

**Therapist Effectiveness, the Therapeutic Alliance, and  
Change in Couples Therapy: An Exploratory Study**

by

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## Abstract

The purpose of this thesis was to take an exploratory approach in examining how therapist effectiveness influences the therapeutic alliance and outcomes in couple therapy. Sample for this study was composed of couples attending therapy at a marriage and family therapy training clinic at a southeastern university. The therapeutic alliance was found to be a strong predictor of change in therapy for both male and female spouses. Additionally, supervisors' ratings of therapists' in-session effectiveness was found to be negatively related to male therapeutic alliance and female change in relationship satisfaction. However, therapists' self-ratings of their own in-session effectiveness were not related to either the therapeutic alliance or therapy outcomes for males or females. Therapist effectiveness did not meet the criteria for mediation, nor was it found to moderate the relationship between the therapeutic alliance and outcomes in couples therapy.

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## **Introduction**

The therapeutic alliance, also referred to as the working alliance, working relationship, and helping alliance, is regarded as a key component of successful therapy (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2009; Castonguay & Beutler, 2005; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Studies have used these terms interchangeably to refer to the alliance between clients and therapists. For the purposes of this paper, the alliance will be referred to as the therapeutic alliance. Horvath and Bedi (2002) describe the therapeutic alliance as:

...The quality and strength of the collaborative relationship between client and therapist in therapy. This concept is inclusive of: The positive affective bonds between client and therapist, such as mutual trust, liking, respect, and caring...consensus about, and active commitment to, the goals of therapy and to the means by which these goals can be reached...The alliance is a conscious and purposeful aspect of the relation between therapist and client (p. 41).

Studies have consistently found a positive relationship between therapeutic alliance and outcomes across treatment modalities (Bourgeois, Sabourin, & Wright, 1990; Castonguay, Constantino, & Holtforth, 2006; Knoblock-Fedders, Pinsof, & Mann, 2007). With countless techniques and models used in therapy settings, Bordin proposed that

there must be some common element contributing to therapeutic outcomes (Bordin, 1979). Recent research has looked at the therapeutic alliance as a possible common factor in therapy outcomes across all therapeutic techniques and has found that the therapeutic alliance consistently predicts therapy outcomes in a plethora of different settings and across many populations (Blow, A. J., Sprenkle, D. H. and Davis, S. D., 2007; Bourgeois et al., 1990; Castonguay et al., 2006; Horvath et al., 1991; Knoblock-Fedders et al., 2007).

These findings leave little doubt of a positive relationship between the therapeutic alliance and therapy outcomes; however, the majority of the research that exists has been conducted in individual therapy. Pinsof and Catherall (1986) were among the first to examine the field of couple and family therapy. Since that time, researchers have taken an in-depth look at how the therapeutic alliance affects outcomes in couple therapy (Knoblock-Fedders, Pinsof, & Mann, 2004; Knoblock-Fedders et al., 2007; Sexton, Ridley, & Kliner, 2004; Ward & McCollum, 2005). Although there have not yet been any meta-analyses conducted on this relationship in couple and family therapy, the therapeutic alliance has continuously been found to be one of the most important components in outcomes in couple and family therapy (Anker et al., 2010; Castonguay et al., 2006; Christensen, Russell, Miller, & Peterson, 1998; Crits-Christoph, Connolly Gibbons, & Hearon, 2006).

These findings become quite complicated in couples therapy, however, as the introduction of another individual brings a complex dynamic into the therapy room. Because each client forms a different alliance with the therapist, it becomes difficult to quantify exactly how the alliance affects therapy outcomes (Celano, Smith, & Kaslow,

2010; Horvath, Symonds, & Tapia, 2010). Studies have found that client views of the alliance are more predictive of therapy outcomes than therapist and supervisor ratings of the alliance (Castonguay et al., 2006; Symonds, 1999). Further research is necessary to explore how clients' perceptions of the therapeutic alliance affect therapy outcomes in couples therapy.

With research consistently making a clear connection between the quality of the therapeutic alliance and therapy outcomes, researchers have now turned their attention to mediating and moderating variables that contribute to this relationship (Blow et al., 2007). Studies have looked at both client and therapist factors that influence the association between the therapeutic alliance and therapy outcomes (Barber et al., 2009; Castonguay et al., 2006; Knoblock-Fedders et al., 2004). Specific to therapist variables, researchers have examined how fixed characteristics, such as therapist's age, race, and sex affect therapy outcomes (Beutler, Malik, Alimohamed, Harwood, Talebi, Noble, et al., 2004; Blow, Timm, & Cox, 2008; Bowman, Scogin, Floyd, & McKendree-Smith, 2001; Symonds & Horvath, 2004), yet little research has paid attention to therapist process variables that contribute to therapeutic change (Blow et al., 2007).

Although some studies have looked at how therapist adherence to specific models impact therapy outcomes (Barber, Crits-Cristoph, & Luborsky, 1996; Castonguay, Wisner, Raue, & Hayes, 1996), very little research has looked specifically at therapist effectiveness and its influence on therapy outcomes (Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Hogue, Henderson, Dauber, Barajas, Fried, & Liddle, 2008). Moreover, research on the relation between therapist effectiveness and therapy outcomes has yielded inconsistent findings. Although some studies suggest that therapists' in-session

effectiveness does not significantly correlate with therapy outcomes (Hogue et al., 2008), other studies show that competent delivery of treatment predicts outcomes (Blatt et al., 1996; Najavits & Strupp, 1994), even beyond early symptomatic improvement (Barber et al., 1996). In fact, no current studies have examined how therapist effectiveness may influence the relationship between therapeutic alliance and outcomes in couple therapy.

Since there is research relating the quality of the therapeutic alliance to therapy outcomes and research illustrating therapist effectiveness to therapy outcomes, it is proposed that there is a positive relationship between client ratings of therapeutic alliance and therapy outcomes in conjoint treatment; however, it is possible that the impact of client ratings of the therapeutic alliance is influenced by therapist in-session effectiveness. In addition, it is possible that therapist effectiveness could impact the formation of the therapeutic alliance, which in turn may ultimately influence therapy outcomes. This study will investigate the possible role of therapist effectiveness on the relationship between therapeutic alliance and therapy outcomes in couple therapy.

## **Review of Literature**

In the past, research on the therapeutic alliance has been conducted mainly in individual therapy settings. Pinsof and Catherall (1986) were among the first researchers to extend the principle of the therapeutic alliance within a systemic framework; therefore, research on the therapeutic alliance in couples therapy has only recently begun to emerge in the marriage and family therapy field (Bedi & Horvath, 2004; Bourgeois, Sabourin, & Wright, 1990; Crits-Christoph, & Gibbons, 1999). Because the majority of family therapists consider the therapeutic alliance to be an essential component of successful therapy outcomes, the purpose of this literature review is to examine therapist factors that contribute to the development of the therapeutic alliance in couple therapy, specifically therapist in-session effectiveness. First, research will be presented on the relationship between the therapeutic alliance and therapy outcomes in both individual and couples therapy literature. Then a discussion will follow which highlights the significance of gender differences in couple therapy. Next, implications regarding several recent studies that have examined therapist effectiveness and its relationship to therapy outcomes in various settings will be introduced. Finally, hypotheses will be presented which suggest that therapist effectiveness mediates the relationship between therapeutic alliance and therapy outcomes in conjoint treatment.

## **The Therapeutic Alliance and Therapy Outcomes in Individual Therapy**

There are a number of factors that have been shown to influence therapy outcomes. The therapeutic alliance is widely accepted as a key concept in therapy outcome studies, and recent research has considered the therapeutic alliance to be a common factor across all treatment modalities (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2009; Castonguay & Beutler, 2005; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000).

With studies beginning to investigate the effects of the therapeutic alliance on therapy outcomes, Horvath and Symonds (1991) completed a meta-analysis of 24 articles researching the available literature. These articles were sampled from 1980-1991 and included 21 published and 3 unpublished articles. Articles were found by conducting a search of 4 databases, including PsycInfo, MedLine, Dissertation Abstracts, and Educational Resources Information Center (ERIC). Additionally, a manual search was also completed of all journal articles related to the alliance from the 12 months prior to commencement of the study. Inclusion criteria for the 24 articles included a) a relationship identified as helping, working, or therapeutic alliance, b) a quantifiable relationship between the alliance and some type of outcome, c) clinical research, d) five or more subjects, and e) only research on individual treatment.

Horvath and Symonds (1991) then created effect sizes by first converting all  $r$  values into  $Z$  equivalents to control for the bias of the  $r$  distribution, and then reconverting the  $Z$  equivalents back into  $r$  values. In their meta-analysis, the therapeutic alliance was found to have a reliable association with therapy outcomes in individual

therapy; furthermore, it was found that the model, or therapy approach, did not influence the ratings of the therapeutic alliance.

In another meta-analysis, Martin et al. (2000) also examined the relationship between the therapeutic alliance and therapy outcomes in individual adult psychotherapy. They completed a meta-analytic review of 58 published studies and 21 unpublished studies, with research for their analysis based on articles from 1977-1997. Research for their analysis was obtained based on similar inclusion criteria to Horvath and Symonds, but also required that the articles must be in English and must be available between 1977 and 1997. Martin et al. used similar databases as Horvath and Symonds, but also included PsycLIT. After creating effect sizes for the articles reviewed, the authors also found that on average, when the quality of the therapeutic alliance was high, therapy outcomes were high, and vice-versa. They concluded that the relationship between the quality of the therapeutic alliance and therapy outcomes was consistent even after controlling for other variables and their possible effect on this relationship.

In seeking to understand the causal link between therapeutic alliance and therapy outcomes, Barber, Connolly, Crits-Christoph, Gladis, and Siqueland (2009) looked at how the therapeutic alliance predicted changes in depression symptoms. The researchers studied eighty-eight clients (46 women and 42 men) who met primary diagnostic criteria for chronic depression and avoidant or obsessive-compulsive personality disorder and who were also attending behavior therapy, cognitive therapy, or short-term dynamic therapy.

The researchers used the Beck Depression Inventory (BDI) (Beck, Steer, & Garbin, 1988) to measure client symptomatology and The California Psychotherapy

Alliance Scales (CALPAS) (Hatcher & Barends, 1996) to measure the strength of the therapeutic alliance. The CALPAS scores at sessions 2, 5, and 10 were shown to cause a decrease in BDI scores from the session the CALPAS was assessed to the fourth month of treatment. The same results were found when changes in BDI scores were examined from the session in which alliance was assessed until the conclusion of therapy.

### **The Therapeutic Alliance and Therapy Outcomes in Couples Therapy**

The available literature leaves little doubt of a positive relationship between the therapeutic alliance and therapy outcomes; however, the majority of the research that exists has been conducted in individual therapy. Pinsof and Catherall (1986) were among the first to examine the field of couple and family therapy. With regard to the quality of the therapeutic alliance, studies have examined the effect of the perceived alliance from the clients' therapists', and outsider observers' perspectives, with all studies yielding mixed findings.

In an effort to conceptualize the development of the alliance in conjoint treatment, Symonds and Horvath (2004) studied 44 couples receiving therapy services at a university clinic. Couples ranged in age from 23 to 69 years old, and all but one identified as being Caucasian. Couples also had to have been cohabitating for at least 1 year in order to be included in the study. Approximately 27% of the sample was remarried and had children from previous marriages. Additionally, 60% of the sample had completed some form of higher education beyond high school. Of the entire sample, 62% of women and 76% of men reported that they had never previously received any form of mental health treatment. After the initial interview, couples were randomly assigned to a therapist and received six 50-minute weekly sessions.

The therapeutic alliance was measured using the Working Alliance Inventory (WAI-Co; Symonds, 1999), which was completed by both spouses as well as each therapist after the first and third sessions. Therapy outcome was measured using the Marital Satisfaction Scale (Roach, Frazier, & Bowden, 1981), which was administered at intake, following termination, and approximately 1 month following termination.

Findings for the study indicated that therapists' ratings of the therapeutic alliance were lower on average than couples' ratings; however, the therapists' alliance ratings were actually more predictive of outcome. Although clients' ratings of the therapeutic alliance did not predict outcomes, it is interesting to note that the level to which partners agreed on the alliance actually mediated the relationship between alliance and outcome.

Knobloch-Fedders, Pinsof, and Mann (2004) also explored the contribution of the therapeutic alliance in therapy outcomes with couples, although they focused solely on couples' ratings of the alliance. In their study, the researchers looked at a number of client characteristics, such as demographic information, marital distress, and the quality of early relationship experiences within each spouse's family-of-origin, and how each of these characteristics influenced the development of the therapeutic alliance in a large Midwestern outpatient clinic.

Thirty-five couples participated in the study. Participants' ages ranged from 21-74 years, and the mean age at intake was 34 years old. Seventy-seven percent of the sample was Caucasian, 6% were Hispanic, 3% were Asian, and 3% were African American. The remaining 10.5% of the sample was either biracial or did not indicate their race on the intake paperwork. The median income per household was \$50,000. Therapy was delivered by twenty-nine therapists participated in the study. They had an average of 3

years of clinical experience, and 21 of them were graduate students seeking degrees in either marriage and family therapy, counseling, or clinical psychology. All of the therapists utilized integrative problem-centered therapy (IPCT; Pinsof, 1995). Treatment was not time-limited for the study, and couples averaged 18.26 sessions.

Since the researchers were interested in client characteristics that contributed to the development of the therapeutic alliance, they first measured individual and couple pretreatment symptomatology. Individual outcome was measured using the COMPASS Treatment Assessment System (Howard et al., 1995), and couple outcome was measured using the Marital Satisfaction Inventory – Revised (MSI-R; Snyder, 1997). The researchers revised the Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983) in order to assess each spouse’s self-report of family functioning in their family-of-origin. Lastly, the Couple Therapy Alliance Scale – Revised (CTAS-R; Pinsof, 1994) was administered in order to measure the therapeutic alliance after the first and eighth sessions

There were several key findings in this study. First, the researchers indicated that individual symptoms were not related to alliance formation in couple therapy. Furthermore, the researchers found that greater levels of marital distress predicted lower scores on the CTAS-R for men, whereas this finding was not true for women. The authors also discovered a few cases of a split alliance, which was defined as a difference of at least one standard deviation or more between CTAS subscale scores for men and women. The findings from this study bring to light the complex nature of the therapeutic alliance in conjoint treatment and highlight the importance of early alliance formation.

One study that contradicts these findings was conducted by Anker et al. (2010). In

their study of 250 couples seeking treatment for marital distress, the researchers explored the relationship between alliance and outcomes while also examining gender differences in alliance ratings. Couples were Euro-Scandinavian, with a mean age of 38.5 and were together for an average of 11.8 years. There were 20 therapists total, and the number of couples treated by each therapist ranged from 4-27.

Pretreatment and follow-up symptoms were assessed using the Outcome Rating Scale (Miller & Duncan, 2004) and the Locke Wallace Marital Adjustment Test (LW; Locke & Wallace, 1959). Clients' ratings of the alliance were measured after each session using the Session Rating Scale (SRS; Duncan et al., 2003). Couples were required to have attended at least 2 conjoint sessions and complete the outcome and alliance measures for a minimum of the first and last sessions. Therapists had access to alliance (SRS) and outcome (ORS) feedback from each person every session.

From the results, the authors concluded that spouses' first-session alliance ratings were not predictive of outcomes, but last session alliances predicted outcome even after controlling for other variables, including early symptom change. Clients who reported a better alliance at the end of therapy had better therapy outcomes. In addition, spouses' outcomes were also better when their partners had higher alliance scores with the therapist at the end of therapy.

Overall, there is sufficient evidence that the therapeutic alliance is an important factor in determining therapy outcomes for both spouses in conjoint treatment. Researchers have only recently begun to explore mediating and moderating variables that may contribute to this relationship. Within the individual literature, there is consistent evidence that the therapeutic alliance predicts outcome over and above early change. This

finding has been replicated in studies that investigate couples, but the couple's literature necessitates a greater understanding of how the therapeutic alliance influences therapy outcomes for each spouse in treatment. Because each client forms a different alliance with the therapist, it becomes difficult to quantify exactly how the alliance affects therapy outcomes, leaving this area in need of further study.

### **The Therapeutic Alliance and Gender Differences**

In addition to the complex dynamic between each spouse and the therapist, studies have also examined gender differences that exist between spouses in conjoint treatment. Horvath, Symonds, and Tapia (2010) provided insight into the complex nature of outcomes in couple therapy, suggesting that, not only are individuals influenced by how they perceive their alliance with the therapist, but they are also influenced by their perceptions of their partner's alliance with the therapist.

Anker et al. (2010) identified a number of gender differences in their study. First, only male spouses' alliance scores at the last session were a significant predictor of both therapy outcome measures, the Outcome Rating Scale (ORS; Miller, Duncan, Brown, Sparks, & Claud, 2003) and the Locke Wallace Marital Adjustment Scale (LW; Locke & Wallace, 1959). Additionally, partner alliance also predicted LW scores at follow-up, meaning that the way in which spouses viewed the alliance was actually predictive of partner LW scores at follow-up.

Further support for these findings was presented by Thomas, Werner-Wilson and Murphy (2005), whose study explored the influence of therapists' and spouses' in-session behaviors on the therapeutic alliance. The participants included 49 couples that attended a university-based marriage and family therapy center at least 1 session.

All first sessions were videotaped, and senior undergraduate coders completed the Working Alliance Inventory, Observer Version (WAI-O; Horvath, 1994) to measure the degree to which the therapist and spouses seemed to have developed a therapeutic alliance. The coders observed the videotaped interactions and looked for specific therapist and client behaviors, such as negative and positive statements, self-disclosure, and challenging statements.

The researchers found a number of gender differences between spouses. For men, negative statements made by their partner were a consistent negative predictor for all dimensions of therapeutic alliance. Conversely, negative statements made by partners did not influence therapy alliance scores for women. In addition, male spouses' therapeutic alliance scores were positively associated with challenging statements made by their female spouses; in contrast, female spouses' therapeutic alliance scores were negatively influenced by challenging statements made by their male counterparts.

These findings suggest that the relative starting place of the alliance may not be as important as whether the alliance improves over the course of treatment; furthermore, the authors indicated that therapists need to pay particular attention to ensuring men's connection to the process, not only in early stages but throughout treatment.

In summary, both of these studies support the importance of the therapeutic alliance in couple therapy. Furthermore, they also provide evidence for gender differences among spouses attending conjoint treatment; specifically, these studies highlight the importance of male spouses' involvement in therapy on the development of the therapeutic alliance for both partners. Because men and women respond differently to therapeutic interventions, it is vital to separate between male and female spouses in the

present study in order to investigate how dimensions of therapeutic alliance and therapist effectiveness influence couples' ratings of relationship satisfaction.

### **Therapist Effectiveness/Competency and Therapy Outcomes**

With studies making a clear connection between the quality of the therapeutic alliance and therapy outcomes, researchers have now turned their attention to mediating and moderating variables that contribute to this relationship (Blow et al., 2007). Specifically, studies have examined both client and therapist factors that influence the association between the therapeutic alliance and therapy outcomes. Therapist characteristics are often neglected and poorly understood as they relate to treatment outcomes; moreover, characteristics of more effective therapists have yet to be identified.

A number of studies have found a positive relationship between therapist effectiveness and therapy outcomes. Blatt, Sanislow, Zuroff, and Pilkonis, (1996) explored therapists' contributions to the development of the therapeutic alliance by identifying characteristics of more effective therapists. Using data collected from the National Institute of Mental Health's Treatment of Depression Collaborative Research Program (NIMH TDCRP), a collaborative clinical trial, this study used 239 nonbipolar, nonpsychotic outpatients who met research diagnostic criteria for major depressive disorder. Within the sample of 28 therapists, researchers identified 3 groups of therapist effectiveness: Less effective, moderately effective, and more effective. These groups were categorized based on the average therapeutic gain achieved by the patients of each therapist as evidenced by outcome scores on a number of interview and self-report measures of depression, general clinical functioning, and social adjustment.

Depression was quantified using the HRSD, an interview measure of depression,

and the Beck Depression Inventory (BDI). The Global Assessment Scale (GAS) and the Hopkins Symptom Checklist were administered to measure general clinical functioning. Finally, the Social Adjustment Scale (SAS), an interview measure, was administered to examine patients' level of social adjustment following treatment. All of these measures, along with the Vanderbilt Therapeutic Alliance Scale, were analyzed to group therapists into the three categories of effectiveness.

The researchers found that the three groups did not differ significantly in age, sex, race, religion, marital status, and level of clinical experience; however, there was a higher percentage of PhD-level therapists in the "more effective" group than in the "moderate" or "less" effective groups. In addition, therapists in the "more effective" group reported that they had treated significantly more of their depressed outpatients with psychotherapy alone and relatively rarely used medication, whereas therapists in the "less" and "moderate" groups reported that they more often used medication, either alone or in combination with psychotherapy. In conclusion, the researchers found that more effective therapists not only had better outcomes than less effective therapists, but their results were also more consistent than less-effective therapists. These results indicate that qualities of the therapist are important dimensions that appear to influence therapeutic outcome.

Consistent with the above findings, Najavits and Strupp (1994) used data from the Vanderbilt II Study to examine outcomes of 16 therapists in an outpatient setting. The researchers defined therapists as "less effective" and "more effective" by combining both patient outcome scores and length of stay in treatment. Subjects were 80 individual patients, ranging in age from 24-64, who were recruited via newspaper announcements.

Subjects were excluded if they had substance use disorders, severe medical problems, or needed psychiatric medication or inpatient treatment. Each of the 16 therapists treated 5 outpatients in 25 sessions at weekly intervals.

Pretreatment characteristics were measured to check whether therapists' caseloads were similar. These measures included the Capacity for Dynamic Process Scale (CDPS; Thackrey, Butler, & Strupp, 1985); patient demographic variables including age, education, number of marriages, number of previous jobs, and job length; and a summary score across four measures of patient symptomatology: the SCL-90R; Structural Analysis of Social Behavior (SASB; Benjamin, 1983), Global Assessment Scale (GAS; Endicott, Spitzer, & Fleiss, 1976), and the Problem Severity Scale (PSS). All measures were rated by the patients except the GAS, which was rated by the therapist and an independent observer.

Therapist effectiveness was measured by combining two constructs: therapy outcome and length of stay in treatment. Therapy outcome scores were based on six measures: the SCL-90 R; SASB; PSS; GAS; Post-Therapy Evaluation (PTE; Strupp, Fox, & Lessler, 1969); and Global Outcome Rating (GOR; rated by patient, therapist, and independent observer). Length of stay in treatment included the number of patients in each therapist's caseload who remained with the same therapist for at least 16 of the 25 available sessions. For patients who discontinued services, their stated reason was due to either "dissatisfaction with the therapist" or "reasons other than dissatisfaction with the therapist."

Therapists' In-session behaviors were also measured as a means by which to later analyze any possible links between therapists' effectiveness and their in-session

behaviors, including warmth, affirmation, blame, and attack. Independent observers, consisting of advanced clinical psychology graduate students, completed several measures using videotapes of the second 15-minutes of each session in order to address various aspects of therapists' in-session behaviors, including the Luborsky Helping Alliance Scale, session 3 (HA; Luborsky et al., 1983), Vanderbilt Psychotherapy Process Scale, session 3 and 16 (VPPS; Suh, Strupp, & O'Malley, 1986), Vanderbilt Negative Indicators Scale, session 3 (VNIS; Suh et al., 1986), and Vanderbilt Therapeutic Strategies Scale, sessions 3 and 16 (VTSS; Butler, Lane, & Strupp, 1986).

Patients also completed several measures of therapists' in-session behaviors: the Barrett-Lennard Relationship Inventory, sessions 3, 8, 16 (BARLEN; Barrett-Lennard, 1962); Retrospective Assessment of Therapy Experience, after treatment (RATE; Strupp, Fox, & Lessler, 1969); and SASB, sessions 3, 8, 16, and 22. Measures completed by each therapist were: SASB, sessions 3, 8, 16, 22; the Post-Session Rating (PSR); and Therapist Regrets (TR). Finally, supervisors rated the therapist on six items, such as competence and motivation.

The researchers found two subgroups of therapists, more effective and less effective, based on the above criteria of therapy outcome and length of stay in treatment. In addition, more effective therapists showed more positive in-session behaviors and fewer negative behaviors than less effective therapists. The therapeutic alliance was related to therapist effectiveness, as more effective therapists also had higher therapeutic alliance scores. Lastly, therapists, patients, and independent observers were able to distinguish more effective from less effective therapists, whereas supervisors were largely unable to do so. The researchers suggested that this might be due to the fact that

supervisors rated therapists' in-session behaviors later in the study, which may have decreased the validity of supervisors' ratings.

Although the authors found that more effective therapists had higher scores, on average, on both alliance and outcome measures that less effective therapists, they discovered an anomaly: one therapist obtained the highest alliance score of the entire sample, yet fit the category of "least effective." The authors speculated that this finding suggested that the less effective therapists might actually compensate by developing a style that is superficially therapeutic but unrelated to actual therapy outcomes. This was the first study that brought to light the possibility of therapist effectiveness acting as a mediating variable in the relationship between therapeutic alliance and therapy outcomes.

Other studies have yet to find connections between therapist effectiveness and outcomes. Hogue et al. (2008) examined how both therapist effectiveness, or competency, as well as therapist adherence to a model related to therapy outcomes among substance users over a 6-month period. This was a clinically-controlled study of 136 adolescents, ranging in age from 13-17, with substance use and other related behavior problems. 9 therapists delivered the treatments using Cognitive-Behavioral Therapy and Multi-dimensional Family Therapy models. The authors defined therapist competence as the quality or skill with which the interventions were delivered.

Therapist competence was scored using an observational measure, called the Therapist Behavior Rating Scale-Competence (TBRS-C), which was completed by outside observers. The therapeutic alliance was also measured using the Vanderbilt Therapeutic Alliance Scale-Revised (VTAS-R). Therapy outcomes were measured using a number of different measures. First, subjects reported the number of days in the past

month since they last smoked marijuana, the primary drug of use in the sample. Next, subjects completed the Personal Experience Inventory (PEI) and Youth Self-Report (YSR). Parents also completed the Child Behavior Checklist (CBCL) as a way to measure therapy outcomes.

From the results, the authors concluded that therapist competence did not predict outcome and did not moderate adherence-outcome relations. Therapist competence showed no main effects. The authors noted, however, that there was poor interrater reliability for competence ( $ICC = .01-.63$ ). The authors suggested that these fair-to-weak reliabilities might have explained why there were no main effects of competence on outcome. One major limitation of this study was that the researchers only relied on observer ratings of therapist effectiveness, whereas the current study looks at both supervisor and therapist ratings of effectiveness.

With so many contradicting findings in regards to how therapist competence/effectiveness relates to therapy outcomes, Webb, DeRubeis, and Barber (2010) conducted a meta-analysis of 36 studies from 1984-2009 that examined therapist adherence and competence and their relations to therapy outcomes in individual treatment. Based on similar criteria employed in the Martin et al. (2000) meta-analysis of alliance-outcome relations, the inclusion criteria for the 36 articles included: a) an investigation of individual in-person psychotherapy, b) a quantifiable measure of both adherence or competence and outcome, c) an assessment of adherence/competence based on videotaped, audiotaped, or transcribed therapy sessions rated by experts or trained raters, rather than by therapists or patients, d) a clinical rather than analogue population, e) at least 5 subjects, and f) a publication written in English. The authors' literature

search procedure consisted of a computerized search of the PsycInfo database, as well as an examination of the reference sections of all obtained studies for any additional relevant articles or review chapters.

Several of the final 36 studies examined both adherence and competence, leaving a total of 49 distinct effect size estimates (32 adherence-outcome and 17 competence-outcome values). Competence-outcome effect sizes ranged from  $-.36$  to  $.73$ . The mean weighted competence-outcome effect size was  $.07$ , which was not significantly different from 0; however, mean weighted effect sizes were significantly different across the types of targeted problems, with the largest mean weighted effect size associated with those studies targeting clinical depression. Additionally, treatment modality did not emerge as a significant moderator of competence-outcome effect sizes.

Of the 15 studies that examined the relation between competence and outcome, 9 included a statistical control for the influence of the alliance. When controlling for the alliance, the mean weighted competence-outcome effect size was significantly smaller than when the alliance was not controlled. In addition, variability in competence among studies was not related to patient outcome and the estimates of its effects were very close to 0.

However, there are a number of limitations found in this meta-analysis. First, all of the studies were conducted with individual clients, thus leaving out all studies with couples and/or families. Second, there were a number of studies that addressed therapist competency from clients' self-report measures rather than from therapists' or outside observers' perspectives. Utilizing only client reports only as a measure of therapist effectiveness may have interfered with the results of the meta-analysis. Finally, 9 of the

15 studies that examined the relationship between therapist competence and outcome included a statistical control for the therapeutic alliance. Since some studies controlled for the alliance while others did not, this may have influenced the mean weighted effect sizes for therapist competence on therapy outcomes.

These findings regarding therapist effectiveness, if replicated in the present study, will challenge clinical researchers to prove (rather than presume) that greater competence begets better outcome. Although some studies have begun looking at how therapist adherence to specific models impact therapy outcomes, very little research has looked specifically at therapist effectiveness and its impact therapy outcomes. In fact, no current studies have examined how therapist effectiveness may mediate the relationship between therapeutic alliance and outcomes in couple therapy, which is the aim of the present study.

### **Introduction of the Research Questions**

Currently, research has demonstrated that the quality of the therapeutic alliance influences therapy outcomes beyond additional factors, such as early symptomatic improvement, treatment modality, and fixed characteristics of the therapist, such as age, gender, and race. However, research on how therapists' in-session effectiveness influences the relationship between therapeutic alliance and treatment outcomes is lacking. In addition, no studies have looked at how therapist effectiveness is related to therapeutic alliance or therapy outcomes in conjoint treatment.

It has been purported that comprehensive measures of alliance are more predictive of outcome in therapy than measures of specific therapist behaviors, such as empathy and acceptance (Pinsof & Catherall, 1986). In addition, the client's perception is thought to be

most predictive of success beyond therapist or observer perspectives (Horvath & Luborsky, 1993), although this finding has been disputed in the field (Horvath & Symonds, 2004). Finally, therapists' in-session effectiveness has received little attention in the field of marriage and family therapy, leaving this area an important next step to establishing a better understanding of how to improve treatment outcomes in conjoint treatment. Therefore, the objective of this study is to explore whether therapist effectiveness mediates the relationship between client reports of the therapeutic alliance and treatment outcomes in couple therapy.

- Question 1:** Are male ratings of the therapeutic alliance associated with male ratings of relationship satisfaction?
- Question 2:** Are female ratings of the therapeutic alliance associated with female ratings of relationship satisfaction?
- Question 3:** Are therapist self-ratings of in-session effectiveness related to male ratings of the therapeutic alliance?
- Question 4:** Are therapist self-ratings of in-session effectiveness related to female ratings of the therapeutic alliance?
- Question 5:** Are supervisor ratings of therapist in-session effectiveness related to male ratings of the therapeutic alliance?
- Question 6:** Are supervisor ratings of therapist in-session effectiveness related to female ratings of the therapeutic alliance?
- Question 7:** Are therapist self-ratings of in-session effectiveness related to male ratings of relationship satisfaction?

- Question 8:** Are therapist self-ratings of in-session effectiveness related to female ratings of relationship satisfaction?
- Question 9:** Are supervisor ratings of therapist in-session effectiveness related to male ratings of relationship satisfaction?
- Question 10:** Are supervisor ratings of therapist in-session effectiveness related to female ratings of relationship satisfaction?
- Question 11:** Are therapist self-ratings of in-session effectiveness related to the relationship between male ratings of the therapeutic alliance and male ratings of relationship satisfaction?
- Question 12:** Are therapist self-ratings of in-session effectiveness related to the relationship between female ratings of the therapeutic alliance and female ratings of relationship satisfaction?
- Question 13:** Are supervisor ratings of therapist in-session effectiveness related to the relationship between male ratings of the therapeutic alliance and male ratings of relationship satisfaction?
- Question 14:** Are supervisor ratings of therapist in-session effectiveness related to the relationship between female ratings of the therapeutic alliance and female ratings of relationship satisfaction?

## **Methods**

Data collection for this study was completed at the Auburn University Marriage and Family Therapy Center in Auburn, Alabama. This center is the on-campus training clinic for the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) accredited Marriage and Family Therapy Master's program at Auburn University, providing services to residents of the Eastern Alabama area. Therapy at the center is conducted by Master's level student therapists in training and supervised by Ph.D. level licensed marriage and family therapists who are either AAMFT-Approved Supervisors or supervisors in training.

### **Participants**

Participants for this study are comprised of couples who attended therapy at the Auburn University Marriage and Family Therapy Center between January 2005 and May 2011. During this time, 261 couples initiated therapy at the center. Of those, 85 couples attended less than 3 sessions, eliminating them from the study (32.6%). These couples are defined as dropouts. Of the remaining 176 couples who attended at least 4 therapy sessions, 61 couples did not complete 4<sup>th</sup> session paperwork, either due to participants not completing paperwork or therapists' non-compliance with 4<sup>th</sup> session protocol (34.7%). These couples are considered non-completers. The remaining 115 couples (230 total participants) attended at least 4 therapy sessions and completed both intake and 4<sup>th</sup> session paperwork. These couples were considered completers for the purposes of this

study. This is a 65% retention rate for all couples who attended at least 4 sessions at the AU MFT Center.

The participants included in the study ranged from 18 to 61 years of age. Approximately 80% of males and 82% females identified themselves as being White, and 10% of males and 12% of females identified themselves as being African American. In regards to education, 48 males (39.7%) and 24 females (20.7%) reported graduating from high school, and 25 males (20.7%) and 44 females (37.2%) reported receiving Bachelor's degrees. On average, participants reported a combined annual household income of between \$20,000 and \$40,000 (See Table 1).

Table 1

*Demographics of males and females in committed relationships (N= 230)*

Demographics (% chose not to provide)	Males		Females	
	N	Percent	N	Percent
<b>Age Group (5%)</b>				
18-29	56	49.5%	70	63.0%
30-39	38	33.8%	26	23.4%
40-49	15	13.4%	12	10.8%
50 or above	4	3.6%	3	2.7%
<b>Racial Group (9%)</b>				
White	91	79.8%	93	82.3%
African American	12	10.5%	14	12.4%
Hispanic/Non-White	2	1.8%	2	1.8%
Asian/Pacific Islander	4	3.5%	2	1.8%
<b>Income (0%)</b>				
Less than \$10,000	16	13.2%	18	14.6%
\$10,001 to \$20,000	18	14.6%	18	14.6%
\$20,001 to \$30,000	15	12.3%	18	14.6%
\$30,001 to \$40,000	31	25.8%	30	25.7%
Over \$40,000	35	32.8%	32	31.6%
<b>Education</b>				
GED/High School	48	39.7%	24	20.7%
Vocational/Associates	13	11.8%	25	21.4%
Bachelor's Degree	25	20.7%	44	37.2%
Master's Degree	13	11.8%	11	9.9%
Other	16	14.0%	12	10.7%

In addition to paperwork completed by participants, this study also includes therapist and supervisor ratings of therapists' in-session effectiveness. Therapists consisted of 37 Master's level students completing the Marriage and Family Therapy program. Supervisors for this study were made up of 3 full-time faculty and 4 adjunct faculty supervisors. Of the 115 couples included in the final analyses, 29 (25%) of the

cases had neither therapist nor supervisor ratings of therapist in-session effectiveness. Forty-two (37%) of the cases had therapists' ratings of their own in-session effectiveness, but did not receive live supervision of any kind. The remaining 47 (41%) of the cases had at least 1 therapist and/or supervisor rating of therapist in-session effectiveness between sessions 1 and 4 (See Table 2).

Table 2

*Means and Standard Deviations of Therapist Effectiveness Ratings as Rated by Therapists and Supervisors*

Session	Therapists			Supervisors		
	N	M	SD	N	M	SD
1	77	2.00	.513	33	2.09	.579
2	76	2.09	.467	35	1.97	.618
3	78	2.19	.536	28	2.29	.600
4	81	2.15	.615	31	2.16	.638

### **Procedure**

The study utilizes data from heterosexual couples in committed relationships who attended Auburn University's Marriage and Family Therapy Center (MFT Center) from March 2005 to May 2011. Therapy is frequently supervised live by the MFT faculty, who are also AAMFT-Approved Supervisors. The MFT Center provides services to East Alabama residents, including Auburn University students and community residents. Upon entering therapy, each participant is given intake paperwork, consisting of informed consent and questionnaires measuring symptom distress and perceived relationship quality, as well as demographic information.

Information for this study was obtained from the self-report questionnaires completed by clients during the intake session as well as during the 4<sup>th</sup> session follow-up paperwork. Self-report questionnaires are compiled by the MFT Center students for clinical, administrative, and research purposes. Clients were informed of the purposes of survey completion at the beginning of treatment and signed agreements to release information for clinic-sponsored research. Data for this research project was collected confidentially and transformed into an anonymous data set before analyses were conducted.

Therapist in-session effectiveness was rated by each therapist after every session using a 3-point Likert scale (1= low, 2= medium, and 3= high), and supervisors completed the same scale every time they provided live supervision. For the present study, therapist and supervisor ratings of in-session effectiveness were compiled from sessions 1-4 and averaged together to form a mean rating.

## **Measures**

**The Revised Dyadic Adjustment Scale** (RDAS; Busby, Christensen, Crane & Larson, 1995) (Appendix A) was completed by each spouse at the intake session and again at the fourth session. This self-report is an updated version of the Dyadic Adjustment Scale (Spanier, 1976) to measure adjustment in relationships and has been widely recognized as a valid measure of marital quality for more than a decade (Ward, Lundberg, Zabriskie, & Berrett, 2009). This measure contains 14 items broken down into three subscales: Consensus, Satisfaction, and Cohesion.

The Consensus subscale consists of 6 items assessing the degree to which each individual feels they and their current partner are in agreement on a variety of topics,

including decision making, religious matters, and affection. The ratings range from “always disagree” (0) “always agree” (5) to on a six-point Likert-type scale. The Satisfaction subscale has 4 items and attempts to measure each partner’s current level of satisfaction with the relationship based on each partner’s reports of stability, as well as conflict in the relationship. The ratings for Satisfaction range from “all the time” (0) to “never” (5) on a six-point Likert-type scale. The Cohesion subscale is a 4-item scale measuring the degree of closeness and shared activities experienced by each partner. The ratings for the Cohesion subscale range from “never” (0) to “more often” (5) on a six-point Likert-type scale, with one item ranging from “never” (0) to “every day” (4) on a five-point Likert-type scale. The subscales are then summed to create an overall marital satisfaction score. Reliability (Internal Consistency) for this instrument has been ranged from .90-.95 and has good to excellent psychometrics (Busby et al., 1995; Ward et al., 2009). Cronbach’s Alphas for males and females in this study are estimated at .86 and .87, respectively.

**The Couple Therapy Alliance Scale (C-TAS; Pinsof, 1994)** (Appendix B) was completed by each spouse at every 4<sup>th</sup> session. The C-TAS is a 40-item self-report instrument designed to assess clients’ perceptions of their relationship with their therapist. The C-TAS is comprised of three sub-scales: Bonds (10 items), Tasks (13 items), and Goals (6 items).

Examples of items found in the Bond subscale are “My partner feels accepted by the therapist,” and “The therapist does not understand me.” Statements such as “The therapist has the skills to help my partner and me,” and “The therapist is not helping my partner and me” are found in the Tasks subscale. The Goals subscale contains statements

such as “The therapist does not understand the goals my partner and I have for ourselves in therapy,” and “The therapist is in agreement with the goals that my partner and I have for ourselves as a couple in this therapy.” Clients rated the extent to which they agree or disagree with a series of statements about the aspects of the alliance. The ratings range from “completely disagree” (1) to “completely agree (7) on a seven-point Likert-type scale. The test-retest reliability is reported to be  $r = .84$  (Pinsof & Catherall, 1986). Heatherton and Friedlander (1990) examined the internal consistency of the scale and report an alpha of .93 for the total score. Cronbach’s Alphas for this study are estimated at .95 for males and .96 for females.

**Weekly Supervision Record** (Appendix C) was completed by therapists after receiving supervision of any type, as well as by supervisors after providing supervision. Included in this sheet was a global assessment detailing ratings of therapists’ in-session effectiveness. These categories are qualitative measures of the extent to which therapists and supervisors believe therapists’ in-session interventions were effective. Therapists rate their own effectiveness using a four-point Likert-type scale, ranging from low (1) to high (4). Supervisors rated therapists’ in-session effectiveness using the same scale after providing any live supervision. For the purposes of this study, ratings of 2 and 3 were lumped together to create a “medium” score of effectiveness.

### **Plan of Analysis**

This study posits that therapist effectiveness, as rated separately by therapists and supervisors, will be associated with the relationship between client ratings of the therapeutic alliance and changes in relationship satisfaction ratings from intake to session 4. Change in relationship satisfaction will be examined by controlling for male and

female reports of relationship satisfaction at intake. Since research on how therapist effectiveness influences both the therapeutic alliance and therapy outcomes is lacking, this study will take an exploratory look at a number of different models in order to examine how therapist effectiveness relates to therapeutic alliance and change in relationship satisfaction from intake to session 4.

First, a mediation model, as set forth by Baron and Kenny (1986), will be fit to the data to see if either therapist or supervisor ratings of therapists' in-session effectiveness act as a mediating variable between spouses' ratings of the therapeutic alliance and change in relationship satisfaction from intake to session 4. A variable is said to act as a mediator when that variable accounts for the relation between the independent and dependent variables. According to Baron and Kenny (1986), in order for a variable to function as a mediator, four conditions must be met:

1. The independent variable (client ratings of the therapeutic alliance) must be significantly related to the dependent variable (change in relationship satisfaction).
2. The independent variable (client ratings of the therapeutic alliance) must be significantly related to the hypothesized mediator (therapist effectiveness).
3. The hypothesized mediator (therapist effectiveness) must be significantly related to the dependent variable (change in relationship satisfaction).
4. In order for the hypothesized mediator to be determined a mediator, the relationship between the independent variable and dependent variable must be reduced to zero with the addition of the hypothesized mediator.

This study will use these 4 criteria to determine the relationship between client ratings of the therapeutic alliance, therapist effectiveness (as rated separately by therapists and supervisors), and changes in relationship satisfaction. Using SPSS, hypothesized models will be fit to the data to determine the relationship between the change in relationship satisfaction, the therapeutic alliance, and therapist effectiveness. Each step will involve multiple models, as males and females will remain separate, as well as therapist and supervisor ratings of effectiveness. Consistent with research on treatment outcomes with couples, males and females will be considered separately to account for possible gender differences. Therapist and supervisor ratings of therapist effectiveness will also be examined separately, as preliminary bivariate correlations revealed that these ratings are not correlated, ( $r = -.09$ , ns).

First, changes in relationship satisfaction will be regressed on therapeutic alliance ratings for males and females (Models 1a & 1b). Then, therapeutic alliance ratings for males and females will be regressed on therapist effectiveness as rated separately by therapists and supervisors (Models 2a & 2b). Next, changes in relationship satisfaction for males and females will be regressed on therapist and supervisor ratings of therapist effectiveness (Models 3a & 3b). If the criteria for mediation are met at this point, a proposed mediation model of the relationship between therapeutic alliance and change in relationship satisfaction mediated by therapist and supervisor ratings of therapist in-session effectiveness will be fit.

After fitting a proposed mediation model, therapist and supervisor ratings of therapist effectiveness will then be examined separately as hypothesized moderators of

the relationship between therapeutic alliance and change in relationship satisfaction for males and females. Hierarchical linear regression will be employed using 4 models.

In the first proposed moderation model, the dependent variable, change in relationship satisfaction, will be regressed on the predictor variable, therapeutic alliance, and the proposed moderator, therapist self-ratings of in-session effectiveness, to examine the direct effects of therapist self-ratings of effectiveness. An interaction term between therapeutic alliance and therapist self-ratings of effectiveness will be entered into the model to see if, at higher levels of therapist effectiveness, the relationship between therapeutic alliance and changes in relationship satisfaction becomes stronger. This procedure will be applied to both males and females, and then repeated with supervisor ratings of therapist effectiveness as a potential moderator.

### **Research Questions and Hypotheses**

1. What is the relationship between the therapeutic alliance and changes in relationship satisfaction?

**Hypothesis 1a:** Higher levels of male 4<sup>th</sup> session therapeutic alliance

ratings will be significantly and positively related with change in relationship satisfaction for males.

**Hypothesis 1b:** Higher levels of female 4<sup>th</sup> session therapeutic

alliance ratings will be significantly and positively related with change in relationship satisfaction for females.

2. What is the relationship between therapist effectiveness and client rating of the therapeutic alliance?

**Hypothesis 2a:** Therapist self-ratings of in-session effectiveness will be significantly and positively related to male ratings of the therapeutic alliance at session 4.

**Hypothesis 2b:** Therapist self-ratings of in-session effectiveness will be significantly and positively related to female ratings of the therapeutic alliance at session 4.

**Hypothesis 2c:** Supervisor ratings of therapist in-session effectiveness will be significantly and positively related to male ratings of the therapeutic alliance at session 4.

**Hypothesis 2d:** Supervisor ratings of therapist in-session effectiveness will be significantly and positively related to female ratings of the therapeutic alliance at session 4.

3. What is the relationship between therapist effectiveness and change in relationship satisfaction?

**Hypothesis 3a:** Therapist self-ratings of in-session effectiveness will be significantly and positively related to change in relationship satisfaction for males.

**Hypothesis 3b:** Therapist self-ratings of in-session effectiveness will be significantly and positively related to change in relationship satisfaction for females.

**Hypothesis 3c:** Supervisor ratings of therapist in-session effectiveness will be significantly and positively related to change in relationship satisfaction for males.

**Hypothesis 3d:** Supervisor ratings of therapist in-session effectiveness will be significantly and positively related to change in relationship satisfaction for females.

4. To what extent does therapist effectiveness influence the relationship between therapeutic alliance and changes in relationship satisfaction?

**4a:** Do therapist self-ratings of in-session effectiveness mediate the relationship between therapeutic alliance and change in relationship satisfaction for males?

**4b:** Do therapist self-ratings of in-session effectiveness mediate the relationship between therapeutic alliance and change in relationship satisfaction for females?

**4c:** Do supervisor ratings of therapist in-session effectiveness mediate the relationship between therapeutic alliance and change in relationship satisfaction for males?

**4d:** Do supervisor ratings of therapist in-session effectiveness mediate the relationship between therapeutic alliance and change in relationship satisfaction for females?

**4e:** Do therapist self-ratings of therapist in-session effectiveness moderate the relationship between therapeutic alliance and change in relationship satisfaction for males?

**4f:** Do therapist self-ratings of therapist in-session effectiveness moderate the relationship between therapeutic alliance and change in relationship satisfaction for females?

**4g:** Do supervisor ratings of therapist in-session effectiveness moderate the relationship between therapeutic alliance and change in relationship satisfaction for males?

**4h:** Do supervisor ratings of therapist in-session effectiveness moderate the relationship between therapeutic alliance and change in relationship satisfaction for females?

Because this is a relatively new area of study, the researcher investigates the role of therapist effectiveness (as rated by therapists and their supervisors separately) on the relationship between the therapeutic alliance and change in relationship satisfaction for male and female spouses using an exploratory method. Therefore, models are fit based on therapist effectiveness acting as a mediating factor as well as a moderating factor in the hypothesized relationship between therapeutic alliance and change in relationship satisfaction for male and female spouses.

As a first step, univariate and descriptive statistics, *t*-tests, and chi-square analyses are utilized to examine the distribution of the data as well as the means of all demographics and main study constructs across dropouts, non-completers, and completers. Next, correlational analyses are run in order for the proposed models to be investigated through mediation. Then, various models are fit to the data to determine the relationship between therapist effectiveness, the therapeutic alliance, and change in relationship satisfaction. Therapist effectiveness is first examined as a possible mediating variable between therapeutic alliance and change in relationship satisfaction. Next, therapist effectiveness is examined as a possible moderating variable in this association.

## **Results**

The purpose of this study is to examine the role of therapist effectiveness, as rated separately by the therapists themselves as well as by supervisors who provide live supervision, on the relationship between the therapeutic alliance and changes in relationship satisfaction from intake to the fourth session. Previous research has identified a clear link between the therapeutic alliance and treatment outcomes with both individuals (Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000) and couples (Knobloch-Fedders, Pinsof, & Mann, 2004), so this study posits that a positive and significant relationship exists between these two variables. However, the role of therapist effectiveness in outcome studies has yet to be determined. While some studies suggest that therapist effectiveness is a key component of change in therapy (Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Najavits & Strupp, 1994), other studies have contradicted this view (Hogue et al., 2008).

### **Preliminary Analysis of Univariate and Descriptive Statistics**

SPSS Statistical Software is used to examine the means and standard deviations for all continuous variables included in this study: relationship satisfaction at intake and session 4, therapeutic alliance scores, therapists' ratings of their own in-session effectiveness, and supervisor ratings of therapists' in-session effectiveness. There are no outliers identified in the analysis of univariate statistics, and the data appear to be

distributed normally so no transformations are necessary. Means, standard deviations, Alpha coefficients, and  $p$ -values are illustrated in Table 3.

Table 3

*Sample Descriptive Statistics of Main Construct Variables*

Variable	N	Mean	SD	$\alpha$	$p$ -value
RDAST1	122/122	43.24/40.54	8.84/10.13	.86/.87	<.001
RDAST4	118/118	43.42/41.48	10.51/11.05	.85/.84	<.001
CTAST4	117/116	217.49/214.45	43.99/43.20	.95/.96	<.001
ThEffM	89/52	2.08/2.16	.41/.47	.54	.296

*Note.* Male Spouses/Female Spouses. Therapist/Supervisor Ratings. RDAST1 (Rating of Relationship Satisfaction at Time 1), RDAST4 (Rating of Relationship Satisfaction at Time 4), CTAST4 (Rating of Therapeutic Alliance at Time 4), ThEffM (Mean Rating of Therapist Effectiveness)

**Dropouts, Non-Completers, and Completers**

It is important to examine attrition because clients not completing the study could be different from those who do complete the study, thus creating a threat to validity. Independent samples  $t$ -tests and chi-square analyses are used to test for differences among those who attend at least 4 sessions and those who dropped out before the 4<sup>th</sup> session across the demographic variables of age, race education, income, marital status, and relationship satisfaction ratings at intake. There are significant differences between the two groups in relation to female relationship satisfaction at intake,  $t(221) = -2.04$ ,  $p < .05$ . Female spouses of dropout couples have lower RDAS scores, on average, and therefore tend to be more distressed than females of couples who attend at least 4 sessions. Additional analyses yield no significant differences between dropouts and those

who attended 4 sessions in relation to age, race, education, income, or marital status (See Table 4).

Table 4

*Comparison of Means for Dropouts and Couples Who Attended 4 Sessions*

	Males			Females		
	<i>t</i> -score	$\chi^2$	Sig. (2-tailed)	<i>t</i> -score	$\chi^2$	Sig. (2-tailed)
Age	-.70	-	.48	.02	-	.98
Race	-	4.37	.74	-	4.53	.61
Education	-1.59	-	.11	-1.37	-	.17
Income	-.20	-	.84	-1.76	-	.08
Marital Status	-	.76	.69	-	1.50	.68
RDAS (Intake)	-1.86	-	.07	-2.04	-	.04*

*Note.* \*  $p < .05$ .

Of the couples who attended at least 4 sessions, 35% did not complete the 4<sup>th</sup> session paperwork. These couples, considered non-completers, are compared with 4<sup>th</sup> session paperwork completers using independent samples *t*-tests and chi-square analyses. Results indicate a significant difference between non-completers and completers in regards to relationship satisfaction at intake for male clients,  $t(120) = -1.98, p < .05$ . Male spouses of couples who complete 4<sup>th</sup> session paperwork report lower relationship satisfaction at intake. No significant differences are found between completers and non-completers in regards to age, race, education, income, or marital status (See Table 5).

Table 5

*Comparison of Means for Non-Completers and Completers*

	Males			Females		
	<i>t</i> -score	$X^2$	Sig (2-tailed)	<i>t</i> -score	$X^2$	Sig (2-tailed)
Age	-1.62	-	.11	-1.35	-	.18
Race	-	6.76	.23	-	4.97	.55
Education	-1.14	-	.25	-.43	-	.67
Income	-.72	-	.47	-.24	-	.81
Marital Status	-	2.91	.23	-	3.37	.19
RDAS (Intake)	-1.98	-	.05*	-1.63	-	.11

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

Since significant differences are found between dropouts and couples who attended 4 sessions, as well as between completers and non-completers, further analyses are conducted comparing all three groups simultaneously. ANOVA tests indicate no significant differences among drop outs, non-completers, and completers in regards to age, race, education, income, marital status, and relationship satisfaction at intake for males or females spouses (See Table 6). Therefore, there are no apparent differences between dropouts, non-completers, and completers in regards to any of the demographic variables or relationship satisfaction at intake.

Table 6

*Comparison of Means for Dropouts, Non-Completers, and Completers*

Variable	Males		Females	
	<i>F</i> -value	Sig. (2-tailed)	<i>F</i> -value	Sig. (2-tailed)
Age	.87	.42	.37	.69
Race	.19	.82	.46	.63
Education	1.49	.23	.94	.39
Income	.02	.98	1.67	.19
Marital Status	.99	.38	1.39	.25
RDAS (Intake)	1.78	.17	2.17	.12

*Note.* *F*-values based on ANOVA

\*  $p < .05$ .

### Supervision

Independent samples *t*-tests and chi-square analyses are then employed to examine possible differences between participants whose therapists received live supervision and those who did not. Results indicate significant differences between those who received live supervision and those who did not in regards to female therapeutic alliance scores,  $t(114) = 2.08, p < .05$ . Female spouses of couples who did not receive live supervision rate the therapeutic alliance higher, on average, than females of couples who received live supervision (See Table 7). No significant differences emerge between those who received live supervision and those who did not in regards to male therapeutic alliance and male and female relationship satisfaction at the fourth session.

Table 7

*Comparison of Means for Cases That Received Live Supervision and Those That Did Not*

	Males		Females	
	<i>t</i> -score	Sig. (2-tailed)	<i>t</i> -score	Sig. (2-tailed)
RDAS (4 <sup>th</sup> session)	.31	.76	.37	.71
CTAS	.10	.92	2.08	.04*

*Note.* \* $p < .05$

Since only seven supervisors are included in the analyses, ANOVA tests are conducted to examine whether supervisors were statistically different in their ratings of supervision from intake to session 4. Results demonstrate no significant differences between the full-time and adjunct faculty supervisors in regards to their ratings of therapist effectiveness (See Table 8).

Table 8

*Comparison of Means for Supervisor Ratings of In-Session Effectiveness*

Session	N	<i>F</i> -value	Sig. (2-tailed)
1	33	.74	.57
2	35	1.32	.29
3	28	.71	.60
4	31	.19	.94

*Note.* *F*-values based on ANOVA.

\* $p < .05$

## **Correlational analyses**

As a next step, correlational analyses are conducted for variables that may be related to the main study constructs (race, education, income, marital status, and length of relationship). Race and marital status (dating/engaged or married) have significant correlations with the main study constructs for males. Education and marital status have significant correlations with the main study constructs for females. In order to investigate the role of change in relationship satisfaction for both males and females, relationship satisfaction at intake is used as a control in all of the final models.

Correlations among the main study constructs are examined in order for the proposed models to be investigated through mediation, as explained by Baron and Kenny (1986). Therapeutic alliance and relationship satisfaction are significantly correlated for both male and female spouses. Furthermore, supervisor ratings of therapist in-session effectiveness are significantly correlated with therapeutic alliance and relationship satisfaction (See Table 8). Thus, multiple regression analysis is both justifiable and would be beneficial in providing further insight into the significance of these models.

Table 9

*Summary of Correlations for Male and Female Demographics and Main Construct Variables*

	Race	Ed.	Income	Marital Status	RDAST1	RDAST4	CTAST4	ThEffSupM	ThEffThM
Race		-.09	-.12	.05	-.16	-.21 <sup>*</sup>	-.08	-.02	.23 <sup>*</sup>
Ed.	.05		.25 <sup>**</sup>	-.13	.18	.09	.07	-.16	.07
Income	.04	.27 <sup>**</sup>		-.23 <sup>**</sup>	.10	.06	-.08	-.11	.14
Marital Status	.09	-.13	-.28 <sup>**</sup>		.20 <sup>*</sup>	.32 <sup>**</sup>	.11	-.29 <sup>*</sup>	-.01
RDAST1	-.16	.19 <sup>*</sup>	.07	.20		.62 <sup>***</sup>	.15	-.23	.06
RDAST4	.03	.32 <sup>**</sup>	.10	.24 <sup>**</sup>	.62 <sup>***</sup>		.31 <sup>***</sup>	-.29 <sup>*</sup>	.03
CTAST4	.01	.13	-.14	.23 <sup>*</sup>	.19 <sup>*</sup>	.33 <sup>**</sup>		-.34 <sup>*</sup>	.06
ThEffSupM	-.18	-.15	-.02	-.39 <sup>**</sup>	.07	-.29 <sup>*</sup>	-.24		-.16
ThEffThM	-.04	.10	.05	-.01	.05	.09	.04	-.16	

*Note.* Males are above the diagonal, females are below the diagonal

<sup>\*</sup>  $p < .05$ . <sup>\*\*</sup>  $p < .01$ . <sup>\*\*\*</sup>  $p < .001$

## **Regression Analyses**

Following a preliminary analysis of univariate and descriptive statistics in SPSS, a series of models are fit to test the hypotheses regarding mediation. In the first model, change in relationship satisfaction is regressed on therapeutic alliance for male and female spouses. The second model is a regression of therapist effectiveness on therapeutic alliance, with males and females examined separately, along with therapist and supervisor ratings. In the third model, change in relationship satisfaction is regressed on therapist effectiveness, again looking at males and females separately, along with therapist and supervisor ratings. From here, it is determined whether or not the models fit the criteria for mediation as set forth by Baron and Kenny (1986).

Next, a number of models are fit to test for moderation. The first moderation model is fit to determine whether therapist self-ratings of in-session effectiveness influences the relationship between therapeutic alliance and change in relationship satisfaction for males. This procedure is repeated for females. Then, supervisor ratings are added to the model was fit to determine whether supervisor ratings of therapists' in-session effectiveness influence the relationship between therapeutic alliance and change in relationship satisfaction for males. This procedure, again, is repeated for females.

## **Therapist Effectiveness as a Mediator**

**RQ1: What is the relationship between the therapeutic alliance and changes in relationship satisfaction?**

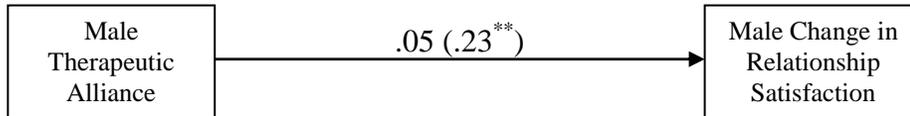
In Model 1a, male change in relationship satisfaction is regressed on male therapeutic alliance ratings. Results show a significant positive relationship between therapeutic alliance and change in relationship satisfaction for males when controlling for

initial levels of relationship satisfaction, ( $\beta = .23, p < .01$ ). Thus, for every one unit difference in male change in relationship satisfaction, there is a positive .23 difference in male therapeutic alliance. Male therapeutic alliance explains 43% of the variance in change in relationship satisfaction for male spouses after controlling for relationship satisfaction at intake (Adjusted  $R^2 = .43$ ).

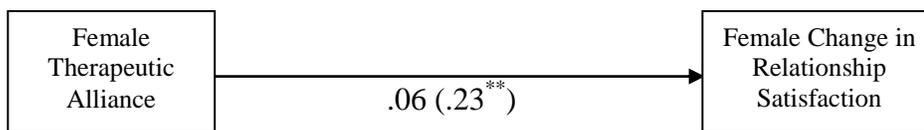
In Model 1b, female change in relationship satisfaction is regressed on female therapeutic alliance ratings. Regression results show a significant positive relationship between therapeutic alliance and change in relationship satisfaction for female spouses controlling for relationship satisfaction at intake, ( $\beta = .23, p < .01$ ). For every one unit difference in female therapeutic alliance, there is a positive .23 difference female change in relationship satisfaction. Female therapeutic alliance explains 42% of the variance in change in relationship satisfaction for females after controlling for relationship satisfaction at intake ( $R^2 = .42$ ) (See Figure 1).

Figure 1.

*Model 1a: Regressing Change in Male Relationship Satisfaction (RDAS) on Male Therapeutic Alliance (CTAS)*



*Model 1b: Regressing Change in Female Relationship Satisfaction (RDAS) on Female Therapeutic Alliance (CTAS)*



*Note.* Controlling for relationship satisfaction at intake. Unstandardized (Standardized) coefficients

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

**RQ2: What is the relationship between therapist effectiveness and the therapeutic alliance?**

In Model 2a, male and female therapeutic alliance ratings are regressed on therapist self-ratings of in-session effectiveness. No significant relationship is found between therapist self-ratings of in-session effectiveness and therapeutic alliance for male, ( $\beta = .04$ , ns) or female ( $\beta = .03$ , ns) spouses. Therefore, therapist self-ratings of their own in-session effectiveness are related to neither male nor female spouses' ratings of the therapeutic alliance (See Figure 2).

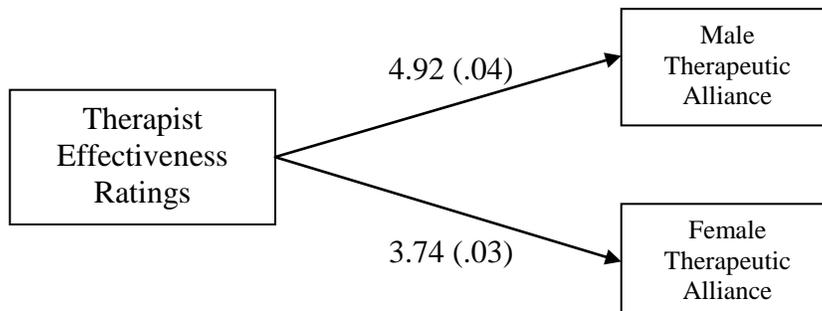
In Model 2b, male and female therapeutic alliance ratings are regressed on supervisor ratings of therapist effectiveness. Results show a significant negative relationship between supervisor ratings of therapist in-session effectiveness and male therapeutic alliance, ( $\beta = -.31$ ,  $p < .05$ ). Thus, controlling for relationship satisfaction an

intake, for every one unit difference in supervisor ratings of effectiveness, there is a negative .31 difference in male therapeutic alliance. Supervisor ratings of effectiveness explain 10% of the variance in male therapeutic alliance (Adjusted  $R^2 = .10$ ). However, supervisor ratings of therapist effectiveness are not significantly related to female therapeutic alliance, ( $\beta = -.25$ , ns) (See Figure 2).

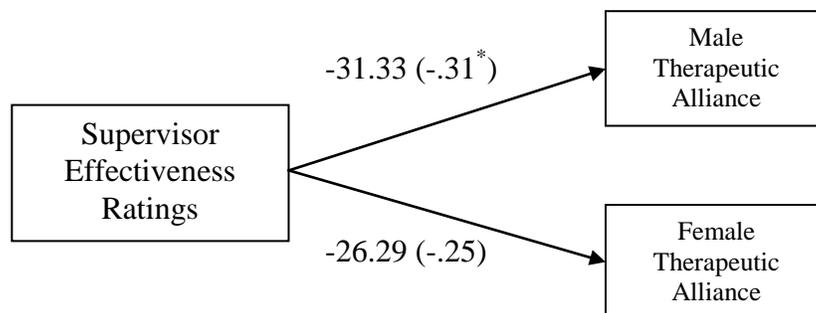
None of the proposed hypotheses are supported by Model 2; however, the significant negative relationship between supervisor ratings of therapist in-session effectiveness and male therapeutic alliance is an interesting finding, suggesting that higher supervisor ratings of therapist in-session effectiveness relates to lower ratings of therapeutic alliance for male spouses.

Figure 2.

*Mediation Model 2a: Regressing Male and Female Therapeutic Alliance Ratings (CTAS) on Therapists' Self-Ratings of In-Session Effectiveness*



*Mediation Model 2b: Regressing Male and Female Therapeutic Alliance Ratings (CTAS) on Supervisors' Ratings of Therapists' In-Session Effectiveness*



*Note.* Controlling for relationship satisfaction at intake. Unstandardized (Standardized) coefficients.

\*  $p < .05$ .

**RQ3: What is the relationship between therapist effectiveness and changes in relationship satisfaction?**

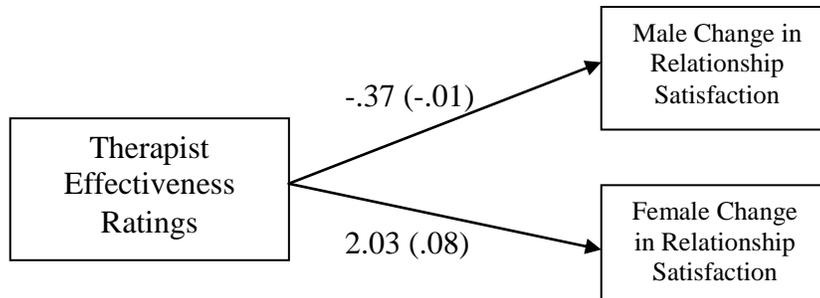
Model 3a is fit to determine any relationship that might exist between therapist self-ratings of effectiveness and change in relationship satisfaction for males and females. No significant relationship is found between therapist self-ratings of in-session effectiveness change in relationship satisfaction for males, ( $\beta = -.01$ , ns) or females, ( $\beta = .08$ , ns) (See Figure 4).

In Model 3b, male and female change in relationship satisfaction is regressed on supervisor ratings of therapist effectiveness. Results demonstrate a significant negative relationship between supervisor ratings of therapist effectiveness and change in relationship satisfaction for females controlling for relationship satisfaction at intake, ( $\beta = -.33, p < .01$ ). For every one unit difference in supervisor ratings, there is a negative .33 difference in female change in relationship satisfaction. Supervisor ratings of therapists' effectiveness explain 37% of the variance in change in female relationship satisfaction when controlling for initial levels of relationship satisfaction (Adjusted  $R^2 = .37$ ). Regression results do not show a significant relationship between supervisor ratings of therapist in-session effectiveness and change in relationship satisfaction for males controlling for relationship satisfaction at intake, ( $\beta = -.21, ns$ ) (See Figure 3).

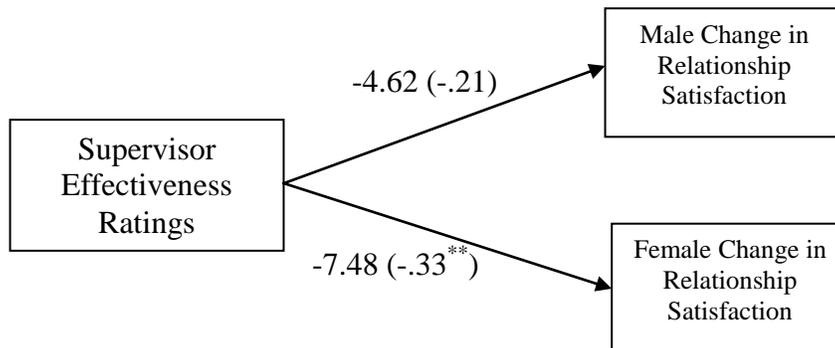
None of the proposed hypotheses are supported by the model; however, the significant negative relationship between supervisor ratings of therapist in-session effectiveness and female change in relationship satisfaction is an interesting finding, indicating that higher supervisor ratings of therapist in-session effectiveness are related to lower levels of change in relationship satisfaction for females.

Figure 3.

*Mediation Model 3a: Regressing Male and Female Changes in Relationship Satisfaction (RDAS) on Therapists' Self-Ratings of In-Session Effectiveness*



*Mediation Model 3b: Regressing Male and Female Changes in Relationship Satisfaction on Supervisors' Ratings of Therapists' In-Session Effectiveness*



*Note.* Controlling for relationship satisfaction at intake. Unstandardized (Standardized) coefficients.

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

**Hypotheses 4a-d: Does therapist effectiveness mediate the relationship between therapeutic alliance and change in relationship satisfaction?**

**Therapist self-ratings.** Regression analyses from Model 1 indicate that there is a significant positive relationship between therapeutic alliance and change in relationship satisfaction for males controlling for relationship satisfaction at intake, ( $\beta = 31.33, p < .01$ ) as well as for females, ( $\beta = -26.29, p < .01$ ). However, Model 2a shows that there is not a significant relationship between therapist ratings of their own in-session

effectiveness and therapeutic alliance ratings for male spouses controlling for initial levels of relationship satisfaction, ( $\beta = 4.92$ , ns) or female spouses, ( $\beta = 3.74$ , ns). In addition, Model 3a shows that therapist self-ratings of in-session effectiveness are not significantly related to change in relationship satisfaction controlling for relationships satisfaction at intake for males, ( $\beta = -.37$ , ns) or females, ( $\beta = 2.03$ , ns). Therefore, since the models do not fit the criteria for mediation as set forth by Baron and Kenny (1986), therapist ratings of in-session effectiveness are not examined as a mediating variable in the relationship between therapeutic alliance and change in relationship satisfaction for either males or females.

*Supervisor ratings.* As noted previously, regression analyses from Model 1 demonstrate positive relationships between therapeutic alliance and change in relationship satisfaction for males and females. Supervisor ratings of therapist effectiveness are significantly and negatively related to therapeutic alliance for males, controlling for relationship satisfaction at intake, ( $\beta = -31.33$ ,  $p < .05$ ). However, supervisor ratings of therapist effectiveness are not significantly related to change in relationship satisfaction for males when controlling for initial levels of relationship satisfaction, ( $\beta = -4.62$ , ns).

In regards to females, supervisor ratings of therapist effectiveness are significantly and negatively related to change in relationship satisfaction for females when controlling for relationship satisfaction at intake, ( $\beta = -7.48$ ,  $p < .01$ ). However, supervisor ratings of therapist effectiveness are not significantly related to the therapeutic alliance for females after controlling for initial levels of relationship satisfaction, ( $\beta = -26.29$ , ns). Thus, supervisor ratings of therapist effectiveness are not examined as a

mediator of the relationship between therapeutic alliance and change in relationship satisfaction for males or females because it does not meet Baron and Kenny's (1986) criteria for mediation.

### **Therapist Effectiveness as a Moderator**

#### **Hypotheses 4e-h: Does therapist effectiveness moderate the relationship between therapeutic alliance and change in relationship satisfaction?**

In order to test therapist effectiveness as a potential moderator, four hierarchical multiple regression models are conducted. Consistent with recommendations, all continuous predictor variables are centered (Aiken & West, 1991). Each regression analysis contains two steps. The scores for the predictor variables are entered in the first step. In the second step, the interactions of the predictor variables are entered. Males and females are examined separately, and therapist and supervisor ratings of effectiveness are also considered separately. Thus, for each moderating variable (therapist ratings of effectiveness and supervisor ratings of effectiveness), there are two separate regression models.

*Therapist self-ratings.* In the first regression model, change in relationship satisfaction for males is the dependent variable. Of note, within each regression model, initial levels of relationship satisfaction are controlled. Controlling for earlier levels of relationship satisfaction makes it possible to help eliminate bias in parameter estimates, permits conclusions regarding change in the predicted variable, and provides information regarding the direction of effects (Cole & Maxwell, 2003). In the first step, the predictor variables – male therapeutic alliance and therapist effectiveness ratings – are entered into the model, along with relationship satisfaction at intake. There is a positive relationship

between therapeutic alliance and change in relationship satisfaction for males, ( $\beta = .29, p < .001$ ). However, therapist self-ratings of effectiveness are not significantly related to change in relationship satisfaction for males, ( $\beta = -.03, ns$ ). These findings indicate that males with higher therapeutic alliance also had higher levels of change in relationship satisfaction.

In the second step, the two-way interaction of male therapeutic alliance and therapist effectiveness ratings is tested. Step 2 is significant, Adjusted  $R^2 = .45, F(4,82) = 18.62, p < .001$ . The interaction term is not significantly related to change in relationship satisfaction for males, ( $\beta = 1.03, ns$ ). Thus, therapist self-ratings of effectiveness do not moderate the relationship between therapeutic alliance and change in relationship satisfaction for males (See Table 10).

Table 10

## Summary of Hierarchical Regression Analysis Predicting Change in Relationship Satisfaction for Males

Variable	$R^2$ Adjusted	B	SE	$\beta$
Step 1	.48			
Male Relationship Satisfaction Intake		.70	.10	.58***
Male Therapeutic Alliance		.07	.02	.29***
Therapist Effectiveness Ratings		-.70	2.15	-.03
Step 2	.45*** (Adjusted)			
Male Therapeutic Alliance		-.10	.10	-.40
Therapist Effectiveness Ratings		-19.68	11.04	-.74
MCTAS*ThEffTh		.08	.05	1.03

*Note.* Controlling for relationship satisfaction at intake.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

In the second regression model, change in relationship satisfaction for females is the dependent variable. In the first step, the predictor variables – female therapeutic alliance and therapist effectiveness ratings – are entered into the model, along with relationship satisfaction at intake. There is a positive relationship between therapeutic alliance and change in relationship satisfaction for females when controlling for initial levels of relationship satisfaction, ( $\beta = .22, p < .001$ ). These findings indicate that females with higher therapeutic alliance also have higher levels of change in relationship

satisfaction. However, therapist self-ratings of effectiveness are not significantly related to change in relationship satisfaction for females, ( $\beta = .07$ , ns).

In the second step, the two-way interaction of female therapeutic alliance and therapist effectiveness ratings is examined. Step 2 was significant, Adjusted  $R^2 = .38$ ,  $F(4,80) = 14.06$ ,  $p < .001$ . The interaction term is not significantly related to change in relationship satisfaction for females; thus, therapist self-ratings of effectiveness do not moderate the relationship between therapeutic alliance and change in relationship satisfaction for females (See Table 11).

Table 11

## Summary of Hierarchical Regression Analysis Predicting Change in Relationship Satisfaction for Females

Variable	$R^2$ Adjusted	B	SE	$\beta$
Step 1	.41			
Female Relationship Satisfaction Intake		.54	.09	.54***
Female Therapeutic Alliance		.05	.02	.22*
Therapist Effectiveness Ratings		1.93	2.28	.07
Step 2	.38***			
Female Therapeutic Alliance		.16	.11	.13
Therapist Effectiveness Ratings		14.24	11.71	.53
FCTAS*ThEffTh		-.06	.05	-.69

*Note.* Controlling for relationship satisfaction at intake.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

**Supervisor ratings.** In the third regression model, change in relationship satisfaction for males is the dependent variable. In the first step, the predictor variables – male therapeutic alliance and supervisor effectiveness ratings – are entered into the model, along with relationship satisfaction at intake. There is a positive relationship between therapeutic alliance and change in relationship satisfaction for males when controlling for relationship satisfaction at intake, ( $\beta = .48, p < .001$ ). These findings indicate that males with higher therapeutic alliance also have higher levels of change in

relationship satisfaction. However, supervisor ratings of effectiveness are not significantly related to change in relationship satisfaction for males, ( $\beta = -.06$ , ns).

In the second step, the two-way interaction of male therapeutic alliance and supervisor effectiveness ratings is tested. Step 2 was significant, Adjusted  $R^2 = .49$ ,  $F(4,43) = 12.12$ ,  $p < .001$ . The interaction term is not significantly related to change in relationship satisfaction for males, indicating that supervisor ratings of effectiveness do not moderate the relationship between therapeutic alliance and change in relationship satisfaction for males (See Table 12).

Table 12

Summary of Hierarchical Regression Analysis Predicting Change in Relationship Satisfaction for Males

Variable	$R^2$ Adjusted	B	SE	$\beta$
Step 1	.53			
Male Relationship Satisfaction Intake		.50	.13	.41***
Male Therapeutic Alliance		.10	.02	.48***
Supervisor Effectiveness Ratings		-1.33	2.43	-.06
Step 2	.49***			
Male Therapeutic Alliance		-.01	.14	-.06
Supervisor Effectiveness Ratings		-11.46	12.34	-.53
MCTAS*ThEffSup		.05	.06	.59

Note. Controlling for relationship satisfaction at intake.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

In the fourth and final regression model, change in relationship satisfaction for females is the dependent variable. In the first step, the predictor variables – female therapeutic alliance and supervisor effectiveness ratings – are entered into the model. There is a negative relationship between supervisor ratings of effectiveness and change in relationship satisfaction for females when controlling for initial levels of relationship satisfaction, ( $\beta = -.32, p < .01$ ). These findings indicate that when supervisors rate therapist effectiveness as being low, there are higher levels of change in relationship satisfaction for females. However, female therapeutic alliance is not significantly related to change in relationship satisfaction for females, ( $\beta = .11, ns$ ).

In the second step, the two-way interaction of female therapeutic alliance and therapist effectiveness ratings is tested. Step 2 is significant, Adjusted  $R^2 = .35, F(4,44) = 7.50, p < .001$ . The interaction of female therapeutic alliance and supervisor ratings is not significant, suggesting that supervisor ratings of effectiveness do not moderate the relationship between therapeutic alliance and change in relationship satisfaction for females (See Table 13).

Table 13

## Summary of Hierarchical Regression Analysis Predicting Change in Relationship Satisfaction for Females

Variable	$R^2$ Adjusted	B	SE	$\beta$
Step 1	.41			
Female Relationship Satisfaction Intake		.60	.13	.54***
Female Therapeutic Alliance		.02	.03	.11
Supervisor Effectiveness Ratings		-7.14	2.67	-.32**
Step 2	.35***			
Female Therapeutic Alliance		-.02	.15	-.08
Supervisor Effectiveness Ratings		-10.66	13.26	-.48
FCTAS*ThEffSup		.02	.06	.22

Note. Controlling for relationship satisfaction at intake.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

### Summary of Results

**Hypothesis 1.** Results from Model 1 yield support for Hypothesis 1a and 1b.

Specifically, it was found that on average, the therapeutic alliance is positively related to change in relationship satisfaction from intake to fourth session for males and females.

This finding adds to the current literature that highlights the importance of a strong therapeutic alliance for change in couple therapy (Anker et al., 2010; Knobloch-Fedders, Pinsof, & Mann, 2004; Pinsof & Catherall, 1986). Clinicians and training facilities should continue to emphasize the therapeutic alliance as a strong predictor of change, especially with couples.

**Hypothesis 2.** No support was found for Hypothesis 2 in regards to therapist self-ratings of effectiveness. Results demonstrated no relationship between therapist self-ratings of in-session effectiveness and therapeutic alliance ratings for either male or female spouses. This suggests that therapists are not able to accurately assess their own effectiveness, possibly due to their misunderstanding or lack of knowledge regarding what makes a therapist effective. In addition, results yielded no significant relationship between supervisor ratings of therapist effectiveness and therapeutic alliance ratings for female spouses, suggesting that females' ratings of the therapeutic alliance are not affected by the ways in which supervisors perceive the in-session effectiveness of therapists.

Interestingly, there was a significant negative relationship between supervisor ratings of therapist effectiveness and therapeutic alliance ratings for male spouses. It seems that perhaps supervisors' ratings of effectiveness may indirectly influence the way in which therapists decide to proceed in the therapy room. In other words, a therapist may rely too much on a therapy model in order to gain approval from a supervisor but may, in turn, fail to focus on forming a relationship with the male spouse. This is significant, as previous outcome research has emphasized the importance of male spouses' therapeutic alliance formation with couples (Anker et al., 2010; Thomas, Werner-Wilson & Murphy, 2005).

**Hypothesis 3.** Results from regression analyses failed to show support for Hypothesis 3. No relationship was found between therapists' self-ratings of in-session effectiveness and changes in relationship satisfaction for male or female spouses. Again,

this may be attributed to therapists' inability to accurately rate their own in-session effectiveness.

There was another interesting finding regarding supervisor ratings, revealing a significant negative relationship between supervisor ratings of therapist effectiveness and female change in relationship satisfaction. With such findings, one may speculate how supervisors rate the construct of effectiveness when providing live supervision, as well as how therapists utilize feedback given by their supervisors during therapy sessions.

**Hypothesis 4.** Since Model 3 was not significant for either therapist self-ratings or supervisor ratings of therapist in-session effectiveness, a mediation model could not be fit for either therapist self-ratings or supervision ratings of effectiveness. In regards to therapist effectiveness as a moderating variable, results from hierarchical linear regression modeling demonstrated that, although certain constructs were related to change in therapy for males and females, therapist effectiveness did not moderate this relationship, either rated by therapists themselves or by supervisors. This indicates that therapists' in-session effectiveness does not influence change in couples therapy to the extent that forming a strong therapeutic alliance does; however, it would be important to further investigate the possible role that therapist effectiveness plays by looking at several constructs that may better define therapist effectiveness, such as client cooperation, session flow, and in-session progress.

## **Discussion**

This study examined the relationships that exist between the therapeutic alliance, therapist effectiveness, and their respective contributions to change in couple therapy. Based on existing research demonstrating a relationship between therapeutic alliance and outcomes (Anker et al., 2010) in couple therapy, and therapist effectiveness and outcomes (Najavits & Strupp, 1994), it was hypothesized that the therapeutic alliance and therapist effectiveness would be related to change in conjoint treatment. Finally, as existing research left some questions to be answered about what might account for different findings for males and females (Thomas, Werner-Wilson, & Murphy, 2005), it was hypothesized that male spouses' therapeutic alliance ratings would also predict changes in female spouses' change in relationship satisfaction.

### **Implications and Benefits of Research Findings**

This study highlights a number of findings that may prove to be beneficial for both clinicians and Marriage and Family Therapy training facilities. First, since females of dropout couples were found to have higher levels of distress in their relationships than females of couples who attended at least four sessions, it is important for clinicians to pay close attention to the distress level of female clients during the intake session. Perhaps when females are highly distressed, their hope of therapy having positive outcomes is at a decreased level. Thus, instilling hope in couples – especially female clients – may help highly distressed couples remain in therapy for at least four sessions.

Additionally, the negative relationships found between supervisor ratings of therapist effectiveness and males' therapeutic alliance ratings, as well as supervisor ratings of therapist effectiveness and female change in relationship satisfaction, offer an interesting perspective on how supervisors rate effectiveness. Aside from previous speculation on this relationship, it is possible that there are other factors contributing to this negative association. Supervisors are only available for live supervision at specific times throughout the week, which is why many couples in the present study did not receive live supervision. Since therapists are aware of these times when supervisors are available, they will often schedule their most difficult clients during those times. This would suggest that supervisors have more difficulty rating therapists' in-session effectiveness if they are also trying to determine the best intervention technique for the therapist to implement.

Another issue of couple therapy is that, most often, addressing the main problem between two spouses causes the therapeutic alliance to drop initially. When these cases are being supervised live, supervisors may clearly see what kinds of interventions would be most helpful in changing the dysfunctional relationship between the couple. However, when the therapists implements these strategies, the therapeutic alliance ultimately drops, although temporarily, due to the sensitive nature of the problem. In the first four sessions, spouses are still talking about the problem, but may not yet be ready (or willing) to make any changes. This would also cause minimal changes in relationship satisfaction and would also help explain the negative association between supervisor ratings of therapist effectiveness and changes in relationship satisfaction for females.

## **Limitations**

Findings from this study have provided insight into therapist effectiveness, the therapeutic alliance, and how these two variables relate to change in conjoint treatment. However, these findings, like all in research, come with limitations. First, the sample for this study was a convenience sample, based on clients who entered therapy of their own choice. Because it was not a random sample, it is not possible to determine whether the treatment was the cause of change in relationship satisfaction or if the difference was a result of the participants themselves. Also, because couples self-selected into the study by entering therapy of their own volition, caution must be used in generalizing these results.

Another limitation that must be addressed is the small sample size. This study used data from 115 couples (230 participants), a relatively small sample size, which may further impede the generalizability of these findings to the entire population of people who receive conjoint treatment. Without a larger sample, the results of this study may be underpowered. Based on the fit statistics reported, as well as the number of relationships in this study that were approaching significance, an increase in sample size would increase the power of the findings and may even illustrate new or different findings.

Data for this study was gathered by way of self-report for clients, therapists, and supervisors. Though a commonly used and accepted method of data collection in the social sciences, there is always some limitation in using self-report measures, as the data is not objectively quantified. Additionally, the therapeutic alliance was only measured at the fourth session. Although previous research suggests that later alliance scores are more predictive of change than initial alliance scores (Anker et al, 2010; Thomas, Werner-Wilson, & Murphy, 2005), it was not possible to measure clients' initial ratings of the

alliance in this study. Although relationship satisfaction at intake was utilized as a control variable in order to measure change from intake to session four, there was no control utilized for the possible confounding influence of client or therapist demographics in this study.

The construct of therapist effectiveness also has a number of limitations in this study. First, therapist effectiveness was measured using one item on a weekly supervision sheet completed by both therapists and supervisors separately. This item was not tested for interrater reliability, and it is very possible that each supervisor operationalized the construct of therapist effectiveness differently. In addition, there were often not therapist and supervisor ratings for all four sessions a couple attended therapy. Since most clients had some variation of therapist and supervisor ratings, these ratings had to be averaged.

Also, since not every couple had all four session ratings for both therapists and supervisors, it is possible that therapists' effectiveness in the room was not always captured. Future research on the role of therapist effective should include a greater number of ratings. Additionally, this study only examined therapist effectiveness from intake to session four. Future studies may find significant results if more sessions are included in the analyses.

### **Future Research**

This study was among the first to examine therapist effectiveness as it relates to the therapeutic alliance and change in couple therapy. Therapist effectiveness is an area that may have important implications for marriage and family therapy training centers, supervisors, and therapists-in-training, so further research is necessary. The current study utilized both therapist and supervisor ratings of in-session effectiveness. Future research

could also employ outside observers who are not directly involved with the therapists-in-training to assist in developing a universal effectiveness ratings. Additionally, this study only used supervisor ratings of effectiveness during live supervision. It would be interesting to see if the findings from this study change when looking at how supervisors rate therapist effectiveness when they are watching a video of the therapist or listening to audio of the session.

Future research should also take into consideration other types of supervision each therapist received for each case, as well as how supervisors rate therapists' in-session effectiveness. It would be pertinent to examine the amount and quality of supervision when supervisors provide live supervision as well as case reports in between sessions and how that relates to outcomes with couples.

The fact that therapist self-ratings of their own in-session effectiveness was unrelated to the therapeutic alliance and change in couple therapy for both males and females brings to light that this rating may just be a small snapshot of the construct of therapist effectiveness. Perhaps using additional available ratings of session flow, client cooperation, and session progress will provide useful information regarding this relationship.

This study used couple data to examine how therapist effectiveness influences the relationship between the therapeutic alliance and change in therapy. It would be interesting to examine how male and female spouses' alliance ratings influence each other's change in therapy in future studies. This would be consistent with previous research (Anker et al., 2010). It is possible that each individual's experience relates and

possibly affects their spouses experience in the therapy room, but further research is necessary to support this speculation.

One last point to note is that, when conducting multimethod research, it becomes difficult to examine clients' true experiences of therapy. Although this study utilized client self-ratings of their own experiences, it also examined both therapists' and supervisors' ratings of therapists' in-session effectiveness in delivering treatment to the clients. Essentially, therapists and supervisors rated how well they *perceived* that clients responded to interventions. By having outsiders rate the experiences of the clients, it comes as no surprise that therapists' and supervisors' perceptions of what happened in the therapy room were different from the perceptions of the clients. Future studies may want to measure therapist effectiveness from the perspective of the clients in order to examine possible relationships between the therapeutic alliance, therapist effectiveness, and treatment outcomes.

This study also found that supervisor ratings of effectiveness were different in predicting the therapeutic alliance and change for men and women. This suggests a possible gender difference, which would be consistent with existing research, (Anker at al., 2010; Thomas, Werner-Wilson, & Murphy, 2005). Training centers should help train clinicians to handle the automatic gender imbalance of couple therapy in order to prevent split alliances and encourage positive change within the couple dyad.

Very little is understood about how supervision influences the therapeutic alliance and change in couple therapy. This study provided interesting findings in regards to how supervisor ratings of therapist' in-session effectiveness relate to the therapeutic alliance and change in couple therapy. Future research should focus on better defining and

understanding this relationship while also looking at ways in which supervisors can provide the most accurate feedback to therapists-in-training.

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## Appendix A

Name \_\_\_\_\_

Date \_\_\_\_\_

### Revised Dyadic Adjustment Scale

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occasionally Agree</u>	<u>Frequently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
1. Religious matters						
2. Demonstrations of affection						
3. Making major decisions						
4. Sex relations						
5. Conventionality (correct or proper behavior)						
6. Career decisions						

	<u>All the time</u>	<u>Most of the time</u>	<u>More often than not</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>
7. How often do you discuss or have you considered divorce, separation, or terminating your relationship?						
8. How often do you and your partner quarrel?						
9. Do you ever regret that you married (or lived together)?						
10. How often do you and your mate "get on each other's nerves"?						

	<u>Every Day</u>	<u>Almost Every Day</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>
11. Do you and your mate engage in outside interests together?					

How often would you say the following events occur between you and your mate?

	<u>Never</u>	<u>Less than once a month</u>	<u>Once or twice a month</u>	<u>Once or twice a week</u>	<u>Once a day</u>	<u>More often</u>
12. Have a stimulating exchange of ideas						
13. Work together on a project						
14. Calmly discuss something						

## Appendix B

### Couple Therapy Alliance Scale

Instructions: The following statements refer to your feelings and thoughts about your therapist and your therapy right NOW. Please work quickly. We are interested in your FIRST impressions. Your ratings are CONFIDENTIAL. They will not be shown to your therapist or other family members and will only be used for research purposes. Although some of the statements appear to be similar or identical, each statement is unique. PLEASE BE SURE TO RATE EACH STATEMENT.

Each statement is followed by a seven-point scale. Please rate the extent to which you agree or disagree with each statement AT THIS TIME. If you completely agree with the statement, circle number 7. If you completely disagree with the statement, circle number 1. Use the numbers in-between to describe variations between the extremes.

	Completely Agree 7	Strongly Agree 6	Agree 5	Neutral 4	Disagree 3	Strongly Disagree 2	Completely Disagree 1
1. The therapist cares about me as a person	7	6	5	4	3	2	1
2. The therapist and I are not in agreement about the goals for this therapy.	7	6	5	4	3	2	1
3. My partner and I help each other in this therapy.	7	6	5	4	3	2	1
4. My partner and I do not feel the same ways about what we want to get out of this therapy.	7	6	5	4	3	2	1
5. I trust the therapist.	7	6	5	4	3	2	1
6. The therapist lacks the skills and ability to help my partner and myself with our relationship.	7	6	5	4	3	2	1
7. My partner feels accepted by the therapist.	7	6	5	4	3	2	1
8. The therapist does not understand the relationship between my partner and myself.	7	6	5	4	3	2	1
9. The therapist understands my goals in therapy.	7	6	5	4	3	2	1
10. The therapist and my partner are not in agreement about the about the goals for this therapy.	7	6	5	4	3	2	1
11. My partner cares about the therapist as a person.	7	6	5	4	3	2	1
12. My partner and I do not feel safe with each other in this therapy.	7	6	5	4	3	2	1
13. My partner and I understand each other's goals for this therapy.	7	6	5	4	3	2	1
14. The therapist does not understand the goals that my partner and I have for ourselves in this therapy.	7	6	5	4	3	2	1
15. My partner and the therapists are in agreement about the way the therapy is being conducted.	7	6	5	4	3	2	1
16. The therapist does not understand me.	7	6	5	4	3	2	1
17. The therapist is helping my partner and me with our relationship.	7	6	5	4	3	2	1
18. I am not satisfied with the therapy.	7	6	5	4	3	2	1
19. My partner and I understand what each of us is doing in this therapy.	7	6	5	4	3	2	1
20. My partner and I do not accept each other in this therapy.	7	6	5	4	3	2	1
21. The therapist understands my partner's goals for this therapy.	7	6	5	4	3	2	1
22. I do not feel accepted by the therapist.	7	6	5	4	3	2	1
23. The therapist and I are in agreement about the way the therapy is being conducted.	7	6	5	4	3	2	1
24. The therapist is not helping me.	7	6	5	4	3	2	1
25. The therapist is in agreement with the goals that my partner and I have for ourselves as a couple in this therapy.	7	6	5	4	3	2	1

31. My partner is satisfied with the therapy.	7	6	5	4	3	2	1
32. I do not care about the therapist as a person.	7	6	5	4	3	2	1
33. The therapist has the skills and ability to help my partner.	7	6	5	4	3	2	1
34. My partner and I are not pleased with the things that each of us does in this therapy.	7	6	5	4	3	2	1
35. My partner and I trust each other in this therapy.	7	6	5	4	3	2	1
36. My partner and I distrust the therapist.	7	6	5	4	3	2	1
37. The therapist cares about the relationship between my partner and myself.	7	6	5	4	3	2	1
38. The therapist does not understand my partner.	7	6	5	4	3	2	1
39. My partner and I care about each other in this therapy.	7	6	5	4	3	2	1
40. The therapist does not appreciate how important my relationship between my partner and myself is to me.	7	6	5	4	3	2	1
26. The therapist does not care about my partner as a person.	7	6	5	4	3	2	1
27. My partner and I are in agreement with each other about the goals of this therapy.	7	6	5	4	3	2	1
28. My partner and I are not in agreement about the things that each of us needs to do in this therapy.	7	6	5	4	3	2	1
29. The therapist has the skills and ability to help me.	7	6	5	4	3	2	1
30. The therapist is not helping my partner.	7	6	5	4	3	2	1

## Appendix C

### Weekly Supervision Record

**Auburn Supervision** [Circle One: FACULTY=1 or STUDENT=0]      Supervisee/Supervisor \_\_\_\_\_

**ICF:** Individual, Couple, Family      **SUP:** 0. Unsupervised   1. Individual Planned   2. Group In-Class   3. Group Night Live   4. Individual Extra

**Session FLOW:** 1. Choppy   2. Regular Low   3. Regular Good   4. Smooth

**PROgress:** 1. Melt Down   2. Small Digress   3. Non Movement   4. Small Changes   5. Strong movement

**Th Effect and Client Coop:**   1<sup>st</sup> = Low   2<sup>nd</sup> = Moderate Low   3<sup>rd</sup> = Moderate High   4<sup>th</sup> = High

**C1 Coop** = Primary Adult Female    **C2 Coop** = Primary Adult Male    **C3 Coop** = Child    **LME:** Limited, Moderate, Extensive    **TIME:** Supervision Minutes

Case Code	Date	S#	ICF	SUP	FLO	PRO	Th Eff	C1 Coop	C2 Coop	C3 Coop	LME	TIME	Live	Video	Enter
1.	_____	_____	_____	_____	_____	_____	□□□□	□□□□	□□□□	□□□□	_____	_____	□	□	□