor of dose (number of sessions completed), which in turn theoretically predicts outcome. In the adult literature, the alliance is related to outcome in cognitive therapy and CBT for depression (Klein et al., 2003; Krupnick et al., 1996). Researching whether the alliance is linked to positive outcomes in CBT for youth depression may help identify effective ingredients of treatment.

To my knowledge, only three recent studies have examined the alliance-outcome association in CBT for youth depression. Shirk and colleagues (2008) examined the direct and indirect associations in school-based clinics in a hybrid effectiveness and efficacy design.

Therapists received specialized and intensive training (i.e., efficacy component) and the adolescents were characterized by a range of problems and a significant degree of comorbid diagnoses (i.e., effectiveness component). The sample consisted of 54 adolescents with major depressive disorder, dysthymic disorder, depressive disorder not otherwise specified, and adjustment disorder with depressed mood. The authors used the Therapeutic Alliance Scale for Adolescents (TASA; Shirk, 2003), a measure of adolescent and therapist perceptions of the therapeutic alliance, to assess the adolescent-therapist alliance. The results indicated that the adolescent-reported alliance but not the therapist-reported alliance predicted reduced symptoms in self-report and the structured interview. However, there was no indirect association, such that involvement (measured by number of treatment sessions) did not mediate the relation between alliance and outcome. Findings that involvement did not predict outcome are inconsistent with Shirk and Karver's (2006) assertion that the alliance promotes involvement. However, the findings do lend support to the hypothesis that the alliance is important in CBT for youth with depression since the alliance predicted outcomes when controlling for dose.

Karver and colleagues (2008) evaluated the alliance-outcome association in a sample of 23 adolescents with depressive symptoms and a suicidal attempt. The adolescents who presented to an emergency department or inpatient unit of a child psychiatric hospital following a suicide attempt were randomized to receive either CBT or nondirective supportive therapy (NST). The Working Alliance Inventory (WAI; Florsheim et al., 2000) was used to assess client perspective of the alliance and the Alliance Observation Coding System (AOCS; Karver, Shirk, Day, Field, & Handelsman, 2003) was used for an objective perspective of the alliance. Findings indicated that the alliance accounted for significant variance in outcome across conditions, which is consistent with the adult literature. In an examination of an indirect link between alliance and

outcome, the authors found that the alliance was associated with client involvement, also irrespective of treatment approach. Interestingly, client involvement was in turn differentially associated with outcome, such that an association existed only in the CBT condition. In an examination of a direct link between the alliance and outcome, the authors found that the association varied by treatment type, such that the CBT condition revealed a moderate positive association ($r = .35$ on AOCS and $r = .31$ on WAI) and NST revealed a small negative association ($r = -.18$ on AOCS and $r = -.11$ on WAI). In other words, a stronger alliance was associated with greater improvement in the CBT condition and slightly worsening symptoms in NST. These results suggest that the alliance is linked with outcomes in CBT for youth depression.

In another study, Kaufman and colleagues (2005) examined whether both CBT-specific and nonspecific therapeutic measures, such as the WAI, account for a reduction in depression symptoms in an effort to understand why CBT is an effective treatment for adolescent depression. Ninety-three adolescents with comorbid major depressive disorder (MDD) and conduct disorder were randomly assigned to Coping with Depression for Adolescents (CWD – A; Lewinsohn, Clarke, Hops, & Andrews, 1990) or life skills tutoring (LS). CWD – A is a CBT group intervention modified slightly for a comorbid population and LS functioned as the active control condition. The alliance was assessed through the WAI (Horvath & Greenberg, 1989) at the third session. The authors hypothesized that nonspecific factors (i.e., the alliance) would mediate CWD – A intervention effects. Findings indicated that only one factor (i.e., rate of automatic negative cognitions specific to CBT) mediated the relation between CBT treatment and depression symptoms. Although ratings at session three were higher on the WAI in the CWD

– A group than LS, the alliance was not associated with changes in depression scores in either condition.

In sum, there is evidence to suggest that the child alliance may play a role in the outcome of CBT for youth depression. Two of the three studies examining the alliance-outcome association in CBT for youth depression found a positive relation. The one study that did not support this relation was different from the other two on a number of design factors, including context of recruitment (e.g., juvenile justice system), format of CBT (e.g., group rather than individual), and diagnoses of sample (e.g., comorbid depression and conduct disorder). These factors may have influenced the alliance-outcome association. There remains limited research on the alliance-outcome association in CBT for youth depression and the treatment field might benefit from a better understanding of this relation.

The Alliance-Outcome Association in CBT for Youths

Similar to the depression studies, findings on the alliance-outcome association for CBT in other child clinical populations have been mixed. Though some suggest that the alliance is less important in CBT than in non-behavioral interventions because CBT places a greater emphasis on techniques, others suggest the alliance may be necessary in CBT by promoting participation (Kendall, 2006; Shirk & Karver, 2006). The following review focuses upon other studies that have examined the alliance-outcome association in CBT for youth.

Kendall and colleagues (1994; 1997) conducted the early studies that examined the degree to which the alliance predicts outcome in CBT. In the first of the two studies that considered this relation, Kendall (1994) tested the efficacy of CBT (i.e., The Coping Cat) for children with anxiety disorders. The Child's Perception of the Therapeutic Relationship (CPTR; Kendall, 1994) was administered to participants. Kendall (1994) found that scores on the CPTR

did not predict therapeutic change. However, scores on the CPTR were generally high and this restricted range may have precluded a predictive relationship from being detected. Kendall and colleagues (1997) used the same measure in a second randomized clinical trial evaluating the efficacy of the same CBT program for child anxiety. The authors found similar results to the first study, such that CPTR scores did not predict therapeutic change or maintenance. A similar problem of a restricted range of scores was also noted as a limitation. Due to this limitation present in both studies, the authors reserved from drawing conclusions about the role of the alliance in therapeutic change.

Chiu and colleagues (2009) expanded on the alliance literature in CBT for child anxiety by examining the alliance-outcome association in a sample of 34 children receiving child CBT (CCBT) or family CBT (FCBT) for an anxiety disorder. Quality of the alliance was assessed using the Therapy Process Observational Scale for Child Psychotherapy – Alliance Scale (TPOCS-A; McLeod & Weisz, 2005), a scale that has demonstrated acceptable psychometric properties (McLeod & Weisz, 2005). Findings indicated that higher ratings of early alliance were associated with greater mid-treatment but not post-treatment symptom reduction. Results are consistent with the other studies that failed to find a significant relation between alliance and post-treatment symptoms reduction in CBT for youth anxiety. However, the authors note several limitations to their design. First, sole reliance on observational methods precluded the ascertainment of the child's perspective of the alliance. Second, although FCBT and CCBT did not differ in the quality of the alliance, differences in other processes may have accounted for variation in outcome. Third, outcome was assessed only through parent report of child symptoms and different perspectives may be needed given the discrepancies between parent and child report (Achenbach, McConaughy, & Howell, 1987). Despite these limitations, findings from

Chiu and colleagues add to the body of evidence suggesting that the alliance-outcome association in CBT may be weak.

Hogue and colleagues (2006) compared the alliance-outcome relation in CBT and multidimensional family therapy (MDFT) for 100 substance-abusing adolescents. They used the Vanderbilt Therapeutic Alliance Scale-Revised (VTAS-R; Hartley & Strupp, 1983) to assess the strength of the alliance. Findings indicated that the alliance was differentially associated with outcome depending on modality. Whereas there was no relation between alliance and treatment retention or outcome up to 6 months after treatment for individual CBT, the alliance was significantly related to outcome in MDFT. Furthermore, adolescents whose alliances improved from early- to mid-treatment showed improvement in externalizing symptoms, yet those with declining alliances also had elevated symptom severity.

Contrary to these findings, Kazdin and colleagues published two studies (2005; 2006) in support of the child alliance and outcome association. In the first, 185 children referred for oppositional, aggressive, or antisocial behavior were randomly assigned to two conditions: parent management training (PMT) and PMT plus problem-solving skills training (PSST) that combines CBT techniques to teach problem solving and manage interpersonal situations. By the child and therapist's report of the alliance on the Therapeutic Alliance Scale for Children (TASC; Shirk & Saiz, 1992), results revealed that a more positive alliance was associated with greater therapeutic changes, fewer perceived barriers to participation in treatment, and a greater acceptance by children and parents of the techniques being employed. Although the results were consistent across raters, stronger relations were found for the child than therapist evaluation of the alliance. Importantly, the findings were not explained by shared variance. The authors acknowledge the combined treatment condition as a limitation and address this in their second

study (Kazdin & Whitley, 2006). A sample of 77 children with similar characteristics were randomly assigned to PSST or PMT. The procedure for assessing the alliance was identical to their first study and separating the two interventions revealed similar results. The alliance was associated with post-treatment gains and the child evaluations of the alliance were again more predictive of outcome than therapist ratings. Although findings from these two studies were robust and informative, the authors note as a limitation the use of self-report ratings for outcome rather than a standardized assessment battery and highlight the need to expand the range of outcomes evaluated in future studies.

Evidence from the studies examining the alliance-outcome association in youths being treated with CBT is mixed. The anxiety trials found no support for a significant association between the quality of the child alliance and post-treatment symptom reduction. In a study that compared the alliance-outcome association in CBT to MDFT, another EBT, only MDFT revealed a significant association. The only non-depression CBT studies to find a significant association were with children being treated for behavior problems. The available literature suggests that there remains much ambiguity regarding the role of the alliance in CBT. Clearly, more research is needed to elucidate the populations, treatments, and contexts for which the alliance is effective in promoting positive outcomes.

The Alliance-Outcome Association in Usual Care

Most treatment provided in usual clinical care is individually generated by diverse therapists drawing from an array of theoretical perspectives and applying often-diverse blends of procedures that are likely to differ from child to child (Kazdin, 2000; Weisz, 2004). This array of procedures, sometimes referred to as *usual care* or *UC*, is not well understood or characterized in research to date, and the relation between the various procedures and youth outcomes is poorly

understood, To my knowledge, only one study has examined the alliance-outcome association in UC (e.g., therapists in the community) in a sample that included depressed youth. McLeod and Weisz (2005) conducted the first study to examine the alliance-outcome association in outpatient settings for children with internalizing disorders (depression and anxiety). Symptom improvement among the 22 youth being treated in UC for depression or anxiety was evaluated using self-reports of anxiety and depressive symptoms and a broadband scale of internalizing symptoms. The alliance was assessed using the TPOCS – A (McLeod & Weisz, 2005) in light of recommendations to objectively assess the alliance (Shirk & Karver, 2003). Findings revealed no significant association between the TPOCS-A and a reduction in symptomatology on the Internalizing Scale of the Child Behavior Checklist (CBCL; Achenbach, 1991) or self-reported depression measures. A significant association was found between the TPOCS-A and a self-reported reduction in anxiety symptomatology. Although a strength of the study was the high degree of comorbidity which reflects community practice, because an array of techniques were used by therapists in UC it is difficult to understand the type of therapy for which the quality of the alliance is most effective.

Two other studies examined the alliance-outcome association in UC. Hawley and Weisz (2005) investigated the degree to which child and parent alliance are associated with symptom improvement and several other outcome variables. Sixty-five children were seen for various problems in UC and information was gathered at 6 months, 1 year, and 2 years following intake. The quality of the alliance and symptom improvement were assessed using the TASC (Shirk & Saiz, 1992) and the Youth Self-Report (YSR; Achenbach, 1991) and CBCL (Achenbach, 1991), respectively. Findings indicated that a strong child alliance was associated with reductions in child-reported symptomatology and parent-reported symptomatology. Given that child alliance

was not related to attendance variables such as cancellations and no-shows but rather to symptom improvement, the authors suggest that the alliance is likely more important for the active processes in therapy.

Hawley and Garland (2008) examined the association between child alliance and multiple domains of outcome in 78 youth being treated in a community-based outpatient clinic. Using the WAI short form to assess alliance, the authors found a strong child alliance was associated with reductions in several domains of outcome independent of common rater variance. Youth-reported alliance accounted for 9.22% variance in symptom severity outcome, an effect higher than the meta-analyses but similar to other UC studies. These findings suggest that the alliance may be linked with positive clinical outcomes in UC. However, the study design was limited in that alliance ratings were gathered six months after the start of therapy so early symptom improvement or another third variable may have lead to a stronger alliance. The authors propose that future research should focus more on the content of therapy in community settings since the range of techniques in UC is currently difficult to conceptualize. Together, these studies suggest that the alliance may be linked to positive outcomes in UC.

Methodological Issues in Previous Studies

The authors of the two alliance-outcome meta-analyses in youth psychotherapy (Karver et al., 2006; Shirk & Karver, 2003) reported a number of methodological issues in the studies that were included in the reviews. These issues are important to take into account in future studies, as they may potentially be hindering progress in the field of child alliance and outcome. These issues include, but are not limited to, a disagreement on the alliance construct and conceptualization, problems with existing measures, and variations in how the alliance is measured.

In Shirk and Karver's (2003) meta-analytic review, they report that there is little consensus regarding the therapeutic relationship construct. The studies preceding and included in the meta-analysis encompassed a multitude of relationship variables. Fewer than half of the studies specifically assessed the alliance. Even within the alliance literature, there is disagreement over how the alliance should be conceptualized. The alliance is typically conceptualized as a multi-dimensional construct consisting of a variation of bond, task, and goal dimensions. However, few alliance measures assess all three dimensions; on the contrary, most either tap just two dimensions or consist of overlapping domains (Karver et al., 2006). Finally, a problem exists in the different terms describing the alliance, such as the therapeutic alliance, working alliance, therapeutic bond, and helping alliance (Elvins & Green, 2008). It is unclear whether these terms are synonymous or are referring to similar but distinct constructs. Such issues make it difficult to measure the alliance construct and draw conclusions regarding its role in youth psychotherapy.

Measurement of the alliance in relation to outcome has also been problematic. First, the scales in the measures use different rating systems and the number of items significantly varies across alliance measures. Given the conceptual disagreements, many alliance measures may be assessing different dimensions. Furthermore, many of the measures that assess child alliance were adapted from the adult field rather than being specifically developed for children (i.e., the Working Alliance Inventory; Florsheim et al., 2000). The developmental differences between adults and children warrant concern regarding this procedure. Finally, Shirk and Karver (2003) discovered that only two alliance measures in their analysis were used in multiple studies: CPTR (Kendall, 1994; Kendall et al., 1997) and the Penn Helping Alliance Questionnaire (Luborsky, McLellan, Woody, O'Brian, & Auerbach, 1985). Given that adult studies have shown that

measures of the alliance are not equally related to outcome (see Martin et al., 2000), there needs to be a consistent set of measures to interpret results with greater confidence.

The procedure for assessing the quality of the child alliance has also significantly varied across studies. There is a debate over the informant that will provide the most accurate portrayal of the alliance. Some studies suggest that children may tend to give high ratings and this restricted range makes it difficult to clarify the importance of the alliance (Kendall & Ollendick, 2004). This may be a result of demand characteristics, an inability to understand the alliance items on the measure (McLeod & Weisz, 2005), or a lack of comparison to other therapists (Kendall & Ollendick, 2004). Common rater variance represents another methodological issue, in which the same individual rates the alliance and outcome. One who is satisfied with the process of therapy is likely to rate the results as beneficial and vice versa (Horvath & Symonds, 1991). Kazdin and Nock (2003) acknowledge that most of the child alliance literature has been compromised by common rater and common method measurement confounds. In fact, some suggest the ESs in Shirk and Karver's (2003) and Karver and colleagues' (2006) meta-analyses may be inflated because of this design flaw (Karver et al., 2006; Kazdin et al., 2006; Shirk & Karver, 2003). Therefore, it is important to utilize different informants for the alliance and outcome when assessed through questionnaires.

Given the ambiguity regarding the best informant in assessing the child alliance, researchers are now urging that alliance be assessed from multiple viewpoints (e.g., Elvins & Green, 2008). In their meta-analysis, Shirk and Karver (2003) noted that most studies assessed the alliance from only one perspective. The authors also discovered a scarcity of observational alliance measures, such that only two studies reviewed used observation to assess the alliance. Observational data allows for a full range of alliance scores that may not be seen in child and

therapist reports due to biases, and such objectivity would be a useful and informative supplement to self-reported alliance.

The time point at which the alliance is assessed (e.g., early, middle, or late in the course of treatment) is another methodological issue that has varied across studies. Although the current standard is to assess the alliance early to minimize potential confounds between late alliance and outcome (e.g., greater improvement leads to a stronger alliance) (Feeley et al., 1999), earlier studies assessed the alliance later in treatment. In fact, Shirk and Karver (2003) noted that the alliance in most studies in their meta-analysis was assessed late in treatment and only at one time point. Results from those studies should be interpreted with caution. Recent studies, however, have found that alliance ratings produced early in treatment predict retention and positive clinical outcomes (Hogue et al., 2006; Robbins, Turner, Alexander, & Perez, 2003; Shelef, Diamond, Diamond, & Liddle, 2005).

Directionality and causal inferences are at the root of design considerations in the timing of assessing the alliance. Several studies have been conducted to determine whether alliance predicts outcome independent of early improvement, or if the alliance is confounded by early treatment gain. Feeley and colleagues (1999) found that alliance was no longer associated with outcome when previous symptom reduction was controlled. Similarly, Tang and DeRubeis (1999) found that the alliance improved immediately following sudden improvements in symptomatology. On the contrary, Barber and colleagues (2000) used a repeated measures design in a study of adult depression and found that the alliance at all time points significantly predicted outcome even when prior change in symptoms was accounted for. Unfortunately, studies focused upon the alliance-outcome association in the child psychotherapy field have not

controlled for prior symptom change (Kazdin & Whitley, 2006). The findings discussed above underscore the need to carefully consider the time point at which the alliance is being assessed.

Alliance trajectory. There is limited knowledge on the developmental course of the alliance and how it changes over time, representing another design consideration. However, the existing literature has consistently revealed stability in the child alliance over the course of treatment. Hawley and Garland (2008) found that child-reported alliance remained stable between the first and sixth month of treatment. This was consistent with Green and colleagues (2001) who found agreement between reports at one month into treatment and termination, and Kazdin and colleagues' (2005) finding of stability from one to two months of treatment.

Several studies have examined the alliance trajectory, or the extent to which shifts in alliance predict outcome. In the child literature, Eltz and colleagues (1995) found that increases in the alliance during treatment were more predictive of outcome than early alliance (Eltz, Shirk, & Sarlin, 1995). The authors explained this phenomenon as being a result of a honeymoon effect early in treatment that is not representative of the actual alliance (Eltz et al., 1995). However, two more recent trials confirmed this relation. Hogue and colleagues (2006) found that a declining alliance was associated with symptom escalation, whereas a significant improvement in alliance was associated with symptom reduction. Furthermore, a weaker early alliance predicted success in treating externalizing symptoms when the target symptoms were those related to drug use. Chiu and colleagues (2009) found that a positive shift in the alliance was related to a reduction in parent-reported internalizing symptoms at post-treatment. These findings parallel those in the adult literature that growth in alliance predicts positive outcomes (Kivlghan & Shaughnessy, 1995; Stiles et al., 2004). Taken together, these studies suggest that the alliance trajectory may be important in promoting positive outcomes and warrants further attention.

Methodological features of the present study. In light of these methodological issues, I employed three methodological features intended to strengthen the interpretability of the findings in assessing the alliance-outcome relation. First, this study relied upon ratings of the child alliance by trained observers to minimize potential sources of measurement bias (e.g., demand characteristics; McLeod & Weisz, 2005). Second, the child alliance was assessed during treatment rather than at post-treatment to help establish temporal precedence of the alliance and outcome variables (Feeley et al., 1999). Third, child alliance was assessed at three time points to examine the alliance-outcome association over the course of treatment. Taken together, this study contributes to the body of knowledge on the degree to which the alliance predicts outcome in CBT and UC for youth depression.

Statement of Problem

A recent and comprehensive meta-analysis by Weisz and colleagues (2006) revealed that treatments for youth depression produce modest effects that do not differ across treatment type or setting. Weisz and colleagues concluded that treatments for youth depression may lag behind treatments for other youth emotional and behavioral problems in terms of overall magnitude of treatment benefit (Weisz et al., 2006). Such findings have prompted researchers to identify effective elements of treatment for youth depression. The child alliance is a treatment element that has received limited attention in the treatment of youth depression yet is believed to be a critical ingredient in youth psychotherapy (Shirk & Karver, 2003). Therefore, clarifying the role the alliance plays in the outcome of treatments for youth depression may aid in enhancing the effectiveness of these treatments.

This study attempted to elucidate the role of the alliance in both CBT and UC among community therapists treating youth diagnosed with depressive disorders. This represents the

first study to investigate the alliance-outcome association in UC for youth depression. Past studies suggest that the alliance may play an important role in the process and outcome of UC for youth externalizing (Hawley & Garland, 2008) and internalizing (McLeod & Weisz, 2005) problems. It therefore was posited that the alliance may promote positive youth outcomes in UC for youth depression. Moreover, investigating the alliance-outcome association in CBT and UC advances knowledge in the field. First, the findings provide information on the relative importance of the child alliance in CBT and UC for youth depression. Second, examining whether the quality of the alliance differs in the CBT and UC conditions helps evaluate whether implementing a manual-guided treatment impacts the quality of the alliance in UC. Clinicians have raised concerns that utilizing manuals in community settings might negatively influence the alliance (Addis, 1997). Thus, comparing the alliance-outcome association in UC and CBT helps identify effective elements of treatment delivered in practice settings and generate information that may aid efforts to deliver EBTs in practice settings.

Hypotheses

Hypothesis 1. It was hypothesized that the three TPOCS-A subscales (bond, task, and goal) and individual items would demonstrate acceptable reliability (McLeod & Weisz, 2005). Inter-rater reliability was expected to demonstrate a minimum intraclass correlation coefficient (ICC; Shrout & Fleiss, 1979) of .60 for each subscale and item (Cicchetti, 1994). The reliability coefficients represent the model ICC(1,k), based on a one-way random effects model. Internal consistency was expected to demonstrate a minimum alpha coefficient of .70 (Cronbach, 1951).

Hypothesis 2a. It was hypothesized that early alliance in CBT (Karver et al., 2006; Shirk & Karver, 2003) would be associated with clinical symptomatology, such that a stronger alliance would predict a more positive clinical outcome in CBT.

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Hypothesis 2b. It was hypothesized that early alliance in UC would be associated with clinical symptomatology (Hawley & Garland, 2008; McLeod & Weisz, 2005), such that a stronger child alliance would predict a more positive clinical outcome in UC.

Hypothesis 3. It was hypothesized that positive alliance shifts in the CBT condition would be linearly associated with outcome, such that larger shifts would be associated with a more positive outcome (Hogue et al., 2006; Chiu et al., 2009).

Method

Participants

Youth participants. Youth participants were drawn from a larger randomized clinical trial that compared cognitive behavioral treatment (CBT) to UC for youth diagnosed with depressive disorders (see Weisz et al., 2009 for details). The parent project was designed to compare the effectiveness of an experimentally-supported, manual-guided treatment to UC in real-world clinical practice settings, with clinically-referred youth. Participant inclusion was determined by a team of project and clinic staff who verified that the youth in the parent study met DSM-IV criteria for a depressive disorder. Children with mental retardation, organic impairment, or psychotic symptoms were excluded from the study. For the present study, the youth had to meet the following inclusion criteria: (a) one therapist (in case their was variability between therapists in the quality of the alliance), (b) fewer than 40 sessions (to strike a balance between UC session numbers aligning with CBT session numbers without significantly deviating from usual care procedures), (c) availability of taped therapy sessions, and (d) pre- and post-outcome data. Based on these criteria, 17 of the original 56 participants were excluded from the present study: 11 did not have any available tapes, eight were missing outcome data, two

exceeded 40 sessions, and four had multiple therapists. Most of the excluded participants had several of the aforementioned features.

The 41 youth (17 male, 24 female; 15 UC, 26 CBT) in the present study averaged 12.09 years of age (range 8 - 15). The sample was ethnically diverse. The majority of youth met criteria for major depressive disorder (MDD) and many also met criteria for one of more of the following disorders: social phobia, separation anxiety disorder, specific phobia, panic disorder, generalized anxiety disorder, post-traumatic stress disorder, obsessive compulsive disorder, attention-deficit/hyperactivity disorder, oppositional defiant disorder, and conduct disorder. The average number of diagnoses per youth was 2.48 ($SD = 1.55$). Average baseline T-scores on the Child Behavior Checklist (described below) were in the clinically significant range ($T = 70$ and above for the narrowband scales and $T = 63$ and above for the broadband scales) (Achenbach & Rescorla, 2001). See Table 1 for youth characteristics.

Table 1

Participant Characteristics

Child Characteristics		
	M	**SD**
Age	12.09	2.10
Family Income (monthly)	$1,311	$2,591
Child Behavior Checklist T Scores		
Withdrawn Scale	69.50	9.12
Anxious/Depressed Scale	68.58	9.40
Internalizing Scale	69.95	9.03
Externalizing Scale	66.34	10.24
Total Problems Scale	70.21	8.22
	N	**%**
Gender (% female)	24	58.50
Ethnicity		
Caucasian	12	29.30
African-American	11	26.80
Latino	12	29.30
Mixed/Other	4	9.80
Not Reporting	2	4.90
Primary Diagnosis		
Major Depressive Disorder	24	58.50
Dysthymic Disorder	7	17.10
Minor Depressive Disorder	10	24.40
Comorbid Diagnosis		
Social Phobia	7	17.10
Separation Anxiety Disorder	8	19.50
Specific Phobia	20	48.80
Panic Disorder	3	7.30
Generalized Anxiety Disorder	6	14.60
Post-Traumatic Stress Disorder	1	2.40
Obsessive-Compulsive Disorder	1	2.10
Attention-Deficit/Hyperactivity Disorder	15	36.60
Oppositional Defiant Disorder	23	56.10
Conduct Disorder	5	12.20

Therapists. Thirty-four community therapists (10 male, 24 female) whom averaged 31.94 years of age (range 25-55) were randomly assigned to provide either UC or CBT to the youth participants (14 UC, 20 CBT). The majority of therapists described themselves as Caucasian or Latino and the sample of therapists primarily included masters-level psychologists. See Table 2 for therapist characteristics.

Table 2

Therapist Characteristics

Therapist Characteristics		
	M	*SD*
Age	31.94	7.58
Years of Training	4.38	1.81
Years of Experience	1.70	3.35
	N	*%*
Gender (% female)	24	71
Ethnicity		
Caucasian	12	35
Latino	14	41
Asian/Pacific	4	12
Mixed	3	9
Not Reporting	1	3
Professional Level		
Social Worker	4	12
PhD Psychologist	5	15
MA/MS Psychologist	23	68
Other MA/MS		
Professional	2	6

Note. MA = Master of Arts; MS = Master of Science.

Coders. The coding team consisted of two undergraduate students and six graduate students (4 male, 4 female). Coders were naïve to treatment condition and outcome of all cases.

Settings and Participant Contact Procedures

Participants were obtained from families that called one of six community mental health clinics for mental health services in Los Angeles county. If the initial description of the problem included mention of depressive symptoms, and the youth were between 8 and 15 years of age, the family was told of the study. If interested, a phone screen was conducted by project staff to assess relevant symptoms and rule out psychotic symptoms or developmental disorders. A project interview followed a successful phone screen to assess for a diagnosis of MDD, Dysthymic Disorder (DD), or Minor Depressive Disorder (MinDD) (American Psychiatric Association, 1994). If the interview identified a diagnosis of MDD, DD, or MinDD, treatment priority was then assessed to determine the family's eligibility. Treatment priority was based upon diagnostic, symptom, referral problem, and severity data discussed by project staff, senior clinic staff, and the family; if it was agreed that a depressive disorder warranted treatment focus, the youth was invited to enroll in the trial. In order to reflect the population and context of community practice, medication was not exclusionary. After receiving approval from the institutional review board, enrollment occurred between 1998 and 2003, and assessments continued until 2005. Families received monetary compensation for their participation.

Summary of Findings from the Effectiveness Trial

Weisz and colleagues (2009) compared the effectiveness of UC to CBT in the treatment of youth depression among community therapists. At post-treatment, 75% of youths no longer met criteria for a depressive disorder. There was no significant difference between CBT and UC in the percentage of youths who no longer met DSM-IV diagnostic criteria for a depressive

disorder (73.3% for CBT and 77.3% for UC). There was also no significant difference between CBT and UC in terms of symptom reduction. However, the duration of treatment preceding these reductions in depressive disorders and symptoms was significantly shorter for CBT than for UC youths (24 versus 39 weeks; $p < .05$). The authors concluded that both UC and CBT led to clinically meaningful change in depression levels from pre- to post-treatment, but CBT showed advantages over UC that might be of real value to practitioners and provider organizations. Specifically, treatment length was shorter in CBT than UC suggesting that CBT may lead to faster improvement. In addition, the CBT group, as compared with the UC condition, used significantly fewer adjunctive services, was lower in total cost, and generated higher parent ratings of the alliance.

Treatment Procedures

Youth participants were assigned to CBT or UC using block randomization to support balance on three dimensions: clinic, youth gender, and bilingual therapist requirement. Therapists were also assigned to CBT or UC using block randomization to support balance on two dimensions: inclusion of bilingual therapists and on representation of discipline (e.g., psychologists, social workers/marriage, family and child counselors, and psychiatrists). In the parent study, there were no significant condition differences on any of demographic or clinical variables for youth participants or on therapist characteristics, suggesting successful randomization for both groups. In the present study, participants average 28.10 weeks for their treatment duration ($SD = 17.53$) and 16.24 total sessions ($SD = 7.08$). The UC group averaged 33.50 weeks ($SD = 20.44$) and 16.40 sessions ($SD = 9.23$); the CBT group averaged 24.85 weeks ($SD = 14.89$) and 16.15 sessions ($SD = 5.70$). Treatment length did not significantly differ between condition, $t(38) = 1.54$, $p = .13$.

Usual care. UC therapists agreed to use the treatment procedures they used regularly and believed to be effective in their clinic practice. Therapy continued in UC until a normal client termination. Although UC therapists were aware of the criteria for youth participation (e.g., a primary diagnosis of a depressive disorder), they were not explicitly instructed to target the depressive symptoms in their treatment approach. Therefore, UC therapists did not necessarily target youth depression. Therapists assigned to the UC condition did not receive supervision unless they were not licensed.

Primary and Secondary Control Enhancement Training (PASCET). The PASCET program (Weisz, Thurber, Sweeney, Proffitt, & LeGagnoux, 1997) was used as the CBT program for youth depression. PASCET is based on a cognitive and behavioral framework (e.g., Lewinsohn et al., 1990; Stark, Reynolds, & Kaslow, 1987) and a model of perceived control and coping that involves two processes: primary control and secondary control. Primary control refers to coping by controlling objective conditions to fit one's wishes (e.g., studying harder to improve grades). Secondary control refers to coping by adjusting subjective conditions to match objective ones (e.g., modifying unreasonable or irrational expectations). The goal for depressed youth is to teach them to apply primary control to situations that are modifiable and secondary control to situations that are immutable. This is done through identifying appropriate situations for usage of each, practicing its application, and individualizing a skill set to the client. Sessions are primarily focused on the child, yet a few sessions are built into the program as a check-in between the parent and therapist. The parent is also invited to the end of each session as the child and therapist review the session content. The first 10 sessions are manual guided, the next five are outlined with more flexible guidelines, and additional sessions follow the same principles as the first 15 through skill building and application.

Training for PASCET therapists consisted of a one-day, six-hour workshop. All therapists assigned to the CBT condition received weekly supervision. Six doctoral-level clinical psychologists with experience in the PASCET manual served as supervisors for the PASCET therapists, providing 30 minutes per week of supervision. When time permitted, group supervision was held, with a 30-minute discussion of cases allotted to each therapist. Nearly all missed or canceled meetings were rescheduled and subsequently attended.

Treatment Integrity

All treatment sessions were recorded and randomly selected for an evaluation of treatment integrity in two domains: adherence and treatment differentiation. See Weisz and colleagues (2009) for further information about treatment integrity.

PASCET Brief Adherence Scale (PBA; Southam-Gerow, Jensen, Gelbwasser, Chu, & Weisz, 2001). The PBA, designed to evaluate treatment adherence, consists of 16 items tapping specific elements of the session procedures. A first coder rated all selected sessions (50% of cases that completed at least six sessions) and a second coder rated 25% of the sessions overlapping with coder one. Kappa was 1.00 for inter-rater agreement.

Therapy Process Observational Coding System for Child Psychotherapy – Strategies Scale (TPOCS-S; McLeod & Weisz, 2010). The TPOCS-S was used to characterize UC and assess treatment differentiation between the UC and PASCET conditions. TPOCS-S items represent common interventions employed within the prominent therapeutic approaches in youth psychotherapy. Four subscales were used to assess the interventions used in each condition: CBT (14 items), Psychodynamic (4 items), Family (5 items), and Client-Centered (4 items). Coders (four graduate students) rated the extent to which the therapist used each intervention in the full session on a 7-point scale. Two sessions from each case that had 20 sessions or less were

sampled (excluding the first and last session). Three sessions were sampled from cases with more than 20 sessions. In a comparison of the interventions utilized in the UC versus CBT condition, Weisz and colleagues found that PASCET therapists used more CBT than did UC therapists, and UC therapists used more family and psychodynamic interventions than PASCET. These results suggest that the two treatments were, in fact, distinct.

Child Alliance Measures

Therapeutic Alliance Scale for Children (TASC; Shirk & Saiz, 1992). In the post-treatment assessment, the seven-item TASC youth-report (TASC-C) and parent-report (TASC-P) forms were used to assess youth and parent alliance with the therapist. Hawley and Weisz (2005) have reported good internal consistency and test–retest reliability for the TASC among clinic-referred youths (alpha = .93, r = .79) and parents (alpha = .81, r = .82).

The Therapy Process Observational Coding System for Child Psychotherapy – Alliance Scale (TPOCS – A; McLeod, 2005). The TPOCS-A was used to objectively assess the quality of the child alliance. Coders view taped therapy sessions and rate each item on a six point likert-type scale with the following anchors: 0 = *not at all*, 3 = *somewhat*, 5 = *great deal*. The scale taps the three domains hypothesized as relevant to the child alliance: bond, task and goal. Bond (6 items) captures the affective aspect of the child-therapist relationship (e.g., "To what extent did the client indicate that s/he experiences the therapist as understanding and/or supporting?"). Task (3 items) captures the child's willingness to engage in the therapeutic interventions (e.g., "To what extent did the client engage/participate in therapeutic tasks?"). Goal (7 items) captures the collaborative establishment and agreement on treatment goals (e.g., "To what extent did the client agree with treatment goals?"). The TPOCS-A has demonstrated acceptable psychometric properties. Acceptable interrater reliability and internal reliability has

been reported across multiple samples (Chiu et al., 2009; Lerner, Mikami, & McLeod, in press; Liber et al., 2010; McLeod & Weisz, 2005). The TPOCS-A has also demonstrated convergent validity with the TASC (Shirk & Saiz, 1992), a child-report scale that assesses the quality of the alliance (see McLeod & Weisz, 2005).

TPOCS – A Scoring and Session Sampling Procedures

Several steps were taken to ensure ongoing reliability among coders and representative sampling of sessions.

Coder training. Training for coders consisted of each coder individually reading the coding manual, coding practice sessions, and attending training meetings to review questions and issues that arose during the training process. Coders trained over a 2-month period to reach adequate pre-study reliability on each item (ICC(2,2) at least .60; Cicchetti, 1994). Once reached, tapes were randomly assigned to coders. Inter-rater reliability was regularly assessed and discussed at weekly meetings to prevent coder drift (Margolin et al., 1998). Coders were blind to treatment condition and outcome.

Sampling of therapy sessions. Up to three sessions were randomly sampled from each case and randomly assigned to coders. One session was randomly sampled from the beginning, middle, and end of treatment. The first four sessions (excluding the intake session) comprise the early alliance, the middle third comprise the middle alliance, and the latter third comprise the late alliance (see Patterson & Chamberlain, 1994). When randomly generated sessions were not available (e.g., missing or inaudible), the subsequent session was selected. If that session was either missing or within the next phase, the preceding session was selected.

Scoring of therapy sessions. One hundred fifteen total therapy sessions were coded (41 early, 38 middle, 36 late). Participants who withdrew early from the study were included in the

analyses. Therefore, there are more early than middle and late sessions. All sessions were double coded and the average between the two coders represents the alliance score used in the analyses. This helped to ensure that the scores are not simply based on one coder's interpretation of a session or therapist-child interaction.

Assessment Procedures

Assessments were conducted prior to the start of treatment (T1) and following termination (T2). Interviews were conducted in pairs of interviewers, consisting of one clinical psychology graduate student and one research assistant, both blind to treatment condition. Interviews were highly standardized to ensure adherence to the interview structure and content. Training for interviewers consisted of didactics, modeling, and individually supervised practiced sessions. Supervisors reviewed randomly sampled videotapes of full interviews throughout the course of the study to evaluate adherence to the interview structure and content.

Other Measures

Diagnostic Interview Schedule for Children (DISC 4.0; Shaffer, Fisher, Lucas, Dulcan & Schwab-Stone, 2000). The DISC is a structured diagnostic interview used to assess the DSM – IV psychiatric diagnoses of children and adolescents. The DISC has been widely used in clinical studies and as a diagnostic tool in practice settings (e.g., Hinshaw et al., 1997; Shaffer, Restifo, Garfinkle, Gould, & Lucas, 1998). Parallel versions of the DISC exist for the parent and child. The DISC 4.0 compares favorably with earlier versions of the DISC in test-retest reliability (Shaffer et al., 2000). Validity of the DISC 4.0 has not been tested, yet studies have demonstrated acceptable reliable and validity of earlier versions (e.g., Rubio-Stipec et al., 1996; Schwab-Stone et al., 1996; Shaffer et al., 1996). To obtain combined values, a symptom was counted as positive if either the parent or youth endorsed it. Several modules were

administered to the parents only (i.e., oppositional defiant disorder, conduct disorder, and ADHD) to maintain youth focus on the most pertinent modules.

Children's Depression Inventory (CDI; Kovacs, 2003). The CDI is a widely used youth self-report measure of depressive symptoms that consists of 27 items. Each item has three statements in which the child is asked to select the statement that best describes his/her feelings in the past two weeks. Scales include negative mood, interpersonal difficulties, negative self-esteem, ineffectiveness, and anhedonia. In clinical samples, Cronbach's alphas for the CDI have ranged from .71 to .89, and test-retest reliability coefficients have ranged from .50 to .87 (see Kovacs, 2003). The CDI and several other measures of youth depression have been found to correlate at .5 and higher (e.g., McCauley et al., 1988; see Kovacs, 1992 for review). The CDI Total Depression scale was used for this study.

Children's Depression Inventory – Parent Form (CDI-P). The parent-report CDI-P was used to parallel the youth-report CDI. This measure has evidenced significant correlations with children's self-ratings and teacher ratings of youth depression in non-clinical populations (Wierzbicki, 1987). It has also demonstrated high test-retest reliability over a one-month interval and high internal consistency (Wierzbicki, 1987). In clinical populations, the CDI-P has correlated with different measures of depression completed by the same rater (Kazdin, French, & Unis, 1983). However, there is little evidence to support a relation between children's and parent's ratings of child depression on the CDI (e.g., Kazdin et al., 1983), suggesting the need to assess both perspectives.

Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is a widely used 118-item scale that obtains parent ratings for an array of behavioral and emotional problems. Extensive reliability and validity evidence has been reported (see Achenbach, 1991). CBCL raw

scores are converted to T-scores for three broadband scales (e.g., Internalizing) and eight narrow-band subscales (e.g., Anxious/Depressed). In the current investigation, three CBCL scales were used: Internalizing, Withdrawn-Depressed, and Anxious–Depressed. For the broadband scales, T-scores above 63 are considered clinically significant. For the narrowband scales, T-scores above 70 are considered clinically significant, and scores between 65 and 69 are considered borderline significant. The CBCL has been used with acceptable levels of reliability to measure behavior problems of children aged 4–16 years in a variety of cultural settings (Achenbach, 1991; Achenbach et al., 1990).

State–Trait Anxiety Inventory for Children (STAIC; Spielberger, 1973). The STAIC is a 20-item measure that assesses general and enduring anxiety symptoms. Extensive reliability and validity data are available (e.g., Kirisci, Clark, & Moss, 1996). The state anxiety scale was used in the present study.

Parent and Child Satisfaction Scales (PCSS; Hawley, Weersing, & Weisz, 1998). The PCSS is designed to assess child and parent satisfaction with treatment; it consists of a 4-item parent measure and a 3-item child measure assessed on a 5-point scale with the following anchors: 1 = Very Dissatisfied, 3 = Neither Satisfied nor Dissatisfied, 5 = Very Satisfied. The parent items are "Overall, how satisfied were you with the help that your child received at this clinic?", "If you were to seek help again, would you come back to this clinic?", "If a friend's child were in need of similar help, would you recommend this clinic to that friend?", and "In general, how much progress did your child make in treatment at this clinic?". The child items were as follows: "I liked going to the clinic", "Going to the clinic helped me with my problems", and "If I were ever having problems again, I would want to come back to this clinic". The parent measure has shown good internal consistency in a sample of 47 parents of clinic-referred youth

(alpha = .85), and good 7-14 day test-retest reliability (r = .83) in a sample of 25 parents of clinic-referred youth. The child measure demonstrated internal consistency in a sample of 44 clinic-referred youth (alpha = .95), and good 7-14-day test-retest reliability (r = .80) in a sample of 16 clinic-referred youth.

<div align="center">

Results

</div>

Data Analytic Strategy

A three step approach to data analysis was employed. First, preliminary analyses were conducted to compare the present sample to the original sample and to compare the CBT and UC subsamples of the present sample. Next, psychometric properties of the TPOCS-A were examined. Finally, primary analyses consisted of an examination of the alliance-outcome association, including observer- reported early alliance, self-reported alliance, and alliance shifts as predictors of outcome in several different domains.

Comparison between present and original sample. Preliminary analyses were first conducted to verify that the present sample does not significantly differ from the original sample in terms of child and therapist characteristics. Regarding youth participants, the original and present sample was not significantly different on the following variables at baseline: child age, $t(97) = -.74$, $p = .74$; child gender, $\chi^2(1) = .17$, $p = .68$; child ethnicity, $\chi^2(4) = .38$, $p = .99$; CBCL Total Problems Scale, $t(90) = .23$, $p = .82$; CBCL Depressed/Withdrawn Scale, $t(90) = -.16$, $p = .90$; CBCL Externalizing Scale, $t(90) = -.06$, $p = .95$; primary diagnosis (e.g., MDD, DD, or MinDD) $\chi^2(2) = .87$, $p = .65$. The therapists in the original and present sample were not significantly different on the following variables: therapist age, $t(77) = -.01$, $p = .99$; therapist ethnicity, $\chi^2(4) = 2.02$ $p = .73$; years of professional training, $t(77) = .18$, $p = .86$); years of experience since training ended, $t(57) = -1.54$, $p = .13$); therapist gender, $\chi^2(1) = .05$, $p = .83$. The

original and present sample were significantly different on therapist degree (e.g., PhD Psychologist, MA/MS Psychologist, Social Worker, Other), $\chi^2(3) = 31.50$ $p < .001$. This difference is not likely to affect the results since the factor scores and coding were redone for the present study.

Comparison between CBT and UC subsamples. Independent t-tests and chi-square analyses were conducted to test whether the two conditions (CBT and UC) differ in child and therapist characteristics at pre-treatment to ensure that the two groups are equivalent. The UC and CBT participants were not significantly different on the following variables at baseline: child age, $t(39) = .41$, $p = .69$; child ethnicity, $\chi^2(4) = 1.07$, $p = .90$; CBCL Total Problems Scale, $t(36) = .88$, $p = .38$; CBCL Depressed/Withdrawn Scale, $t(36) = 1.31$, $p = .20$; CBCL Externalizing Scale, $t(36) = .61$, $p = .54$; primary diagnosis (e.g., MDD, DD, or MinDD), $\chi^2(2) = .29$, $p = .86$. The UC and CBT therapists were not significantly different at baseline on the following variables: therapist age, $t(32) = .-.72$, $p = .48$; therapist ethnicity, $\chi^2(4) = 5.32$, $p = .15$; years of professional training, $t(32) = -1.09$, $p = .28$; years of experience since training ended, $t(21) = -.01$, $p = .99$; therapist gender, $\chi^2(1) = .419$, $p = .58$; therapist degree (e.g., PhD Psychologist, MA/MS Psychologist, Social Worker, Other), $\chi^2(3) = 4.98$, $p = .17$. Therefore, participants and therapists in the two conditions were similar at baseline.

Outcome for CBT and UC participants. Table 3 represents pre-and post-treatment comparison of CBT and UC on multiple outcome measures. In the original trial, an exploratory factor analysis was used to identify latent factors underlying the child- and parent-depression measures. An exploratory factor analysis was performed on the present sample to determine if the factor structure in the present was the same as the original trial. Two factors were requested based on the factor structure in the original trial: child-reported depression and parent-reported

depression. After varimax rotation, the first factor accounted 19.6% of the variance and the

second factor accounted for 28.8% of the variance. Table 4 displays the measures and factor

loadings for the rotated factors. The child-reported CDI and DISC depression symptoms

represent the child depression factor and the parent-reported CDI, DISC depression symptoms,

CBCL Withdrawn subscale, and CBCL Anxious/Depressed subscale scores represent the parent

depression factor.

Table 3

Pre- and Post-Treatment Comparisons for CBT and UC Across Multiple Domains

	Usual Care				
	Pre-Treatment		Post-Treatment		
	M	*SD*	*M*	*SD*	*ES*
Youth-Report					
CDI	14	8.38	7.77	6.61	0.74
DISC-C MDD Symptom Count	10.43	4.75	6	3.92	0.93
Depression Factor Score	0.68	2.84	-1.56	2.26	0.79
Parent-Report					
CDI-P	19.27	6.53	11.55	6.71	1.18
CBCL Withdrawn	72.15	8.06	65.33	16.55	0.85
CBCL Externalizing	67.77	10.94	61.33	13.89	0.59
DISC-P MDD Symptom Count	11.71	3.83	6.36	4.67	1.4
Depression Factor Score	0.65	2.55	-1.37	3.25	0.79
	Cognitive-Behavioral Therapy				
	Pre-Treatment		Post-Treatment		
	M	*SD*	*M*	*SD*	*ES*
Youth-Report					
CDI	8.81	7.28	7.96	7.31	0.12
DISC-C MDD Symptom Count	9.27	4.63	4.77	3.45	0.97
Depression Factor Score	-0.39	2.18	-1.70	2.00	0.60
Parent-Report					
CDI-P	17.16	6.72	10.95	6.82	0.92
CBCL Withdrawn	68.12	9.48	61.05	8.75	0.75
CBCL Externalizing	65.6	10.00	61.79	9.50	0.38
DISC-P MDD Symptom Count	11.08	3.44	5.43	4.23	1.64
Depression Factor Score	-0.32	2.22	-2.43	2.80	0.95

Note. ES = Effect size; CDI = Child Depression Inventory; DISC = Diagnostic Interview

Schedule for Children; MDD = Major Depressive Disorder; CBCL = Child Behavior Checklist.

Table 4

Factor Loadings for Child- and Parent- Reported Depression

Measure	1	2	Communality
CDI – C	.14	**.96**	.40
DISC Depression Symptoms - C	-.08	**.32**	.23
CDI – P	**.93**	.15	.72
DISC Depression Symptoms - P	**.52**	-.24	.29
CBCL Withdrawn	**.63**	.16	.38
CBCL Anxious/Depressed	**.77**	-.04	.59

Note. Factor loadings > .30 are in boldface. CDI = Child Depression Inventory; DISC = Diagnostic Interview Schedule for Children; MDD = Major Depressive Disorder; CBCL = Child Behavior Checklist.

Using unit weighting (Kline, 2004), standardized values of each factor's measures were averaged to compute a factor score for each participant. To obtain post-treatment factor scores on metrics comparable to those of the pretreatment factors, each of the post-treatment factor's measures were standardized using the measures' pretreatment means and standard deviations. Based on the results from the independent samples t-test, the two conditions did not significantly differ on any outcome measure. Therefore, the CBT and UC conditions were combined in subsequent analyses.

Reliability of the TPOCS-A

Hypothesis 1 predicted that the TPOCS-A would be a reliable measure of observed child alliance. Two measures of reliability were computed for the TPOCS-A: (a) interrater reliability across all pairs of coders for the TPOCS-A subscale items and subscales, and (b) internal consistency of the subscales.

Interrater reliability of the TPOCS-A subscales. The reliability of the TPOCS-A items and subscales was assessed using the full sample of sessions ($N = 115$). Subscale scores were generated by summing together individual items within the subscale and then averaging them together to produce a single subscale score. This was done for the TPOCS-A and the TPOCS-A Goal subscale. Values were categorized according to Cicchetti's (1994) criteria (e.g., below .40 = poor agreement; .40-.59 = fair agreement; .60-.74 = good agreement; .75 and above = excellent agreement).

Interrater reliability of the TPOCS-A items and TPOCS-A subscales was assessed using the full sample of coded sessions. Interrater reliability for the TPOCS-A Bond-Task subscale was acceptable (ICC = .73, $M = 3.47$, $SD = .74$). In sum, the interrater reliability for the TPOCS-A Bond-Task items and subscale ranged from poor to good (Cicchetti, 1994): Experience therapist as supportive (ICC = .68; $M = 2.79$, $SD = 1.17$, range = 0-5); act hostile toward therapist (ICC = .69; $M = .30$, $SD = .69$, range = 0-4); demonstrate positive affect toward therapist (ICC = .62; $M = 2.85$, $SD = 1.05$, range = 0-5); share experience with therapist (ICC = .66; $M = 3.00$, $SD = 1.08$, range = 0-5); uncomfortable interacting with the therapist (ICC = .57; $M = .57$, $SD = .89$, range = 0-4); degree to which client and therapist have difficulty interacting (ICC = .63; $M = .51$, $SD = .86$, range = 0-4); use skills learned in therapy to make changes outside of therapy (ICC = .31; $M = 1.31$, $SD = 1.16$, range = 0-4); not comply with tasks (ICC = .74; $M = .29$, $SD = .76$, range = 0-4); work together equally on tasks (ICC = .68; $M = 2.91$, $SD = 1.14$, range = 0-5).

Interrater reliability for the TPOCS-A Goal subscale was not acceptable for the individual items within the Goal subscale (ICC (1, 8)) ranging from .19 to .66 (with one item at acceptable inter-rater reliability) or for the subscale (ICC = .36, $M = 2.24$, $SD = .59$): Discuss treatment goals (ICC = .49; $M = 1.36$, $SD = 1.25$, range = 0-5); indicate a desire to obtain treatment goals

(ICC = .24; *M* = 1.12, *SD* = 1.15, range = 0-4); agree with treatment goals (ICC = .41; *M* = 1.26, *SD* = 1.21, range = 0-5); refuse to discuss treatment goals (ICC = .66; *M* = 0.08, *SD* = .35, range = 0-3); indicate a general hopelessness about obtaining treatment goals (ICC = .45; *M* = 0.08, *SD* = .33, range = 0-3); agree on the definition and possible causes of the client's problems (ICC = .19; *M* = 1.03, *SD* = 1.00, range = 0-4); refer to previously discussed treatment goals or previously performed therapeutic tasks (ICC = .53; *M* = 1.09, *SD* = 1.02, range = 0-4). Therefore, the Goal subscale was not used in subsequent analyses.

Internal consistency for TPOCS-A. The internal consistency of the TPOCS-A was assessed using the full sample of sessions. Internal consistency of the TPOCS-A was acceptable across treatment (α = .90); in the early phase of treatment (α = .85), middle phase of treatment (α = .85) and in the late phase of treatment (α = .75). These results indicate consistency among the items within the scale.

Stability of the TPOCS-A. The stability of the TPOCS-A was assessed by examining the correlation between early, middle, and late subscale scores. The TPOCS-A evidenced moderate stability over the course of treatment (DeVellis, 2003). These correlations indicate that the quality of the alliance at different timepoints were positively and significantly associated over the course of treatment. See Table 5.

Table 5

Correlations of the TPOCS-A at the Beginning, Middle, and End of Treatment

	1	2	3
1. TPOCS-A Early		0.66**	0.69**
2. TPOCS-A Middle			0.62**
3. TPOCS-A Late			

Note. TPOCS-A = Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale.

** $p < .01$

Alliance means compared between CBT and UC. To determine if the CBT and UC conditions can be combined for the alliance-outcome analyses an independent t-test was conducted to evaluate whether the quality of the observed alliance and self-reported alliance was similar in the CBT and UC conditions. Results revealed that the two conditions did not significantly differ in the quality of the alliance at any TPOCS-A time or on the child-reported alliance. The alliance means differed on the parent-reported alliance between the two conditions. Table 6 presents the means for the TPOCS-A early, middle, and late time points, child-reported TASC, and parent-reported TASC.

Table 6

Alliance Means of TPOCS-A and TASC Scores

	M	t	p
TPOCS-A Early			
Usual Care	2.90	-1.57	.13
CBT	3.33		
TPOCS-A Middle			
Usual Care	2.98	-.74	.47
CBT	3.19		
TPOCS-A Late			
Usual Care	3.35	-.65	.52
CBT	3.52		
Child TASC			
Usual Care	22.69	.21	.84
CBT	22.35		
Parent TASC			
Usual Care	22.00	-2.66	.01
CBT	25.41		

Note. TPOCS-A = Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale; TASC = Therapeutic Alliance Scales for Children; CBT = Cognitive-Behavioral Therapy.

Since the thesis aimed to focus upon the TPOCS-A as the primary independent measure and there were no mean differences in this domain, the conditions were combined in subsequent analyses.

Correlations between TPOCS – A and TASC. Bivariate correlation analyses were run to examine the correlations between self-reported and observer-reported early alliance. These correlations included the TPOCS-A early alliance, child-reported TASC, and parent-reported TASC. Given the significant correlations between early, middle, and late alliance and the recent emphasis on early alliance as the most accurate time point (e.g., Feeley et al., 1999) only the early alliance was used for these correlations. The child-reported TASC was significantly correlated with the TPOCS-A, $r(34) = .41$, $p = .01$, and the parent-reported TASC, $r(32) = .48$, $p = .004$. The TPOCS-A was not significantly correlated with the parent-reported TASC, $r(35) = .20$, $p = .24$.

Predicting Outcome from the Child-Therapist Alliance

The relation between the child alliance and outcome was examined in a series of hierarchical linear regressions. Specifically, it was assessed whether the TPOCS-A alliance scores from the beginning phase of treatment and shifts in alliance predict child- and parent-reported outcome on a depression factor score for each. For each regression analysis, one covariate was entered as the first step in the model (e.g., depression factor score at the start of treatment) to allow for a pure examination of the alliance-outcome association.

Although MLM is ideally suited for datasets with a hierarchical structure, the present dataset did not support multilevel analyses. MLM requires a substantial sample size at each level, even with few predictors (Tabachnick & Fidell, 2007). The modal ratio of therapist to client in the present dataset is 1:1, so the dataset cannot support MLM analyses.

The alliance-outcome association was assessed using a series of hierarchical multiple regressions for both early alliance and alliance shifts. The TPOCS-A score was entered as the predictor in a regression model controlling for pretreatment symptom severity in the first step.

The outcome variable was a factor score used to represent combined child- and parent- reported depression outcomes.

Early alliance and improved depression outcome[1]. Hypothesis 2 predicted that early alliance would be associated with clinical symptomatology, such that a stronger alliance would predict a more positive clinical outcome. To investigate how well observed child alliance predicts outcome when controlling for initial severity, a hierarchical linear regression was computed. Assumptions of linearity, normally distributed errors, and uncorrelated errors were checked and met.

Child-reported outcome. When initial severity was entered alone, it significantly predicted child-reported outcome, $F(1,35) = 13.37$, $p < .001$, $R^2 = .276$. As indicated by the R^2, 28% of the variance in outcome could be predicted by initial severity. When early child alliance was added to the model, it did not significantly improve the prediction, R^2 change = .001, $F(1,34) = .046$, $p = .83$. The model significantly predicted child-reported outcome, $F(2,34) = 6.53$, $p = .004$. The beta weights, presented in Table 7, suggest that initial severity and not the child alliance account for most of the variance in child-reported outcome.

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[1] Regression analyses were rerun for the CBT and UC conditions separately to examine whether the alliance-outcome association differed by condition; results did not change for the TPOCS-A early alliance as the predictor. In the UC condition, early alliance did not predict child-reported depression, $F(1,11) = .75$, p = .40, $R^2 = .064$ or parent-reported depression, $F(1,13) = 1.49$, $p = .25$, $R^2 = .103$. In the CBT condition, early alliance did not predict child-reported depression, $F(1,23) = .76$, $p = .39$, $R^2 = .032$, or parent-reported depression, $F(1,23) = .08$, $p = .78$, $R^2 = .003$.

Table 7

Hierarchical Regression Predicting Child-Reported Depression Outcome from Early Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	ΔR^2
Step 1 Initial Severity	0.53	0.13	0.13	0.53	0.276
Step 2 Early Alliance	0.01	-0.07	0.35	-0.03	0.001

Parent-reported outcome. When initial severity was entered alone, it significantly predicted outcome, $F(1,38) = 66.10$, $p < .001$, $R^2 = .635$. As indicated by the R^2, 64% of the variance in parent-reported outcome could be predicted by initial severity. When early child alliance was added to the model, it did not significantly improve the prediction, R^2 change = .007, $F(1,37) = .01$, $p = .40$. The model significantly predicted outcome, $F(2,37) = 33.17$, $p < .001$. The beta weights, presented in Table 8, suggest that initial severity and not the child alliance account for most of the variance in outcome.

Table 8

Hierarchical Regression Predicting Parent-Reported Outcome from Early Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	ΔR^2
Step 1 Initial Severity	0.8	0.99	0.12	0.8	0.635
Step 2 Early Alliance	.-.13	-0.29	0.34	-0.08	0.007

Alliance shifts and improved depression outcome[2]. Hypothesis 3 predicted that positive alliance shifts would be linearly associated with outcome, such that larger shifts will be associated with a more positive outcome (Hogue et al., 2006; Chiu et al., 2009). To investigate whether alliance shifts predict outcome when controlling for initial severity, a hierarchical linear regression was computed. The mathematical difference between late and early alliance was used as the predictor variable. Assumptions of linearity, normally distributed errors, and uncorrelated errors were checked and met. The mean shift between early and late alliance was .22 (SD = .67). There was no significant difference in the average shift between the two conditions, $t(34)$ = 1.71, p = .10.

Child-reported outcome. When initial severity was entered alone, it significantly predicted child-reported outcome, $F(1,31)$ = 10.92, p = .002, R^2 = .26. As indicated by the R^2, 26% of the variance in child-reported outcome could be predicted initial severity. When alliance shifts were added to the model, it did not significantly improve the prediction, R^2 change = .004, $F(1,30)$ = .18, p = .68. The model significantly predicted child-reported outcome, $F(2,30)$ = 5.40, p = .01. The beta weights, presented in Table 9, suggest that initial severity and not shifts in the quality of the alliance account for most of the variance in child-reported outcome.

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[2] Regression analyses were rerun separately for the CBT and UC conditions to examine whether the alliance-outcome association differed by condition results did not change for the TPOCS-A alliance shifts as the predictor. In the UC condition, alliance shifts did not predict child-reported depression, $F(1,9)$ = 1.53, p = .25, R^2 = .145 or parent-reported depression, $F(1,11)$ = .12, p = .74, R^2 = .010. In the CBT condition, alliance shifts did not predict child-reported depression, $F(1,21)$ = 2.44, p = .13, R^2 = .104, or parent-reported depression, $F(1,20)$ = .30, p = .59, R^2 = .015.

Table 9

Hierarchical Regression Predicting Child-Reported Outcome from Shifts in Child Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	Δ R^2
Step 1 Initial Severity	0.53	0.4	0.12	0.51	0.26
Step 2 Alliance Shifts	-0.1	-0.18	0.42	-0.07	0.004

Parent-reported outcome. When initial severity was entered alone, it significantly predicted outcome, $F(1,33) = 64.32$, $p < .001$, $R^2 = .661$. As indicated by the R^2, 66% of the variance in parent-reported outcome could be predicted by initial severity. When alliance shifts were added to the model, it did not significantly improve the prediction, R^2 change = .000, $F(1,32) = .02$, $p = .89$. The model significantly predicted parent-reported outcome, $F(2,32) = 31.21$, $p < .001$. The beta weights, presented in Table 10, suggest that initial severity and not shifts in the quality of the alliance account for most of the variance in parent-reported outcome.

Table 10

Hierarchical Regression Predicting Parent-Reported Outcome from Shifts in Child Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	Δ R^2
Step 1 Initial Severity	0.8	1.02	0.12	0.81	0.661
Step 2 Alliance Shifts	-0.05	0.06	0.46	0.14	0

Child-reported alliance (TASC) and improved depression outcome[3]. The relation

between child-reported alliance, based on the TASC, and child-reported depression outcome was

examined. When child-reported initial severity was entered alone, it significantly predicted

outcome, $F(1,33) = 10.18$, $p = .003$, $R^2 = .236$. As indicated by the R^2, 24% of the variance in

child-reported outcome could be predicted by child-reported initial severity. When child-reported

alliance is added to the model, it did not significantly improve the prediction, R^2 change = .046,

$F(1,32) = 2.02$, $p = .164$. The model significantly predicted outcome, $F(2,32) = 6.26$, $p = .01$.

The beta weights, presented in Table 11, suggest that child-reported initial severity and not the

child-reported alliance account for most of the variance in outcome.

Table 11

Hierarchical Regression Predicting Child-Reported Outcome from Child-Reported Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	ΔR^2
Step 1 Initial Severity	0.53	0.41	0.13	0.49	0.236
Step 2 Child TASC	0.22	-0.09	0.06	-0.21	0.046

Note. TASC = Therapeutic Alliance Scales for Children.

The relation between child-reported alliance, based on the TASC, and parent-reported

depression outcome was also examined. When parent-reported initial severity was entered alone,

it significantly predicted outcome, $F(1,33) = 60.29$, $p < .001$, $R^2 = .646$. As indicated by the R^2,

65% of the variance in parent-reported outcome could be predicted by parent-reported initial

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[3] Regression analyses were rerun for the CBT and UC conditions separately to examine whether the alliance-outcome association differed by condition; results did not change for the child-reported alliance (TASC) as the predictor. In the UC condition, child-reported alliance did not predict child-reported depression, $F(1,10) = .06$, p = .81, $R^2 = .006$ or parent-reported depression, $F(1,11) = .57$, $p = .47$, $R^2 = .049$. In the CBT condition, child-reported alliance did not predict child-reported depression, $F(1,21) = 1.64$, $p = .22$, $R^2 = .072$, or parent-reported depression, $F(1,20) = 1.30$, $p = .27$, $R^2 = .061$.

severity. When child-reported alliance was added to the model, it did not significantly improve the prediction, R^2 change = .007, $F(1,32)$ = .65, p = .43. The model significantly predicted outcome, $F(2,32)$ = 30.15, $p < .001$. The beta weights, presented in Table 12, suggest that parent-reported initial severity and not the child-reported alliance account for most of the variance in outcome.

Table 12

Hierarchical Regression Predicting Parent-Reported Outcome from Child-Reported Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	ΔR^2
Step 1 Initial Severity	0.8	0.99	0.13	0.8	0.646
Step 2 Child TASC	0.73	0.05	0.07	0.09	0.007

Note. TASC = Therapeutic Alliance Scales for Children.

Parent-reported alliance (TASC) and improved depression outcome[4]. The relation between parent-reported alliance, based on the TASC, and child-reported depression outcome was examined. When child-reported initial severity was entered alone, it significantly predicted outcome, $F(1,31)$ = 10.38, p = .003, R^2 = .251. As indicated by the R^2, 25% of the variance in child-reported outcome could be predicted child-reported initial severity. When parent-reported alliance was added to the model, it did not significantly improve the prediction, R^2 change = .006, $F(1,30)$ = .22, p = .64. The model significantly predicted outcome, $F(2,30)$ = 5.17, p = .01.

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[4] Regression analyses were rerun for the CBT and UC conditions separately; results did not change for the parent-reported alliance (TASC) as the predictor. In the UC condition, parent-reported alliance did not predict child-reported depression, $F(1,11)$ = .12, p = .75, R^2 = .010 or parent-reported depression, $F(1,13)$ = .86, p = .37, R^2 = .062. In the CBT condition, parent-reported alliance did not predict child-reported depression, $F(1,19)$ = 2.16, p = .16, R^2 = .102, or parent-reported depression, $F(1,20)$ = 1.31, p = ..27, R^2 = .062.

The beta weights, presented in Table 13, suggest that child-reported initial severity and not the parent-reported alliance account for most of the variance in outcome.

Table 13

Hierarchical Regression Predicting Child-Reported Outcome from Parent-Reported Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	ΔR^2
Step 1 Initial Severity	0.53	0.42	0.13	0.5	0.251
Step 2 Parent TASC	0.23	-0.04	0.09	-0.08	0.006

Note. TASC = Therapeutic Alliance Scales for Children.

The relation between parent-reported alliance, based on the TASC, and parent-reported depression outcome was also examined. When parent-reported initial severity was entered alone, it significantly predicted outcome, $F(1,35) = 55.34$, $p < .001$, $R^2 = .613$. As indicated by the R^2, 61% of the variance in parent-reported outcome could be predicted parent-reported initial severity. When parent-reported alliance is added to the model, it did not significantly improve the prediction, R^2 change $= .010$, $F(1,34) = .91$, $p = .35$. The model significantly predicted outcome, $F(2,34) = 28.05$, $p < .001$. The beta weights, presented in Table 14, suggest that parent-reported initial severity and not the parent-reported alliance account for most of the variance in outcome.

Table 14

Hierarchical Regression Predicting Parent-Reported Outcome from Parent-Reported Alliance

Predictor Variables	Zero-Order r	*B*	*SE B*	β	Δ R^2
Step 1 Initial Severity	0.8	1.01	0.14	0.78	0.613
Step 2 Parent TASC	-0.05	0.07	0.08	0.1	0.01

Note. TASC = Therapeutic Alliance Scales for Children.

Early alliance and other outcome variables. Additional outcome variables were explored to investigate whether a strong child alliance is related to any outcome domains that were not explicitly targeted in therapy. These included attendance, externalizing symptoms, client satisfaction with treatment, and anxiety symptoms, Results revealed that early child alliance did not significantly predict treatment completion (e.g., 10 session content for CBT and 13 or more sessions UC based on the parent study criteria), $F(1,39) = 1.02$, $p = .32$. After controlling for baseline externalizing symptoms, the alliance did not significantly predict improved externalizing symptoms on the CBCL Externalizing Scale, $F(2,24) = 1.08$, $p = .36$. After controlling for baseline anxiety symptoms, the alliance did not significantly predict improved anxiety symptoms on the STAIC, $F(2,33) = 1.86$, $p = .17$. Early child alliance significantly predicted both child-reported treatment satisfaction, $F(1,34) = 15.07$, $p < .001$, and parent-reported treatment satisfaction, $F(1,35) = 7.16$, $p = .01$. Therefore, child and parent satisfaction were the only analyzed outcome variables predicted by the early child alliance.

Comparing the Present Findings with Past Findings

To compare the present findings to past meta-analytic (Karver et al., 2006) and individual study findings, effect sizes (ES) for the alliance-outcome associations were estimated. ES estimates were produced by calculating product-moment correlation coefficients (*r*) between

early alliance and the child- and parent-depression factors at post-treatment. The ES for child-reported outcome was $r = -.01$ and parent-reported outcome was $r = .13$. These findings indicate that in the present study the alliance-outcome association is smaller than ESs reported in prior meta-analyses ($r = .21$; Karver et al., 2006), particularly for child-reported outcome. An ES estimate was also produced for child-reported alliance (TASC) and child-reported post-treatment depression outcomes within the CBT condition to directly compare the present findings to Shirk and colleagues (2008), who used the same measure adapted for adolescents. The child depression factor was used as the outcome measure given that Shirk and colleagues used adolescent reports of their depressive symptoms. Compared to their findings, $r = .20$, the present study yielded a slightly larger ES, $r = .27$, such that a higher alliance was associated with greater symptom reduction. Finally, ES estimates were produced for the child-reported (TASC) and observer-reported (TPOCS-A) alliance and child-reported post-treatment depression outcomes within the CBT and UC conditions to directly compare the present findings to Karver and colleagues (2008). Compared to their findings in the CBT condition ($r = .35$ for observer-reported alliance and $r = .31$ for adolescent-reported alliance) the present study yielded a similar ES for child-reported alliance ($r = .27$); however, the ES for observer-reported alliance was in the opposite direction ($r = -.18$). Compared to their findings in the supportive condition ($r = -.18$ for observer-reported alliance and $r = -.11$ for adolescent-reported alliance) the UC condition in the present study yielded a positive ES for observer-reported alliance ($r = .25$) and a similar ES for child-reported alliance ($r = .12$). See Table 15 for the ESs of the alliance-outcome association from the present study compared across conditions, alliance measures, and outcome measures.

Table 15

Effect Sizes Comparing the Alliance-Outcome Association Across Conditions and Outcome

Measures

Measure	Usual Care	CBT	Combined
Child Depression Factor			
TPOCS-A	.25	-.18	-.01
TASC-C	.12	.27	.21
TASC-P	.10	.32	.21
Parent Depression Factor			
TPOCS-A	.32	-.06	.13
TASC-C	-.22	.25	.06
TASC-P	-.25	.25	.05
Total			
TPOCS-A	.36	-.21	.06
TASC-C	-.15	.41	.18
TASC-P	-.19	.35	.05

TPOCS-A = Therapy Process Observational Coding System for Child Psychotherapy – Alliance scale; TASC = Therapeutic Alliance Scales for Children; CBT = Cognitive-Behavioral Therapy.

Discussion

Youth depression is a serious and pervasive disorder that is associated with poor psychosocial functioning, school problems, and substance abuse (Lewinsohn et al., 2003; Puig-Antich et al., 1993; Rohde et al., 1991). These features highlight the need for effective treatments for youth depression. However, treatments for youth depression may lag behind treatments for other youth emotional and behavioral problems in terms of overall magnitude of treatment

benefit (Weisz et al., 2006). Therefore, it is important for researchers to focus upon ways to optimize the impact of treatments for youth depression.

The child alliance is one treatment process that may aid efforts to optimize the delivery and impact of treatment for youth depression. A strong alliance may play an important role in maximizing youth participation in therapeutic activities, something that may be particularly important in cognitive behavioral treatments that emphasize skill building (Chu & Kendall, 2004; Kendall & Ollendick, 2004). Moreover, a relationship marked by warmth and support may promote openness and trust, which may be important in supportive treatments.

The goal of the present study was to investigate the alliance-outcome association in two treatments for youth depression delivered in practice settings: cognitive-behavioral therapy (CBT) and usual care (UC). Though a strong child alliance is hypothesized to promote positive outcomes in psychotherapy for youth depression, studies have produced mixed findings for both CBT and supportive treatments (see Karver et al., 2008; Kaufman et al., 2005; Shirk et al., 2008).

This study is the first to investigate the alliance-outcome association within an effectiveness study for youth diagnosed with depressive disorders. Findings from this study provide information on the relative importance of the child alliance in CBT and UC for youth depression. Additionally, examining whether the quality of the alliance differs in the CBT and UC conditions helps evaluate whether delivering a manual-guided treatment in practice settings impacts the quality of the alliance. Thus, comparing the alliance-outcome association in UC and CBT may help identify effective elements of treatment delivered in practice settings and generate information that may aid efforts to transport evidence-based treatments to practice settings.

In brief, the observed and self-reported alliance was not associated with improved depression symptomatology across the entire sample of participants and when differentiated by treatment type (e.g., CBT or UC). The strength of the alliance-outcome relation was smaller than previous studies for the observed alliance (e.g., Karver et al., 2008), yet similar to previous studies for the child-reported alliance (e.g., Shirk et al., 2008). The strength of the correlation also differed by alliance methodology within the CBT and UC conditions, such that the strongest correlations were noted for observed alliance within UC and self-reported alliance within CBT. Of note, the direction of the alliance-outcome association was in opposite directions for the observed and self-reported alliance measures within CBT; that is, a stronger alliance was associated with worse outcomes in CBT when measured by the TPOCS-A, yet better outcomes when measured by the TASC. Additionally, the observed alliance was not related to improved anxiety or externalizing self-report ratings, but was related to child- and parent-reported treatment satisfaction. Overall, the TPOCS-A demonstrated adequate inter-rater reliability on the Bond-Task subscale and most Bond-Task items, yet not on the Goal subscale.

Alliance-Outcome Association

The primary research question sought to answer whether the alliance is related to improved outcome in a sample of clinically referred youth diagnosed with a depressive disorder receiving either CBT or UC for youth depression. Findings revealed that there was no direct relation between the alliance and improved child- or parent-reported outcome. This was consistent for the observed and self-reported alliance. These findings are surprising, given the traditional belief that the alliance is an important ingredient of successful youth psychotherapy. Additionally, the effect size (ES) for child-reported outcome was $r = -.01$, which is considerably smaller than the ESs found in prior alliance-outcome studies in the child psychotherapy literature

(e.g., $r = .21$; Karver et al., 2006). However, an examination of the correlations revealed that the relation was different across alliance methodology and condition.

Alliance-Outcome Association in CBT. The finding that the child alliance is not associated with outcome was true for the CBT subsample of the present study. Additionally, the strength of the correlation for the CBT subsample was $r = -.18$, such that a stronger alliance was associated with less symptom improvement. This finding was surprising, given the past evidence that suggests a possible link between the alliance and outcome for youth depression with manual-guided treatments. For example, Shirk and colleagues (2008) found that a strong adolescent-reported alliance was significantly associated with reductions in depressive symptoms over the course of a CBT treatment program ($r = .31$ for the BDI and $r = .37$ for the C-DISC). Additionally, Karver and colleagues (2008) found that a strong alliance was associated with symptom reduction in adolescents receiving CBT for depressive symptoms and a suicide attempt ($r = .35$ for observer-rated alliance and $r = .31$ for self-reported alliance).

Several hypotheses are considered to explain the present findings. First, the ESs were examined across alliance measures. Although the association was not significant in the present study, the ES for the child-reported alliance was similar to ESs from previous studies (Karver et al., 2008; Shirk et al., 2008). However, the ES for the observer-reported alliance was smaller than that of Karver and colleagues (2008). Additionally, the ES of the TPOCS-A in the CBT condition of the present study was lower than the ES of the child- and parent-reported TASC. In fact, a stronger observer-reported alliance was associated with worse outcomes in CBT. This surprising finding, if replicated in future research, suggests that key aspects of the child-therapist alliance in CBT may not be captured by observer-rated measures. Second, it is possible that positive outcomes in manual-guided treatments are produced by techniques more so than

relationship factors. Indeed, the present findings are consistent with Kaufman and colleagues' (2005) findings that the associations of the alliance score with the depression outcomes were non-significant (ES = .04). The authors suggested that changes in depression scores are associated with techniques related to CBT rather than the alliance. Taken together, these findings suggest that additional research employing a multimodal assessment of the alliance should be conducted before conclusions are drawn regarding the role of the alliance in CBT for youth depression.

Alliance-Outcome Association in UC. That the alliance was not associated with outcome in the UC condition was also surprising given past studies suggesting that the alliance may play a role in symptom reduction in community-based service settings. Specifically, McLeod and Weisz (2005) found an association between observed child alliance and a self-reported reduction in anxiety symptomatology. Additionally, Hawley and Weisz (2005) found that a strong child alliance was associated with reductions in child- and parent-reported symptomatology. Finally, Hawley and Garland (2008) found a strong child alliance was associated with reductions in several domains of outcome independent of common rater variance.

There is also evidence that suggests a weak alliance-outcome association in UC for youth depression. For example, Karver and colleagues (2008) found that a strong alliance was not associated with symptom reductions in adolescents receiving nondirective supportive therapy for depressive symptoms and a suicide attempt. Additionally, McLeod and Weisz (2005) found no significant association between observed child alliance and a reduction in symptomatology on the Internalizing Scale of the CBCL or self-reported depression measures. Therefore, the present

study supports past findings that the alliance may not play a significant role in symptom reduction in depressed youth receiving psychotherapy in community settings.

Of note, ESs were examined across alliance measures in the UC condition as they were in the CBT condition. The ES for the child-reported alliance in UC was similar to the ES from the aforementioned study (Karver et al., 2008). However, in contrast to the CBT condition, the ES for the observer-reported alliance was larger than that of Karver and colleagues (2008). Additionally, whereas the ES of the TPOCS-A in the CBT condition of the present study was lower than the ES of the child- and parent-reported TASC, the opposite was true for UC. That is, the ES of the TPOCS-A was higher than the child- and parent-reported TASC. This suggests that observed alliance more strongly captures aspects of the alliance important in UC than self-reported scales. This also suggests that the alliance may in fact be important for community therapists delivering non-manual-guided interventions. Taken together, the findings from the present study suggest that additional research should be conducted before conclusions are drawn regarding the role of the alliance in UC for youth depression.

In sum, the overall ES for the alliance and child-reported outcome was considerably smaller than the ESs found in prior alliance-outcome studies in the child psychotherapy literature. Additionally, the alliance-outcome association was not significant within the CBT or UC conditions, consistent with some studies (e.g., Karver et al., 2008 for UC; Kaufman et al., 2005 for CBT) and inconsistent with others (e.g., Shirk et al., 2008 for CBT). Further examination revealed that the pattern of alliance-outcomes associations differed across method of alliance assessment (self- versus observer-report) and condition (CBT versus UC). That is, the ES for the alliance-outcome association was stronger for the self-reported alliance than the observed alliance (which was in the negative direction) within the CBT condition, and stronger

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for the observed alliance than the self-reported alliance in UC. If replicated with larger samples, this would suggest that self- and observer-report alliance measures may capture different facets of the alliance across different treatment modalities in practice settings. These findings underscore the importance of a multi-method assessment of the alliance.

Alliance, Other Outcome Variables, and Potential Mediators

      Treatment satisfaction. One finding that has implications for optimizing treatment success is the relation between alliance and treatment satisfaction. In the present study, early observer-rated alliance predicted both child- and parent-ratings of treatment satisfaction. Previous research has established a link between treatment satisfaction and positive outcomes. Therefore, it was hypothesized that treatment satisfaction may be a mediator in the alliance-outcome association. A post-hoc examination was conducted on the present sample to test this hypothesis; that is, the degree to which treatment satisfaction predicted outcome. Results revealed that there was not a relation between child- and/or parent-reported treatment satisfaction and child- and/or parent-reported outcome. This suggests that a strong alliance may predict treatment satisfaction but that satisfaction with treatment does not necessarily indicate symptom improvement. However, there may be other affective and behavioral outcome domains that are associated with treatment satisfaction, facilitated by a strong early alliance.

      Mediating factors. That the present study did not reveal a significant alliance-outcome association does not mean that the alliance is unimportant. Rather, it may be that the alliance facilitates other processes that are linked to outcome. Given that both groups (e.g., CBT and UC) in the present study evidenced significant improvement over the course of treatment, yet alliance was not associated with their improvement in either condition, there are likely other mediating factors that may be common to CBT and UC. In addition to treatment satisfaction, other

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mediating factors may include involvement (Karver et al., 2008), attendance (Robbins et al., 2003), and engagement (Karver et al., 2006). It may also be that technique mediates the alliance-outcome association in youth being treated for depression in community-based service settings. Such factors may interact through specific pathways that facilitate positive outcomes.

Anxiety and externalizing symptoms. Findings did not reveal a significant association between a strong alliance and a reduction in self-reported anxiety and externalizing symptoms. This finding is not surprising given that the alliance was also not significantly associated with a reduction in depressive symptoms, the primary outcome measure. However, this was one of the first studies to examine the alliance-outcome association in a sample of depressed youth that reflects the population typically seen in community practice. Therefore, this sample was characterized by a high degree of comorbid symptomatology. It may be that a strong alliance may have secondary associations with comorbid anxiety and externalizing symptoms, a suggested area for future research.

Psychometric Properties

The TPOCS-A was examined for inter-rater reliability, temporal stability, internal consistency, and relation to the self-reported ratings of the alliance. Findings revealed that the TPOCS-A scale, tapping the relationship and agreement on therapeutic tasks, demonstrated adequate inter-rater reliability. The goal subscale, tapping agreement on therapeutic goals, did not demonstrate adequate inter-rater reliability. Modifying and reevaluating the goal items may help improve inter-rater reliability so that they can be used in future alliance studies.

Findings also suggest that the quality of the alliance remains stable throughout therapy. These findings are consistent with previous literature (e.g., Kazdin et al., 2005) and suggest that results may be consistent at each time point at which the alliance is measured. This also may

suggest that building a strong alliance early in treatment may help in maintaining a strong alliance throughout treatment. Kazdin and colleagues also found that their results and conclusions did not vary across the two assessments of alliance during treatment. These results are consistent with the present findings, such that the results for the alliance-outcome association were similar for the alliance assessed early in treatment and changes in alliance over the course of treatment.

The observed alliance was associated with the child self-report of the alliance but not the parent-reported alliance. The finding supporting the convergent validity of the TPOCS-A is consistent with previous studies (McLeod & Weisz, 2005). Though the two measures overlap, the strength of the association suggests that each explains a unique aspect of the alliance. This suggests that it may be valuable to assess both perspectives when studying the alliance. Self-report methods are valuable because they can directly assess the child's thoughts about the alliance. However, developmental factors may limit a child's ability to report on the alliance relationship (Shirk & Karver, 2003). Since observer-rated measures are not subject to bias, ratings by trained observers may provide information to complement self-report ratings (Shirk & Karver, 2003).

The findings also suggest that children and parents may have different perspectives of the quality of the child-therapist alliance. Given the congruence between observer-reported and child-reported alliance, youth may interpret the quality of the alliance as the more direct, observable behaviors. On the other hand, parents may interpret the quality of the alliance as less direct and observable behaviors. Given the important role parents often play in both therapy engagement (e.g., responsible for getting the child to therapy) and the therapeutic process (e.g., therapists may ask parents to modify their parenting style) it is important that parents also have a

positive perspective of the child-therapist alliance. Because both children and parents play prominent roles in the process, assessment of child-therapist alliance needs to be examined from all perspectives.

Quality of the Alliance Across Conditions

The present study also examined whether the quality of the alliance differs in the CBT and UC conditions. Clinicians have raised concerns that utilizing manuals in community settings might negatively influence the alliance (Addis, 1997). Findings revealed that the quality of the alliance was not different between conditions on the TPOCS-A at any time point or on the child-reported TASC. The quality of the alliance was different between the two conditions on the parent-reported TASC. This suggests that the structured approach of the CBT manuals may contribute to a stronger parent-therapist alliance.

Limitations

Several limitations of the study warrant attention. One limitation is a small sample and particularly small UC and CBT subsamples. The UC condition had only 15 participants, yet the ES was consistent with past findings. This suggests that the small sample size may have reduced power to detect effects, and that a significant alliance-outcome association may have been revealed with a larger sample. Another limitation was heterogeneity of the therapists and youths, including highly mixed problem profiles and multiple comorbidities, with numerous externalizing disorders. This may have potentially undermined treatment focus on depression, such that therapists, particularly those not using manual-guided approaches, might have shifted treatment focus to other problems that they may have perceived as more salient than the depression. This may have confounded the findings on the association between alliance and the improvement in depressive symptoms. In addition, the heterogeneity of UC interventions limited

the ability to interpret findings in relation to a specific alternative treatment. The array of procedures used in UC is not well understood or characterized in research to date and likely varies from setting to setting. As a result, the generalizability of the present findings to treatment in other service settings may be limited. To address these limitations, future research needs to assess whether the present findings generalize to larger, more demographically and clinically diverse samples.

Implications and Future Directions

At first glance, it may appear that the findings suggest that the alliance is not important in facilitating positive outcomes in community-based service settings. However, the pattern of alliance-outcome associations differed across type of measurement and condition. If replicated in future research, this would suggest that the strength and direction of the alliance-outcome association may depend upon methodological and conceptual factors. Future research should focus on clarifying these important conceptual and methodological issues.

Additionally, the present study identified the child alliance as a link to child and parent treatment satisfaction. Although in this study treatment satisfaction was not associated with depressive symptom reduction, a positive alliance was meaningful enough for both youth and parents that they felt the youth gained something positive from therapy. Future research should focus on identifying other affective and behavioral outcome domains that are associated with treatment satisfaction in continuing to find ways to optimize the impact of the alliance. Furthermore, the original effectiveness trial revealed that the youth in both conditions, CBT and UC, significantly improved over the course of treatment. However, in this study the alliance was not associated with improvement in either of the conditions. Future research should explore other common and unique mechanisms (e.g., involvement or specific techniques) through which youth

depression improves in psychotherapy delivered in community-service settings.

Taken together, these findings suggest that many questions remain about the role of the alliance in manual-guided and UC treatments delivered in community settings. Findings continue to be mixed and there are different factors in which the alliance plays a more and less important role. Some of these factors include the youth's diagnosis, the context of the treatment, the alliance reporter, the alliance measure, and the treatment being delivered. None of these factors has been examined individually and it has therefore been difficult to separate the factors that are responsible for the results in the past and present findings. Future research might involve dismantling and isolating each of these factors to examine the contexts for which the alliance may be most important in producing better outcomes.

Conclusion

This study represented the first study to examine the alliance-outcome association in a sample of youth diagnosed with depressive disorders receiving services in community-based service settings. Findings revealed that the alliance was not associated with a reduction in depressive symptomatology. Several implications emerged from the findings. First, the ES for the alliance-outcome association was stronger for the self-reported alliance than the observed alliance (which was in fact in the negative direction) within the CBT condition, and stronger for the observed alliance than the self-reported alliance in UC. This suggests that the alliance should be measured from a multi-method approach. Second, the alliance significantly predicted treatment satisfaction. Although treatment satisfaction was not in turn significantly associated with outcome, these findings suggest that the alliance may play an indirect role in the outcome of depressed youth receiving services in the community. It is possible that the alliance promotes outcomes through a specific pathway that involves treatment satisfaction and other factors (e.g.,

involvement). Although the present study adds to the body of alliance literature for youth

depression and usual care settings, particularly regarding alliance methodology and treatment

modality, there is clearly more work to be done on the alliance as a means to optimizing

treatment success in practice settings.

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