**Social Desirability, Formation of the Therapeutic Alliance, and Dyadic Adjustment in Couples Therapy**

by

Esperanza Alene Hobby

A thesis submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Master of Science

Auburn, Alabama
May 6, 2012

Keywords: social desirability, therapeutic alliance, couples therapy, dyadic adjustment



Approved by

Scott A. Ketring, Chair, Associate Professor of Human Development and Family Studies
Thomas A. Smith, Associate Professor of Human Development and Family Studies
Thulitha Wickrama, Assistant Professor of Human Development and Family Studies

## Abstract

Social desirability has been shown to have both positive and negative associations in the formation of intimate and professional relationships. The purpose of this study was to determine the relationship that social desirability has with therapeutic alliance and change in dyadic adjustment in couples therapy. Social desirability was found to be positively related to the therapeutic alliance for males. Social desirability was not found to be associated with therapeutic alliance for females, or with change in dyadic adjustment for males or females.

Acknowledgments

I would like to thank my dear friend, Marty Vallery, for her endless support and confidence in me, and for providing the environment I needed to get my feet off the ground. I owe a large debt of gratitude to my ever faithful friend Laura Long, without whose assistance I would probably still be cleaning data. I would like to acknowledge Dr. Scott Ketring, my committee chair, for his direction and support throughout this project. I have appreciated his patience with me as I learned what it means to write a thesis, and his efforts to meet me where I was. Special thanks are extended to Hans Saint Eloi-Cadely, and Angela Bradford, who graciously gave of their time to assist in my analysis. I would also like to thank Dr. Thulitha Wickrama, for helping me to more clearly write and present my results, and for his willingness to join this project mid-stride. And finally, I would like to give a warm thanks to Dr. Thomas Smith, for being a kind and encouraging support to me, and for always being on my side.

Table of Contents

List of Tables

List of Figures

# Introduction

Any who collect self-report data are aware that respondents may answer according to socially desirable norms rather than giving a more honest appraisal—especially when responding about controversial or personal topics. This tendency has many names in research, namely social desirability, impression management, deception, and lying. But for the purposes of the present study, this characteristic will be referred to universally as social desirability (SD).

For over half a century, researchers have been developing methods for measuring SD in self-report data, and their attempts have yielded an abundance of information on the populations exhibiting high SD (Uziel, 2010). Contrary to their problematic influence in data collection, high SD individuals have good reputations in many other areas. In studies measuring levels of the Big Five personality domains, friends and acquaintances of high SD individuals have consistently described these people as conscientious (Pauls & Stemmler, 2003). Those living with a high SD individual—specifically parents and college roommates, have also described these individuals as extraverted and agreeable (Kurtz, Tarquini, & Iobst, 2008). But in contrast, roommates of high SD males, while maintaining generally positive opinions about their high SD roommate, have reported liking them less the longer they lived with them (Joiner, Vohs, Katz, Kwon, and Kline, 2003). These findings may suggest that more negative qualities associated with high SD individuals might manifest over time. But taken together, the reports are generally positive.

Research on SD in the marital context is as equally positive as are the findings from most of the studies that focus on relationships with friends and the family of origin. Spouses of high

SD individuals have described their spouse as extraverted and low in neuroticism (McCrae & Costa, 1983). Additionally, even when controlling for response bias, Russell and Wells (1992) found that high SD was correlated with high marital quality for men, and Fowers, Lyons, and Montel (1996) found high SD in either spouse to be correlated with high marital quality.

From these studies, it would appear that SD is a desirable characteristic in marriage. But like the studies focusing on friend and family of origin relationships, those studies focusing on the marital relationship used data collected at a single point in the relationship. The only study that measures SD's interaction with relationship quality longitudinally, suggested that the relationship quality might deteriorate over time (Joiner et al., 2003).

Findings from the therapeutic context also suggest a possibly counterproductive influence of SD. Kelly (1998), together with Yuan (Kelly & Yuan, 2009), were among the first to attempt to evaluate SD's relationship with outcomes in individual therapy. Though these innovative studies had some methodological weaknesses, Kelly (1998) found that among a population of mostly female clients, high SD was correlated with less reported symptom change. In a follow-up study, Kelly and Yuan (2009) found that high SD was again related to less symptom change in a mostly female population, and that it was also correlated with a poor therapeutic alliance.

Kelly and Yuan's findings might be unexpected since the majority of research on high SD individuals demonstrates a trend toward high functioning, high quality relationships. But as in Joiner et al.'s (2003) study, SD is again found to be associated with poorer outcomes. The findings from the therapeutic context are significant not only in that they show a negative association with high SD, but also in that they identify another relationship in which SD appears to be detrimental—the therapeutic alliance.

A strong therapeutic alliance has consistently been shown to be an essential aspect of effective therapy. In a meta-analysis of 24 separate articles investigating the relationship between the therapeutic alliance and therapeutic outcomes, Horvath and Symonds (1991) found the therapeutic alliance to be a robust predictor of therapeutic outcomes in individual therapy. In another meta-analysis of 79 articles, Martin, Garske and Davis (2000) also found the therapeutic alliance to be related to symptom change in individual therapy.

More recently, researchers have begun to investigate the relationship between the therapeutic alliance and therapeutic outcomes in couples therapy. Though the findings have been more dynamic than those from individual therapy, the trends have continued to be similar. In 2010, Anker, Duncan, Owen, and Sparks found that within the first three sessions of therapy, the quality of the therapeutic alliance of both the man and the woman, predicted final therapeutic outcomes (see also Symonds & Horvath, 2004). Anker et al. also found gender differences according to length of therapy. Specifically, the man's alliance scores were more predictive of therapeutic outcomes in short-term therapy, and the woman's in long-term therapy. Glebova et al. (2011) found more gender differences such that the man's alliance scores were more predictive of change than the woman's. Another study showed female alliance scores to be unrelated to change in symptoms (Porter & Ketring, 2011).

Currently, there are no studies that have focused on the influence of SD on outcomes in couples therapy. But based on the findings of Kelly (1998) and Kelly and Yuan (2009), it can be reasonably predicted that high SD in couples therapy will have similar associations. Those findings together with the deteriorative influences of SD reported by Joiner et al. (2003), and the many studies that highlight the importance of a strong alliance in couples therapy, suggest that SD will be a negative influence in the development of the therapeutic alliance, in therapeutic

outcomes and simultaneously in the maintenance of a couple relationship over time. This study seeks to further clarify these relationships with the following assumptions: High SD will be significantly and negatively related to the development of the therapeutic alliance. Next, that SD will be significantly and negatively related to change in relationship adjustment in couples therapy. And last, that the relationship between SD and change in relationship adjustment will be mediated by the therapeutic alliance.

## Review of Literature

As much of the research conducted in the human sciences is done through self-report, SD is a well-established concern for researchers. The persistent concern surrounding the effects of SD on research results has drawn considerable attention to the population of high SD individuals and has thereby generated information about these individuals and their relationships (Uziel, 2010). Data on the strength of their therapeutic alliances and outcomes in individual therapy has also begun to be accumulated. As yet, there is no known research concerning the possible influences of SD in couples therapy. This literature review will summarize the few studies related to the relationships, therapeutic quality, and clinical outcomes of the high SD population. The importance of the therapeutic alliance related to couples therapy as it relates to therapeutic outcomes is also reviewed.

### *Social Desirability, Friendships, and Family of Origin Relationships*

In a study investigating the Big Five personality domains, Pauls and Stemmler (2003) looked at how SD correlates with each characteristic. Specifically, they looked at both self and observer ratings. Their sample included 67 psychology students (56 women) who had a mean age of 21.31 years (SD = 2.58). Participants received class credit for their participation in the study. As part of their requirement, participants asked a friend and an acquaintance to participate with them.

Each of the participants, their friends and acquaintances completed the NEO -Fünf-Faktoren Inventar (NEO-FFI; Borkenau & Ostendorf, 1993) rating the participant on the Big

Five domains. They were instructed to complete the questionnaires separately from each other. To encourage privacy and honesty of responses, friends and acquaintances were given a stamped envelope in which to seal and return their responses. Additionally, the participants completed the BIDR-6 (Paulhus, 1991) to measure their own level of SD. Researchers found that high SD was negatively correlated with Openness and positively correlated with Conscientiousness according to the ratings of friends and acquaintances.

In a similar study, Kurtz, Tarquini, and Iobst (2008) also measured Big Five personality domains, and added parents' perspectives to the study. They sampled 222 (75% female) college freshmen who were recruited for course credit, or for $10 compensation. One of the participants' current roommates and their parents were also invited to participate. The 128 roommates and 183 parents participated in the study. Parents had previously lived with the participants for an average of 18 years. Roommates had been living with the participant for an average of 3 to 8 months at the time of the study. Their status as roommates was verified through university records prior to their participation.

Participants and their roommates attended a research session together at which time they completed questionnaires in separate rooms. Parents received questionnaires in the mail and were provided with a stamped return envelope to increase the response rate. Responses were matched with identification numbers to ensure anonymity and encourage honesty.

Some background information was collected from participants about their home living arrangement, frequency of contact with parents, and the amount of time spent with their roommate. In addition, participants, roommates, and parents each completed the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992) to measure the Big Five domains of the student participant. The questionnaires were modified for the roommates and parents.

Additionally, the participants completed the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) to measure their personal level of SD.

The researchers found significant correlations between several of the Big Five domains and SD. Parents and roommates of high SD individuals were likely to rate the individual as Extraverted, Agreeable, and Conscientious. The individual also rated themselves as having these qualities—though more strongly, and also as being low in neuroticism. However, the report of neuroticism was not corroborated by parent and roommate reports.

In each of these studies, SD has been associated with several positive attributions across many types of relationships, including friends, acquaintances, parents, and roommates. High SD individuals are generally viewed as being extraverted, conscientious, and agreeable. Anonymity was maintained within these studies, which should have increased the likelihood that participants were honest when describing their high SD friend/family member. Based on that assumption, the parents who participated in the Kurtz et al. (2008) study most likely gave a representative perspective on the parent-child context, as did the spouses in the McCrae and Costa (1993) study of the marital context. However, friends, acquaintances and roommates were generally not compensated for their time, yet still accepted the invitation to participate. Their participation suggests a strong enough positive relationship with the participant to be willing to participate without compensation, which might positively bias results.

Another possible weakness of these studies is that they each used data collected at a single point. They show the general appraisal of friends and family that high SD individuals have positive character traits. They do no not show change over time.

There is roommate research which indicates that relationships with high SD individuals might deteriorate over time. In 2003, Joiner, Vohs, Katz, Kwon, and Kline investigated the

adjustment to new college roommates. Their sample included 105 university students, 65 women and 40 men, who were enrolled in introductory psychology classes, along with a same-sex, unrelated roommate. Students were offered course credit in exchange for their participation.

Participants and roommates participated in two experimental sessions at which time they completed questionnaires. The second session was three weeks after the first, and included a debriefing. All participants completed the Minnesota Multiphasic Personality Inventory-Lie Scale (MMPI-Lie; Hathaway & McKinley, 1943) to assess for SD, and a revised version of the Rosenberg Self-esteem Questionnaire (R-SEQ; Swann et al., 1992). The items on the R-SEQ were reworded in order to assess the roommate's level of esteem for the target participant, rather than their *self*-esteem (e.g., "I see my roommate as a person of worth, at least on an equal basis with others," vs. "I see myself as a person of worth, at least on an equal basis with others").

Using a stepwise, hierarchical multiple regression/correlation approach, the authors found that high SD scores were correlated with social functioning among same-sex roommates, and that the sex of the participant was a significant variable. Specifically, women who were high in SD were increasingly liked by their roommate, but the men who were high in SD were increasingly disliked by theirs.

This study demonstrated that there may be gender differences in how this trait is expressed and/or experienced by someone who is living with them. And while there are many reports of positive traits associated with high SD, this trait may also play a role in acceptance or rejection in relationships. The questions easily follow as to how high SD is associated with marital quality and satisfaction, and whether there are differences in the influence of this trait between the sexes.

*Social Desirability and the Marital Relationship*

In a study assessing the needfulness of correcting responses for high SD individuals, McCrae and Costa (1983) assessed high SD individuals for several of the Big Five domains. Their sample included 109 men, with ages ranging from 31 to 89, and 106 women, with ages ranging from 27 to 84, who were a subsample of the Baltimore Longitudinal Study of Aging (BLSA). Participants who were included in the study also had a spouse who agreed to respond.

Participants and their spouses completed the Neuroticism-Extraversion-Openness Inventory (NEO; Costa & McCrae, 1980) to assess for personality traits. Participants' spouses completed a modified version of the inventory that assessed the participant rather than the spouse. Participants were instructed to not discuss their responses with each other, and were assessed as to whether they had discussed it. Those who reported having discussed their responses were excluded from the analyses. To assess for SD, the participant also completed the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964), and the Lie Scale from Form A of the Eysenck Personality Inventory (EPI; Eysenck & Eysenck, 1964).

They found that high SD individuals and their spouses both rated the high SD individuals as being Extraverted, and being low in Neuroticism. Findings for Openness did not reach the level of significance, but showed a negative correlation with SD.

In 1992, Russell and Wells investigated the influence of SD on marital quality. Their sample consisted of 94 couples. Their average ages were 39.0, ranging from 19 to 73 (SD = 12.1) for men, and 36.8, ranging from 19 to 64 (SD = 11.3) for women. Subjects had been married for an average of 14 years.

Couples were given questionnaires that were to be completed separately and they were instructed to not put their names anywhere on the questionnaires. They also mailed their

responses in different envelopes to promote independent completion of the questionnaires. Through using this method, participants were encouraged to be honest through anonymity and privacy from each other, but were still identifiable as spouses.

To measure their level of SD, participants completed the Lie Scale from the revised short form of the Eysenck Personality Questionnaire (EPQ; Eysenck, Eysenck & Barrett, 1985). They also completed the Marriage Questionnaire (Russell and Wells, unpublished) to measure marital quality.

Through systematically fitting three causal models to the data and controlling for response bias, it was found that high husband SD positively impacted his reported quality of marriage. There was no relationship found between high wife SD and her reported quality of marriage.

Fowers, Lyons, and Montel (1996) also investigated the relationship between high SD and marital quality, and included the additional aspect of idealistic distortions (unrealistically positive descriptions of one's partner and marriage, e.g. "My marriage is a perfect success," "My spouse meets my every need"). They sampled 55 couples from a large metropolitan area who were predominantly White (77% white, 18% Hispanic). Participants' ages ranged from 27 to 74, with an average of 42.8 years. They had an average of 15.8 years of formal education, and had been married for an average of 14.1 years, with length of marriage ranging from 1 to 51 years.

Couples were recruited through random sampling of a mailing list. Each received a series of invitations and was promised $20 compensation for their participation. Those who responded completed the Life Orientation Test (LOT; Scheier & Carver, 1985) to assess their optimism and pessimism, and the Self-Deception Questionnaire (Sackheim & Gur, 1979) and the Other-Deception Questionnaire (Sackheim & Gur, 1979) to measure SD. To assess for positive

illusions, they completed the Idealistic Distortion Scale from the ENRICH (Enriching Relationship Issues, Communication, and Happiness) inventory (Olson, Fournier & Druckman, 1987), and two items asking each partner to estimate the likelihood of divorce or separation. They also completed the Marital Satisfaction Scale from the ENRICH inventory (Olson et al., 1987) to measure marital satisfaction.

Researchers found a significant, positive correlation between SD and self-reported marital satisfaction for both husband and wife, but more strongly so for the wife. They also found that husbands who were high in SD were more likely to have idealistic distortions about their marriage, though high SD wives were not.

The findings of these studies again show positive reports, but at a single point. There are also some inconsistencies. The findings from Fowers et al. (1996) and Russel and Wells (1992) contradict each other in terms of the sex differences that they illustrate. High SD was found to be related to either high self-reported marital quality for the man, or for the woman, but never for both or neither concurrently. As these studies were different methodologically in many ways, and did not both control for self-report, the contrasts may only be resolved through continued investigation. There is also the concern that unhappy couples who were high in SD may have inflated their responses to show higher marital quality, or they may simply have chosen to not participate in the study. But despite these concerns, these studies do suggest is that there is a trend toward SD being related to marital adjustment, and that there may be gender differences.

The research generally supports a trend toward high SD correlating with friends, family, and marriage partners reporting positive personality characteristics and high marital adjustment, but male roommates who have lived with a high SD male give negative reports. Though this latter trend has not been shown to perpetuate itself within marital relationships, there are also no

known studies that measure SD and marital adjustment over time. The trend may also suggest that high SD's relationship with marital adjustment might be different when the marital relationship deteriorates. And though there is currently no known research on the relationship between high SD and marital adjustment with unhappy couples, the therapeutic context might offer another helpful perspective.

*Social Desirability in Therapy*

The first known study to investigate the influence of high SD on outcomes in individual therapy was completed by Kelly (1998). Kelly investigated the effects of keeping a secret from the therapist on therapeutic outcomes. While her study was not targeted specifically at the characteristic of SD, she did use the MCSDS as one of her measures, which makes her findings pertinent to the current study.

Kelly sampled outpatient clients and therapists from a large mid-western mental health hospital. The sample included 42 outpatient clients (95% white and 75% female). Their ages ranged broadly from 15 to 63, with a mean age of 35.9 (SD = 12.14) years. Ten therapists (all white, 60% female) participated in the study. Between them, they used six different therapeutic approaches and had an average of 8.2 years of experience.

Clients indicated having had from 3 to 30 therapy sessions at the point of data collection, with the average number of sessions being 11.2 (SD = 8.1). Clients were invited by their therapist to participate in the study with the understanding that their responses would be kept confidential from their therapist and that they would be compensated with $10 after completing the questionnaires. Therapists who participated received $20 in compensation. Data were collected at a single point, with no subsequent follow-up.

The clients' psychological distress was measured using the Brief Symptom Inventory (BSI; Derogatis, 1993). Scores from the BSI had previously been collected from clients upon intake at the clinic (available for 34 participants). Those scores were compared to those collected by Kelly in order to measure symptom change. Clients also completed the Self-Concealment Scale (SCS; Larson & Chastain, 1990) to measure their predisposition to conceal, the MCSDS to measure their level of SD, and several open-ended questions regarding the client's presenting problem, relevant secrets that were intentionally kept from the therapist, and their motives for secrecy. From the therapists only demographic information was collected.

Kelly fit a multiple regression model and found several intercorrelations between the five variables. SD was significantly related to higher symptomatology (.26), and self-concealment was related to both current (.37) and initial (.30, $p = .01$) symptoms. Additionally, SD and self-concealment were not strongly related to each other (-.09). Kelly controlled for the reported number of therapy sessions to account for any relationships between number of sessions and secret keeping. Unfortunately, she did not report on the significance of number of reported sessions in SD's relationship with symptoms.

Building on this earlier study, Kelly and Yuan (2009) included the therapeutic alliance to their model. For this study, surveys were distributed once, both to clients receiving outpatient treatment at a mid-western mental health hospital, and the therapists who treated them. The client sample of 83 individuals was mostly middle-aged, with their ages ranging from 18 to 70. They were 92% white, and 80% female. The 22 therapists were mostly white (1 black) and mostly women (4 men), had a broad range of experience in the field (1 to 30 years) and reported using six different therapeutic approaches between them.

At the point they entered the study, the number of therapy sessions clients had with their current therapist ranged from 2 to 52 sessions, with a mean of 15.68 sessions, and a median of 8 sessions. Clients were invited by their therapist to participate in the study with the understanding that their responses would be kept confidential from their therapist and that they would be compensated with $20 after completing the questionnaires. Data were collected at a single point, with no subsequent follow-up.

The working alliance was assessed using the client form of the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989), and psychological distress was measured using the BSI. Clients also completed the MCSDS to measure SD, and several questions assessing whether the client was keeping a relevant secret from their therapist, the type of secret by category, and why the client chose to keep that secret from the therapist. To measure symptom change, the client BSI scores were compared to client Basis-32 (Eisen, Grob, & Klein, 1986) scores that were completed at intake as part of treatment at the mental health hospital. Kelly and Yuan explained that the BSI was used instead of the Basis-32 in an effort to avoid carryover effects and that the correlation between these two instruments was quite high in their sample (.65, $p < .0001$). As in the former study, initial symptoms scores were not completed for all of the participants. Of the original sample of 83 participants, there were 16 with incomplete data, so analyses that included this variable included only 67 of the participants.

The therapists completed the short form of the WAI (Tracey & Kokotovic, 1989) to measure the working alliance. They also responded to several questions about whether they believed their client was keeping a relevant secret from them, how they perceived their client was progressing in therapy, and personal demographics. Therapists were allowed up to eight clients in the study, and received $15 for each set of forms they completed.

Among the findings from their multiple regression analysis, Kelly and Yuan found that SD had a significant, negative correlation with Basis-32 scores of initial reported symptoms (-.32),the client reported working alliance (-.22), the therapist reported working alliance score (-.10), and to the reported symptoms (-.15). As in Kelly's (1998) earlier study, the number of sessions reported was not found to affect the significance of the relationship with the variables in the model. However, it was not reported whether it affected the relationship between SD and change in symptoms.

Despite the unique contributions of these studies, the reliability of their findings could be questionable due to some methodological weaknesses. One of which was the gender inequality. The samples were predominantly female (95% and 80%), which doesn't allow sex differences to be represented. Additionally, although the researchers found no relationship between the number of sessions and therapeutic outcomes, there was no reported relationship between the broad range of sessions, the reported level of SD, and the therapeutic alliance. But despite the possible limitations, these two studies offer two valuable findings. First, they suggest that high SD may be related to poor outcomes in therapy. And second, they give another example of a situation in which high SD appears to have contributed to poor relationship quality, as the therapeutic alliance is truly a measurement of the quality of a relationship.

The therapeutic alliance is a well-established key to good outcomes in individual therapy. According to Kelly and Yuan, SD may be a hindrance to the development of a strong therapeutic alliance in individual therapy. Currently, there is no data showing the relationship between high SD and the strength of therapy alliance in couples therapy, but it can be expected that trend would be consistent. This relationship needs to be addressed as the therapeutic alliance is moderately related to therapy outcomes, as will be shown below.

*Therapeutic Alliance and Outcomes in Individual Therapy*

In 1991, Horvath and Symonds completed a meta-analysis of 24 articles addressing the relationship between the therapeutic alliance and therapeutic outcomes. These articles were collected through an electronic search of four databases (PsycInfo, MedLine, Dissertation Abstracts, and Educational Resources Information Center), and a manual search of journal articles related to the therapeutic alliance published in the 12 months prior to beginning their study. To be included in the analysis, studies had to include a) a relationship construct identified as either a "helping," "working," or "therapeutic" alliance, b) a quantifiable relationship between the alliance and some type of outcome, c) clinical research, d) no less than five subjects, and e) only individual treatment. The selected articles included 21 published and 3 unpublished articles from 1980-1991.

The researchers created effect sizes by first converting all *r* values into *Z* equivalents to control for the bias of the *r* distribution, and then reconverting the *Z* equivalents back into *r* values. Their meta-analysis found a strong, positive relationship between alliance and outcomes.

In a similar study, Martin et al. (2000) completed another meta-analysis of articles examining the relationship between the therapeutic alliance and therapy outcomes in individual therapy. They completed a meta-analytic review of 58 published studies and 21 unpublished studies conducted from 1977-1997. The researchers used similar inclusion criteria as Horvath and Symonds, also requiring that the articles be available in English. Martin et al. also used the same databases as Martin et al., but added PsycLIT. After creating effect sizes, the researchers again found that a high therapeutic alliance was correlated with good therapeutic outcomes.

*Therapeutic Alliance and Therapeutic Outcomes in Couples Therapy*

While the therapeutic alliance has been shown to be one of the most consistently significant variables in the success or failure of the therapeutic process in individual therapy, the relationship between alliance and outcomes in couples therapy is only recently attracting attention, but is beginning to become more clear.

Symonds and Horvath (2004) studied the relationship between alliance and outcomes with couples receiving brief therapy from one of two counseling centers. Their sample included 44 couples who were mostly white (all but one), with ages ranging from 23 to 69 (mean age was 39.2 years for women and 41.3 years for men). The couples reported an average relationship length of 13.5 years, ranging from 1 to 49 years. Approximately 37% of the participants had completed high school, and over 60% reported having received some form of higher education. The sample included six therapists (all white, two female) who had an age range of 30 to 50 years, and had 2 to more than 20 years of experience.

Couples were recruited from the community to participate in the study, and were required to pay for their treatment. Couples were randomly assigned to a therapist, and received six 50-minute weekly sessions. The Marital Satisfaction Scale (Roach, Frazier, & Bowden, 1981) was used to assess relationship quality at intake, following termination, and one month after termination. The couples and the therapists completed the Working Alliance Inventory (WAI-Co; Symonds, 1999) after the first and third sessions.

It was found that both the client and the therapist alliance scores were significant in predicting outcomes. Surprisingly, the therapist scores were a stronger predictor. However, it was also shown that when partners were in agreement about the strength of the alliance—particularly between sessions one and three, their scores became a robust predictor of outcome.

More recently, Glebova et al (2011) conducted a longitudinal study focusing on the working alliance in couples therapy. They sampled 195 couples at an on-campus training center for marriage and family therapy. Their couples were 74% White, had a mean age of 32 years and were generally well-educated (83% had received higher education). The lengths of the couples' relationships were not reported. The sample also included seven therapists in training about which no information was reported.

Couples were invited to participate in the study at their first session with the understanding that they would receive a $10 discount off the price of their first session should they choose to participate. Couples were ensured that their alliance responses would be kept confidential from their therapist. The couples who participated completed paperwork individually after each of their first six sessions.

Researchers used the Shortened Version of the WAIS to measure the therapeutic alliance. This measure was designed for individual therapy, which was identified by the authors as a weakness in conceptualizing the couple alliance. However, it was used for the sake of brevity, as clients would be completing it at each session. Clients also completed a single question at the end of each session rating their satisfaction with their relationship on a scale from 1 to 10.

Using an autoregressive cross-lagged model, researchers found that the husband's reported alliance in the second session accounted for change in both the husband's and the wife's reported relationship satisfaction at the third session. The wife's reported alliance in the second session also predicted her change in session three, but not as strongly. Additionally, the husband's reported alliance at the third session predicted his change in session four. From this study we see that outcomes in couples therapy can be determined early on by the strength of the

therapeutic alliance, and that the strength of the alliance reported by the husband is most predictive of change.

In another longitudinal study, Anker, Duncan, Owen and Sparks (2010) sought further understanding of the relationship between the working alliance and change in couples therapy with the addition of a follow-up group. Their sample consisted of 250 White, heterosexual couples, who had an average age of 38.54 years (SD = 8.47; range from 22 to 72). The average length of the couples' relationships was 11.8 (SD = 8.7), broadly ranging from 1-39 years together. Their levels of education were varied, with about 29% and 34% completing lower and upper secondary school, respectively, and roughly 37% completing some form of higher education. The therapist sample included 20 therapists (13 women), who worked at one of two community-based counseling centers in Norway. They had an average age of 44 (SD =12.6; range 26 to 61) and an average of 6.7 years (SD = 6.98; range, 0-19) of experience.

The Outcome Rating Scale (ORS; Miller & Duncan, 2004) was used at the beginning of each session to assess psychological functioning and distress. It was also administered at the conclusion of the couple's last session. Marital functioning was assessed at intake and at the 6-month follow up using the Locke Wallace Marital Adjustment Test (LW; Locke & Wallace, 1959). The Session Rating Scale (SRS; Duncan et al., 2003) was completed at the end of each session to assess the working alliance.

Couples were assigned randomly to one of the twenty therapists. The assigned therapist reviewed the intake paperwork prior to the first session. If there were concerns about the presenting problem being a poor fit with the therapist's personal ability, the therapist had the option of transferring the couple to another therapist. The therapists received 16 hours of training on how to properly administer and score the ORS and SRS. Both instruments were administered

in session by the therapist. Couples understood that their scores would be used to generate discussions with the therapist about the process and progress of therapy.

The follow-up sample included 115 of the original couples. Participants were included if they accepted the invitation to participate in the follow-up and had completed the ORS and LW for the first session. Both the ORS and LW were completed by both partners.

Using the Actor-Partner Interdependence Analytical Model (APIM; Kashy & Kenny, 2000; Kivlighan, 2007), it was found that for clients who attended at least two sessions, high alliance scores at the last-session were associated with better outcomes. For couples who attended four or more sessions, third and last session alliance scores predicted outcome. Additionally, it was found that men's alliance scores more strongly predicted outcomes in the full sample, but when length of therapy was considered, the woman's alliance scores became a stronger predictor.

Porter and Ketring (2011) found additional gender differences. They sampled 181 couples receiving therapy from a university marriage and family therapy clinic. Approximately 81% of men and 79% of women identified themselves as White. They had an average age of 31.5 years for men and 29.5 years for women. The majority of participants had a high school education or equivalent, and reported an annual income of $25,000 or less. Couples were randomly assigned to one of twelve student therapists.

At intake, researchers administered the University of Rhode Island Change Assessment (URICA; McConnaughy, Prochaska, & Velicer, 1983) to measure stage of change of each partner. At the fourth session, the Couple's Therapy Alliance Scale-Revised (CTAS-R, Pinsof, 1994) was completed to measure the quality of the therapeutic alliance. At both intake and

session four, couples completed the Outcome Questionnaire (OQ-45.2, Lambert et al., 1996) to measure clients' progress in treatment.

Researchers found that male therapeutic alliance predicted change in symptoms for males. Surprisingly, in this sample, no significant relationship was found between female therapeutic alliance and change in symptoms.

These studies reflect numerous gender differences, but are consistent in confirming the importance of a strong therapeutic alliance in couple's therapy. It is such a strong factor that its influence can be predicted within the first four sessions such that a poor therapeutic alliance was predictive of poor outcomes. Considering the findings of Kelly and Yuan (2009) relating to individual therapy, it may be possible that high SD is a significant influence in the development of a poor therapeutic alliance in couples therapy as well. If high SD is also related to the deterioration of relationship quality over time, it may be that these couples end their treatment with poorer marital adjustment than do other couples being treated.

*Introduction of the Hypotheses*

Currently, research has demonstrated that high SD is associated with reports of high marital quality at a single point. However, it has been suggested through longitudinal data, that high SD may contribute to relationship deterioration over time. Supporting this finding, it has also been shown that high SD negatively influences the formation of the therapeutic alliance in individual therapy, which in turn may contribute to the poorer therapeutic outcomes reported by high SD clients.

Of importance to this study, it has been shown that therapeutic alliance scores reported within the first three sessions of couples therapy can predict therapeutic outcomes. Therefore, this study assumes that therapeutic alliance scores reported at session four are reliable predictors

of therapeutic outcomes. The objective of this study is to investigate whether therapeutic alliance mediates the relationship between SD and outcomes in couple's therapy (illustrated in Figure 1). Based on previously discussed hypotheses, the hypotheses of this study are as follows:

Hypothesis 1: SD will be significantly and negatively related to therapeutic alliance at the fourth session

a) for males
b) for females

Hypothesis 2: SD will be significantly and negatively related to change in dyadic adjustment from intake to the fourth session

a) for males
b) for females

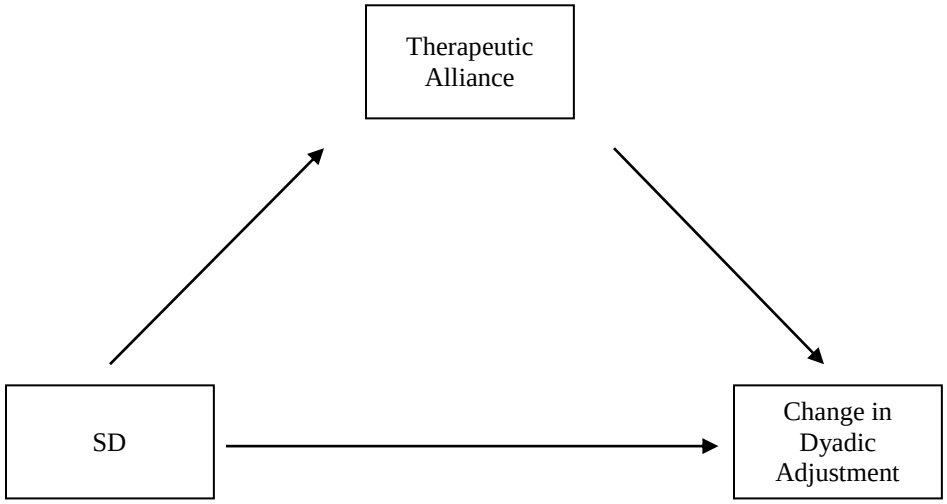
Hypothesis 3: Therapeutic alliance scores at session four will be significantly and positively related to change in dyadic adjustment from intake to the fourth session

a) for males
b) for females

Hypothesis 4: Therapeutic alliance will mediate the relationship between SD and change in dyadic adjustment from intake to the fourth session

a) for males
b) for females

*Figure 1.* Hypothesized Path Model of SD, Therapeutic Alliance and Change in Dyadic Adjustment from intake to session four.



# Methods

The data collected for the current study comes from couples who receive therapy at the Auburn University Marriage and Family Therapy Center. The center is a training facility for master's level graduate students and provides services to University students and to the surrounding communities for a variety of relational and psychological needs. Therapy is provided by intern therapists working under the supervision of licensed Marriage and Family Therapists.

All couples who received services at the center completed self-report questionnaires at intake, and prior to each fourth session thereafter (4th, 8th, 12th, etc). At intake, couples completed a shortened version of the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960; Strahan & Gerbasi, 1972), and the Revised Dyadic Adjustment Scale (R-DAS; Busby, Christensen, Crane & Larson, 1995). At the fourth session, the couples completed the R-DAS again, and also the Couples therapy Alliance Scale (CTAS; Pinsof & Catherall, 1986). Descriptions of each instrument follow.

## *Participants*

Participants included in the study ranged in age from 20 to 61 years of age. Approximately 72% of males and 78% of females identified themselves as White, and 12% and 14% of males and females, respectively, identified themselves as African American. With regard to education, approximately 41% of males and 22% of females reported graduating from high

school, and 10% of men and 20% of women reported having a Bachelor's degree. The majority of participants reported an annual income between $20,001 and $40,000 (See Table 1).

Table 1
*Demographics of participants (N=190)*

| Demographic | Males | | Females | |
|---|---|---|---|---|
| (% chose not to provide) | N | Percent | N | Percent |
| Age Group (3.1%) | | | | |
| 20-29 | 46 | 47.5% | 60 | 61.8% |
| 30-39 | 33 | 34.2% | 25 | 24.8% |
| 40-49 | 13 | 13.3% | 10 | 10.3% |
| 50 or above | 3 | 3% | 2 | 2% |
| Racial Group (8.3%) | | | | |
| White | 70 | 72.2% | 76 | 78.4% |
| African American | 12 | 12.4% | 14 | 14.4% |
| Hispanic/Non-White | 2 | 2.1% | - | - |
| Native American | 2 | 2.1% | - | - |
| Asian/Pacific Islander | 4 | 4.1% | 3 | 3.1% |
| Other | 2 | 2.1% | 1 | 1% |
| Annual Income (2%) | | | | |
| < $10,000 | 15 | 15.5% | 15 | 15.5% |
| $10,001 -$20,000 | 14 | 14.5% | 15 | 15.4% |
| $20,001 - $30,000 | 13 | 13.4% | 14 | 14.2% |
| $30,001 - $40,000 | 22 | 22.7% | 24 | 24.7% |
| Over $40,000 | 32 | 33% | 28 | 28.9% |
| Education (2%) | | | | |
| GED/High School | 40 | 41.3% | 21 | 21.7 |
| Vocational/Associates | 10 | 10.3% | 17 | 19.5 |
| Bachelor's Degree | 21 | 21.6% | 40 | 41.2 |
| Master's Degree | 12 | 12.4% | 8 | 8.2 |
| Other | 13 | 13.4% | 8 | 8.2 |

*Measures*

*Social Desirabilty*. The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960; Strahan & Gerbasi, 1972) measures an individuals' tendency to give socially desirable responses. Items assess behaviors and attitudes that are either culturally desirable, and are unlikely to occur (i.e. "No matter who I'm talking to, I'm always a good listener," and "I am always willing to admit it when I make a mistake.") or that are common, but are culturally undesirable (i.e. "I am sometimes irritated by people who ask favors of me," and "There have been occasions when I took advantage of someone."). Items are made difficult to answer through the use of superlatives, and true or false response categories. By asking in this way, individuals are required to admit to possessing culturally unsanctioned qualities, or to exaggerate their positive qualities. It is presumed that the higher occurrence of socially desirable answers increases the likelihood that the individual will give socially desirable responses during assessment and treatment. Internal consistency for this instrument has been found to be .88 for males and females, with a test-retest reliability of .89 (Crowne & Marlowe, 1960). Cronbach's Alphas for the MCSDS for this study is .76 for males and .71 for females.

*Dyadic Adjustment*. The Revised Dyadic Adjustment Scale (R-DAS; Busby et al., 1995) is a fourteen-item, updated version of the Dyadic Adjustment Scale (Spanier, 1976). The R-DAS measures three aspects of the couple relationship, namely: consensus, satisfaction and cohesion. Each subscale includes four to six questions, the scores from each being summed to provide a marital satisfaction score. Scores can range from 0 to 79, with higher scores representing higher levels of adjustment.

The R-DAS is widely used and has been shown to have criterion and construct validity, internal consistency, and split-half reliability. The Cronbach's alpha is .90, and the Spearman-

Brown split-half reliability is .95. The alpha for the R-DAS in this study is .84 for males and .85 for females.

*Therapeutic Alliance*. Couples also completed the Couples therapy Alliance Scale (Pinsof & Catherall, 1986) to assess the quality of the therapeutic alliance. This measure has been shown to have high test-retest reliability (Pinsof & Catherall, 1986) and includes three subscales that are based on Bordin's (1979) model of therapeutic alliance. The subscales measure: the development of bonds (10 items), assignment of tasks (23 items) and agreement on goals (6 items). To control for bias, half of the items in the measure are worded positively, and half are worded negatively.

The bonds subscale measures the quality of the therapist-client relationship using items such as, "The therapist cares about me as a person." The tasks subscale refers both to the method and technique of the therapist, and the understanding and confidence of the clients in those methods and techniques. It includes items such as, "My partner and I understand what each of us is doing in this therapy." Lastly, the goals subscale measures the level of agreement between the therapist and the clients on the selected goals of treatment. This scale includes items such as, "The therapist and I are not in agreement about the goals for this therapy."

This measure was found to have a test-retest reliability of $r = .84$ (Pinsof & Catherall, 1986), with internal consistency of an alpha level of .93 (Heatherton & Friedlander, 1990). The alpha of this measure for the participants included in this study is .98 and .97 for males and females respectively.

*Plan of Analysis*

This study proposes that the therapeutic alliance will act as a mediator between SD and change in dyadic adjustment from intake to session four. According to Baron and Kenny (1986), in order for a variable to function as a mediator, the following three criteria must be met:

1. The independent variable (SD) must be significantly related to the hypothesized mediator (therapeutic alliance).
2. The independent variable (SD) must be significantly related to the dependent variable (change in dyadic adjustment).
3. The hypothesized mediator (therapeutic alliance) must be significantly related to the dependent variable (change in dyadic adjustment).

These criteria were tested using SPSS, and each of the four hypotheses were also tested as follows: Change in dyadic adjustment was regressed onto SD to test the first hypotheses. The second hypothesis was tested by regressing therapeutic alliance of males and females onto SD. To test the third hypothesis, change in dyadic adjustment of males and females was regressed onto therapeutic alliance. And finally, change in dyadic adjustment of males and females was regressed onto SD, with therapeutic alliance included as a possible mediator.

## Results

### *Univariate Analysis and Descriptive Statistics*

Using SPSS, the means and standard deviations for each variable included in the study: SD, therapeutic alliance, and relationship adjustment at intake and the fourth session. These are detailed in Table 2. No outliers were identified, and the data appeared to be normally distributed.

Table 2
*Descriptive Statistics of Main Construct Variables* (N = 190)

| Variable | Mean | *SD* | $\alpha$ |
|---|---|---|---|
| *Males* | | | |
| SD | 5.35 | 2.95 | .76 |
| Alliance | 216.80 | 46.70 | .95 |
| Dyad I | 42.42 | 8.88 | .86 |
| Dyad 4 | 42.69 | 10.90 | .85 |
| *Females* | | | |
| SD | 4.80 | 2.80 | .71 |
| Alliance | 214.76 | 41.66 | .96 |
| Dyad I | 39.76 | 9.95 | .87 |
| Dyad 4 | 40.46 | 11.05 | .84 |

*Note*. Male/Female. Dyad I (Dyadic Adjustment at Intake), Dyad 4 (Dyadic Adjustment at Session 4).

### *Correlation Analyses*

The correlation analysis revealed multiple significant relationships, as shown in Table 3. Male therapeutic alliance showed significant, positive relationships with male SD, female therapeutic alliance and male change in dyadic adjustment. Female alliance was also correlated

with female change in dyadic adjustment. SD was not correlated with change in dyadic adjustment for males or females. In addition to the relationships that pertained to the research questions, male and female SD were also correlated with each other, and female therapeutic alliance had significant relationships with both male therapeutic alliance and male change in dyadic adjustment.

Table 3

*Summary of correlations for social desirability, therapeutic alliance, and change in dyadic adjustment for males and females*

| Variable | Male SD | Female SD | Male Alliance | Female Alliance | Male Change | Female Change |
|---|---|---|---|---|---|---|
| Male SD | | | | | | |
| Female SD | .34** | | | | | |
| Male Alliance | .25* | .17 | | | | |
| Female Alliance | .18 | .16 | .42** | | | |
| Male Change | .07 | .04 | .32** | .35** | | |
| Female Change | .05 | .09 | .20 | .30** | .56** | |

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

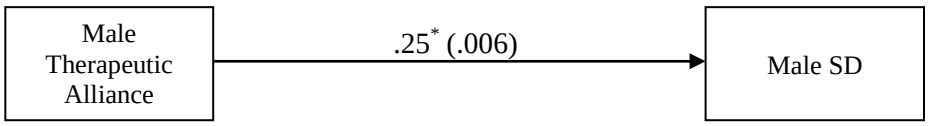
*Regression Analyses*

Following the correlation analysis, multiple models were fit using SPSS to test the hypotheses of the current study and also to meet the requirements of mediation (Baron & Kenny, 1986). For the analysis, therapeutic alliance of males and females was regressed onto SD to test the first hypotheses. The second hypothesis was tested by regressing change in dyadic adjustment of males and females onto SD. To test the third hypothesis, change in dyadic adjustment of males and females was regressed onto therapeutic alliance. Hypotheses 4 (Client therapeutic alliance will mediate the relationship between SD and change in dyadic adjustment from intake to session four) was not tested as the criteria for mediation were not met, as will be outlined below.

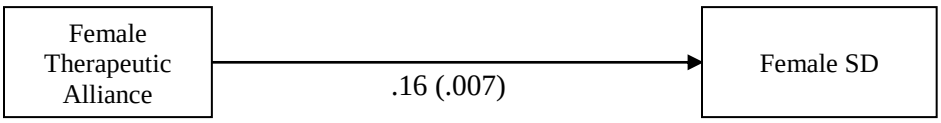
*Hypothesis 1: SD scores will be negatively related to client reported therapeutic alliance ratings.* In Model 2a, male SD was regressed onto male therapeutic alliance. As shown in Table 3, results showed a significant positive relationship between SD and therapeutic alliance for males (F (1, 93) = 6.080, ß= .25, p < .02). Thus, for a one unit difference in male therapeutic alliance, there was a positive .33 unit difference in male SD. Male SD explained 5% of the variance in male therapeutic alliance (Adjusted $R^2$= .05). In Model 2b, when female SD was regressed onto female therapeutic alliance, no significant relationship was found (F (1, 93) = 2.548, ß= .16, ns). After fitting model 2, it was seen that the first criterion for mediation (The independent variable must be significantly related to the hypothesized mediator) was met for males (2a), but not for females (2b), removing the justification to fit a mediation model for females.

*Figure 2.*

Model 2a: Regressing Male SD on Male Therapeutic Alliance




Model 2b: Regressing Female SD on Female Therapeutic Alliance



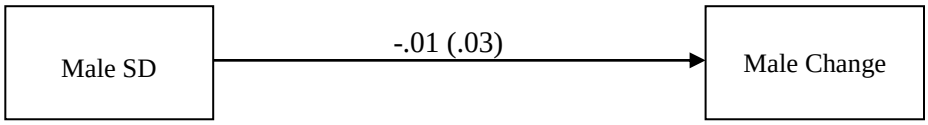

*Note*. ß (Standard Error)
*$p$ < .05.

*Hypothesis 2: SD scores will be negatively related to reported changes in dyadic adjustment ratings between intake and session four.* In Model 3a, male change in dyadic adjustment was regressed onto SD. When controlling for all else, no significant relationship was

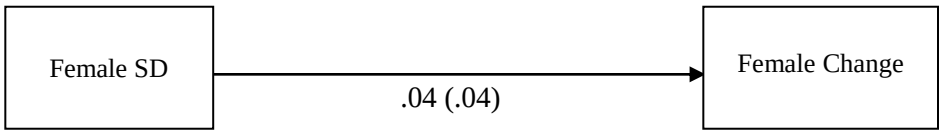
found between male change in dyadic adjustment and male SD (F (2, 92) = 5.376, ß= -.02, ns). When female change in dyadic change was regressed onto female SD in Model 3b, there were similar results (F (2, 92) = 4.579, ß = .04, ns). Therefore, the second criterion for mediation (The independent variable must be significantly related to the dependent variable) set forth by Baron and Kenny (1986) was not met for either males or females, which removed the justification for fitting a mediation model for males as well.

*Figure 3.*

Model 3a: Regressing Male Change in Dyadic Adjustment on Male SD




Model 3b: Regressing Female Change in Dyadic Adjustment on Female SD




*Note*. Controlling for therapeutic alliance. ß (Standard Error)

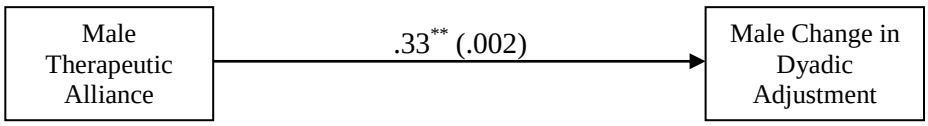
*Hypothesis 3: Client therapeutic alliance will be positively related to changes in dyadic adjustment ratings between intake and session four*. In Model 4a, male change in dyadic adjustment was regressed onto male therapeutic alliance. As expected, the model was a good fit for the data. Results showed a significant positive relationship between male therapeutic alliance and male change in dyadic adjustment (F (2, 92) = 5.376, ß= .33, $p < .002$). Controlling for all else in the model, for each one unit difference in male therapeutic alliance, there was a positive .33 unit difference in male change in dyadic adjustment. Change in male dyadic adjustment explained 9% of the variance in male therapeutic alliance (Adjusted $R^2$= .09).

Model 4b showed a similar relationship between female therapeutic alliance and female change in dyadic adjustment. Regressing change in female dyadic adjustment onto female therapeutic alliance showed a significant positive relationship between the two variables (F (2, 92) = 4.579, ß= .29, p < .005). Thus, for each one unit difference in female therapeutic alliance, there was a positive .29 unit difference in female change in dyadic adjustment. Female dyadic adjustment explained 7% of the variance in female therapeutic alliance (Adjusted $R^2$= .07).

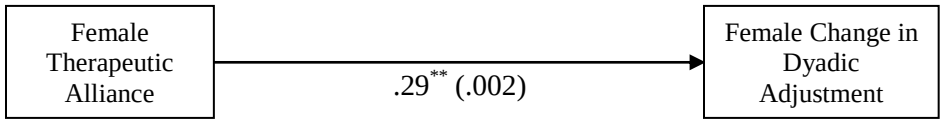
According to these findings, the third criterion for mediation (The hypothesized mediator must be significantly related to the dependent variable) was met for both males and females. However, as the second criterion was not met for males, and neither the first or second criteria were met for females, there was no justification to fit a mediation model for either males or females.

*Figure 4*.

Model 4a: Regressing Male Change in Dyadic Adjustment on Male Therapeutic Alliance




Model 4b: Regressing Female Change in Dyadic Adjustment on Female Therapeutic Alliance




*Note*. Controlling for SD. ß (Standard Error)
** $p < .01$.

*Ad Hoc Analysis*

After completing the above analyses, an additional analysis was completed fitting a moderation model to the data. To do this an interaction term between SD and therapeutic alliance was created to determine whether SD moderated the relationship between therapeutic alliance and change in dyadic adjustment. SPSS was used to fit this model. The model was fit twice—once for males and once for females. As shown in Table 4, the findings indicate that change in dyadic adjustment was not affected by SD for either males ($F (3, 91) = 3.242$, $\beta = .66$, ns) or females ($F (3, 91) = 1.734$, $\beta = .21$, ns).

Table 4

*Summary of Hierarchical Regression Analysis Predicting Change in Dyadic Adjustment*

| Variable | $R^2$ Adjusted | B | SE | β |
|---|---|---|---|---|
| *Males* | .067 | | | |
| SD | | -.145 | .31 | -.048 |
| Alliance | | .058 | .020 | .302 |
| SD * Alliance | | .008 | .008 | .657 |
| *Females* | .023 | | | |
| SD | | .193 | .37 | .054 |
| Alliance | | .051 | .024 | .215 |
| SD * Alliance | | .003 | .009 | .206 |

*Note:* SD * Alliance (interaction term between SD and therapeutic alliance).

## Discussion

The most interesting finding yielded from the analysis was the positive relationship between male SD and male therapeutic alliance. This finding is a surprising contrast to the original findings of Kelly (1998) and Kelly and Yuan (2009), who found SD to be negatively correlated with therapeutic alliance in individual therapy with a mostly female population. The finding is supported, however, by the numerous studies which have shown SD to be correlated with high relationship quality (Fowers, Lyons, & Montel, 1996; McCrae & Costa, 1983; Russell & Wells, 1992). The factors that contribute to positive relationships with high SD males could apply also in a therapeutic relationship.

Also of interest is the lack of a significant relationship between female SD and female therapeutic alliance or female change in relationship quality, which is also in contrast to findings from Kelly (1998), and Kelly and Yuan (2009). It appears that the relationship between SD and the two other variables could function differently in couples therapy. Findings from Knobloch-Fedders, Pinsof, and Mann (2007) suggest that the couple alliance may be a factor in the difference. They found that after the initial session, the manner in which each partner viewed the others therapeutic alliance was more predictive of outcomes than their own therapeutic alliance—particularly for females. This finding could have implications in the current study, and further investigation could shed additional light on this possibility. Unfortunately, the partners' perception of the couple alliance was not an aspect of this study, which leaves that possibility open only to speculation.

There is also the possibility that methodological weaknesses played a part in the disparity between the findings of the current study and those from studies of individual therapy (Kelly, 1998; Kelly & Yuan, 2009). As discussed in the literature review, at the time participants in each of these studies were sampled, they had received anywhere from 3 to 30 sessions (Kelly, 1998), or 2 to 52 sessions (Kelly & Yuan, 2009). These vast differences in the amount of sessions received by participants, and the associated development of the therapeutic alliance could have played a part in creating discrepancies in findings.

*Summary of Results*

*Hypothesis 1.* Results from Model 2 did not support Hypothesis 1. In fact, as discussed above, for males the opposite was true. It was found that on average, high SD in males is positively related to therapeutic alliance. High SD in females was not. This suggests that on average, males who score high on SD in couple therapy will also join well with their therapists. High SD in females however, has no relationship with therapeutic alliance. As also noted above, these results contrast the findings from individual therapy, showing high SD to be negatively related to therapeutic alliance for females (Kelly, 1998; Kelly & Yuan, 2009). In couple therapy, it would appear that the relationship between SD and therapeutic alliance functions differently.

*Hypothesis 2.* Hypothesis 2 was also not supported. SD was not related to change in dyadic adjustment for males or females. This also contrasted the findings from Kelly (1998) and Kelly and Yuan (2009) for females, which suggested that outcomes would be negatively related to SD. In couple therapy however, there appears to be no relationship between level of SD and changes in relationship adjustment.

*Hypothesis 3.* Results from the regression analysis yielded full support for Hypothesis 3. It was found that on average, therapeutic alliance is positively related to dyadic adjustment in

couple therapy for both males and females. This suggests that generally, males and females who have a strong therapeutic alliance will be more likely to report change in dyadic adjustment than will males and females who do not. These findings are consistent with those reported by Horvath and Symonds (2004) and also by Anker, Duncan, Owen, and Sparks (2010) who found that the quality of the therapeutic alliance for the male and female predicted final therapeutic outcomes.

These findings also add to the variety reported in alliance studies that have shown gender differences in the strength of the influence on therapeutic alliance on relationship outcomes. Some have identified male therapeutic alliance as the stronger predictor of change (Glebova et al., 2011). This study, however, supports those who have found the female therapeutic alliance to be the stronger predictor (Anker, Duncan, Owen & Sparks, 2010), as female therapeutic alliance was shown to be related to both male and female change, and male therapeutic alliance was related only to male change.

*Hypothesis 4.* Hypothesis 4 was not tested as the mediation model was not justified following the preliminary analyses.

### *Implications of Research Findings*

The most obvious implication of the research findings is that high SD is not a predictor of poor outcomes in couple therapy. In contrast to findings from Kelly (1998) and Kelly and Yuan (2009) which suggest that high SD will be associated with poor outcomes, high SD in males can instead serve as a predictor of good outcomes in couple therapy.

The current analysis also found additional couple differences in the influence of the therapeutic alliance on relationship outcomes. The female therapeutic alliance was found to predict both male and female change in relationship quality, and male therapeutic alliance to

predict only male change. As findings of therapeutic alliance in couple therapy have shown a pattern of variation, it is not surprising to see the variation reflected in this study as well.

*Limitations*

One obvious limitation of this study is that it utilized only self-report data. Though self-report is an acceptable method of data collection, it also introduces the possibility of additional error, which must be considered in the findings. As this study included SD as a variable, it highlights the probability that the high SD participants may have represented themselves and their relationships inaccurately, which can also introduce error.

The use of the R-DAS (Busby et al., 1995) could also be a weakness as a measure of change in this study. It was found that the R-DAS, while an effective measure of dyadic adjustment at a single point, may not be an efficient measure of change (Johnson, Hunsley, Greenberg & Schindler, 1999).

Additionally, the couples included in this study were not recruited through random sampling. They self-selected themselves. While in other settings this could be a great weakness, it is less concerning in a clinical setting, as most couples who receive therapy generally do so voluntarily. Caution should be used however, when generalizing these findings to couples who are court-ordered or who are otherwise mandated to receive therapy.

*Future Research*

As is the result in many studies, the results of the current study have generated additional questions. Existing research has demonstrated some gender differences in how high SD influences relationships. It has been shown that high SD in males can be detrimental to non-romantic, same-sex relationships, while for females high SD can predict high relationship quality in non-romantic same-sex relationships (Joiner, Vohs, Katz, Kwon, & Kline, 2003). This study

however, found that high SD in males is predictive of a strong therapeutic alliance in couple therapy, but that high SD in females is not. This study did not consider the sex of the therapist as a factor. Future research can begin to investigate the possibility that gender differences in SD may be partly explained by sex of the therapist.

Female findings for SD in this study also contrast the previous findings for individual therapy with females (Kelly, 1998; Kelly & Yuan, 2009), such that SD is not predictive of alliance or outcomes. Future research should focus on these differences. Hypotheses can include that possibility that findings from Knobloch-Fedders, Pinsof, and Mann (2007) may explain part of the difference.—specifically, that a female's perception of her partner's therapeutic alliance may be more predictive of outcomes than her own therapeutic alliance, thus removing the influence of SD.

References

Anker, M. G., Duncan, B. L., Owen, J., & Sparks, J. A. (2010). The alliance in couple therapy: Partner influence, early change, and alliance patterns in a naturalistic sample. *Journal of Consulting and Clinical Psychology, 78(5),* 635-645.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51(6),* 1173-1182.

Borkenau, P., & Ostendorf, F. (1993). NEO-Fu¨nf-Faktoren Inventar [NEO Five Factor Inventory] (NEO-FFI). Göttingen: Hogref

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: Construction hierarchy and multidimensional scales. Journal of Marital and Family Therapy, 21, 289-308.

Buss, D.M., & Shackelford, T.K. (1997). Susceptibility to infidelity in the first year of marriage. *Journal of Research in Personality*, 31, 193–221.

Costa, P. T., Jr., & McCrae, R. R. Still stable after all these years: Personality as a key to some issues in adulthood and old age. In P. B. Baltes & O. G. Brim (Eds.), Life span development and behavior (Vol. 3). New York: Academic Press, 1980.

Costa, P. T., & McCrae, R. R. (1992). Revised NEO personality inventory: Professional manual. Odessa, FL: Psychological Assessment Resources

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Counceling Psychology*, *24*(4), 349-354.

Derogatis, L. R. (1993), *Brief Symptom Inventory (BSI): Administration, scoring, and procedures manual* (3rd ed.). Minneapolis, MN: National Computer Systems.

Duncan, B. L., Miller, S. D., Reynolds, L., Sparks, J., Claud, D., Brown, J., & Johnson, L. D. (2003). The session rating scale: Psychometric properties of a "working" alliance scale. *Journal of Brief Therapy*, 3(1), 3–12.

Eisen, S. V., Grob, M. C., & Klein, A. A. (1986). BASIS: The development of a self-report measure for psychiatric inclient evaluation. *The Psychiatric Hospital, 17*, 165–171.

Eysenck, H. J., & Eysenck, S. B. G. Manual of the Eysenck Personality Inventory. London: University Press, 1964.

Eysenck, S.B.G., Eysenck, H.J., & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Individual Differences*, 6, 21–29.

Fowers, B.J., Lyons, E.M., & Montel, K.H. (1996). Positive marital illusions: Self-enhancement or relationship enhancement? *Journal of Family Psychology*, 10, 192–208.

Glebova, T., Bartle-Haring, S., Gangamma, R., Knerr, M., Delaney, R., Meyer, K., McDowell, T., Adkins, K., Grafsky, E. (2011). Therapeutic alliance and progress in couples therapy: Multiple perspectives. *Journal of Family Therapy*, 33(1), 42-65.

Graziano, W.G., & Tobin, R.M. (2002). Agreeableness: Dimension of personality or social desirability artifact? *Journal of Personality*, 70, 695–727.

Horvath, A. O. (2001). The alliance. *Psychotherapy: Theory, Research, Practice, Training, 38*, 365-372.

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

Horvath, A. O., & Symonds, B. D. (1991). Relation between working alliance and outcome in psychotherapy: A meta-analysis. *Journal of Counseling Psychology, 38*, 139-149.

Johnson, S. M., Hunsley, J., Greenberg, L., & Schindler, D. (1999). Emotion focused couples therapy: Status and Challenges. *Clinical Psychology: Science and Practice*, 6, 67-79.

Joiner, T., Vohs, K., Katz, J., Kwon, P., & Kline, J. (2003). Excessive self-enhancement and interpersonal functioning in roommate relationships: Her virtue is his vice? *Self and Identity*, 2, 21–30.

Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), Handbook of research methods in social and personality psychology (pp. 451–477). New York, NY: Cambridge University Press.

Kelly, A. E. (1998). Clients' secret keeping in outpatient therapy. *Journal of Counseling Psychology*, 45(1), 50.

Kelly, A. E., & Yuan, K. (2009). Clients' secret keeping and the working alliance in adult outpatient therapy. *Psychotherapy: Theory, Research, Practice, Training*, 46(2)

Kivlighan, D. M. (2007). Where is the relationship in research on the alliance? Two methods for analyzing dyadic data. *Journal of Counseling Psychology*, 54, 423–433.

Knobloch-Fedders, L. M., Pinsof, W. M., & Mann, B. J. (2007). Therapeutic Alliance and Treatment Progress in Couple Psychotherapy. *Journal of Marital & Family Therapy, 33(2)*, 247-257.

Kurtz, J.E., Tarquini, S.J., & Iobst, E.A. (2008). Socially desirable responding in personality assessment: Still more substance than style. *Personality and Individual Differences*, 45, 22–27.

Lambert, M. J., Hansen, N. B., Umpress, V., Lunnen, K., Okiishi, J., Burlingame, G. M., et al. (1996). Administration and scoring manual for the OQ-45.2 (outcome questionnaire). Stevenson, MD: American Professional Credentialing Services LLC.

Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. Journal of Social and Clinical Psychology, 9, 439-455.

Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, 21, 251–255.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*, 438-450.

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

McCrae, R.R., & Costa, P.T. (1983). Social desirability scales: More substance than style. *Journal of Consulting and Clinical Psychology*, 51, 882–888.

Miller, S. D., & Duncan, B. L. (2004). The Outcome and Session Rating Scales: Administration and scoring manual. Ft. Lauderdale, FL: Authors.

Olson, D. H., Fournier, D. G., & Druckman, J. M. (1987). Counselor's manual for PREPARE/ENRICH (Rev. ed). Minneapolis, MN: PREPARE/ENRICH, Inc.

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, & P. R. Shaver (Eds.), Measures of personality and social psychological attitudes. Measures of social psychological attitudes (Vol. 1) (pp. 17–59). San Diego, CA: Academic Press

Pauls, C.A., & Stemmler, G. (2003). Substance and bias in social desirability responding.

*Personality and Individual Differences*, 35, 263–275.

Pinsof, W. M. (1994). An integrative systems perspective on the therapeutic alliance: Theoretical, clinical, and research implications. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 174-195). New York: Wiley.

Pinsof, W. M., & Catherall, D. R. (1986). The integrative psychotherapy alliance: Family, couple, and individual therapy scales. *Journal of Marital and Family Therapy, 12(2),* 137-151.

Porter, R., & Ketring, S. (2011). Contributing factors in the therapeutic alliance. *Journal of Relationship and Couple Therapy, 10,* 201-14.

Roach, A., Frazier, L., & Bowden, S. (1981). The Marital Satisfaction Scale: Development of a measure for intervention research. *Journal of Marriage and the Family*, 43, 537–545.

Russell, R.J.H., & Wells, P.A. (1992). Social desirability and quality of marriage. *Personality and Individual Differences*, 13, 787–791.

Sackheim, H. A., & Gur, R. C. (1979). Self-deception, other-deception, and self-reported psychopathology. Journal of Consulting and Clinical Psychology, 47, 213-215.

Scheier, M. R, & Carver, C. S. (1985). Optimism, coping and health: Assessment and implications of generalized outcome expectancies. Health Psychology, 4, 219-247.

Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology*, 28(2), 191-193.

Swann, W. B., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). Allure of negative feedback: Self-verification striving among depressed persons. *Journal of Abnormal Psychology*, 101, 293-305.

Symonds, B. D. (1999). *The measurement of alliance in short term couples therapy*. Unpublished Doctoral Dissertation, Simon Fraser University, Burnaby.

Symonds, B. D., & Horvath, A. O. (2004). Optimizing the alliance in couples therapy. *Family Process, 43(4),* 443-455.

The Minnesota multiphasic personality inventory (Rev. ed., 2nd printing.). Hathaway, S. R.; McKinley, J. C. Minneapolis, MN, US: University of Minnesota Press. (1943).

Tracey, T. J., & Kokotovic, A. M. (1989). Factor structure of the Working Alliance Inventory. Psychological Assessment: *Journal of Consulting and Clinical Psychology*, 37, 369–375.

Uziel, L. (2010). Rethinking social desirability scales: From impression management to interpersonally oriented self-control. *Perspectives On Psychological Sciences, 5*(3), 243-262.

Appendix A

Social Desirability Measure

**Marlowe-Crowne Social Desirability Scale - shortened version**

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is ***true*** or ***false*** as it pertains to you personally.

_____ 1. It is sometimes hard for me to go on with my work if I am not encouraged.

_____ 2. I sometimes feel resentful when I don't get my way.

_____ 3. There have been times when I felt like rebelling against people in authority even though I knew they were right.

_____ 4. No matter who I'm talking to, I'm always a good listener.

_____ 5. There have been occasions when I took advantage of someone.

_____ 6. I'm always willing to admit it when I make a mistake.

_____ 7. I sometimes try to get even rather than forgive and forget.

_____ 8. I am always courteous, even to people who are disagreeable.

_____ 9. I have never been irked when people expressed ideas very different from my own.

_____ 10. There have been times when I was quite jealous of the good fortune of others.

_____ 11. I am sometimes irritated by people who ask favors of me.

_____ 12. I have never deliberately said something that hurt someone's feelings.

Appendix B

Therapeutic Alliance Measure

**Couple Therapy Alliance Scale**

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

| | Completely Agree 7 | Strongly Agree 6 | Agree 5 | Neutral 4 | Disagree 3 | Strongly Disagree 2 | Completely Disagree 1 |
|---|---|---|---|---|---|---|---|
| 1. The therapist cares about me as a person | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2. The therapist and I are not in agreement about the goals for this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3. My partner and I help each other in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4. My partner and I do not feel the same ways about what we want to get out of this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5. I trust the therapist. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 6. The therapist lacks the skills and ability to help my partner and myself with our relationship. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 7. My partner feels accepted by the therapist. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 8. The therapist does not understand the relationship between my partner and myself. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 9. The therapist understands my goals in therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10. The therapist and my partner are not in agreement about the about the goals for this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 11. My partner cares about the therapist as a person. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12. My partner and I do not feel safe with each other in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 13. My partner and I understand each other's goals for this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 14. The therapist does not understand the goals that my partner and I have for ourselves in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 15. My partner and the therapists are in agreement about the way the therapy is being conducted. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 16. The therapist does not understand me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 17. The therapist is helping my partner and me with our relationship. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 18. I am not satisfied with the therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 19. My partner and I understand what each of us is doing in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 20. My partner and I do not accept each other in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 21. The therapist understands my partner's goals for this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 22. I do not feel accepted by the therapist. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 23. The therapist and I are in agreement about the way the therapy is being conducted. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 24. The therapist is not helping me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 25. The therapist is in agreement with the goals that my partner and I have for ourselves as a couple in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 26. The therapist does not care about my partner as a person. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 27. My partner and I are in agreement with each other about the goals of this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 28. My partner and I are not in agreement about the things that each of us needs to do in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 29. The therapist has the skills and ability to help me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 30. The therapist is not helping my partner. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 31. My partner is satisfied with the therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 32. I do not care about the therapist as a person. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 33. The therapist has the skills and ability to help my partner. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 34. My partner and I are not pleased with the things that each of us does in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 35. My partner and I trust each other in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 36. My partner and I distrust the therapist. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 37. The therapist cares about the relationship between my partner and myself. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 38. The therapist does not understand my partner. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 39. My partner and I care about each other in this therapy. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 40. The therapist does not appreciate how important my relationship between my partner and myself is to me. | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

Appendix C

Dyadic Adjustment Measure

**Revised Dyadic Adjustment scale**

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

| | Always agree | Almost Always Agree | Occasionally Agree | Frequently Disagree | Almost Always Disagree | Always Disagree |
|---|---|---|---|---|---|---|
| 1. Religious matters | _____ | _____ | _____ | _____ | _____ | _____ |
| 2. Demonstrations of affection | _____ | _____ | _____ | _____ | _____ | _____ |
| 3. Making major decisions | _____ | _____ | _____ | _____ | _____ | _____ |
| 4. Sex relations | _____ | _____ | _____ | _____ | _____ | _____ |
| 5. Conventionality-correct/proper behavior | _____ | _____ | _____ | _____ | _____ | _____ |
| 6. Career decisions | _____ | _____ | _____ | _____ | _____ | _____ |

| | All the time | Most of the time | More often than not | Occa-sionally | 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? | _____ | _____ | _____ | _____ | _____ | _____ |
| 9. Do you ever regret that you married (or live together)? | _____ | _____ | _____ | _____ | _____ | _____ |
| 10. How often do you and your mate "get on each other's nerves"? | _____ | _____ | _____ | _____ | _____ | _____ |

| | Every | Almost | Occasionally | Rarely | Never |
|---|---|---|---|---|---|

| | | Day | Every Day | | | |
|---|---|---|---|---|---|---|
| 11. Do you and your mate engage in outside interests together? | | _____ | _____ | _____ | _____ | _____ |

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

| | 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 | _____ | _____ | _____ | _____ | _____ | _____ |