THE IMPACT OF MOTIVATION ON THE WORKING ALLIANCE IN COUPLES THERAPY

By

TIMOTHY WELCH

Bachelor of Arts Philosophy

Bachelor of Arts Psychology

Oklahoma State University

Stillwater, Oklahoma

2011

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
December, 2015

THE IMPACT OF MOTIVATION

ON THE WORKING ALLIANCE

IN COUPLES THERAPY

Thesis Approved:

Dr. Matt Brosi

Thesis Adviser

Dr. Glade Topham

Dr. Kami Gallus

ACKNOWLEDGEMENTS

I would like to thank my thesis advisor, Dr. Matt Brosi and the rest of my committee, Dr. Glade Topham and Dr. Kami Gallus for their help on my thesis. Specifically, for having the faith and courage to let a graduate student revise the questionnaires given to the clients at the CFS to follow through on an interest in further understanding common factors in couples therapy. I want to thank Dr. Brosi for entertaining all my hair-brained ideas, and encouraging me to follow through with them, culminating in this thesis. Thank you for letting me take an idea and run with it unfettered. I want to thank Dr. Gallus for inspiring me to do a clinical thesis. In the beginning of systems theory class you bemoaned how not enough MFT's conduct their own research on outcomes, while this thesis isn't quite that, it inspired me to pursue a clinical thesis. This has given me the courage to further pursue my interests in studying clinical processes and outcomes in MFT. I want to thank Dr. Topham for his methodological rigor, and for pushing me to use the TTM for conceptualizing client motivation. You helped solidify my hunch that client factors play a role in the formation of the alliance. Once again, I thank all three faculty members for trusting me enough to complete a thesis that was ultimately probably just beyond my "zone of proximal development." Thanks for pushing me!

Name: TIMOTHY WELCH

Date of Degree: DECEMBER, 2015

Title of Study: THE IMPACT OF MOTIVATION ON THE WORKING ALLIANCE IN COUPLES THERAPY

Major Field: HUMAN DEVELOPMENT AND FAMILY SCIENCE

ABSTRACT: This study used the actor partner interdependence model to examine the relationship between motivation, measured through the transtheoretical model of change (TTM), and the working alliance in couple's therapy. The study was underpowered due to the small sample size (22 couples). Using the APIM, the study did not find a significant relationship between a partner's motivation level and his or her own rating of the alliance; the study also did not find a significant relationship between one partner's motivation level and his or her partner's alliance. The study proposed the concept of a split in motivation and examined its relationship to the alliance using both statistical and visual analyses. No significant results were found, but several relevant trends emerged suggesting a relationship between differences in motivation levels between members of a couple, and differences between members rating of the alliance. Relationships similar in size to previous research were found between a male partner's motivation and female partner's alliance. Challenges in applying TTM to couples therapy are addressed suggesting the TTM may not capture the construct of "motivation" in couples' therapy. Implications for clinicians and directions for future research are explored.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The Working Alliance in Therapy

The working alliance in psychotherapy is one of the most intensely studied topics and has been shown to be a reliable predictor of successful outcomes in psychotherapy (Horvath et al., 2011). The working alliance is the collaborative relationship between client and therapist and refers to three interrelated constructs: (a) the bond between client and therapist, (b) the agreement on the goals of therapy, and (c) the agreement on the tasks of therapy (Horvath, 1991). Despite prominence of the working alliance in research and in relation to outcomes in therapy, considerable debate over the exact nature of the relationship between alliances and therapeutic outcomes persists (Barber, 2009). While some authors argue the working alliance is a causal mechanism for promoting change in clients (e.g. Barber et al., 2000; Klein et al., 2003),others contend the relationship between alliance and outcomes is accounted for by confounding variables such as client characteristics (e.g. DuRubeis & Freely 1990).

The Stages of Change in Therapy

One potential theory explaining the relationship between the alliance and treatment outcomes incorporates client's motivation to change (e.g., Mander et al., 2012; Mander et al., 2014; Derisley & Reyolds, 2000). Client motivation to change is most

commonly assessed using Prochaska and DiClemente's (1982) Trans-theoretical Model of Change (Moore, Tambling, & Anderson, 2013). The Trans-theoretical Model (TTM) contends that clients progress through different stages on their way towards making change in their lives. Higher stages of change are a function of higher degree of motivation and readiness to change. Previous research found that clients at lower stages of change are significantly more likely to report lower levels of alliance with therapists as well as worse treatment outcomes compared to clients at higher stages of change (e.g. Derisley & Reynolds, 2000). Emmerling and Whelton (2009) found the working alliance mediates the relationship between stages of change and outcomes in psychotherapy.

Alliance in Couple's Therapy

Most research exploring alliances has focused on understanding alliances in individual psychotherapy. Relatively fewer articles have focused on alliances in couples or family therapy (Friedlander et al., 2011). Alliances in couples or family therapy are uniquely challenging to develop as they involve the formation of multiple and simultaneous alliances with different family members (Friedlander et al., 2011). Additionally, couples coming into therapy have previous and ongoing relationships with one another that may impact the formation of alliances (Glevova et al., 2011). It is also possible for one partner to develop a stronger alliance than the partner; when this occurs, it is known as a split alliance (Symonds &Horvath 2004). Conversely, when both partners agree on the strength of the alliance, it is referred to as an intact alliance. Previous research in couple's therapy suggests that an intact alliance is more strongly associated with better outcomes than a split alliance (Symonds & Horvath, 2004). Symonds and Horvath (2004) noted that a split alliance may indicate disagreement on the usefulness or

value of therapy; as such couples with a split alliance may have lower levels of motivation, or larger differences in motivation than couples with an intact alliance, this gap may account for the worse outcomes associated with a split alliance.

Stages of Change and Couples Therapy

Despite attention given to the relationship between the stages of change and the working alliance in individual therapy, little research has applied the stages of change to couples therapy or examined how the stage of change partners are at individually influences the formation of the working alliance in conjoint therapy. Partners may have different levels of motivation, or goals for therapy (Glebova et al., 2011). Previous research (Symonds & Horvath, 2004) suggests that partners who enter conjoint therapy with different levels of motivation may rate the alliance differently. Considering the importance of the relationship between the working alliance and outcomes in therapy, a better understanding of how partners' motivation levels in conjoint therapy impacts the formation of the alliance could lead to improvements in treatment outcomes.

Current Study

The current study examined how partners' motivation levels in couple's therapy impacts alliance formation. This study will use the actor-partner interdependence model to take into account the dyadic nature of the data. The study will use the actor partner interdependence model to answer the following research questions:

Research question 1: Are motivation levels in one partner associated with the report of working alliance levels by the same partner?

Research question 2: Are motivation levels in one partner associated with alliance levels reported by the other partner?

The third research question does not use the APIM, but simply looks it difference scores between members of a couple. The fourth third question is:

Research question 3: Do differences in motivation scores between partners in a couple predict differences in alliance scores?

CHAPTER II

LITERATURE REVIEW

Common Factors in Psychotherapy

The working alliance and client motivation are considered two important common factors in psychotherapy (Lambert & Barley, 2001). Common factors are variables associated with change that are found in all treatment models, despite the specific therapeutic model or approach (Lambert, 2005). A brief conceptualization and history of common factors is presented to contextualize the importance of the current study.

Definition of Common Factors

Lambert and Barley (2001) grouped the relevant variables associated with change in psychotherapy into four groups: (a) extra-therapeutic factors (e.g. social support), (b) expectancy (the placebo effect), (c) specific techniques (e.g.systematic desensitization), and (d) common factors found in a variety of different therapy models. Elsewhere Lambert (2005) defined common factors as qualities therapies share that are non-specific to a particular treatment model or technique, but are nonetheless efficacious in facilitating change. Other researchers (Blow, Sprenkle, & Davis, 2004) have defined common factors as common mechanisms of change found in all effective models of therapy.

Common factor researchers posit that change in therapy happens as a result of non-specific ingredients to a particular model, rather than specific techniques associated

with particular model (Blow, Sprenkle & Davis 2004). Common factor research evolved in part from meta-analyses on outcomes studies in therapy noting that there were little differences in the effectiveness of therapy across a variety of different models (Sprenkle & Blow 2004). While research has largely demonstrated therapy is effective, considerable questions remain regarding the process and mechanisms of change. Sprenkle and Blow (2004) argued that models of therapy work because they are the vehicles through which common factors operate. They argued that distinctions among the variable groupings of Lambert and Barley (2001) is somewhat artificial as therapy is an interactional process. As they argued, parsing out whether the effect of treatment is the result of the therapist's belief in the treatment, the client's belief in the treatment, the client's belief in the person presenting the treatment, or even the treatment itself is not only difficult but artificial.

Importance of Common Factors to Therapy Research

Based upon extensive reviews of therapy-outcome literature, Lambert and Barley (2001) estimated that common factors account for approximately 30% of the variance in improvement in therapy. They argued that of the factors related to therapist activity, common factors such as the therapist-client relationship have the largest and most significant contribution to positive therapy outcome, more so than specialized techniques or expectancy variables. They cited previous research indicating that even in studies designed to minimize the impact of therapist variables, differences attributable to the therapist are often found. For instance, Blat, Sanislow, Zuroff and Pilkonis (1996)

reviewed data from one of the largest psychotherapy outcome studies conducted (Elkins et al., 1989) and found significant differences in effectiveness even among experienced therapists well-trained in manualized treatment models. This gives credence to Blow, Sprenkle and Davis's (2007) contention that the therapist is often a vehicle for change, and may be more important than the particular intervention or therapy model being delivered. The authors stressed the importance of the therapist activating common factors, and that outcomes in therapy are largely influenced by a therapist's ability to identify and maximize change opportunities. Lambert and Barley (2001) noted that clients often attribute positive outcomes in therapy to personal attributes of the therapist such as warmth, empathy, and understanding. The previously cited research gives evidence that the therapist is an important element to outcomes in psychotherapy as the therapist facilitates the relationship through which change takes place, and how well the client and therapist can agree upon goals and tasks for therapy that form the working alliance.

The Working Alliance in Therapy

Perhaps one of the most common conceptualizations of the therapeutic relationship is the therapeutic alliance (Horvath 2001). Bordin's (1979) pan-theoretical tripartite model of the working alliance consisting of the emotional bond, agreement on goals, and agreement on tasks is the most commonly used definition. Bordin's definition captures not only the emotional bond between the therapist and client but also the congruence between therapist and client on the direction of therapy (goals) and the means of achieving those goals (tasks).

Several decades of research focused on the working alliance and its relationship to clinical outcomes, resulting in several special editions of the journal *Psychotherapy* devoted to better understanding the therapeutic relationship. Norcross and Wampold (2011) discussed the importance of relationship factors in treatment outcomes noting that the therapy relationship was at least as predictive of treatment success as the particular treatment methods, and that evidence-based practices (EBP) that do not identify the therapeutic relationship are seriously incomplete. Orlinksy et al. (2004) concluded that the therapeutic bond or alliance is the strongest link between process and outcomes in therapy.

Link between the Alliance in Individual Therapy and Couples Therapy

The alliance was originally researched as a construct in individual therapy (Horvath 2001). The formation of the alliance in individual therapy is simpler as it only involves two people – the client and the therapist. Understanding the elements that contribute to the formation of the working alliance in individual therapy could reveal insights into understanding the formation in couple's therapy as there is likely overlap between elements in individual and couple therapy.

Relation between Alliance and Outcome

Several meta-analyses conducted measuring the overall effect of the working alliance in psychotherapy found a modest, yet significant impact on the relationship of the working alliance to clinical outcomes in a variety of settings and practices (Martin, Garske, & Davis 2000; Tryon, Blackwell, & Hammel, 2007; Horvath & Luborsky, 1993). Martin, Garske, and Davis (2000) wrote that the alliance is an essential element in psychotherapy. This warrants giving significant attention to understanding what factors

underlie the formation of the working alliance, as finding ways to improve the alliance may lead to enhancing outcomes in psychotherapy.

Despite consensus that the working alliance is an essential element of effective therapy, there continues to be a debate on the exact nature of the relationship between the working alliance and outcomes (Barber, 2009). Specifically, some researchers have argued that the relationship between alliance and outcome is causal (Barber, 2009), while others argue that other elements central to the change process (e.g., client characteristics, expectations, level of presenting crisis, psychopathology) may explain the relationship between alliance and outcome. Better understanding of the relationship between alliance and outcome is central to better understanding how to enhance treatment outcomes in psychotherapy.

The Alliance and Symptom Distress

One potential confound in the relationship between the alliance and outcomes is clients' levels of symptom severity; perhaps clients at higher distress levels rate the alliance lower as result of their psychological distress. Puscher, Wolf and Craft (2008) found that initial symptom levels were negatively predictive of alliance scores. Puscher et al.speculated that the alliance may be confounded by client distress and other characteristics. Others argue that the alliance is a proxy for symptom improvement (Freeley, DeRubeis & Gelfand 1999). Freeley and colleagues studied the temporal relationship between the alliance and symptom improvement in cognitive therapy. The authors noted that previous research on the link between the alliance and outcomes is confounded because it had not taken into account when the alliance is measured. They noted that the alliance is often only measured once in therapy and is correlated with final

outcomes in therapy. In their study, the authors concluded that clients who experience symptom improvement as a result of therapy are more likely to rate the alliance higher than those who do not experience such symptom improvement. In a similar study, Strunk et al. (2012) measured processes related to outcomes in cognitive therapy for depression. After controlling for symptom improvement between sessions, the correlation between alliance scores and final outcomes lost significance. In stark contrast, Falkenstrom, Granstrom and Rolymqvist (2013) found that alliance still predicted overall outcomes, even when controlling for symptom improvement between sessions. It is important to note that the two studies that did not find the alliance significantly predicted symptom improvement used cognitive therapy to treat depression. In contrast, the study which found a significant difference (Falkensrom et al., 2013) used heterogeneous treatment groups in a natural therapy setting. The two studies which did not find a result both measured outcomes by reductions in scores on a common depression inventory. In contrast, Falkenstrom and colleagues used a general measure of psychological distress. Likewise, the null studies used a different measure of the alliance than the Falkenstrom study, rendering comparisons between the studies difficult.

Falkenstrom and colleagues reviewed the relevant literature examining the relationship between alliance and symptom improvement and noted that of the 15 studies identified, five indicated that once symptom improvement was controlled for, no relationship between alliance and outcome existed. In contrast, 10 studies still found a relationship even when controlling for prior symptom improvement. The authors argue for a reciprocal relationship between the growth in the alliance, and symptom improvement – growth in the alliance facilitates reduction in symptoms, and reduction in

symptoms facilitates alliance growth. In their study, the alliance still predicted subsequent symptom reduction even when controlling for initial symptom severity and prior symptom improvement between sessions.

Falkenstrom et al.,(2013) noted that although prior symptom improvement may not explain the relationship between client outcome and the alliance, other variables may still explain the relationship. One variable the authors mention is the possibility that pre-treatment motivation may explain the relationship between alliance and outcome. The authors noted in exploratory analyses of the alliance subscales that the tasks and goals subscales were both significantly associated with outcomes, while the bond was not. One possible explanation is that clients who have higher motivation levels are ready to change and therefore are more likely to agree on the direction of therapy (goals) and the means of getting there (tasks).

The same research team also noted that in their study high levels of distress at intake negatively predicted alliance scores as session three. The authors speculated this could be that clients with high levels of distress may have difficulty trusting or accepting help from therapists. Likewise, the authors wondered if clients with significantly high levels of distress may have personality disorders and have difficulty forming any interpersonal relationship. While personality disorders are an extreme example, one possibility explaining the working alliance's relationship to outcomes are client characteristics such as ability to form interpersonal relationships, or the personality match between client and therapist.

Client Variables and the Working Alliance

Some clients may be more challenging to work with thereby making it more difficult to form a therapeutic alliance. Coleman (2004) examined the relationship between the working alliance and the five-factor model of personality finding that openness, extraversion and conscientiousness were associated positively with a strong alliance. Coleman concluded that association between the alliance and outcome may be in part accounted for by personality traits of both therapist and client. Taber, Leibert and Agaskar (2011) examined client-therapist personality congruence and found that personality congruence was associated with the bond sub-scale of the alliance. As such, part of the relationship between alliance and outcome may be associated with personality congruence facilitating therapist ease of joining with a client. Hersoug et al. (2009) found that clients who reported having better interpersonal relationships were significantly more likely to give higher ratings of the working alliance than clients who report lower quality relationships. The same research group (Hersoug et al., 2002) also found that the working alliance measured early in therapy could be predicted by a client's current interpersonal relationships. Likewise, Kivligham, Patton and Foote (1998) examined the relationship between attachment style and alliance formation, finding that client comfort with intimacy was positively associated with the alliance.

Additionally, other client characteristics such as motivation may account for the relationship between alliance and outcome. Henry and Strupp (1994) argue that certain client characteristics, such as the ability and willingness to become actively involved in therapy are an important foundation for establishing a working alliance. This line of research lends support to the contention that part of the relationship between the alliance and outcome is influenced by client-characteristics such as the ability to form

interpersonal relationships, or client motivation levels which may either facilitate or inhibit the formation of a therapeutic alliance.

Client Motivation and the Working Alliance

Latent within the alliance construct itself, is an implicit proxy of client motivation. Two of Bordin's (1979) constructs in the alliance are agreement on tasks and goals. In their summary of the research on the working alliance, Norcross and Wambold (2011) concluded that collaboration and goal consensus are important components of developing an effective alliance. Johnson and Talitman (1997) found that of the three elements of the alliance in couple's therapy, the agreement on tasks done in therapywas most strongly related to treatment outcomes. This was also found by Falkenstrom, Granstrom and Holmqvist (2013). Perhaps this indicates that couples who agree upon the usefulness of tasks may have higher motivation levels and may be more willing to engage in therapeutic exercises. As such, motivation is a strong candidate for better understanding the formation of the working alliance and its relation to treatment outcomes. According to Emmerling and Whelton (2009) one of the most influential theoretical conceptualizations of client motivation stems from the Transtheoretical Model of Change (Prochaska, 1982).

Transtheoretical Model of Change

According to the Transtheoretical model of change (TTM), clients progress through a series of six stages as they work on making changes in their lives (Prochaska & Norcross, 2001). The six stages are precontemplation, contemplation, preparation, action, maintenance and termination. TTM posits that in each stage different processes are used to produce progress, and that the therapy relationship must match change

processes to the stage of change a client is in. The TTM also posits that as clients progress from one stage to another, the therapeutic relationship also progresses (Prochaska & Norcross, 2001). The TTM conceives of change as occurring in a spiraling pattern as clients work through difficulties in their lives (Derisley & Reynolds, 2000).

Prochaska and Norcross (2001) described the six stages of change as follows:

Precontemplation - Clients in the pre-contemplation stage have no intention in the foreseeable future of making behavior change. Most individuals in this stage do not believe they have a problem, but friends, relatives, neighbors and others may be aware they have a problem. As such, these clients often present to therapy because of pressure from others. The role of the therapist is described as being a nurturing parent.

Contemplation – Clients in the contemplation stage are aware of a problem and are seriously thinking about making change in their lives but have not yet made commitment to change. Clients can often become stuck in this stage for long periods of time. The role of a therapist is described as a Socratic teacher encouraging clients to gain insight into their condition.

Preparation –Clients in the preparation stage are intending to take action in the next month and may have taken small "baby steps" towards reductions in their problems. This stage combines intention and behavioral criteria. Although such individuals have made small changes they have not reached criteria for action such as smoking cessation. The role of therapist is to be an experienced coach to consult with in helping create a plan or modify the client's current plan.

Action –Clients in the action stage are actively modifying their behavior. This stage requires the most energy and time commitment and also receives the greatest external

recognition. Individuals in this stage have been successfully making changes in their behavioral patterns for a period of one day to six months.

Maintenance – In this stage clients are working on preventing relapse and are consolidating gains acquired during the action stage. Clients have been free from their problematic behavior for more than six months to be classified in his stage. The therapist role for clients in the action and maintenance stage is a consultant who is available to provide expert advice and support when action is not progressing as expected.

Termination – In this stage clients have completed the change process and no longer have to work to prevent relapse.

TTM and Psychotherapy

Although originally conceived as a theory for addressing behavior change in health related problems (Derisley & Reynolds, 2000), the TTM has also been applied to psychotherapy in general. Previous research has found that clients entering therapy in the action or maintenance stage have better outcomes than those who enter therapy in the precontemplation or contemplation stages (Scott & Wolfe, 2003). Likewise, the stages of change are more predictive of treatment outcomes than either symptom severity or diagnosis (McConnaughy et al., 1984). A possible explanation of the link between client's motivation levels and treatment outcomes may be client's expectations about therapy. Clients who enter therapy with lower motivation levels may have different expectations than clients who enter therapy with relatively higher levels of motivation. Satterfield, Buelow, Lyddon, and Johnson (1995) examined this relationship and found significant associations between client expectation and client's motivation levels. Clients with lower motivation for therapy had lower expectations for counselors' acceptance,

genuineness, trustworthiness and confrontation. Likewise, clients in the contemplation and maintenance stages were more likely to have expectations that their counselors would take responsibility for change in therapy.

In a special edition of the journal psychotherapy, the editors, Norcross and Lambold (2011) suggested that collaboration and goal consensus are likely effective elements of the therapy relationship. As such, they also recommend incorporating the stages of change as a means of enhancing collaboration and goal consensus. According to Prochaska and Norcross (2001), therapists should be aware of what stage of change a client is in and match treatment to client's motivation levels. More specifically, they suggested that clients in the action stages may benefit more from behaviorally focused therapies, such as contingency management, whereas clients in lower stages (e.g. contemplation) may benefit more from insight oriented therapies. Prochaska and Norcross argue the role of the therapist should match the stage of change the client is in, as enumerated in the previous section outlining the different stages of change. Sprenkle, Blow and Davis (2004) echo Prochaska and Norcoss's sentiments arguing that a therapist's ability to match his or her interpersonal presentation to the client is an essential element of effective therapy.

Measuring TTM

The most commonly used way to measure TTM is the University of Rhode Island Change Assessment (McCaonnaugh et al., 1983). The URICA captures data on four of the stages of change; precontemplation, contemplation, action and maintenance. A shortened version of the URICA derived for ease of use in clinical populations was recently created (Mander et al., 2012). The URICA can be used to create a composite

score called the readiness to change, or can be used to create profiles for different stages of change (Tambling & Ketring 2014). Researchers have used the URICA to either assign a client to a particular stage of change (e.g. Derisley & Reynolds 2000) or to create a continuous variable measuring readiness to change (e.g. Tambling & Johnson 2010).

Alliance and the TTM

Research has begun to examine the relationship between stages of change and alliance in psychotherapy. Research has found that clients who self-report as being in lower stages of change are more likely to rate the alliance poorer than those in higher stages of change (Rochlen, Rude & Baron, 2005; Treasure et al., 1999). Fitzpatrick and Irannejad (2008) found that adolescents who were more ready for change rated the alliance more positively. Henry and Strupp (1994) wrote that the ability to become involved in the counseling process is a crucial factor in the alliance. According to Emerling and Whelton (2009) stages of change has a direct influence on the quality of the working alliance. The authors conducted analyses measuring the working alliance, its relationship to outcome, and the stages of change finding that the working alliance mediates the relationship between stages of change and outcome. Derisely and Reynolds (2000) using a naturalistic design used the stages of change as a predictor of the alliance with participants referred from two UK mental health care services. They found that clients' pretreatment contemplation scores were positively predictive of alliance ratings at session three, a finding later replicated by Mander et al. (2013) in an inpatient hospital setting in Germany. This research suggests that when working with clients with lower motivation levels, facilitating an emotional bond with the client is important as this facilitates the progression of therapy and possibly subsequent increase in positive

treatment outcomes. In contrast, when working with clients with higher motivation levels, agreement on tasks and goals may be more relevant than facilitating an emotional bond (Prochaska & Norcross, 2011).

Couple Working Alliance

The research reviewed so far has been focused solely on the alliance in individual therapy. The majority of research on the alliance has focused on individual therapy and only until recently has the alliance received as much attention in couples or family therapy. Nonetheless, a meta-analysis on the alliance in couples and family therapy has also found the alliance to be a similarly reliable predictor of outcomes in couple's or family therapy (Friedlander et al., 2011). The alliance in couple's therapy is complicated as it involves forming an alliance with multiple people who have pre-existing relationships. Previous research conducted in individual therapy indicated that the formation of the alliance is in part influenced by an individuals' ability to form interpersonal relationships (Henry & Strupp, 1994). Given these findings, the formation of the alliance in couple's therapy may be influenced by the partner's pre-existing relationship dynamics, in addition to the relationship dynamics between partners and the therapist (Symonds & Horvath, 2004). As couple dynamics are partially influenced by the individual dynamics between the dyad, this further complicates the formation of the alliance in couple's therapy.

Couple Alliance and Distress

Analogous difficulties in making causal inferences about the relationship between alliance and outcomes in couples' therapy can be found in individual therapy. For instance, higher levels of couple distress may be related to lower alliance levels. This

issue is further complicated by the fact that partners entering into couple's therapy may have different perceptions of relationship distress, individual distress, and different levels of psychiatric symptoms. Furthermore, these differences may be gendered. For instance, male partners with higher distress may rate the alliance lower, but women may not. As with research on individual therapy, previous research is mixed on the relationship between distress and the alliance.

Mamodhoussen et al. (2005) measured the working alliance and its relation to marital distress and psychiatric symptoms. Although partners' psychiatric symptoms did not significantly predict the alliance, higher marital distress measured at intake was associated with lower alliance levels in both male and female partners' ratings of the alliance. However, in contrast, in a study on the predictors of success in Emotionally Focused Therapy conducted by Johnson and Talitman (1997) marital distress was not strongly associated with the alliance. Johnson and Talitman found that pretreatment levels of marital satisfaction only accounted for 4% of the variance in post-treatment relationship satisfaction at a three month follow up after treatment. In contrast, the couple's alliance scores were significantly related to gains in marital satisfaction at follow up. Mamodhoussen et al. (2005) suggested that Johnson and Talitman's (1997) conflicting findings may be explained by the relatively homogenous distribution of marital adjustment within the Johnson and Talitman study. Mamodhoussen noted the variance in marital adjustment scores, as indicated by their standard deviation was relatively low. As with individual therapy, more research with larger sample sizes is needed to better parse out the relation between distress levels and the alliance.

Gender differences in Alliance Ratings

As the alliance in couple's therapy involves three people, one aspect of the relationship between the alliance and outcomes that requires attention is whether or not one partner's rating of the alliance is more predictive of treatment success. The alliance is dynamic and may be perceived differently by different participants (Glebova et al., 2010). Previous research has examined with mixed results whether one partner's alliance rating is more predictive of outcomes than the other. For instance, Quinn et al. (1997) examined the relation between the alliance and outcomes in a study with 17 couples from a university MFT training clinic. They found better outcomes when wives reported a higher rating on the task subscale of the alliance measure than their husbands. In contrast, when husbands reported higher task ratings on the alliance the outcome was less positive. In contrast, Symonds and Horvath (2004) found that male partners' alliance is more predictive of outcomes. One potential explanation of this difference is that the two studies used different measures of the alliance and treatment outcomes. Quinn et al. (1997) used client self-report of goal attainment, whereas Symonds and Horvath (2004) used the martial satisfaction scale. As such, the apparent contradiction may be explained that women may subjectively rate their relationship as having improved, or report higher goal attainment, but these perceptions may not be reflected, or may not be captured when using a scale, as the scale may not directly assess these constructs. Likewise both groups used different alliance measures, making direct comparisons between the studies difficult.

Glebova et al. (2011) measured changes in alliance ratings and marital satisfaction by session in a relatively large sample of 195 heterosexual couples. Glebova and colleagues concluded that in general male partners' perceptions of the alliance were more predictive of outcomes than the female partners' perceptions. Additionally, they found

that initial relationship satisfaction influenced the formation of the working alliance, which in turn accounted for positive changes in satisfaction. The authors suggest a reciprocal relationship between alliance perceptions and therapy progress, echoing previous research in individual therapy (Falkenstrom, Granstrom & Rolymqvist, 2013). Although further research is needed, gender differences may be associated with differences in motivational levels. Female partners may be more likely to initiate therapy services and therefore have different motivation levels than their male partners. As such, therapists must work harder to form an alliance with the male partner who may be less motivated to attend therapy. Tambling and Lee (2008) measured motivation in couple's therapy and found that male partners reported significantly lower motivation levels than their female partners. This research gives evidence that preexisting couple dynamics such as perceptions of relational distress as well as motivation levels may influence the formation of the working alliance.

Couple Alliance and Couple Dynamics

One important dynamic noted by Symonds and Horvath (2004) is the allegiance, or the partners' relationship to one another. Symonds and Horvath speculated that partner allegiance may impact the alliance in a variety of ways. A disagreement about the alliance could result in what Symonds and Horvath termed a "split" alliance. As one partner attempts to convince the therapist of his or her perspective, the extent to which the therapist sympathetically listens and validates the client perspective could strengthen alliance with the partner, while simultaneously disrupting the partners' allegiance to one another, and possibly lowering the alliance rating with his or her partner. The therapist must attempt to balance this dynamic in an effort to facilitate strengthening the alliance

with both partners, and then enhance the alliance agreement between partners. Likewise, disagreement about the alliance could signal a disagreement about the usefulness of therapy, or that partners are moving in different directions. Such disagreements complicate the alliance as partners with a split alliance may have differing views about what problems need to be solved in couples therapy, or perhaps differing levels of motivation. While Johnson and Talitman (1997) did not directly test this, results from their study seem to support this line of reasoning. Johnson and Talitman found that the agreement on tasks was the most predictive subscale of the alliance. However, differences between genders on alliance ratings were not tested, but instead simply used a mean score of husband and wife. Nonetheless, the authors concluded that for Emotionally Focused Therapy (EFT) creating a strong alliance with particular focus on the tasks of therapy is an important aspect for successful relationship outcomes. It would have been interesting to see if gender differences in rating the tasks subscale of the alliance impacted treatment outcomes. Likewise, in utilizing a mean score Johnson and Talitman may have lost important elements of the data by covering up the possibility of a split alliance. Previous research has found that a split in alliance occurs relatively frequently (Mamadhoussen, Wright, Tremblay & Wright 2005).

Split Alliance

Mamadhoussen et al. (2005) examined the concept of the split alliance in a sample of Canadian heterosexual couples seeking couples counseling from a university clinic. The authors used two cut offs to determine whether an alliance was split or intact; a cut off of either one standard deviation or two between partners on the alliance scale. Using the cut off of one standard deviation nearly one third (32%) of couples were

considered to have a split alliance; using the conservative cut off 13.3% couples were considered to have a split alliance. Partners with similar alliance ratings tended to be very positive, in couples with a split alliance, a majority (approximately 60%) of male partners reported having lower alliance ratings. Male partners who reported lower martial adjustment and lower alliances were more likely to have a split alliance with their partner. Women are more likely to be in a couple with a split alliance if they have fewer psychiatric symptoms (such as anxiety). Mamadhoussen et al. speculated female partners who are well adjusted may be more able to be critical of the therapy process, or that female partners with more symptoms are more invested in couple's therapy as a means of coping with their symptoms. Although the authors don't mention, previous research demonstrating the task section is most predictive of treatment outcomes suggests that motivation may be an important component of developing the working alliance.

Couple Alliance and Motivation

Considering the effect pre-existing couple dynamics have on the formation of the alliance, one potentially important avenue of exploration is the extent to which partners' motivation impacts the formation of the alliance. One possible explanation for the differences in whether men or women's rating of the alliance is more predictive of outcomes is the partner's motivation level. Differing motivation levels may also account for an alliance split between partners, or may influence the formation of a lower alliance in one partner. Research on the working alliance with clients in individual therapy has begun to explore the relationship between motivation and the alliance as a viable candidate for explaining the relationship between alliance and outcomes (Emerling & Whelton, 2009). Little empirical research has explored the relationship between client

motivation and couple's therapy, specifically utilizing the transtheoretical model of change. One notable exception, (Tambling & Johnson, 2008) examined the stages of change and outcomes in couples counseling. Tambling and Johnson measured the overall motivation level of both partners in heterosexual couples by using the readiness index taken from the University of Rhode Island Change Assessment. Male partners in the study had significantly lower levels of motivation than female partners. Additional analyses explored the relationship between URICA scores at intake and overall distress levels with relationship satisfaction at the fourth session. For male partners, fourth session outcome scores were influenced by their female partner's distress and motivation levels. For female partners, the male partner's motivation levels and distress also predicted their relationship distress score. This research gives evidence that male and female partners present to couples therapy with different levels of motivation, and that therapists should tailor interventions recognizing males may be more ambivalent about change. Likewise, Tambling and Johnson suggested clinicians should be aware of how partner motivation influences the course and outcomes of therapy. Considering the relation between the working alliance and outcomes, research is needed that examines partner effects on how the stages of change may impact the formation of the working alliance in couple's therapy.

Summary

Previous research on individual therapy has found that the working alliance is related to client's motivation levels, and clients in lower stages of change tend to rate the alliance lower than those in higher stages (Rochlen, Rude, & Baron, 2005). Likewise, the ability to form interpersonal relationships is related to the ability to form a working alliance

(Hersoug, 2002). Research in couple's therapy has found that a partner's pre-existing relationship dynamics influences the formation of the working alliance. Horvath and Symonds (2004) discussed the concept of the allegiance, and how a split alliance may imply that a couple has differing levels of motivation. As of yet, little research has examined the relationship between therapeutic alliance and motivation levels in couple's therapy. Previous research in individual therapy found a relationship between both client motivation as well as the ability to form interpersonal relationships and the alliance. Considering this link, as well as the influence of pre-existing couple dynamics in couple's therapy, incorporating the stages of change into couple's therapy may help explain the formation of the working alliance in couple's therapy.

Proposed Study

The current study examined the relationship between client motivation and the working alliance in couple's therapy. To examine the link between client motivation and the working alliance, the actor-partner interdependence model (APIM) was used. The APIM takes into consideration the influence of one's partner on one's own score. The APIM tests for actor and partner effects. Actor effects measure how a person's score on a predictor variable influences *their own* score on the outcome variable. Partner effects measure how a person's score on a predictor variable affects his or her *partner's* score on an outcome variable (Kenny, Kashy, & Cook 2006). The study applied the APIM to motivation and the working alliance in couple's therapy. Specifically, the study tested if 1. Self-reported motivation scores were related to the development of the working alliance in that partner 2. If self-reported motivation scores of one partner were related to the self-reported scores of the working alliance in the other partner. It was hypothesized

that motivation would be positively related to both one's own alliance and his or her partner's. The study also examined the formation of a split alliance in couples therapy: Do difference scores in motivation between members of a couple predict differences in the alliance between members of a couple? It was hypothesized that a difference in motivation scores would predict differences in alliance scores.

Significance of Study

Previous research has demonstrated a link between the working alliance and outcomes in couples' therapy (Friedlander et al., 2011). Symonds and Horvath (2004) found that couples who reported a split alliance are more likely to have poorer treatment outcomes than couples who reported an intact alliance. Better understanding what factors underlie the formation of a split alliance, and the impact partners' motivation levels have on couples' progress in therapy can help improve treatment outcomes. Previous researchers (i.e. Prochaska & Norcross, 2001), have made suggestions for individual therapy about matching client motivation levels to the therapist's stance (i.e. a nurturing parent for clients in a lower stage of change) in order to increase treatment outcomes. This study will give empirical support which may guide clinical intervention with couples by enhancing understanding of the process by which different levels of motivation among partner's influences the formation of the working alliance. Identifying couples with large differences in motivation levels and matching and adapting a therapist's' interpersonal style and approach to the partner's motivation levels may facilitate the formation of a better alliance, which could in turn lead to better treatment outcomes.

Furthermore, this study adds empirical evidence to better understanding common factors of psychotherapy. While outcomes were not directly measured in this study, better

understanding client characteristics related to the development of the working alliance can help researchers better understand how therapy works as well as offer clinicians a better understanding of elements that contribute to the formation of the working alliance in therapy. The working alliance is not only associated with treatment outcomes, but some suggest (i.e. Sprenkle & Blow 2004) the alliance is the vehicle through change occurs in therapy. Understanding the formation of the working alliance is central to better understanding how therapy works.

CHAPTER III

METHOD

Participants

Data for this research study was collected from July 2014 through November of 2015. Data was collected from 22 heterosexual couples seeking outpatient mental health services from a university based marriage and family therapy university training clinic associated with a COAMFE accredited master's degree MFT program in a small South Central college town. Inclusion criteria required that both partners must consent to participation to be included in the study. 46.3% of the couples reported being in their first marriage, 26.8% reported they were in a relationship but not married (pre-marital counseling), 17.1% reported they were cohabiting but not married, 4.9% reported the current relationship was their second marriage, and 4.9% reported they were married but currently separated. Members of the Couple were predominantly Caucasian (82.9%), 9.8% American Indian, 2.4% Hispanic/Latino, 2.4% African-American, and 2.4% multiracial/multiethnic. 50% reported of the couples reported achieving a bachelor's degree or higher, 30% of the partners reported they did not graduate high school, 15.0% had at least a high school diploma, and 5% reported some college. A majority of partners (53.7%) reported household income ranging from less than 5,000 to 15,000 annually.

Partners' ages ranged from 20 years to 60 years, with an average of 29.66 years. Due to limitations in the demographic questionnaire used, the length of the relationship was not able to be reported.

Therapists

Therapists (n=12) included master's level interns part of the COAMFTE-accredited MFT master's program. Therapists were in various stages of their training, some therapists were in their second semester of training, other therapists were completing their third year. In the study, 83% of therapists were female, and 17% were male. All therapists were supervised by doctoral level clinical faculty within the program. As part of the training procedure, couples were assigned co-therapists on some cases according to the discretion of the clinic director. Therapists practiced from an integrative framework using a combination of models taken from the classic schools of family therapy.

Procedure

Following the standard procedures of the clinic, clients phoned the clinic to request services and completed a brief intake questionnaire assessing the nature and severity of the problem over the phone. During the initial phone call to the clinic, clients were informed of the training nature of the facility. Before starting their first session several measures were administered to all clients seeking therapy as part of the standard intake packet. During the first session, clients read and signed the counseling agreement outlining the use of data collection through clinic assessments for research purposes. At the end of the second session, clients completed the Working-Alliance Inventory short form revised (WAI-SR; Hatcher & Gillapsy 2006) in the clinic waiting room. The WAI-

SR was administered by the front desk worker to ensure clients' answers are not influenced by the presence of their therapists. When cases were assigned co-therapists, clients were instructed to complete a WAI-SR for each therapist. At the end of the second session, each therapist working on the case was instructed to fill out the therapist version of the alliance for each client, as well as a rating of what stage of change the therapist believes the client is in. Although the therapist version was used, the results of it were not used in this study. As part of clinic policy, follow up assessment packets, and the WAI-SR were completed at the end of every sixth session. The WAI-SR is kept separate from the other questionnaires and is completed by the clients using the same procedure outlined above. Only couples who attended a minimum of two sessions and completed WAI-SR were included in the study.

Measures

The Stages of Change

Each partner's stage of change was measured using the University of Rhode Island Change Assessment shortened version (URICA-S). The URICA-S is a 16 item self-report measure containing four separate sub-scales precontemplation, contemplation, action, and maintenance (Mander et al., 2014). The URICA-S is a shortened version of the University of Rhode Island change Assessment (McConnaughy, Prochaska, & Velicer, 1983). All items are scored on a 5 point Likert scale (1 = *strongly disagree,* 2 = *disagree,* 3 = *undecided,* 4 = *agree,* 5 = *strongly agree).* Example items for the four subscales include: "*I guess I have faults, but there's nothing I really need to change."* (precontemplation); *"I'm hoping this place will better help me understand myself."* (contemplation); *"I am doing something about the problems that have been bothering*

me." (action); " *"I'm here to prevent myself from having a relapse of my problem."* (maintenance). Mander and colleagues report the URICA-S has an excellent factor structure with .52 < lambda <.86, acceptable to excellent internal consistencies, excellent convergent validity with the original sub-scale of the URICA (*.83 < r <.96)* and acceptable construct validity (Mander et al., 2014). For this study, cronbach's alpha for the overall scale was α =.51.

The URICA-S can be scored in several different ways. For the purposes of this study, following DiCelemente, Schlundt and Gemmell (2004) a second-order readiness to change score will be calculated by summing the contemplation, action and maintenance scale and reverse scoring the pre-contemplation scale. This creates a single score to measure overall motivation level, as used by Tambling, Johnson, and Johnson (2011).

The Working Alliance

The Working Alliance Inventory Short form revised (WAI-SR) (Hatcher & Gillapsy, 2006) is a 12 item self-report measure. The WAI-SR is based on Bordin's (1979) tripartite model of the alliance and assesses a) the emotional *bond* between client and therapist b) the agreement on *goals* in treatment and c) agreement on the relevant *tasks* for achieving those *goals*. Items on the measure are rated on a Likert scale from *strongly disagree* (1) to *strongly agree* (5). An example of a bond item is "*I believe my therapist likes me*." An example of a goal item is "*My therapist and I collaborate on setting goals for my therapy*." An example of a task item is "*I believe the way we are working with my problem is correct.*" Higher scores indicate a stronger alliance. A global scale can be calculated by summing the 12 items. The WAI-SR correlated highly with the original Working Alliance Inventory, and several other measures of the alliance. Hatcher

and Gillapsy (2006) reported alpha levels ranging from .85 to .90 for the subscales, and alpha scores of .91 for the overall scale. In this study, the reliability was very similar to the original study with an overall α =.91.

Previous research has measured the alliance at one or two points in therapy, usually early on in treatment. Glebova et al. (2011) noted that previous research typically measured the alliance between the end of session one and three. Following this pattern, the working alliance was measured at the end of the second session within the current study.

Split Alliance

Following Heatherington and Friedlander (1990) a split alliance will be calculated as a difference of more than one standard deviation between partners total alliance scale scores.

Co-Therapists

As part of the training nature of the clinic at which the study took place, some couples are seen with co-therapists. In this study, five of the twenty two couples had a co-therapist. For cases in which there was a co-therapist the average score of the two therapist's was used. This decision was made after visually inspecting the data. Little difference was found between the therapists on how client's rated the alliance.

Data Analysis

Responses were checked for incomplete answers. If a scale for a participant had more than two items missing, scores for that participant on that scale were discarded. If the scale only had one item missing, the average of the subscale (factoring out the missing item) was calculated and inserted into the missing scale. No scale met criteria

for discarding it, as no scale had more than one missing item. Only two participants had one missing item on the URICA-S; for those participants the mean was imputed.

Research Questions and Hypotheses

The purpose of this study was to examine the relationship between client motivation and the formation of the working alliance in couple's therapy, using the actor partner interdependence model (APIM). The APIM tests for actor and partner effects. Actor effects measure how a person's score on a predictor variable (motivation) influences his or her own score on the outcome variable (the alliance). Partner effects measure how a person's score on a predictor variable (motivation) affects his or her partner's score on an outcome variable (the alliance) (Kenny et al., 2006). This study had three research questions.

The first research question tested for actor effects: Are motivation scores of one partner related the alliance scores in that same partner? The first hypothesis was that motivation scores in one partner would be positively related to that same partner's own alliance scores. The second hypothesis tested for partner effects: Are motivation scores in one partner related to alliance scores in the other partner? The second hypothesis was that motivation scores of one partner would also be positively related to the other partner's alliance. To test these first two hypotheses, the actor-partner-interdependence model (APIM) was utilized with motivation as the predictor variable and the alliance as the outcome variable using SPSS 22.

The third research question examined the formation of a split alliance. The third research question was, can difference scores between members of the couple on their rating of the alliance be predicted by difference scores between members of a couple of

their self-reported motivation? It was hypothesized that difference scores between partner's in motivation would predict difference scores between partner's on their rating of the working alliance. To test that hypothesis, a linear regression was conducted with difference scores on the motivation level regressed onto difference scores of the alliance.

The Actor Partner Interdependence model (Kenny et al., 2006) was originally - going to be tested using multi level modeling. Due to the small sample collected, multi-level modeling was an inappropriate method to test the APIM as it requires a large sample size. Instead, the APIM was analyzed using a pooled regression approach following the procedures outlined in Kenny, Kash and Cook (2006) while using Tambling, Johnson and Johnson (2011) as a supplemental guide as well. Tambling et al. (2011) indicated that pooled regression is an appropriate technique to model dyadic data when one has a small sample size as it is based off of ordinary-least squares rather than maximum likelihood estimation. In this method, two regression equations are created and the results are pooled together to estimate the actor and partner effects. One equation tests the within dyad effects and is based on difference scores and the second equation tests the between dyads effect and uses couple average scores. The results can be interpreted as unstandardized regression coefficients and a *t*-test is used to determine if the results are significantly different than zero. As pooled regression involves multiple steps, creating several new variables, and is somewhat unconventional, the procedure for creating the variables for analysis as well as steps in conducing the regressions will be thoroughly discussed in the results section.

CHAPTER IV

RESULTS

Description of Means and Relationship among Motivation and the Alliance

Prior to the primary analyses to test the first two hypotheses, a presentation of the male and female partner's mean scores on the working alliance and motivation is provided in table one.

Table 1.

	Working alliance		Motivation	
	M	SD	M	SD
Males	48.09	6.78	54.86	4.67
Females	49.00	7.21	55.55	5.26

A series of paired –tests and correlations was ran as well. A paired *t*-test indicated male and female partner's scores on the alliance were not significantly different $t(21) = -.686$, $p = .50$. Likewise, male and female motivation scores were not significantly different $t(21) = .52$ $p = .62$.

The correlations between male and female partner's alliance and motivation scores is summarized in table two.

Table 2

Measure	1	2	3	4
1. M Working Alliance	__	.61**	-.02	.06
2. F Working Alliance	.61**	__	.23	.16
3. M Motivation	-.02	.23	__	.20
4. F Motivation	.06	.16	.20	__

**. Correlation significant at the .01 level (two tailed)

Testing the APIM

As the procedure for conducting pooled regression is unconventional and involves the creation of several variables, the process for conducting the pooled regression to test the APIM will be thoroughly discussed.

Model Being Tested

For this analysis, the predictor variable is the readiness index taken from the URICA-S. Recall, the readiness index is a composite score calculated by reverse scoring the pre-contemplation score and summing that with the contemplation, action and maintenance scales. For these analyses, the variable "RI" indicates the readiness index, which is how motivation is operationalized. In this study, the outcome variable is the total alliance sore taken from the WAI-SR. A gender interaction is also tested to see if gender moderates the relationship between motivation and the working alliance. A figure of the APIM with these variables is provided in figure 1.

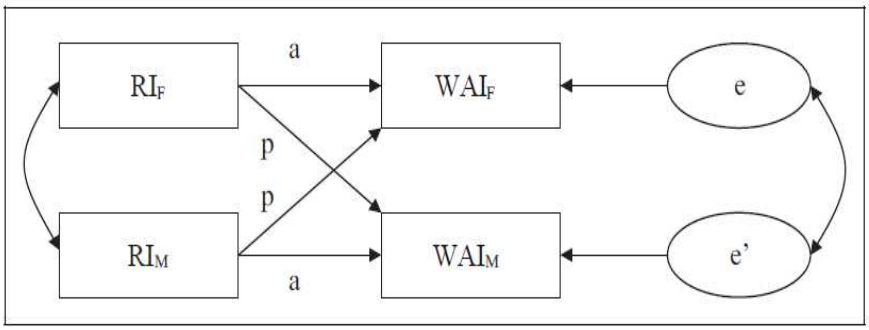

Figure 1. The model tested

Note: where RIF = readiness index score of the female member of a dyad at intake; WAIf = the working alliance inventory score for the female member measured at the end of session two; RImreadiness index score of the male member of a dyad at intake; WAIf = the working alliance inventory score for the male member measured at the end of session two. e=error; a=actor effects and p = partner effects.

Data set-up

The first step in dyadic data analysis is to structure the data to be dyadic. While individual analyses use one row per participant, in a dyadic set each line represents one dyad, and scores for individual members of each dyad are placed in separate columns.

Centering the Mean

In order to make zero a meaningful value to ease in the interpretation of the results, the predictor variable for both genders is centered. In this case, the means for the Readiness Index (RI) is subtracted from the individual's score. Thus RImc = (X-M). It is important to note, the mean used is the overall mean for the sample rather than the mean for each gender.

Variables for the Within Regression

The within regression is based on differences between the dyad members. The first variable created is the difference score for the outcome variable, the WAI. This variable is called Wai_diff. Two constants indicating the gender of each member of the couple are created. Gm=1 and Gf= -1. These constants are used to make a gender

difference contrast, which always equals two. Next, a difference score for the predictor variable is created using the centered predictor variable. Thus, RIdiff = (RImc –RIfc). The next variable created is the interaction between the gender and the predictor variable. This is created by multiplying each member's predictor variable by his or her gender variable. This yields two variables: RIintM = (RImc x Gm) and RIintF (RImc x Gf). Lastly, a difference score for this interaction is calculated (RIintdiff = RIintm – Riintf).

Variables for the between Regression

The between regression is based on the average score within the dyads. The first variable created is the dyad-level average of the outcome variable, WAIavg. Next the average for the predictor variables of both members of the couple is created RIavg = (RImc +RCfc)/2. Lastly the gender interaction average is created for the predictor variable RIintavg = (RIintM + RIintF)/2.

Regression 1: Within-Dyads Regression.

For this regression, the difference between each partner's scores on the outcome variable (WAIdiff) is predicted by three variables: a) the difference between partner's scores on the predictor variable (RIdiff) b) the gender difference (Gdiff) and c) the difference in the interaction between gender and the predictor variable (RIintdiff). As the direction of the difference is arbitrary (subtracting men's scores from women's scores vs women's scores from men's scores), the intercept is not estimated in this regression. Therefore, the within dyads regression equation is:

$WAidff = \beta w1(RIdiff) + \beta w2(Gdiff) + \beta w3(RIintdiff) + \varepsilon wi.$

Running this analysis in SPSS, making sure to not include the intercept yields the following coefficients:

WAidiff = -.148(RIdiff) + -.505(Gdiff)-.221(Riintdiff)+ εwi

Regression 2: Between-Dyads Regression

The between dyads regression predicts the dyad mean for the outcome variable (WAI_avg) using the dyad mean of the predictor variable (RIavg) and the dyad average of the interaction between the predictor variable and gender (RIintavg). Note in this regression, the intercept is estimated as in most normal regressions. This produces the following equation:

WAI_avg = β01 + βb1(RIavg) + βb2(RIintavg) + εbi.

Conducting this analysis in SPSS yields the following coefficients:

Wai_avg =34.530+.254(RIavg)+.013(RIintavg) + εbi.

Estimating Actor and Partner effects

The regression coefficients obtained from these equations are then used to estimate the actor and partner effects for each of the variables (RI and the RIint). According to Kenny et al. (2006) these effects are calculated using the following equation:

Actor effect: (βb + βw)/2

partner effect (βb-βw)/2.

The actor and partner effects are summarized in table 3.

Table 3

	Actor Effect	Partner Effect
Motivation	-.05	.20
Motivation*gender	-.11	.12

Interpreting the Actor and Partner effects for the Readiness Index

The actor and partner effects can be interpreted as unstandardized regression coefficients if statistically significantly different from zero (Kenny et al., 2006).The actor effect of -.05 for the readiness index (RI) means that for every point above the mean score on the RI is associated with a drop in the working alliance of .05 points. The partner effect means that for every point above the mean on the RI is associated with an increase of .20 points on the working alliance.

Interpreting the Actor and Partner Effects for the Readiness Index interaction

The RIint variable indicates whether the actor or partner effects are moderated by gender (Tambling et al., 2011). Since men were coded as 1 and women as -1 the differences are computed as follows: For men the original actor effect is added to the interaction coefficient. This means, for men the actor effect for the Readiness index of -.05 is added to the interaction effect of -.11 yielding an interaction score of -.16. This means for every point above the mean of the readiness index is associated with a drop in the alliance of .16 points. For women the interaction coefficient (-.11) is subtracted from the original coefficient (-.05) yielding a new score of .06. This means for women a score above the mean on the Readiness Index is associated with an increase of .06 points in the working alliance.

Test for Statistical Significance

The interpretations given have not examined if these results are statistically significantly different from zero. To test whether or not these results are significantly different from zero, the standard error terms are pooled together using the following formula:

$$SE_p = \sqrt{\frac{s_b^2 + s_w^2}{4}}.$$

Pooled Standard Error

Following that formula, the pooled standard error for the RI score is .38. The pooled standard error term for RI_int is .245. The degrees of freedom for both tests are estimated using the following formula:

$$df = \frac{(s_b^2 1 + s_w^2)^2}{\frac{s_b^4}{df_b} + \frac{s_w^4}{df_w}}.$$

In this formula, degrees of freedom can be fractional. When so Kenny et al. (2006) recommend rounding down to be conservative. Following the formula, the rounded down degrees of freedom for the RI score is 6, and for the RI_int is 4.

From this, a *t*-test is conducted by dividing the actor effects by the standard error; and the partner effects from the standard error. The *t*-calculated value for the actor RI is -.34; and for the partner is 1.00. Consulting a *t*-table indicates these values do not significantly differ from zero. Likewise, the *t*-calculated for the interaction actor effect is -.20 and for the partner effect -.47. Both of these values were also not significantly different from zero. The *t*-tests conducted indicate that the preliminary interpretations of the actor and partner effects did not differ significantly from zero. Given the small sample size, it is not entirely surprising there were not any statistically significant results found.

Hypothesis 3

The third hypothesis was that difference scores between partners on motivation would be predictive of differences in partner alliance scores. This was tested by running a simple regression on the difference scores of motivation and the alliance. No significant results were found β = -.18 $F(20)$ = .282, p = .60.

Exploratory Analyses

Although the results of all three initial hypotheses were insignificant, the relationship between motivation and the alliance was also examined by visually inspecting the data. While interpretation and generalization of the results should be taken with extreme caution due to the potentially subjective nature of the examination, the results while not *statistically significant* may still yield clinically *relevant* findings.

The presence of a split alliance

According to Pinsoff and Catherall (1986) a split alliance can be empirically defined as a difference between couple's alliance ratings that exceeds one standard deviation. Based on this criteria, nearly half (10) of the 22 couples in this study had a split alliance. As Symonds and Horvath noted (2004) a split alliance may indicate that couples disagree *on* the alliance, but not on *where* they disagree in the alliance. For example, of those 10 couples, four couples were rated as having a split alliance but both rated the alliance below the average score. Thus, the couple's agreed the alliance was relatively poor, but disagreed about how poor it was. Two of the couples had a split alliance but rated the alliance above the mean. That is, both couples rated the alliance higher than average, but disagreed about how high the alliance was. Only four of the 10 couples that had a split alliance were split across the mean (that is, one partner rated the alliance above the average and one related it below the average). This indicates that some couples differed significantly (i.e. more than one standard deviation) on the alliance but still agreed the alliance was good (above the mean) or bad (below the mean). In the sample of 22 couples, only four couples (18%) disagreed on the strength of the alliance in a way that split them across the mean. One interpretation of this finding is that only four

of couples actually disagreed on whether the alliance was good or bad. These findings may interfere with using motivation differences to predict alliance differences as couples who differ on their alliance scores but both agree on the strength of the alliance (e.g. – positive) may also both report high motivation scores, but not a high difference in motivation. Likewise, the same could hold true of couples who are rated as having a split in the alliance but both rate the alliance poorly. These couples may also both have low motivation scores, but their scores may not differ much on motivation. Thus, there could be a relationship between the alliance and motivation in couple's therapy that is not accurately reflected in using a simple difference score.

Difference in Motivation

Symonds and Horvath (2004) indicated that a disagreement on the alliance may represent a disagreement about the usefulness of therapy or that couples may have different motivation levels around therapy. According to the previous test, differences in motivation were not predictive of differences in the alliance. Nonetheless, different couples did vary on their overall motivation level. Just as a split in alliance can be defined as a difference in one standard deviation, a split in motivation could be defined as a difference of more than one standard deviation in the motivation scores. While some theoretical literature may have suggested that different motivation levels influence the trajectory of therapy, no known research has empirically examined it. This research represents the first empirical examination of the concept of a split in motivation.

Of the 22 couples in the study, 12 were rated as having a difference in motivation score that exceeded one standard deviation. Just as a split in alliance does not necessarily mean the client's differ in their rating of the alliance as strong or weak, a split in

motivation does not necessarily mean that one client was highly motivated and one was not highly motivated. Of the 12 couples who had a split in their motivation score, 2 couples had scores that were below the average motivation score, three had scores that were above average on the motivation score, and seven had scores that were split above and below the mean.

Relation between Split in Motivation and Split in Alliance

While the statistical results of the difference score regression were insignificant, the power to detect a significant result was low. This may indicate traditional inferential statistics may not appropriately capture relevant patterns from the data**.** Visually inspecting the data yielded potential trends related to couples who reported having a split in motivation and couples who reported having a split in motivation. For example, of those 12 couples who had a split in motivation, half (six) also had a split alliance. In a similar vein, of the couples who were classified as having a split in alliance across the mean, 3 of the 4 couples also had a split in partner motivation that was across the mean. Of the seven couples who had split in motivation across the mean, 3 had a split in alliance across the mean as well, two had alliance scores below the mean and two had alliance scores above the mean. Of the four couples who reported a split in the alliance that was above the mean, all four also had motivation levels that were above the mean, although none of those couples reported a split in motivation levels. Of three couples who reported having a split in alliance that was below the mean, one couple also reported lower than average motivation levels, one couple reported having higher than average motivation levels and one couple reported having a split across the mean in motivation levels.

While drawing inferences from this kind of visual inspection should be done with caution, the data seems to suggest a potential relationship between motivation and the alliance in therapy not captured in the statistical tests. Due to the small sample size, it is difficult to discern whether perceived patterns are real (statistically significant) or simply random variation. Nonetheless, it appears there may be some relationship between motivation and the alliance, but the relationship isn't as simple as predicting difference scores in motivation from differences in the alliance. Perhaps couple with low motivation are more likely to have either a low alliance or a split in the alliance. Likewise, couples with high motivation may be more likely to have a high alliance as well, regardless of whether or not the alliance is split.

One potential means of examining this inferentially is to use the absolute value of the difference scores. This may more accurately reflect the relationship between motivation and the alliance as a split in alliance or motivation merely indicates that couples differ significantly on the alliance, not that they disagree on the strength of the alliance or on motivation levels. Using the absolute value eliminates sign differences (that is, whether or not the score is above or below the mean). Likewise, it eliminates issues relating to whether or not the scores are subtracted from the male partner or the female partner. For instance, subtracting the score of the female partner from the male partner may yield a negative difference, whereas subtracting the male partner from the female partner would yield a positive difference. As such, using the absolute value removes this arbitrary sign difference.

Thus, a regression between the absolute value of the motivation and the alliance was ran. The regression was not significant $\beta = .341$ $F(20) = 1.98$, $p = .17$. However, the

correlation did increase $r(20) = .30$, $p = .17$. Given the inadequate power, this result is promising as a larger sample may yield a significant result.

CHAPTER V

DISUSSION

This study examined the relationship between client motivation levels and the formation of the working alliance in couples' therapy. The first two hypotheses were examined using the actor-partner interdependence model. The first hypothesis tested for actor effects, or the relationship of the individual's predictor variable to the outcome variable; the second hypothesis tested for partner effects, the effect of one partner's predictor variable on his or her partner's outcome variable. In this study, hypothesis one examined the relationship between an individual's motivation level and the formation of the alliance. The results of first hypothesis did not find a relationship between one's motivation level and his or her alliance. Likewise, the second hypothesis examined the relationship between one partner's motivation and its impact on the other partner's alliance. The results of this hypothesis did not find a significant relationship either. The third hypothesis examined the formation of a split alliance. The third hypothesis examined the relation between differences within a couple on their motivation level and the formation of a split alliance in therapy. The third hypothesis tested if differences between partners of a couple in their motivation levels would predict differences between partners' reported alliances. A simple difference score of motivation was not associated with a difference score of the alliance, but the absolute value of the differences had a

greater association. Potential trends between a split in motivation and a split in alliance were also discussed.

Explanation of Null Finding

The first finding appears to contradict previous research which has found a relationship between motivation and the alliance (e.g. Rochlen et al., 2005; Mander et al., 2014). This may be due to the lack of power in the study, a difference in how motivation is measured, or the possibility the construct of motivation taken from the TTM is not applicable to couples therapy. All three considerations will be discussed below.

Sample Size

Firstly, the small sample size meant the study had low power. Therefore, the probability of detecting a significant result was low for anything but large effects. Rochlen et al. (2005) examined the relationship between the stages of change and the working alliance in a large sample of 400 college students, the largest significant correlation found was r =.21 between the contemplation subscale of the stage of change and the working alliance. Conversely, the largest correlation in the current study was r = .23 between the alliance of the female partner and the overall motivation level of the male partner, however, the relationship was not significant likely given the small sample size of the study. Thus, similar sizes of a relationship were found in this study, but they did not reach significance, perhaps in part due to the small sample size. This correlation is especially noteworthy, as it represents a partner effect and is stronger than either actor effect for male or female partners. The importance of this correlation will be discussed in the clinical implications section. The limitations section will more thoroughly discuss the issue of power and sample size.

Measurement Issues

Secondly, the way in which motivation was measured in previous studies reviewed differed from measurement in the current study. For this study, a continuous variable was used by summing the scores of the contemplation, action and maintenance scales, and reverse scoring the precontemplation score following the procedure outlined in Tambling et al. (2014). In contrast, many studies have categorized clients into a particular stage of change. For instance, in the Rochlen et al. (2005) study, clients were categorized into different stages of change based on the subscale of the URICA with the highest score. Likewise, Emerling and Whelton (2009) used a similar methodology of classifying clients into one particular stage, and estimated that approximately two-thirds of studies on the stages of change have done so. In contrast, Mander et al. (2014) used a series of hierarchical multiple regressions examining overall means on the different subscales of the alliance and of the stages of change.

Despite the prominence of doing so, this study did not use that methodology for several reasons. Firstly, the only other research that examined motivation in couple's therapy using the stages of change incorporated using the readiness index as a continuous measure (Tambling et al., 2008). Secondly, using the continuous measure makes the research more amenable to using statistical tests such as the ones used to test the APIM. Likewise classifying dyads into different groups presents many additional challenges. Although Prochaska's model states that clients' can report being in multiple stages at once, the issue of how to handle *couple's* in different stages has never been addressed. Researchers handled this difficulty in studies of individual therapy in several ways. Emmerling and Whelton (2009) indicated clients who reported a tie score on both the

contemplation and action subscales would be assigned to the preparation stage, however, they did not mention what to do if clients reported a tie high score in other stages. Rochlen and colleagues did not report how they handled this potential difficulty. Derisley and Reynolds (2002) reported in the event of a tie between two stages they assigned the client to the higher stage of change.

These methods may not be applicable when analyzing data from couples. When analyzing dyadic data, the issue of whether or not to assign the couple to one stage or to multiple stages needs to be addressed. Likewise, it seems arbitrary to assign a client to a higher stage during the event of a tie score. If a client reports a high score on the contemplation and action scales of the stages of change it may indicate the client is ambivalent about change, in which case it may be more appropriate to rate them as less motivated. Conversely, the contemplation stage may be seen as complementary to the action stage in that the client is both actively thinking about their problems as well as working towards solutions, in which case the higher stage may be more appropriate. For example, in Derisley and Reynolds (2000) the contemplation subscale predicted the working alliance measured at sessions one and three. Given this disparate interpretation of the relationship between contemplation and action, assigning a client to one stage versus the other seems somewhat arbitrary and subjective. This is further complicated when both members of a couple report a tie score on two stages. For instance, in this study several members of a couple reported tie high scores on both the action and contemplation subscales. Their partner may have reported being high on either the action or the contemplation scale. In this instance, a researcher could potentially argue several things: the couples were in different stages of change or the couples reported both being

in a high stage. As another added difficulty, one client reported a tie high score on three different subscales, and one client reported a high score on both the precontemplation and action subscales. As such, classifying couples into one stage versus another and how to handle couples who report tie scores or different stages is fraught with difficulties and leads itself to highly subjective interpretation. As such, this method was not employed in this study. Therefore, the results of the previous study are not directly comparable to the results of this study due to the different measurement methods. As such, the null finding in this study which did not replicated previous research could be due to differences in how the stages of change is measured.

Construct Validity of the TTM

Thirdly, the TTM may not be as applicable to couple's therapy specifically or psychotherapy in general as once thought. Previous research by Tambling and Johnson (2012) has called into question applying the stages of change to couples therapy due to mixed results in the literature regarding its predictive validity as well as its factor structure. The exploratory factor analysis Tambling and Johnson conducted on the URICA with clients in couple's therapy yielded a different factor structure than originally proposed. Using both the guideline of using factors that have an eigenvalue greater than one, as well as he scree test, five factors were obtained. Three factors overlapped with the original structure; ambivalence towards change (associated with precontemplation scores) working towards change (the action subscale) and struggling to maintain change (maintenance). However, based on the results of their factor analysis a fourth new factor called seeking assistance to change was proposed. This factor represents client's view of the therapist as a source of assistance in making change. The authors speculate this factor

is different than the original model due to the fact many couples seek counseling voluntarily, whereas many clients with drug or alcohol problems are often court mandated. Tambling and Johnson conclude the fifth factor derived from the analysis was not appealing as it was not easily interpretable, based on the items on which it loaded.

In a subsequent paper, Tambling and Ketring (2014) conducted a confirmatory factor analysis (CFA) and proposed a revision of the questionnaire based on their results. The authors tested several models including the theoretically derived four-factor model proposed by its developers (McConnaughy et al. 1983), the four factor model they proposed in their previous paper (Tambling and Johnson 2012) and a three factor model. The authors found the three factor model was the best fit for the data. This model includes the following three factors: seeking assistance, ambivalence towards change and action. Based on the results of their factor analysis, the authors proposed a revised version of the URICA.

Additionally, the overall reliability for the URICA-S was unacceptably low (α=.513). It was noted the reliability for three of the four subscales in the URICA (contemplation, action and maintenance) were acceptable (α=.75-.80). It is noteworthy that removing the precontemplation questions from the scale increased the overall reliability estimate to an acceptable (α=.74).

This remarkably low reliability is somewhat surprising considering the reliabilities reported in the original study of the scale-construction. Mander et al. (2012) reported reliability ranging from (α=.61-.85). It is noteworthy the lowest reliability (α=.61) was for the precontemplation scale, mirroring the results of the current study.

Despite this fact, it is also possible that the low reliability gives evidence that the stages of change do not directly translate to couple's therapy. As Tambling et al (2012) have noted, the proposed factor structure of the URICA was not confirmed in couples therapy, leading them to create a revised questionnaire. Given the challenges in translating the stages of change to couples therapy, it is possible the construct does not unilaterally transfer over. For instance, the precontemplation subscale may not fit well in a voluntary outpatient counseling clinic. Perhaps the questions asked on the precontemplation subscale do not transfer over from individual therapy to couples therapy. Given these reasons, it is possible that the transtheoretical model of change, as measured through the URICA, may not accurately reflect the construct of motivation in couple's therapy. The low reliability of the precontemplation stage in this sample may reflect this discrepancy between the construct of the TTM applied to individual therapy and applying it to couples therapy. Wu Li and Zumbo (2007) define construct comparability as the premise or assumption that test scores measure the same construct of interest on the same metric across different populations. The authors discuss construct comparability in relation to adaptations of questionnaires for cross-cultural evaluation but translating the stages of change to couples therapy may be sufficiently different enough to warrant further examination of the construct comparability of the stages of change in individual and couples therapy.

Composition of Sample

As noted in the methods section, a little more than a quarter of the couple's reported they were in a relationship but not married. These couples were seeking pre-martial services. In the clinic at which the study took place, couples who seek pre-

marital counseling services receive information from the PREPARE curriculum. It is possible differences in the reasons couple seek services could have influenced the results of the study. Couple who seek pre-marital education may report a higher or simply different degree of motivation for engaging in services than traditionally distressed couples. Likewise, couple who seek therapy for pre-marital services may interpret the questions on the URICA differently as they are not seeking therapy services for an explicit problem, but perhaps to either better understand their relationship or to prevent future problems from arising.

As such, the lack of a relationship found between motivation and the alliance may be due to the questionable construct validity of applying the stages of change to couple's therapy. It is possible motivation, measured in some other way, may still be related to the alliance but is not accurately captured using the current structure of the URICA.

Interpretation of the null finding

Despite the reasons given for using caution in interpreting the null result, taken at face value the results imply there is no association between an individual's motivation level and their ability to form a working alliance with a therapist. Given the important relationship between the alliance and outcomes in therapy, low motivation levels may be buffered by a good working alliance.

Summary

Given the small sample size, the different methodologies employed and questions regarding the construct validity of the stages of change in couples therapy, interpreting

the null results of the first hypothesis is challenging. A subsequent section will elaborate on implications to clinicians based on the results of the study.

The second hypothesis

The second hypothesis examined partner effects for the relationship between motivation and the working alliance. The second hypothesis tested this aspect of the APIM using pooled regression and found no partner effects between motivation and the alliance. Taken at face value, this would imply that having a partner with lower motivation does not hamper one's ability to form an alliance with the therapist. For example, if a female partner has a male partner who is not motivated for therapy, her alliance with the therapist would not be hindered by her male partner's lack of motivation. However, caution should be taken in interpreting the lack of significance of the results. All of the issues discussed in relation to sample size, measurement issues, and the construct validity are applicable when discussing the results of the second hypothesis.

Nonetheless, despite the null findings from the primary analysis, the largest correlation between the alliance and motivation was between the male partner' motivation and the female partner's working alliance. If this effect is real and not spurious (that is, due to chance) it would imply that the more motivated a male partner is, the higher a female partner will rate the alliance. Taken at face value, this finding would indicate that having a male partner with low motivation would have a dampening effect on the alliance. This would imply that clinician's should pay close attention to male partners in therapy as their perception of the alliance may be predictive of negative outcomes in therapy. While this study did not directly examine outcomes in therapy, previous research (Symonds & Horvath 2004) found that a male partner's alliance was

more strongly correlated to outcomes than a female partner's. A male partner with low motivation could adversely influence the female partner's alliance, which in turn could influence the trajectory of therapy. Based on these results clinicians facing this situation may do well to work with the male partner to discuss the reasons behind his lower motivation so that the motivation does not affect the course of therapy. This recommendation is similar to working through an impasse in Emotionally Focused Couple's therapy (Johnson 2004). During this time Johnson recommends working with a partner individually to determine the reasons for the impasse and work towards resolving it.

However, given the small sample size, and the disparate implications of the results, caution should be taken when interpreting and applying the results of these seemingly contradictory findings.

Results of the Third Hypothesis:

The third hypothesis tested the relationship between differences in motivation and differences in the alliance. Using a simple difference score yielded no significant results. However, taking the absolute value of the difference score increased the relationship between the two variables, but still did not result in significant findings. The null findings could also have been the result of the small sample size of the study.

The Split Alliance

The theoretical interest in examining difference scores between motivation and the alliance was to empirically examine the formation a split alliance. Symonds and Horvath (2004) speculated a split in alliance could indicate a split in motivation levels. No known research had examined this hypothesis empirically. As far as it is known, this

study is the first to empirically examine a split in motivation levels defined as a difference score between couple's that exceeds one standard deviation. Due to the small sample size, additional inferential statistics were not warranted, instead a preliminary and investigative visual inspection of the relationship between a split in motivation and a split in alliance was examined.

The results of the preliminary investigation should be taken with caution due the subjective nature of the inspection, as well as the small sample size. Since no statistical test is conducted, any trends observed could be merely the result of chance to random variations. Despite these cautions, the visual analysis yielded clinically relevant findings that could not have been obtained otherwise. As it was noted in the results chapter, a split in motivation does not necessarily mean the couple disagrees about the strength of the alliance. It is not only possible, but happened in several cases that the couple was rated as having a split in alliance but both rated the alliance above average. This also occurred with couples who had a split in alliance but both rated the alliance below average. When defined merely as a difference of one standard deviation, nearly half (n = 10) of the couples had a split. At first blush, this seems to imply a split alliance is very prevalent in therapy. However, using a more conservative estimate of having both a deviation score exceeding one standard deviation as well as being split across the mean, only four of the 22 couples were rated as having a split in alliance. This estimate is much lower and implies that a "true" disagreement on the alliance is relatively rare in therapy. Of those four clients who had a split in alliance, three also had a split in motivation across the mean. With only four couples who meet this criteria it is impossible to generalize to other couples. Nonetheless, if the overlap between the split in motivation and alliance is

not spurious it would suggest a pattern between a split in motivation and a split in the alliance. The clinical implications of this finding, and the other findings will be discussed in the next section.

Implications for Clinicians

The first hypothesis tested for actor effects: the relationship between one's motivation and his or her own alliance score. No significant result was found. Taken at face value, this implies that low motivation scores do not influence an individual's working alliance. If this is true it means that individuals who have lower motivation levels will not have a greater difficulty in forming the working alliance than individuals with higher motivation scores.

Clients who are perceived by therapists as having low motivation are often thought of as being "resistant" to change, which in turn could hamper either the working alliance or the trajectory of therapy (Butler & Wampler, 1999). According to the current results, clients with lower motivation are no more likely to rate the alliance differently than clients with higher motivation. This may indicate therapists could use the alliance as leverage with clients who appear to have lower motivation to push them without unduly worrying about damaging a tenuous alliance. This implication is in contrast to the typical clinical recommendation that it is important to fully join with a client system before trying to change.

It is possible client's may feel more fully joined than therapist's think. This particular claim could be tested by examining the therapist's perception of the alliance and contrasting it with the client's. It is possible therapist's rate the alliance lower than their client's based on their experience with other client's in therapy. Perhaps compared

to a more motivated client the alliance *feels* more tenuous to the therapist, as such the therapist may rate the alliance lower than the client would. Conversely, to a client with no experience in therapy someone who actively listens to them and attends to their emotional needs may lead the client to rate the alliance fairly high in relation to their other (non-therapeutic) relationships. In a meta-analysis of the relation between the working alliance and outcomes Tryon et al (2007) found that client's tended to rate the relationship higher than therapists, and found that therapist and client ratings of the alliance were only moderately correlated. Thus it is possible that therapist's may have rated the alliance lower with client's who report low motivation. There is evidence that the therapist's perception of the alliance may be important, as an early study on the alliance in couple's therapy (Symonds & Horvath, 2004) found that the *therapists'* perception of the alliance was predictive of outcomes, but the client's perception was not. As such it is at least possible therapist's may have rated client's with lower motivation as having a lower alliance, even though this assessment would not have been reflected in the client's perception of the scores.

However, in this particular sample the bond score was noticeably higher than either the goal or task scales in both male and female partners. As will be further discussed in the limitations, this particular finding may simply be an artifact of the therapist's in the study who were all students. Nonetheless, it seems to imply that young therapists may be adept at emotionally joining with their client's. Young therapist's sometimes worry about pushing, challenging, or even being direct with clients. Based on these results, it implies therapists' could use their emotional join as leverage for solidifying the tasks and goals in therapy. This is especially relevant, as in study linking

processes to outcomes in emotionally focused therapy found that of the three subscales in the alliance, the task subscale of the alliance was the most predictive of outcomes (Johnson & Talitman, 1997). Considering no differences between client's with high and low motivation were detected in the formation of the alliance, therapists, and young therapist's specifically should spend time consciously facilitating agreement on the tasks and goals of therapy.

The second hypothesis examined partner effects between motivation and the alliance. Two contradictory interpretations were suggested based off of different interpretations of the results. According to the partner effect of the APIM, there was no significant relationship; however, the largest correlation between motivation and the alliance was between male partner's motivation, and the female partner's alliance. If the second interpretation is valid, it would imply that clinicians should pay special attention to male partners who appear to have lower motivation as it may unduly influence the female partner's alliance. As a low alliance is associated with premature termination, this effect could lead to early drop-out (Tryon and Krane 1995). Likewise, a disagreement in motivation could lead to an impasse in therapy. Johnson (2004) suggests spending time with a partner individually when an impasse occurs. Likewise, a disagreement in motivation could signal that one partner may be leaning out of the relationship, suggesting incorporating techniques from discernment counseling to work with a client individually to determine their commitment to the relationship (Doherty 2013).

The third hypothesis looked at the formation of a split alliance. Due to the small sample visual trends were interpreted to suggest a relationship between a split in motivation and a split in alliance. When this occurs, therapists should pay special

attention as this group may be at the greatest risk of drop-out. While not directly examined, previous research has found a split in alliance is associated with worse treatment outcomes (Symonds & Horvath 2004) and as lower motivation levels are also associated with premature termination (Derisley & Reynolds 2000). Thus, when clinicians face this situation they should pay special care to work on addressing individual client's concerns about both the alliance, and the direction of therapy. It may be beneficial to work with the partner's individually in order to increase the alliance, and discuss any concerns or conflicting goals the clients may have to try create a consensus between the members of the couple, as is done in emotionally focused couple's therapy (Johnson 2004).

Limitations

Sample Size

Several important limitations to this study may have impacted the findings. The sample size was only 22 couples. Such a small sample size leads to a decrease in power which renders finding only the largest effects likely. As such, many moderate or small effects may not have been detected. Therefore it is impossible to determine if the null results were the consequence of the underpowered study, or no actual relationship between the variables. For illustrative purposes, a post hoc power analysis was conducted on one of the analyses to demonstrate the extraordinarily low power. The implications of the low power are also discussed.

The power analysis examined the largest insignificant correlation obtained between the variables of interest: the correlation between the male partner's motivation and the female partner's alliance. This correlation was chosen as it represents a

potentially noteworthy correlation, even though it is not significant. Other correlations would lead to similar power analyses. The post-hoc power analysis was conducted using G-power and found that given the sample size of 22, an r =.229 with an alpha level =.05, the power was approximately 28% (Faul, Erdfelder, Buchner & Lang 2009). This means that the chances of finding a significant effect is less than one in three. Thus, it is not surprising that the results were not statistically significant. Despite this, a correlation of .23, while small may still be clinically relevant. For comparison purposes, a meta-analysis of the overall relationship between the alliance and outcomes found an overall r= .22 (Martin et al., 2000). This effect, while statistically significant, is nonetheless relatively small. Despite its relatively small size, the relation between the alliance and outcomes is still widely considered to be very well established. Thus despite the lack of statistical significance, there may be still be relevant clinical implications to the relationship between the male partner's motivation and the female partner's alliance, as discussed previously.

Procedural lapses

In addition to the impact of the small sample size, an examination of why the study had a small sample is important as it may have adversely impacted the results. The alliance is most often measured at the end of a therapy session. In this study the alliance was measured at the end of the second session. This procedure was a departure from the clinic's typical protocol. Aside from the alliance measure, all other measures are given before therapy. Because of this abnormality, achieving compliance from the therapists in the clinic was difficult. Due to this procedural departure, not every couple who came into therapy was administered the alliance measure. Only couples for whom the alliance was

measured were included in this study. As such, it is possible there was some sort of selection bias in the sample due to only using couples who had therapists who adhered to the established protocol of the study. It is possible that therapists who remembered to have clients complete the paperwork differed from more forgetful therapists in some relevant way that could influence the results of the study. It is impossible to determine whether not this occurred, however.

Timing of Measurement

A third important limitation to discuss is the fact that the alliance and motivation levels were measured at different times. The motivation of the members of the couple was measured prior to the first therapy session, as part of the standard clinical battery. As discussed, the alliance was measured at the end of the second therapy session. The alliance is generally considered to be a relatively stable facet of therapy that is established by the end of the third session. The second session was chosen in part because of researchers concern that choosing the end of the third session was too far from the completion of the original paperwork, and may have even further reduced compliance to the study protocol. Despite this fact, it is possible that the motivation levels of the clients changed between the completion of the questionnaire and the end of the second session, when the alliance was measured. As such, the relationship between the alliance and motivation could have been influenced by the time between the measurements. For instance, a couple entering therapy may have reported having relatively low motivation based on their lack of hope in seeing the problem resolve. However, after attending several therapy sessions, the couple's motivation level may have increased. This increase in hope may have a facilitative effect on the alliance rating. Thus, the alliance score

would have appeared fairly high, and the low motivation low even though the motivation level of the couple may have increased between sessions. Likewise, some questions on the URICA ask whether or not clients think it makes sense for them to be there, as they are not the problem. A female partner who believed the problems in their relationship stem from the male partner's disengagement may have answered affirmatively. As one of the common goals of many different couples' therapy theories is to help clients gain a systemic orientation and see how both members' actions and beliefs influence their current situation, it is possible the wife might not have answered affirmatively after attending therapy. Conversely, the opposite is true: it is possible therapy had a dampening effect on the client's motivation. Avoidant clients may have entered therapy with relatively high motivation, only to have their motivation diminish as they realize the amount of work they need to accomplish in therapy. Any number of possible situations could have occurred during the span of two therapy sessions to influence the motivation levels of the clients.

Therapist factors

A similar factor influencing the relationship between motivation and the alliance is the fact that the therapist in the study were all student clinicians. As part of the clinic policy, the therapists do not complete a diagnostic and treatment plan until after the second session. The first few sessions of therapy are considered assessment sessions. Thus, therapists may not have fully formed explicit goals for therapy. This could have adversely impacted the alliance ratings as one of the facets of the alliance is the agreement on the goals and tasks of therapy. This difference can be seen when examining the subscales of the alliance. The mean score of the bond appeared to be higher than

either the goal or the task scales. It is noteworthy that the mean score for both male partner's and female parntner's bond was significantly higher than their goals score t(21) =30.73 p <.000; t(31)=28.51 p <.000).

Second Session

Another potential limitation is that some therapists' in the study split couple's up in the second session to meet with the couple's individually to assess for potential red flags (such as domestic violence or substance abuse) and determine the couple's motivation for working in couple's therapy. No direct record was assessed to determine how many of the couples were split for the second session, nor if there were any differences on the alliance score for couple's who met with therapist's individually and couples who stayed together in the second session of therapy.

Questionnaire used

Another aspect which may have impacted the results of the study is the questionnaire used to measure the alliance. The questionnaire was originally developed for individual therapy, not couples therapy. The questionnaire was chosen in part for its brevity and reliability. A couples version of the alliance questionnaire exists which is longer and incorporates questions about both the individuals alliance as well as their perception of their partner's alliance (Symonds & Horvath 2004). The individual alliance questionnaire was still a valid tool to be used as the research questions examined how the motivation influenced the individual's perception of the alliance.

Given the aforementioned arguments, and the further threat to the validity of the study that a post-hoc adaptation of an existing questionnaire presents, the full results of the study were not re-examined by removing the precontemplation questions and only

using the contemplation, action and maintenance subscales. While doing so would increase the reliability of the measure, it would also add further complications to comparing the results of the relationship between motivation and the alliance. As such re-running all of the analyses was not warranted. Nonetheless, to be through a preliminary examination of correlations between the variables was conducted.

The results of the correlations are summarized here. The relationship between male and female's motivation scores increased to $r(20)=.32$ $p=.14$. The relation between a male partner's alliance and motivation remained insignificant and low $r(20)=.04$ $p=.86$. Likewise, the female partner's relation between the alliance and motivation remained low and insignificant $r(20)=.20$ $p=.38$. The lack of significant or large correlations suggest re-running the analyses using the modified URICA questionnaire would probably yield insignificant results.

Directions for Future Research

Despite the null findings, several correlations were moderately large and were similar to other correlations which were significant given a larger sample. As such, future research may still find significant results given a larger sample. Likewise, some of the results from the visual analysis should be construed as being tentative and preliminary. Based on the novelty of the idea of a split in motivation, future research with a larger sample may be able to conduct statistical tests that better analyze the relation between a split in motivation and a split in alliance.

Likewise, as the vast majority of research has focused on the relation between the alliance and outcomes and the stages of change and outcomes, future research could examine the relation between motivation and the alliance to premature termination, or to

clinically significant changes in couples' therapy. Likewise, it may be useful to look at the perspective of the alliance from the therapist's perspective. Research from Symonds and Horvath (2004) found the client's perspective in couple's therapy did not predict outcomes, but the therapist's perspective did. Likewise, it is possible that therapist's perspective of the alliance may be different from the client's and that this difference may reflect different motivation levels. Future research could consider controlling for relational adjustment and individual adjustment when examining the relationship between alliance and motivation.

Given the difficulties of measuring motivation in couples therapy using the transtheoretial model of change, future research may want to consider measuring motivation using a questionnaire with dyads in mind, such as the one developed by Tambling and Johnson (2014). It is also possible the stages of change itself may not transfer to couples therapy as well considering the inherent differences between individuals working on behavioral health changes and those attending couple's therapy. If so, future researchers could consider devising a new way to measure motivation in couple's therapy. Perhaps this construct may find a more significant relationship between motivation and the alliance in couple's therapy.

Lastly, this study is the first study known to empirically assess for the presence of a split in motivation in therapy. Future studies with large samples that are more powerful designs may be able to better compare the relation between a split in motivation and a split in the working alliance. Likewise, considering the significant negative relationship between relational distress and motivation scores future researchers may want to further examine this relationship. It is possible that differences in relationship distress scores

may be related to motivation, or to differences in motivation. Likewise, future research could examine the relationship between a split in motivation and the completion of therapy, the number of sessions attended, or changes in relational adjustment.

Conclusion

This study used the actor-partner interdependence model to examine the relationship between motivation and the working alliance in couple's therapy. Neither actor nor partner effects were significant in this study. This study also examined the formation of a split alliance in couple's therapy. Small sample sizes precluded conducting statistical analyses on the relation between motivation and a split alliance, but noticeable overlap between the two variables were detected by visually expecting the data.

Given the small sample size and other important limitations, this research should be viewed as tentative and preliminary. This study was the first known study to empirically examine a split in motivation levels. Despite its shortcomings, the study gave empirical credence to the concept of a split in motivation levels warranting future research to further examine it.

REFERENCES

Anderson, S. R., Tambling, R. B., Huff, S. C., Heafner, J., Johnson, L. N., & Ketring, S. A. (2014). The development of a reliable change index and cutoff for the revised dyadic adjustment scale. *Journal of Marital and Family Therapy, 40*(4), 525-534. doi:http://dx.doi.org/10.1111/jmft.12095

Barber, J. P. (2009). Toward a working through of some core conflicts in psychotherapy research. *Psychotherapy Research, 19*(1), 1-12. doi:http://dx.doi.org/10.1080/10503300802609680

Barber, J. P., Connolly, M. B., Crits-Christoph, P., Gladis, L., & Siqueland, L. (2000). Alliance predicts patients' outcome beyond in-treatment change in symptoms. *Journal of Consulting and Clinical Psychology, 68*(6), 1027-1032. doi:http://dx.doi.org/10.1037/0022-006X.68.6.1027

Blatt, S. J., Sanislow,Charles A., I.,II, Zuroff, D. C., & Pilkonis, P. A. (1996). Characteristics of effective therapists: Further analyses of data from the national institute of mental health treatment of depression collaborative research program. *Journal of Consulting and Clinical Psychology, 64*(6), 1276-1284. doi:http://dx.doi.org/10.1037/0022-006X.64.6.1276

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice*, *16*, 252– 260. doi: 10.1037/h0085885

Busby, D. M., Crane, D. R., Larson, J. H., & Christensen, C. (1995). A revision of the dyadic adjustment scale for use with distressed and nondistressed couples: Construct hierarchy

and multidimensional scales. *Journal of Marital and Family Therapy, 21*(3), 289-308. doi: 10.1111/j.1752-0606.1995.tb00163.x

Coleman, D. (2006). Client personality, working alliance and outcome: A pilot study. *Social Work in Mental Health, 4*(4), 83-98. doi: http://dx.doi.org/10.1300/J200v04n04_06

Derisley, J., & Reynolds, S. (2000). The transtheoretical stages of change as a predictor of premature termination, attendance and alliance in psychotherapy. *British Journal of Clinical Psychology, 39*(4), 371-382. doi: 10.1348/014466500163374

DeRubeis, R. J., & Feeley, M. (1990). Determinants of change in cognitive therapy for depression. *Cognitive Therapy and Research, 14*(5), 469-482. doi: 10.1007/BF01172968

Elkin, I., Shea, M. T., Watkins, J. T., Imber, S. D., Sotsky, S. M., Collins, J. F., . . . Parloff, M. B. (1989). National institute of mental health treatment of depression collaborative research program: General effectiveness of treatments. *Archives of General Psychiatry, 46*(11), 971-982. doi:10.1001/archpsyc.1989.01810110013002.

Ellsworth, J. R., Lambert, M. J., & Johnson, J. (2006). A comparison of the outcome questionnaire-45 and outcome questionnaire-30 in classification and prediction of treatment outcome. *Clinical Psychology and Psychotherapy, 13*(6), 380. Retrieved from http://search.proquest.com.argo.library.okstate.edu/docview/213887814?accountid=4117

Emmerling, M. E., & Whelton, W. J. (2009). Stages of change and the working alliance in psychotherapy. *Psychotherapy Research*, *19*(6), 687-698. doi:10.1080/1050330090293317

Falkenström, F., Granström, F., & Holmqvist, R. (2014). Working oi: alliance predicts psychotherapy outcome even while controlling for prior symptom improvement. *Psychotherapy Research, 24*(2), 146-159. doi: 10.1080/10503307.2013.847985

Fitzpatrick, M. R., & Irannejad, S. (2008). Adolescent readiness for change and the working alliance in counseling. *Journal of Counseling & Development, 86*(4), 438-445. doi: http://dx.doi.org/10.1002/j.1556-6678.2008.tb00532.x

Freeley, M., DeRubeis, R. J., & Gelfand, L. A. (1999). The temporal relation of adherence and alliance to symptom change in cognitive therapy for depression. *Journal of Consulting and Clinical Psychology, 67*(4), 578-582. doi:http://dx.doi.org/10.1037/0022-006X.67.4.578

Friedlander, M. L., Escudero, V., Heatherington, L., & Diamond, G. M. (2011). Alliance in couple and family therapy. *Psychotherapy*, *48*(1), 25-33. doi:10.1037/a0022060

Glebova, T., Bartle-Haring, S., Gangamma, R., Knerr, M., Delaney, R. O., Meyer, K., . . . Grafsky, E. (2011). Therapeutic alliance and progress in couple therapy: Multiple perspectives. *Journal of Family Therapy, 33*(1), 42-65. doi:http://dx.doi.org/10.1111/j.1467-6427.2010.00503.x

Henry, W. P., & Strupp, H. H. (1994). The therapeutic alliance as an interpersonal process. In A. O. Horvath & L. S. Greenberg (Eds), The working alliance: Theory, research, and practice (pp.51-84). New York: Wiley.

Hatcher, R. L., & Gillaspy, J. A. (2006). Development and validation of a revised short version of the working alliance inventory.*Psychotherapy Research, 16*(1), 12-25. doi:http://dx.doi.org.argo.library.okstate.edu/10.1080/10503300500352500

Hersoug, A. G., Monsen, J. T., Havik, O. E., & Høglend, P. (2002). Quality of early working alliance in psychotherapy: Diagnoses, relationship and intrapsychic variables as predictors. *Psychotherapy and Psychosomatics, 71*(1), 18-27. doi:http://dx.doi.org/10.1159/000049340

Hersoug, A. G., Høglend, P., Havik, O. E., von, d. L., & Monsen, J. T. (2009). Pretreatment patient characteristics related to the level and development of working alliance in long-term psychotherapy. *Psychotherapy Research, 19*(2), 172-180. doi:http://dx.doi.org/10.1080/10503300802657374

Horvath, A. O., & Luborsky, L. (1993). The role of the therapeutic alliance in psychotherapy. *Journal Of Consulting And Clinical Psychology*, *61*(4), 561-573. doi:10.1037/0022-006X.61.4.561

Horvath, A. O., & Symonds, B. D. (1991). Relation between working alliance and outcome in psychotherapy: A meta-analysis. *Journal Of Counseling Psychology*, *38*(2), 139-149. doi:10.1037/0022-0167.38.2.139

Horvath, A. O., Del Re, A. C., Flückiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. *Psychotherapy*, *48*(1), 9-16. doi:10.1037/a0022186

Johnson, S. M., & Talitman, E. (1997). Predictors of success in emotionally focused marital therapy. Journal of Marital and Family Therapy, 23, 135-152. doi: 10.1111/j.1752-0606.1997.tb00239.x

Kenny, D.A., Kashy D.A., Cook W.L. (2006) Dyadic Data Analysis The guilford Press, NY NY

Klein, D. N., Schwartz, J. E., Santiago, N. J., Vivian, D., Vocisano, C., Castonguay, L. G., . . . Keller, M. B. (2003). Therapeutic alliance in depression treatment: Controlling for prior change and patient characteristics. *Journal of Consulting and Clinical Psychology, 71*(6), 997-1006. doi:http://dx.doi.org/10.1037/0022-006X.71.6.997

Kivlighan, D. M., Jr., Patton, M. J., & Foote, D. (1998). Moderating effects of client attachment on the counselor experience–working alliance relationship. *Journal of Counseling Psychology, 45*(3), 274-278. doi:http://dx.doi.org/10.1037/0022-0167.45.3.274

Lambert, M. J. (2005). Early response in psychotherapy: Further evidence for the importance of common factors rather than "placebo effects". *Journal Of Clinical Psychology*, *61*(7), 855-869. doi:10.1002/jclp.20130

Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, Research, Practice, Training, 38*(4), 357-361. doi:http://dx.doi.org/10.1037/0033-3204.38.4.357

Mamodhoussen, S., Wright, J., Tremblay, N., & Poitras-Wright, H. (2005). Impact of marital and psychological distress on therapeutic alliance in couples undergoing couple therapy. *Journal of Marital and Family Therapy, 31*(2), 159-169. doi:http://dx.doi.org/10.1111/j.1752-0606.2005.tb01553.x

Mander, J., Wittorf, A., Klingberg, S., Teufel, M., Zipfel, S., & Sammet, I. (2014). The patient perspective on therapeutic change: The investigation of associations between stages of change and general mechanisms of change in psychotherapy research. *Journal Of Psychotherapy Integration*, *24*(2), 122-137. doi:10.1037/a0036976

Martin, D. J., Garske, J. P., & Davis, M. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal Of Consulting And Clinical Psychology*, *68*(3), 438-450. doi:10.1037/0022-006X.68.3.438

McConnaughy, E. A., Prochaska, J. O., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research & Practice, 20*(3), 368-375. doi:http://dx.doi.org/10.1037/h0090198

Moore, L. E., Tambling, R. B., & Anderson, S. R. (2013). The intersection of therapy constructs: The relationship between motivation to change, distress, referral source, and pressure to

attend. *American Journal of Family Therapy, 41*(3), 245-258. doi:http://dx.doi.org/10.1080/01926187.2012.685351

Norcross, J. C., & Wampold, B. E. (2011). Evidence-based therapy relationships: Research conclusions and clinical practices. *Psychotherapy*, *48*(1), 98-102. doi:10.1037/a0022161

Orlinsky, D. E., Rønnestad, M. H., & Willutski, U. (2004). Fifty years of psychotherapy process-outcome research: Continuity and change. In M. J. Lambert (Ed.), Bergin and Garfield's handbook of psychotherapy and behavior change (5th ed) (pp. 307_390). New York: Wiley.

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research & Practice, 19*(3), 276-288. doi:http://dx.doi.org/10.1037/h0088437

Puschner, B., Wolf, M., & Kraft, S. (2008). Helping alliance and outcome in psychotherapy: What predicts what in routine outpatient treatment? *Psychotherapy Research, 18*(2), 167-178. doi:http://dx.doi.org/10.1080/10503300701367984

Quinn, W. H., Dotson, D., & Jordan, K. (1997). Dimensions of therapeutic alliance and their associations with outcome in family therapy. *Psychotherapy Research, 7*(4), 429-438. doi**:**10.1080/10503309712331332123

Rochlen, A. B., Rude, S. S., & Barón, A. (2005). The relationship of client stages of change to working alliance and outcome in short-term counseling. *Journal of College Counseling, 8*(1), 52-64. doi:http://dx.doi.org/10.1002/j.2161-1882.2005.tb00072.x

Satterfield, W. A., Buelow, S. A., Lyddon, W. J., & Johnson, J. T. (1995). Client stages of change and expectations about counseling. *Journal of Counseling Psychology, 42*(4), 476-478. doi:http://dx.doi.org/10.1037/0022-0167.42.4.476

Scott, K. L., & Wolfe, D. A. (2003). Readiness to change as a predictor of outcome in batterer treatment. Journal of Consulting and Clinical Psychology, 71, 879-889. http://dx.doi.org.argo.library.okstate.edu/10.1037/0022-006X.71.5.879

Sprenkle, D. H., & Blow, A. J. (2004). Common factors and our sacred models *Journal of Marital and Family Therapy, 30*(2), 113-29. Retrieved from http://search.proquest.com/docview/220943643?accountid=4117

Strunk, D. R., Cooper, A. A., Ryan, E. T., DeRubeis, R. J., & Hollon, S. D. (2012). The process of change in cognitive therapy for depression when combined with antidepressant medication: Predictors of early intersession symptom gains. *Journal of Consulting and Clinical Psychology*, *80*, 730–738. doi:10.1037/a0029281

Symonds, D., & Horvath, A. O. (2004). Optimizing the alliance in couple therapy. *Family Process, 43*(4), 443-455. doi:http://dx.doi.org/10.1111/j.1545-5300.2004.00033.x

Taber, B. J., Leibert, T. W., & Agaskar, V. R. (2011). Relationships among client–therapist personality congruence, working alliance, and therapeutic outcome. *Psychotherapy, 48*(4), 376-380. doi:http://dx.doi.org/10.1037/a0022066

Tambling, R. B., & Johnson, L. N. (2008). The relationship between stages of change and outcome in couple therapy. *American Journal of Family Therapy, 36*(3), 229-241. doi:http://dx.doi.org/10.1080/01926180701290941

Tambling, R. B., Johnson, S. K., & Johnson, L. N. (2011). Analyzing dyadic data from small samples: A pooled regression actor–partner interdependence model approach. *Counseling Outcome Research and Evaluation, 2*(2), 101-114. doi:http://dx.doi.org/10.1177/2150137811422901

Tambling, R. B., & Johnson, L. N. (2012). An exploratory factor analysis of the URICA among couple therapy participants. *The Family Journal, 20*(1), 63-69. doi:http://dx.doi.org.argo.library.okstate.edu/10.1177/1066480711429537

Tambling, R. B., & Ketring, S. A. (2014). The R-URICA: A confirmatory factor analysis and a revision to the URICA. *Contemporary Family Therapy: An International Journal, 36*(1), 108-119. doi:http://dx.doi.org.argo.library.okstate.edu/10.1007/s10591-013-9279-x

Tryon, G., Blackwell, S., & Hammel, E. (2007). A meta-analytic examination of client-therapist perspectives of the working alliance. *Psychotherapy Research*, *17*(6), 629-642. doi:10.1080/10503300701320611

APPENDIX A

Limited Copyright Release for Working Alliance inventory

SFU SIMON FRASER UNIVERSITY
THINKING OF THE WORLD

Mr. Timothy Welch
Oklahoma State University
Human Sciences, Marriage and Family Therapy
101 Humans Sciences West
Stillwater Oklahoma
74078
United States University

May 16, 2014

LIMITED COPYRIGHT LICENSE (ELECTRONIC) = 2014165.85

Dear Mr. Welch

You have permission to use the Working Alliance Inventory (WAI) for the investigation:

"The Relationship Between Alliance and Outcomes in Therapy"

This limited copyright release extends to all forms of the WAI for which I hold copyright privileges, but limited to use of the inventory for not-for-profit research, and does not include the right to publish or distribute the instrument(s) in any form.

I would appreciate if you shared the results of your research with me when your work is completed so I may share this information with other researchers who might wish to use the WAI. If I can be of further help, do not hesitate to contact me.

Dr. Adam O. Horvath
Professor
Faculty of Education and
Department of Psychology

e-mail: horvath@sfu.ca
Internet: http://wai.profhorvath.com

APPENDIX B

IRB Approval Page

Oklahoma State University Institutional Review Board

Date:	Thursday, October 15, 2015
IRB Application No	HE1560
Proposal Title:	The relationship between alliance and stages of change for outcomes in Psychotherapy
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved **Protocol Expires: 10/14/2018**

Principal Investigator(s):

Tim Welch	Matthew W. Brost
	233 HES
Stillwater, OK 74078	Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1.Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2.Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3.Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4.Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Hugh Crethar, Chair
Institutional Review Board

APPENDIX C

Script for Working Alliance

Talking points for the WAI-SR:

-Thank them for taking time to fill it out, assure it's won't take long
-We give this to all clients to improve our services by conducting research on experiences and feelings people have about therapy
-the results are not shared with therapists and are kept confidential, so Be HONEST!
-remind them to fill one out for both therapists (if applicable)

Sample Script for the WAI-SR

"Thanks for staying after to finish filling out this short questionnaire! We really appreciate your time and opinion and this should only take a few minutes. We are giving this questionnaire to all of our clients to help improve our services by conducting research on how clients feel about their therapy experience. The results are not shared with the therapists, and are kept confidential, so please be completely honest so we can better serve future clients. (if with co-therapists) please fill this out for each client. *Thank again for your help, do you have any questions?"*

APPENDIX D

UNIVERSITY OF RHODE ISLAND CHANGE ASSESSMENT SHORT (URICA-S)

This questionnaire is to help us improve services. Each statement describes how a person might feel when starting therapy or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel.

	Strongly Disagree	***Disagree***	***Un-Decided***	***Agree***	***Strongly Agree***
1. I'm not the problem one. It doesn't make much sense for me to be here.	1	2	3	4	5
2. I'm hoping this place will help me to better understand myself.	1	2	3	4	5
3. I am doing something about the problems that had been bothering me.	1	2	3	4	5
4. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.	1	2	3	4	5
5. I guess I have faults, but there's nothing that I really need to change.	1	2	3	4	5
6. I wish I had more ideas on how to solve the problem.	1	2	3	4	5
7. At times my problem is difficult, but I'm working on it.	1	2	3	4	5
8. I'm not following through with what I had already changed as well as I hoped, and I'm here to prevent a relapse of the problem	1	2	3	4	5
9. All this talk about psychology is boring. Why can't people just forget about their problems	1	2	3	4	5

10. Maybe this place will be able to help me.	1	2	3	4	5
11. I am really working hard to change.	1	2	3	4	5
12. I'm here to prevent myself from having a relapse of my problem.	1	2	3	4	5
13. I have worries but so does the next guy. Why spend time thinking about them?	1	2	3	4	5
14. I hope that someone here will have some good advice for me.	1	2	3	4	5
15. I am actively working on my problem.	1	2	3	4	5
16. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved	1	2	3	4	5

APPENDIX E

WORKING ALLIANCE INVENTORY-SHORT FORM REVISED (WAI-SR)

Below is a list of statements and questions about experiences people might have with their therapy or therapist. Think about your experience in therapy, and decide which category best describes your own experience.

Please write your therapist's name here: _____

	Strongly Disagree	***Disagree***	***Un-Decided***	***Agree***	***Strongly Agree***
1. As a result of these sessions I am clearer as to how I might be able to change.	1	2	3	4	5
2. What I am doing in therapy gives me new ways of looking at my problem.	1	2	3	4	5
3. I believe my therapist likes me.	1	2	3	4	5
4. My therapist and I collaborate on setting goals for my therapy.	1	2	3	4	5
5. My therapist and I respect each other.	1	2	3	4	5
6. My therapist and I are working towards mutually agreed upon goals.	1	2	3	4	5
7. I feel that my therapist appreciates me.	1	2	3	4	5
8. My therapist and I agree on what is important for me to work on.	1	2	3	4	5
9. I feel my therapist cares about me even when I do things that he/she does not approve of.	1	2	3	4	5

10. I feel that the things I do in therapy will help me to accomplish the changes that I want.	1	2	3	4	5
11. My therapist and I have established a good understanding of the kind of changes that would be good for me.	1	2	3	4	5
12. I believe the way we are working with my problem is correct.	1	2	3	4	5

APPENDIX F

REVISED DYADIC AJUSTMENT SCALE (RDAS)

Most persons have disagreements in their relationships. Please indicate below, by checking the appropriate box, the extent of agreement or disagreement ***between you and your partner****.*

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

	All the time	***Most of the time***	***More often than not***	***Occasion-ally***	***Rarely***	***Never***
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 (or argue)?						
9) Do you ever regret that you married (or lived together)?						

10) How often do you and your partner "get on each other's nerves"?						

	Every day	***Almost every day***	***Occasionally***	***Rarely***	***Never***
11)Do you and your partner engage in outside interests together?					

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

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

VITA

Timothy Sean Welch

Candidate for the Degree of

Master of Science

Thesis: THE IMPACT OF MOTIVATION ON THE WORKING ALLIANCE IN COUPLES THERAPY

Major Field: Human Development and Family Science, Marriage and Family Therapy Specialization

Biographical:

Education:

Completed the requirements for the Master of Science/ in Human Development and Family Science at Oklahoma State University, Stillwater, Oklahoma in December, 2015.

Completed the requirements for the Bachelor of Arts in Psychology at Oklahoma State University, Stillwater, Oklahoma in 2011.

Completed the requirements for the Bachelor of Arts in Philosophy at Oklahoma State University, Stillwater, Oklahoma in 2011.

Experience:

Professional Memberships:

American Association of Marriage and Family Therapists