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# Couple Attachment and Sexual Desire Discrepancy: A Longitudinal Study of Non-Clinical Married Couples at Mid-Life

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Couple Attachment and Sexual Desire Discrepancy: A Longitudinal Study of  
Non-Clinical Married Couples at Mid-Life

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A dissertation submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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## ABSTRACT

### Couple Attachment and Sexual Desire Discrepancy: A Longitudinal Study of Non-Clinical Married Couples at Mid-Life

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Using latent growth curve modeling, this longitudinal study examined the patterns of the discrepancy between desired and actual frequency of sexual intercourse for 331 married couples over a period of 5 years. In addition, couple insecure attachment and control variables such as age, length of relationship, income, race, and education were used to predict each partner's sexual desire discrepancy (SDD) and its change over the 5 year time period. Participants were asked to report their actual frequency of sexual intercourse and their desired frequency in each wave of data collection. Discrepancy scores were created for each year by subtracting the reported actual frequency from the reported desired frequency separately for wives and for husbands. In terms of change over time, findings showed a significant change across time for wives with a trend toward less discrepancy over time. Husbands' discrepancy scores were higher than wives and remained stable over the five years. Insecure attachment predicted the average SDD for husbands. Wife income predicted the change in SDD over the five years for husbands but not for wives. Wife race predicted the average SDD for husbands. Implications for research and clinical use are highlighted.

Keywords: sexual desire discrepancy, sexual satisfaction, sexual frequency, sexual desire, sex, attachment, insecure attachment, mid-life, married couples

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## **Introduction**

Human sexuality has long been examined both empirically and theoretically (Bloch, 1958; Carvalho & Nobre, 2011; Freud, 1916; Havelock, 1937; Hirschfeld, 1935; Kaplan, 1974; Kinsey, 1953; Masters & Johnson, 1986; McNulty & Fisher 2008; Reece et al, 2010a; Reich, 1973; Singer & Toates, 1987). Sex research has produced descriptive, longitudinal, and correlational understanding among variables including norms, trends, dysfunctions, abnormalities, and mediating variables. However, there is still much that is not known, especially about patterns of desire compared to actual sexual intercourse in mid-life marriages. Society as a whole has reason to investigate this, as 30% of U.S. healthcare costs are associated with sexual concerns (Elders, 2010). This study examined sexual desire discrepancy (SDD), or the difference between how often a person would like to have intercourse and its actual occurrence, over the course of 5 years in mid-life married couples.

There are many studies examining the sexual desire of individuals (Anders, 2012; Kaplan, 1977; Laumann, Gagnon, Michael, & Michaels, 1994; Spector & Carey, 1996) and couples (Impett, Strachman, Gable, 2008; McCabe, 1997; Trudel, Landry, & Larose, 1997; Yucel & Gassanov, 2010) as well as the frequency of sexual interaction reported by single men and women (Anders, 2012; Herbenick, et al., 2010a) and as a dyad (Call, Sprecher, & Schwartz, 1995; Gager & Yabiku, 2010; Rao & DeMaris, 1995). However, there is limited research examining both individual and couple reports of SDD and examining changes in SDD over time in middle age marriages. Furthermore, the study of sexual frequency trends across time is relatively sparse and in dire need of additional examination (Willoughby & Vitas, 2012). Predictors of SDD change across time are also scarce. More is known about the sexual activities of clinical populations while comparatively little is known about non-clinical populations (Apt, Hurlbert, & Clark, 1994; Daker-White, 2002; Timm & Keiley, 2011). Further exploration shows

a significant gap in the literature of non-clinical populations within mid-life and their sexual activity, and there is a paucity of studies investigating marital sexuality specifically (Timm & Keiley, 2011).

Sexual desire and practice understanding from this population would serve to be invaluable to those searching for greater understanding about the significant number of couples divorcing within mid-life. Sexual issues are cited as a common reason for divorce (Taylor, 2011). A study from AARP examining divorce among those aged 40+ illustrates that mid-life is fraught with divorce. Divorce was shown to be common among 43% of those aged 40-44 and 30% of those aged 45-49 (Montenegro, 2004).

The main purposes of this study were twofold. The first was to examine the change trajectory of SDD across time to better understand marital sexuality. The second was to explore how attachment influences actual and desired sexual frequencies of married couples across time. A better understanding of sexual desire and activity within mid-life couples will help to guide future research and provide the necessary groundwork for a competency model of treatment within this specific population. People in our society are living longer and therefore spending more time as sexually active individuals. A study by Reece et al. (2010b) illustrated that 50% of men in their sixth and seventh decades were having vaginal intercourse. Thus, understanding sexuality will have a larger impact in individual's and couple's lives than in previous generations.

Additionally, more clarity could help to lower healthcare costs. The National Survey of Sexual Health and Behavior (NSSHB), a cross-sectional study aids with this clarity. NSSHB was conducted by the Kinsey Institute and the University of Indiana. There were nine papers that were derived from the NSSHB that examine the sexual health behaviors of a nationally

representative sample. The sample included 5,865 adolescents and adults. One paper written from the NSSHB shows that 30% of U.S. healthcare cost is related to sexuality (Elders, 2010). Such a significant percent of health care costs calls for much research examining sexual health and practices at all ages of life.

We hypothesized that both husband and wife sexual desire and activity will be dissimilar across time. The researchers included attachment in a conditionally estimated model of SDD since attachment researchers have theorized that sexual intimacy in bonded relationships is related to attachment (Schachner & Shaver, 2004). We therefore posited that those with higher insecure attachment would have a higher level of discrepancy between sexual desire and activity and that this might increase over time. In order to better comprehend the SDD as a construct relevant to mid-life marriages, the following literature review will include discussion of 1) findings and theory concerning sexual involvement through mid-life, 2) the interaction between sexual desire and sexual activity, 3) gender, relationship length, and sexual satisfaction, and 4) attachment as a possible predictor of the SDD. Little has been published illustrating the dyadic trend for sexual activity and desire across time in non-clinical populations at mid-life.

### **Literature Review**

#### **The Interaction between Sexual Desire and Sexual Activity**

As noted above, sexual desire and sexual activity have been a frequent topic of research. Much has been discovered about sexual desire and its role in individual and couple life. Little is known; however about the junction of sexual desire and actual sexual activity of an individual, especially in mid-life marriages (Willoughby & Vitas, 2012). Such knowledge can provide invaluable guidance in sex therapy and in helping couples understand normal sexual behavior. Basson (2002) proposed that desire often precedes sexual activity, but she also concluded that

this is not always the case. Men and women alike have both been found to report sexual activity in the absence of sexual desire (Beck, Bozman, & Qualtrough, 1991). These findings lead one to conclude that the traditional sequence of the sexual response cycle (Kaplan, 1979; Masters & Johnson, 1966) is not always what plays out in the marital sexual relationship and that the mere occurrence of sexual activity does not, in and of itself, imply sexual desire from one or both partners.

There are likely important relational implications when examining the differences of sexual desire and actual sexual activity (Regan, 2000). Sexual desire has been suggested as the motivational element tied to feelings of romantic love. Furthermore, it has been proposed that sexual frequency is a mechanism of sexuality tied to relationship progression (Regan, 2000). It would therefore stand to reason that desire would be a key predictor of sexual activity. Exploring these two distinctly different concepts may provide imperative information about sexual dynamics. Therefore, the discrepancy between these two variables is of significant importance to the dyadic relational and sexual scholars.

In this study, sexual desire discrepancy (SDD) is the difference between an individual's actual sexual frequency and their desired sexual frequency. This is a measure of how well the sexual behaviors in a couple lines up with the individuals' desire to be sexually intimate (Willoughby & Vitas, 2012). SDD has been defined differently by varying researchers. SDD has been operationalized as the differences between partners in desired sexual frequency (Davies, Katz, & Jackson, 1999; Mark, 2012; Simms & Byers, 2009) and in single individuals as the difference between what sexual interaction they desire and its actual occurrence (LoPiccolo & Steger, 1974; Willoughby & Vitas, 2012). Bridges & Horne (2007) are an example of how SDD has been defined differently from our current study. They examined the sexual desire

difference between couples. Some of the indicators of their definition of SDD were (a) My partner desires to have sexual relations more than I do, and this has caused problems in our relationship; (b) I desire to have sexual relations more often than my partner, and this has caused problems in our relationship. The SDD as it relates to an individual's report of actual and desired sexual frequencies has been researched far less.

Furthermore, SDD research in non-clinical populations is extremely sparse. Non-clinical SDD trajectories may show different trends than those of the clinical populations. While this study examines the SDD trajectories of non-clinical populations, the researchers have yet to find research examining the SDD (individual actual and desired sexual frequencies) of clinical populations. However, overall there is more research on sexuality among clinical populations. Some researchers such as LoPiccolo & Steger (1974) have strictly assessed clinical populations struggling with sexual dysfunction, while non-clinical populations have not been the focus of scholarly work (Daker-White, 2002). A unique contribution of this study is the examination of desire and sexual frequency for both husband and wife over a five year period during mid-life marriage. The examination of SDD longitudinally is limited, and this study is the beginning of understanding SDD change over time. Additionally, none of the known published studies have used non-clinical longitudinal data of married couples at mid-life to study the change trajectory of partner SDD. Since this is a study of SDD in mid-life marriages, the literature on health and aging as it relates to sexuality is relevant to review.

### **Health, Aging, and Sexuality**

Numerous studies sampling women's sexual desire in mid-life and after menopause have provided researchers with data linking the mid-life/menopause developmental phase of a woman's life cycle with a decrease in sexual desire (Koch, Mansfield, Thureau, and Carey, 2005;

Nobre & Pinto-Gouveia, 2006). There has yet to be a distinction as to the exact cause for this decrease, whether it is a perceived lack of attractiveness, menopausal status, or other age related or medical causes. It is clear, however, that there is a correlation between age and a decrease in sexual desire among women.

There has been an increase in research studying the correlation of medical factors and sexual desire in men. Many medical conditions make it difficult to have a sexually fulfilling relationship due to medical procedures, medication, or the physical effects of the condition. Basson and Schultz (2007) state that cardiovascular, neurological, and endocrine diseases are etiological factors for hypoactive sexual desire disorder in men. Lutz et al. (2005) make a similar claim with regard to urologic pain. Androgens, important hormones for male sexual desire, have been found to decrease in men as they age. This decrease is partially at fault for the decrease in sexual desire in men as they age (Martins, 2003).

Lindau et al. (2007) conducted a prevalence sample of sexuality and health among older adults. Men and women who reported their health was poor were less likely to be sexually active. Those sexually active who reported poor health experienced more sexual dysfunction. This lack of sexual ease, prevalence of sexual problems, or decrease in sexual activity overall could be a significant factor involved in the decreased sexual desire described above.

### **Reported Marital Intercourse over the Life Course**

The research on sexual frequency in marriage has shown several trends. The most prominent trend that has appeared consistently in studies is that those married for a longer period of time report less sexual activity than those early in their marriage (Blumstein & Schwartz, 1983; Hunt, 1974; Kinsey, Pomeroy, & Martin, 1948). A seminal investigation of sexual activity in dyads (Blumstein and Schwartz, 1983) showed that young couples early in marriage had sex

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two to three times per week, on average. Of the couples married for less than two years, forty-five percent reported having sex three times per week or more. Other researchers (Greenblat, 1983; Kahn & Udry, 1986; Udry, 1980) also found that sexual activity for married couples declines over the early years of marriage. In a cross-sectional study using National Survey of Families and Households data, sexual frequency was similarly shown to decline based on years married (Call, Sprecher, & Schwartz, 1995).

Age-related factors were found to be a major reason for marital sexual activity decline over the life course (Call et al., 1995; James, 1983). Women's perception of their health was related to decreased sexual activity (Hebernick et al., 2010b; Reece et al., 2010a). Research on married couples, over the age of 60, shows that sexual activity occurs less frequently compared to younger populations (Riportella-Muller, 1989).

Studies using The National Survey of Sexual Health and Behavior have shown similar findings. This survey by the Kinsey Institute at Indiana University was conducted in the year 2009 with over 5,800 participants. The combined data of married couples, over 1,000 married men and 1,000 married women (not married to each other), showed that the age group of 20-29 year olds reported having intercourse 2-3 times per week, on average. All age groups except those 70 and older reported having intercourse at least a few times a year on average (Herbenick et al., 2010). Laumann et al. (1994) found that married couples under the age of 60 reported an average sexual frequency of 1.6 times per week. Lindau et al. (2007) reported similar findings, with sexual frequency declining with age. These researchers also found that women reported less sexual activity than men. Despite decreasing frequency with age, at least 85% of couples under 69 years of age reported having sexual intercourse within the last year. In a study using the Indiana University nationally representative cross-section survey, prevalence results

indicated that 20-30% of both men and women reported remaining sexually active into their 80's (Schick et al., 2010). Of course, the construct of these studies is intercourse frequency by age cohorts. However, these surveys did not ask married men and women how often they desired sexual intercourse, as our current study does. The present study makes a contribution by examining the difference between reported intercourse and desired intercourse over a 5 year span in mid-life marriages. The literature examining gender differences in sexual frequency and how length of relationship is related to reported sexual frequency is relevant to the constructs in this study.

### **Gender and Relationship Length as Associated with Marital Sexual Frequency**

Not only do men and women differ anatomically, physiologically, and psychologically, there are gender differences in sexual satisfaction, types of sexual interaction, and frequency (Bancroft & Graham, 2011). The culture and society in which people live similarly plays an enormous part in shaping men's and women's views of sexuality (Brotto, Woo, & Ryder, 2007; Meston & Ahrold, 2010). Gagnon and Simon (2005) claimed that women and men are socialized to differing social and sexual concepts. Research shows that females want to participate in activities that demonstrate love and emotional intimacy (Buss, 2003; Leigh, 1989; Meston, Buss, 2007), whereas males are enthusiastic to engage in sexual activities that are more focused on sexual arousal, visual stimuli, and eroticism (Buss, 2003; Hatfield, Sprecher, Pillemer, & Greenberger, 1988; Meston, Buss, 2007). However, researchers who study nationally representative samples in Finland and France concluded that there is no gender difference in sexual satisfaction in those countries (Colson, Lemaire, Pinton, Hamidi, & Klein, 2006; Haavio-Mannila & Kontula, 1997). The current study provides more clarification as to how SDD varies between men and women by using an actor-partner model.



There has been much research suggesting that gender differences occur in terms of frequency of sexual desire and actual sexual activity. The effects of such differences on the overall relationship satisfaction may differ for both men and women in terms of amount and the effects of a type of sexual behavior (Santtila et al., 2008). Buss (2000) found gender differences with regard to sexual desire and concluded that men experience higher levels of sexual desire at all stages of couple relationships (Baumeister, Catanese, & Vohs, 2001). Similarly, Schmitt et al. (2003) conducted a cross-cultural survey showing that men, married or single, consistently desired more sexual partners than women.

Large scale surveys have shown that sexual desire and concepts of sexual frequency tend to decline with the length of time partners have been in a relationship (Johnson, Wadsworth, Wellings, & Field, 1994; Klusmann, 2002). A cross-sectional survey showed similar results for reported sexual frequency in men and women; however, men and women reported differences in sexual desire. Men reported desiring the same frequency of intercourse initially and one year later, but women reported a lower desire of intercourse as the relationship length expanded (Klusmann, 2002). Johnson et al. (1994) confirmed that the length of the relationship had more predictive value concerning the sexual frequency than the age of the research participants (Johnson et al., 1994). Extant empirical research and theoretical literature coincide with the above findings that sexual desire and actual frequency decline with the length of the relationship (James, 1981; Liu, 2000, Liu, 2003; Schneidewind-Skibbe, Hayes, Koochaki, Meyer, & Dennerstein, 2008).

### **Sexual Satisfaction**

Why study the SDD in mid-life? What is the importance of having a deeper understanding of the trends of this population? The following section of this review addresses

these questions using literature related to sexual satisfaction. It is through gaining more clarity concerning the trajectory of the SDD that clinicians can more easily negotiate the presentation of sexual desire and activity concerns in therapy. Resolutions of such concerns have the potential of increasing couple sexual satisfaction as well as relationship satisfaction.

There is also a “money variable” tied to sexual satisfaction. Physical and emotional health has been associated with sexual satisfaction of older adults (Laumann et al., 2006). The 1992 National Health and Social Life Survey provides additional rationale for a study of this kind. This nationally representative sample of over 3,400 participants was asked how frequently they think about sex. Over half of men, 54%, and nearly a fifth of women, 19%, indicated that they thought about sex once a day (Laumann, Gagnon, Michael, and Michaels, 1992). With sex being a regular thought for a large portion of both men and women, understanding the sexual behaviors and desires of this population seems requisite. Additionally, the use of a SDD score may be merely one way of assessing sexual satisfaction within a couple.

Sexual satisfaction has been the topic of numerous empirical studies. Sexual satisfaction has been shown by some studies to reach its peak at the onset of the relationship and tends to decline as the length of the relationship endures (Basson, 2002; Levine, 2003). However, other studies report different findings. A 2004 nationally representative sample of adults 45 and older reports that both men and women in mid-life are likely to report sexual satisfaction over those in later-life (AARP, 2005). This could be due in part to this younger age group of older adults being healthier and more physically active. The AARP supports this claim. It showed that those healthier and more physically active individuals in the study were more likely to report higher levels of sexual satisfaction (AARP, 2005). Conversely, a study by Shifren, Monz, Russo, Segreti, & Johannes (2009) showed that women in mid-life to later-life were more sexually

distressed than other age groups. A cross-sectional study of women in later-life, reported increased sexual satisfaction with age among those sexually active. This study also showed sexual satisfaction among those older women that were not sexually active (Trompeter, Bettencourt, and Barrett-Connor, 2012).

A large portion of the research on sexuality is geared towards figuring out why a decline in sexual satisfaction happens. Traeen (2007) reasoned that sexual satisfaction will be affected by coital frequency and the presence or lack of sexual dysfunction. The National Social Life, Health, and Aging Project (NSLHP) corroborate this theoretical assertion. The NSLHP is a two wave longitudinal study of older adults. Findings showed that frequency of sex for women and frequency of vaginal intercourse were associated with sexual satisfaction (Luo & Waite, 2011). A number of researchers have sought out the elements that make for a sexually satisfying relationship. Such studies have explored the physical aspects of the sexual experience, orgasm consistency, intensity, fulfillment, frequency or timing of orgasm (Darling, Davidson & Cox, 1991; Waterman & Chiauzzi, 1982). Other researchers have developed multi-item scales (Renaud, Byers, & Pan, 1997). In this review we will focus on the discrepancy between desired frequency of intercourse and actual intercourse to operationalize the abstract concept of sexual satisfaction.

One of the heavily researched aspects of a couple's sexual relationship is the relationship between a couples sexual satisfaction and overall relationship quality. Relationships where sexual desire matches that of their sexual activity have been shown to be associated with higher levels of overall relationship satisfaction (Dunn, Croft, Hackett, 1999; Terman, Bittenweiser, Ferguson, Johnson, & Wilson, 1938). On the other hand, lower relationship satisfaction is

present when there is a greater discrepancy between sexual desire and sexual activity (Haavio-Mannila & Kontula, 2001; Lawrance & Beyers, 1995).

A large portion of the literature on the relationship between sexual satisfaction and overall relationship satisfaction indicates that these are strongly related in women (Byers, Demmons, & Lawrance, 1998; Davidson & Darling, 1988; Hurlbert & Apt, 1994; Kumar & Dhyani, 1996; Lawrance & Byers, 1995; MacNeil & Byers, 2005). Sexual satisfaction was rated as one of the most important elements of marital happiness by couples (Henderson-King & Veroff, 1994; Trudel, 2002). Sexual satisfaction and frequency of intercourse were found to be positively associated with overall marital satisfaction (Morokoff & Gilliland 1993). Trudel (2002) conducted a telephone survey regarding the conjugal and sex life of men and women. The overall results of the study indicated that men have a more optimistic view of their marital life, while women have a more optimistic view of their sexual behavior when the variables of sexual functioning are considered.

It has been noted by researchers that marital satisfaction and sexual satisfaction are positively associated (Perlman & Abramson, 1982; Young, Denny, Young, & Luquis, 2000). With lower levels of sexual satisfaction, there is an associated greater probability of sexual inactivity and separation (Donnelly, 1993). Relationship enhancement and psycho educational curriculums promote the development of sexually satisfying relationships as a way to improve the overall relationship quality (Floyd, Markman, Kelly, Blumberg, & Stanley, 1995). Yeh, Lorenz, Wickrama, Conger, and Elder (2006) conducted research on the relationship among sexual satisfaction, marital quality, and marital instability at mid-life. They analyzed the longitudinal data from 283 married couples to examine the sequences among these three constructs for both husbands and wives. The results support the sequence of sexual satisfaction

predicting marital quality, sexual satisfaction predicting marital instability, and marital quality predicting marital instability. Subsequently, higher levels of sexual satisfaction were shown to produce an increase in marital quality. If SDD is a way of operationalizing sexual satisfaction, then this study can provide important information concerning the sexual satisfaction trends of mid-life couples. These trends can be used to improve marital quality and marital stability.

Unfortunately, many marriages are plagued by sexual dysfunction. Markos (2012) defines sexual dysfunction as the presence of disturbances in the sexual response cycle that cause difficulties for the individual and/or relationship. Research has demonstrated that upwards to 50% of couples are experiencing sexual dysfunction (Masters & Johnson, 1970). More recent research illustrates that 43% of women and 31% of men experience sexual dysfunction (Laumann, Paik, & Rosen, 1999). Society's limited views of sexuality have produced a sexually dysfunctional society (Elders, 2010). It has been noted that this dysfunction has affected couple marital well-being (McCarthy, 2003). This association drastically impacts the quality of life experienced by the couple as well as the amount of desire for intercourse and the ability to engage in intercourse. The study of marital sexuality has progressed, but the understanding on this topic is still very limited. There is much to be discovered as to the power of sexuality and how it influences and is influenced by different marital phenomena (Christopher & Sprecher, 2000).

This study adds to the extant literature on sexuality in terms of whether SDD changes over time in non-clinical, mid-life married partners. By adding to the operationalization of sexual satisfaction, this investigation can help couples to form a more sexually satisfying and subsequently maritally satisfying relationship. Through the improvement of sexuality, couples will experience a decrease in physical and mental health related issues. This study also makes a

contribution by examining whether attachment and other demographic variables such as income, education, predict SDD in men and women.

### **Attachment as a Predictor**

In this study attachment was used as a predictor of average SDD over 5 years and changes in SDD over this time. Attachment can provide invaluable insight into the intimate marital relationship as insecure/secure attachment is connected to sexual frequency. Secure attachment is linked to more frequent sexual encounters with one's intimate partner (Brennan & Shaver, 1995). In sum, low levels of secure attachment severely impede a couple's sexual relationship. The researchers hypothesized that more secure attachment predicts lower SDD scores and less secure attachment predicts higher SDD scores.

### **Insecure Attachment in Adult Pair Bonds**

Just as children seek and maintain proximity with specific attachment figures to promote security, adults seek and maintain proximity to attachment figures for a similar purpose (Bowlby, 1973; Sperling & Berman, 1994). However, adults usually seek attachment with romantic partners (Hazan & Shaver, 1987; Mikulincer & Shaver, 2007). According to Dumas, Pearson, Elgin, and McKinley (2008), individuals try to regain their desired level of proximity to their attachment figures as this attachment need of security becomes threatened. These internal models of attachment are formed through an individual's early relationship experiences and brought into adult relationships, especially into marriage (Dumas et al., 2008). Emotional safety, trust, and intimacy are characteristic of secure adult romantic attachment, and hurt, arguing, and defensiveness are characteristic of insecure attachment in adults. Secure relationships sustain a particular degree of independence while still allowing room for one to

gain emotional intimacy, trust, and safety whereas insecure relationships leave partners feeling alone, angry, and frustrated (Clymer, Ray, Trepper, & Pierce, 2006).

### **Sexual Satisfaction and Attachment**

Shaver and Mikulincer (2006) postulated that the attachment behavioral system and the sexual behavioral system are linked in humans. Feeney and Noller (2004) propose that the theory of couple attachment and sexual satisfaction focuses on the development of close affectional bonds with others through sexuality. Evolutionary theorists have also proposed that sexual satisfaction and secure attachment are linked (Bogaert & Sadava, 2002). The role of attachment from an evolutionary standpoint serves a purpose in one's sexual relating (Kirkpatrick, 1998). Attachment to parents and the need for care provided by parents is vital for the survival of offspring. Through stable long-term pair bonding, a couple is better able to provide for the offspring. Couples that can improve their secure attachment, in part by increasing their sexual and relational satisfaction, will be more secure attachment figures for their offspring. This approach has also served as a stable reproductive strategy for our species (Belsky, Steinberg, & Draper, 1991; Kirkpatrick, 1998). Researchers argue that the bonding, intimacy, and closeness in proximity that come with a sexual encounter with a romantic partner can serve as an attachment function (Hazan & Zeifman, 1994; Schachner & Shaver, 2004), and findings show that more securely attached individuals have more sexual satisfaction (Mikulincer & Shaver, 2007). These individuals are not preoccupied with the thought of their romantic partner rejecting them or wanting to leave them, as seen in those with anxiously attached internal working models. Because of such, they are free to explore their sexuality in emotional safety. They are not as fearful of rejection as anxiously attached persons. Securely attached individuals have the luxury of allowing individuals to become close and intimate with their romantic partner

without the worry of emotional abandonment, as seen in those with avoidantly attached internal working models. Securely attached individuals tend to possess characteristics that make possible higher levels of sexual satisfaction. They are more comfortable with their sexuality, open to sexual exploration, and take pleasure in a variety of sexual exploration and activities (Feeney & Noller, 2004). Brennan & Shaver (1995) found that securely attached individuals are more likely to have sex with intimate relationship partners and the quality is more reciprocally satisfying.

In contrast, insecure attachment working models in partners in adult couple relationships are likely to result in negative emotions when partners feel they cannot depend on each other to be sufficiently interested and responsive (Bowlby, 1982). In the context of this insecurity, partners may behave in one of two ways. A partner may be more likely to coerce the other partner into having sex, to overemphasize the importance of sexual activities to the relationship, and to be overly focused on any signal from a partner of sexual arousal or rejection, or a partner might suppress thoughts of sexual desire, dismiss sexual needs, and criticize the other for expressing interest in sexual activity. In either case, the discrepancy between desire and actual frequency of intercourse will increase accompanied by decreased report of sexual satisfaction for both partners. Butzer & Campbell (2008) found that Canadian husbands and wives with higher levels of insecure attachment reported lower levels of emotional and physical sexual satisfaction. Using three self-report items to measure sexual satisfaction, Birnbaum (2007) found that attachment insecurity was related to sexual dissatisfaction in Israeli women in romantic relationships. Unfortunately, their partners were not included in the study. Towards that end, one of the strengths of the current study is that both partners' reports of the discrepancy between desired frequency and actual occurrence of sexual intercourse were used in relationship to



attachment. No other known published studies have used partner attachment data as a predictor for change in SDD.

### **Purpose Statement**

This study answered two basic research questions. These questions were “What does sexual discrepancy look like over 5 years?” and “How does insecure attachment and other demographic variables predict average levels of SDD and changes in SDD over time?”.

SDD is conceptualized as the difference between the desired frequency of sexual intercourse and actual frequency of sexual intercourse. Through the examination of this difference score for both husbands and wives and following their reports longitudinally, we seek to better understand how actual and desired sexual frequency might grow and provide understanding for how mid-life sexual frequency trends mature within this understudied developmental period of married couples. None of the published studies have used non-clinical longitudinal data of married couples in mid-life to study the change trajectory of the SDD and how attachment predicts this change trajectory. In this study, five years of longitudinal data were used to examine the SDD of husbands and wives, while also examining how attachment predicts this change in linear time.

The following hypotheses were tested:

Actor Effects:

- 1) SDD will decline or converge towards a similar report of actual and desired sexual activity across the five years of this study.
- 2) Attachment at time 1 will be negatively related to “actor” SDD intercept and slope; as the level of attachment is more secure, their respective intercept for SDD (average SDD score over

five years) will be smaller. Similarly, as the level of attachment is more secure, their respective slope (the change trajectory over five years) will be less steep.

Partner Effects:

3) Attachment at time 1 will be negatively related to “partner” SDD intercept and slope; as the level of attachment is more secure, “partner” intercept (average SDD score over five years) will be smaller. Similarly, as the level of attachment is more secure, “partner” slope (the change trajectory over six years) will be less steep.

## **Method**

### **Participants**

All of the participants for this study were taken from Wave I through Wave V of the *Flourishing Families Project* (FFP). The FFP is an ongoing longitudinal study of inner family life. All Waves of data were collected a year apart from each other. This study involved only families with an adult romantic or couple relationship. At Wave I there were 353 couples. Through time there was attrition of participants. For instance, in some cases the wife or husband did not complete the scale (23), participants dropped out (22) or got divorced or separated (5), and in other cases items were left blank probably because of the personal nature of the questions (20). In the majority of these cases, all questions on the SDD scales were left blank. This left 331 married couples who were the participants in this study.

At Wave I the following descriptive statistics were found for the marital population being used in this study. Eighty-seven percent of husbands and 82% of wives reported being European American or Caucasian. Six percent of husbands and 4% of wives reported being African American. One percent of husbands and 4% of wives reported being Asian American. One

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percent of husbands and 2% of wives reported being Hispanic. Three percent of husbands and 2% of wives reported that they were “mixed/biracial”. Three percent of husbands and 4% of wives reported other ethnicity. Of these 331 couples no husbands and 1% of wives reported less than high school education. Seven percent of husbands and 5% of wives reported having a high school diploma. Twenty-two percent of husbands and 24% of wives reported having some college. Forty percent of husbands and 41% of wives reported having a bachelor’s degree. Nineteen percent of husbands and 21% of wives reported having a Master’s degree. Twelve percent of husbands and 8% of wives reported having a professional/Ph.D degree. Seventy-eight percent of husbands and 75% of wives reported an income of more than \$60,000 per year, 20% of husbands and 23% of wives reported making between \$20,000 and \$60,000 per year, and 2% of husbands and 2% of wives reported an income of less than \$20,000 per year. Husbands and wives both reported a mean of 2.36 children. Husbands reported a mean of 17.78 years of marriage and wives reported 17.91 years of marriage. The mean age for husbands was 45.29 and 43.45 for wives.

### **Procedure**

All of the participant families for the FFP were selected from a large northwestern city. Participant families were interviewed during the first eight months of 2007. A purchased national telephone survey database (Polk Directories/InfoUSA) was used as the primary recruiting apparatus. Eighty-two million households across the United States were claimed to belong to this database. This database claimed to have detailed information about each household. Included was the presence and age of children. These families in the Polk Directory were chosen from targeted census tracts parallel the socio-economic and racial stratification of reports of the local school districts. Every family with a child between ages of 10 and 14 living

within the census tracts were considered eligible to participate in the FFP. Four hundred twenty-three of the 692 eligible families agreed to participate (61% response rate). Families of lower socio-economic status were under-represented due to the nature of the Polk Directory national database. This database was generated using telephone, magazine, and internet subscription reports. Referrals and fliers were employed as an attempt to more closely reflect the demographics of the local area. The number of families recruited through these alternative means were limited ( $n = 77, 15\%$ ). This attempt to more accurately reflect the true local demographics was tremendously helpful in increasing the social-economic and ethnic diversity of the sample.

By using a multi-stage recruitment procedure, all families were contacted directly. This process first included a letter of introduction. The letter was sent to potentially qualified families (this first step was skipped for the 15 families who responded to fliers). Home visits and phone calls were then made to confirm eligibility as well as participant willingness to participate in the study. Following the confirmation of eligibility and consent, interviewers made an appointment to come to the family's home to conduct an assessment interview. The assessment interview included video-taped interactions (not used in current study), in addition to questionnaires that were completed in the home. The lack of time and concerns of privacy were the most frequent reasons cited by families for not wanting to participate in the study. There was very little missing data in this study. This was done by screening questionnaires for missing answers and double marking upon collection of each segment of the in-home interview.

Families wishing to continue participation in the FFP had yearly in-home interviews where sample participants completed survey questionnaires. Researchers screened all

questionnaires for missing answers and double marking in additional years II-V. Wave VI was excluded from this study as sampling techniques were dramatically different from prior waves.

## Measures

**Sexual desire discrepancy.** Husband and wife discrepancy between reported actual intercourse and desired intercourse was used as the dependent variable. Husbands and wives completed these measures every wave at time 1 through time 5. Questions about actual and desired sexual frequency were taken from *RELATE* (Busby, Holman, & Taniguchi, 2001). Husbands and wives were asked independently, “About how often do you currently have sex with your partner?”, and “How often do you desire to have sexual intercourse with your partner?”. Possible responses ranged from 0 (*never*) to 7 (*more than once a day*) on a 7-point Likert scale. To determine the score related to sexual satisfaction, each partner’s reported actual frequency was subtracted from their reported desired frequency. For example, if a husband answered 2 (1-3 times per month) for current frequency, but he answered 4 (2-4 times per week) for desired frequency, his score for sexual satisfaction would be 2. Possible scores range from 0 to 7 with higher scores indicating less sexual satisfaction because the person desires to have sex more often than what occurs. Two manifest variables will be created for each partner in the relationship, the intercept for sexual desire discrepancy (the average of desire discrepancy over the 5 waves) and the slope for sexual desire discrepancy (the change in sexual desire discrepancy over time).

*RELATE*, first developed in 1979 (Busby, Holman, & Taniguchi, 2001) is considered a reliable and valid instrument and has been used in over 95 studies of marriage (Busby, Carroll, Willoughby, 2010; Busby, Gardner, 2008; Busby, Holman, 1989; Carroll, Dean, Larson, Busby, 2011; Holman, Larson, Harmer, 1994; Relate Institute, 2012). Cronbach alpha’s for the original

psychometric studies of subscales ranged from .66 to .85, and test-retest reliabilities ranged from .67 to .94. Concurrent validity studies of RELATE show that the subscales are correlated with the Revised Dyadic Adjustment Scale (Busby, Christensen, Crane, & Larson, 1995) with ranges from -.48 to .57 indicating that RELATE while demonstrating some convergent validity also demonstrates discriminate validity. The discrepancy between actual and desired frequency of intercourse score created for this study was highly correlated (.83) with measures of relationship satisfaction and (.76) with the general sexual satisfaction item.

**Husband and wife insecure attachment.** Using a 7-point Likert scale ranging from 1-strongly agree to 7-strongly disagree, husbands and wives separately completed two subscales, anxious and avoidant attachment at time 1, from *The Experiences in Close Relationships Questionnaire* (Fraley, Waller, & Brennan, 2000). The mean score of items for the avoidance scale ( $\alpha=.70$  for women;  $\alpha=.72$  for men) and for the anxious scale ( $\alpha=.89$  for women;  $\alpha=.88$  for men) were used as two indicators to create a latent variable for each partner called insecure attachment. Factor loadings from Confirmatory Factor Analysis yielded were .86 (anxious) and .77 (avoidant) for wives and .76 (anxious) and .87 (avoidant) for husbands. Sample items for the anxious attachment subscale included “I often worry that my partner does not really love me”, and “I often worry that my partner will not want to stay with me”. Items from the avoidant subscale included “I feel comfortable sharing my private thoughts and feelings with my partner” (reversed), and “I find it difficult to allow myself to depend on my partner” loaded on a latent variable, insecure couple attachment, Fraley et al. (2000) reported reliability coefficients as .91 for anxiety and .90 for avoidance. Fraley et al. (2000) performed a principal components factor analysis on the Experiences in Close Relationships measure and found that the items loaded clearly into two factors with high factor loadings for all of the items.

Covariates included age, education, race, and income were included in the final conditional model analysis. Respondents indicated their age with a straight number. Education was measured by participants selecting an educational category, such as high school diploma. Race was measured by participants marking one of the following (European American, African American, Hispanic, Asian American, Other, Multi-Ethnic). Income was measured by the sample participants answering the question “What is your annual household income?”

### **Results**

There were several steps in this analysis. First, means and standard deviations were calculated for all variables. Full Information Maximum Likelihood in Mplus was utilized to account for missing data (less than 1%). Next, correlations between husband and wife insecure attachment were analyzed to determine whether there were multicollinearity problems. No such problems existed. Next, the factor loadings for indicators of each relevant latent variable were assessed with the intent to remove any indicators whose factor loadings were lower than .40. Confirmatory factor analysis indicated that only one factor loadings was below .40, insecure attachment item seven. This indicator was kept because the measure had already been shown to be reliable by Fraley et al. (2000) and at Wave I of the FFP. This became the baseline model.

Graphical plots of the growth curves for cases were then visually examined in groups of 20 for both partners. This showed that the data for both partners trended towards lower SDD scores over time. When a comparison plot of sample and estimated means was run for wives, the form of each was similar. The sample as well as the estimated means trended towards less discrepancy in actual and desired reports. This comparison plot confirmed that a linear growth curve model was the best fit for the wives' data. However, the husband sample plots and

estimated means showed a possible quadratic trend. The linear model form didn't appear to fit the data as well as a quadratic model might. Differences between the patterns of the plots and estimated means deserved further exploration as to the best model fit for the entire sample data. Through estimating husband and then wife unconditional growth curves, it became evident that the husband data fit the form of a quadratic growth curve. However, a quadratic model did not work for the wife data. A linear unconditional growth curve model was estimated as the final unconditional model, which better fit the form of both partner's data. An estimated mean growth plot of SDD shows both partners' trends across time. This can be found in Figure 1. The visual trend is twofold. First, that wives' SDD is less than husbands' SDD across time. The second is that both SDD trends slope towards uniformity in sexual desire and actual frequency. In this final unconditional model, the standardized estimated mean intercept ( $\beta=.459$ ,  $p<.001$ ) and slope ( $\beta=-.032$ ,  $p<.001$ ) for wives was statistically significant or different from zero. This means that there was a statistically significant average starting value (SDD starts at .459) and trend trajectory (SDD goes down .032 each year). Wives estimated variance of the intercept was also statistically significant ( $\beta=.71$ ,  $p<.001$ ). This means that some individuals have a higher or lower starting SDD. The variance of the slope was not significant for wives ( $\beta=.009$ ,  $p>.05$ ). This means that there weren't significant individual differences from the average growth rate. In the final unconditional model, the estimated mean intercept ( $\beta=1.226$ ,  $p<.001$ ) for husbands was statistically significant or different from zero. This means that there was a statistically significant average starting value (SDD starts at 1.226). The mean slope was not significant for husbands ( $\beta=-.01$ ,  $p>.05$ ). Husband estimated variance of the intercept ( $\beta=.699$ ,  $p<.001$ ) and slope ( $\beta=.014$ ,  $p<.05$ ) were statistically significant. This means that some individuals have a higher or lower starting SDD and some individuals will increase or decrease their SDD at a



different rate than the average growth rate. Therefore, the sample data illustrates that there wasn't a significant average linear change across time for husbands, that SDD remained relatively stable across time.

Table 2 shows the means and standard deviations of the sample. The mean insecure attachment indicators used in this study range from 1.72 to 2.51 for wives and 1.95 to 2.45 for husbands. The mean SDD scores range from .300 to .445 for wives and 1.201 to 1.228 for husbands.

Table 3 shows the correlation matrix for all of the observed variables in this mode. The insecure attachment variables almost all correlate highly, very few of which correlate with the SSD scores. SDD scores correlate moderately high with self and partner's SDD scores.

The next step was to use an actor-partner conditional bivariate linear latent growth curve analysis via Mplus to examine the effects of insecure attachment at Time 1 on the intercept and slope of SDD for both partners. Wife intercept and slope means are ( $\beta=.367$ ,  $p>.05$  and  $\beta=.547$ ,  $p>.05$ ) respectively. Husband intercept and slope means are ( $\beta=1.296$ ,  $p<.05$  and  $\beta=.085$ ,  $p>.05$ ) respectively. Husband's intercept was the only variable that was significantly predicted by insecure attachment ( $\beta=.288$ ,  $p<.001$ ). Covariates including age, education, race, length of marriage, and income were added as predictors. Wife income and race were the only statistically significant covariates. Race predicted husband intercept ( $\beta=-.144$ ,  $p<.05$ ). Income predicted husband slope ( $\beta=-.311$ ,  $p<.05$ ). Model fit indices on the final conditional latent growth curve model were significant {RMSEA  $<.05$  (.04); CFI  $>.95$  (.962); TLI  $>.90$  (.954); SRMR  $<.08$  (.054)}.

Some actor effects support part of the researcher's original hypotheses and others disconfirm these hypotheses. The researchers originally hypothesized that actual and desired

sexual frequencies would trend towards similarity across time. SDD was shown to significantly converge towards a similar report of actual and desired sexual activity for wives ( $\beta = -.34, p < .05$ ) but not for husbands ( $\beta = -.09, p > .05$ ) in the unconditional model. The hypothesis that insecure attachment would be a predictor of husband and wife intercept and slope was largely unsupported. Husband insecure attachment was a significant predictor of husband intercept ( $\beta = .288, p < .001$ ) but wasn't for husband slope ( $\beta = .026, p > .05$ ). This showed that as the level of attachment is more secure, their respective intercept for SDD will be smaller. Pseudo R-Square illustrated that .004 of the variance in the intercept was accounted for by husband insecure attachment. Insecure attachment wasn't a significant predictor of wife intercept ( $\beta = .14, p > .05$ ) or slope ( $\beta = -.129, p > .05$ ). Wife slope and intercept, as well as husband slope and intercept, were also significantly correlated respectively ( $\beta = -.319, p < .05$ ;  $\beta = -.271, p < .05$ ). None of the partners' specific covariates used, age, education, length of marriage, and race was predictive of their intercept or slope. There were significant residual variances for both intercept and slope of both partners. This means that some individuals within the sample have a higher or lower SDD starting value and some individuals will increase or decrease their SDD at a different rate than the average growth rate. Wife intercept and slope were significantly correlated ( $\beta = -.319, p < .05$ ). Husband intercept and slope were significantly correlated ( $\beta = -.271, p < .05$ ).

Partner effects for insecure attachment didn't confirm the researcher's original hypothesis. Each partners' insecure attachment didn't significantly predict the other's intercept or slope. Husband and wife insecure attachment was significantly correlated ( $\beta = .411, p < .001$ ). Husband intercept was significantly correlated with wife intercept ( $\beta = .313, p < .001$ ). Husband slope and wife intercept were also significantly correlated ( $\beta = -.354, p < .05$ ). Wives race was a

significant predictive covariate of husband intercept ( $\beta=-.144$ ,  $p<.05$ ). Wives income at Time 1 was a significant predictive covariate of husband slope ( $\beta=-.311$ ,  $p<.05$ ).

### **Discussion**

A major contribution of this study is the longitudinal investigation of whether SDD in married men and women changes over time. Findings showed that women reported smaller discrepancy between desired and actual intercourse than husbands. Husbands' SDD did not appear to change over the 5 years of this study. Our findings also showed significant random effects, or variability among participants. There were subsets of both men and women who desired more or less intercourse than the average for either partner. Husbands' insecure attachment was related to the average of their SDD over time meaning that as husbands reported more insecure attachment, there was greater discrepancy between their desired levels of sexual interaction and the frequency of actual intercourse. However, wives' insecure attachment was not significantly related to their SDD. Wife income negatively predicted change in SDD across time for husbands. Lastly, wife race negatively predicted husband average SDD value.

The finding that wives' SDD trended towards no discrepancy was consistent with the findings of Tompeter et al. (2012). They found that women older than 40 years reported increased sexual satisfaction with age. A trend of reported desired and actual frequency of intercourse may be an indication of wives sexual satisfaction increasing across mid-life. Traeen (2007) reasoned that sexual satisfaction will be related to coital frequency. Luo & Waite (2011) also found an associated with frequency of intercourse and sexual satisfaction. Another possible explanation could be related to fundamental changes in women during mid-life. Mid-life is a time when menopause occurs which, in turn, may affect desire so the discrepancy between desire

and actual frequency may actually decrease (Koch et al., 2005; Mansfield, Voda, & Koch, 1995; Nobre & Pinto-Gouveia, 2006). Other such significant events occurring during this time of life such as increased depressive symptoms and depressive disorder (Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993) and health decline (Pope, Sowers, Welch, & Albrecht, 2001; Sowers, Pope, Welch, Sternfeld, & Albrecht, 2001) are all factors that can impact one's sex life. Further explanation could be related to the sample. Women in this study may have small SDD due to the fact that this was a community sample, and so those who might normally seek therapy for sexual concerns are theoretically normally distributed in a community sample.

Husbands' SDD did not appear to change across time, but their SDD scores were significantly higher than wives'. This finding confirms earlier findings from Baumeister et al., (2001) that men experience higher levels of sexual desire at all stages of couple relationships. It may be that husbands place more importance on intercourse as a way of affirming their place in the relationship and women respond more to the climate of the relationship itself. Plausible theoretical reason for men having a higher level of SDD could be due to the nature of insecure attachment across genders. Our study showed that men experienced a higher level of SDD across time. This could be due to husbands in this sample having higher attachment insecurity. Schachner & Shaver (2004) argue that bonding, intimacy, and closeness in proximity that come with a sexual encounter can serve as an attachment function. Men in our study might be seeking more attachment security by desiring more intercourse than they experience. In general, men in this sample wanted to have intercourse more often, on average, than their wives. This gender difference parallels Laumann, et al.'s (1994) findings that men spend more time thinking about intercourse than women. Gender differences in desire were also shown in a cross-sectional survey of sexual desire. Klusmann (2002) found in a cross-sectional sample of male and female

non-dyadic college students, ages 19 to 32 that men consistently reported the same desire for intercourse and women reported lower desire across time. This survey looked at sexual motivation by also examining sexual activity and satisfaction.

While the averages of SDD remained relatively stable across time, there were subsets in the sample of both husbands and wives who desired less frequency of intercourse than what was actually happening as well as cases where wives desired more and husbands desired less. Subsets where health, sexual dysfunction, depression, and menopause were more prominent might provide explanation for such findings. It will be important in future studies to determine if there are latent classes or subgroups of married couples based on the pattern of their SDD scores.

The finding that insecure attachment predicted the husbands' average SDD but not the wives' and that insecure attachment appeared unrelated to changes across time was a surprise. As husband insecure attachment increased, so did their average SDD. In other words, when husbands don't feel as safe and secure in relationships, the difference between their desire for intercourse and actual intercourse increases. Buss (2007) findings provide explanation for our findings. Females want to participate in activities that demonstrate love and emotional intimacy, whereas males are enthusiastic to engage in sexual activities that are more focused on sexual arousal, visual stimuli, and eroticism (Buss, 2007). Therefore, husband's attachment insecurity may present differently than women's attachment insecurity. Another possible explanation may be that neither husbands nor wives feel comfortable enough to initiate sexual activity with each other. It may also be that wives decline to have sex more frequently when husbands are insecurely attached, due to felt relational insecurity.

A possible explanation for the finding that attachment type was unrelated to wives' average SDD or her change in SDD may be due to the possibility that insecure attachment is

something partners bring into marriage. Congruent with this view would be that attachment styles brought into marriage are resistant to change. Fraley (2002) described a contrary revisionist perspective that maintains that early relationships are modified by new relational experiences. However, the prototypal perspective, where the attachment style formed in early childhood is more “trait-like”, may be the more typical pattern. Meta-analysis of longitudinal attachment studies determined moderate stability, or the prototypal perspective, for the first 19 years of life (Fraley, 2002). The debate between these two perspectives is ongoing, and no studies could be found which investigated where insecure attachment changes from emerging adulthood on. If wives bring insecure attachment into their marriage, then the discrepancy between what they desire in terms of sexual intercourse and what actually happens may not be influenced to any great extent by the attachment style.

Another explanation for why insecure attachment was unrelated to women’s average SDD and change over time could be due to the nature of the sample. As has been described, study participants were a community sample. It is possible that the degree of insecure attachment was not substantial enough to be related to SDD. Non-distressed couples in a community sample may be more flexible and adaptable than distressed clinical couples. This might lead to them handling insecure attachment in a healthy manner through open discussion of both attachment and their sexual desires. Distressed couples, where insecure attachment may be more prominent, might be less adaptive and less likely to discuss the incongruence between what they would like sexually and what actually occurs.

A possible explanation for the finding of income negatively predicting husband slope may be McCathy’s (2003) idea that husbands are more likely than wives to desire sex when they are under stress. It is possible that lower income is stressful for both husbands and wives, but

husbands may be more likely to use sex to cope with the tension. Wives making more decreases both partners level of stress, thus making it possible to think and engage in other things such as sexual intimacy. Race interestingly negatively predicted husbands average SDD. Cultural implications due to race are crucial to investigate concerning sexual desire and frequency.

Finally, consistent with the literature on attachment, partners' insecure attachment was found to be correlated in this study. This means that there is reciprocity regarding insecurity in the relationship where each partner's lack of safety feeds on the other partner's distrust and vice versa. Brennan & Shaver (1995) found that securely attached individuals were more likely to have sex with intimate relationship partners, and the quality was more reciprocally satisfying. Thus, couples who don't feel as safe and secure in their relationship are likely to have less sex with their partner. This finding confirms the theoretical assertion (Shaver & Mikulincer, 2006) that attachment behavioral systems in couples are related to their respective sexual behavioral systems.

### **Implications for Couple Therapy**

This study makes a contribution by providing information about SDD in mid-life marriages. Until now, it has only been theorized whether SDD changes over time in mid-life marriages. The finding that it does not change suggests that homeostasis is a principle that may be in operation. One way the findings of this study might be used by therapists is to help normalize expectations about sexual desire and the discrepancy between desire and actual frequency of intercourse.

There are several interventions that might help a couple resolve and work through sexual desire discrepancies. Therapists can help increase couple communication about sexuality and the individual meaning surrounding desired intercourse. Partners may then become more receptive

towards co-creating a collectively desirable sexual culture. One such way could be through the use of sensate focus. Hertlein, Weeks, and Gambescia (2009) maintain better couple communication is one of the results of sensate focus. In their new paradigm in sex therapy, Hertlein et al. (2009) provide an extensive overview of their intersystem approach to sex therapy. Within this approach, an informed systems therapist can assess and provide treatment that includes individual, couple, family of origin, and society/culture/history/religion in their approach.

Hertlein et al. (2009) highlight an unconscious collusion that sometimes takes place within couple relationships, where fears of intimacy are only expressed by way of low desire from one partner. They suggest that in such partners, fear of intimacy is likely felt by both partners which are likely to emerge in the discussions in therapy sessions. Other possible relational factors that may have an effect on the couple sexual relationship include resentment, discord, disagreements about power and control, and the lack of communication (Hertlein et al., 2009). Interventions from this model point to normalizing pessimism to treatment, education about relational impacts regarding SDD, creating realistic perceptions of love and what this involves, explicitly stating and discussing expectations about what each partner desires and can offer.

Hertlein and colleagues (2009) also maintain that couples therapy can help clients learn to inquire instead of ascribing motives for each other's feelings or behaviors. For instance, a wife can ask her husband about his motives for initiating intimacy instead of assuming that it is purely about physical release. Couples therapy should also be directed at addressing resentment, marital discord, disagreements about power and control, and the lack of communication. Lastly, the couple should share perceptions about the meaning of intimacy, discuss discrepancies



between the two of them, and co-create a common meaning of sexual intimacy (Weeks & Treat, 2001).

Many couples come to therapy in hopes of improving their sexual relationship (Rosing et al., 2009). One finding of this study indicates that one way of improving sexual satisfaction in marriages may be focusing on interventions that increase attachment security for husbands in the marriage (Johnson & Zuccarini, 2010). Emotionally focused therapy is an empirically validated approach whose aim is to get partners in romantic relationships to be more emotionally available and responsive to each other's needs and feelings (Halchuk, Makinen, & Johnson, 2010). It also focuses on reprocessing and repairing attachment ruptures (Johnson, Whiffen, 2003) in which one or both partners have experienced the other as undependable and unavailable in a time of crisis. While other types of couple therapy may not focus explicit on attachment security, it is likely that interventions such as communication of and receptivity to feelings, problem solving, and even processing of genograms with both partners may lead indirectly to an increased pair bonding.

### **Limitations and Future Research**

There are several limitations in this study. The sample is representative of the European American and African American populations living in the Seattle area, but since few Latino or Asian individuals were part of the study, caution is urged in generalizing these findings to those groups. Seattle has a higher cost of living index than many urban areas of the United States. Seattle is +17% on its overall cost of living compared to the national average ("Cost of living in Seattle," n.d., para. 2). The annual household income and level of education of husbands and wives is consistent with demographic characteristics of the area, but the findings may not be generalizable to rural and lower income areas or to couples not as highly educated.

Another limitation of this study relates to the prototypal and revisionist perspective described by Fraley (2002). If attachment styles are in fact different than the current findings show that they change across time then a replica of this study with the predictor of insecure attachment at each Wave would be valuable.

The findings suggest a multiplicity of avenues for future research. Since this is one of the first longitudinal investigations to study the SDD trajectory of non-clinical, mid-life couples, the findings suggest exploring additional predictive variables for the trends found in this study. Covert relational aggression, depression, number of children within the home, and presence of newborn children within the study time frame are all relevant avenues to explore. Additionally, a study examining the SDD over a larger span of the life course could produce interesting findings.

This longitudinal study highlighted the importance of insecure attachment and its relationship to SDD in both men and women. A unique contribution of the study is the new found knowledge of how husbands' and wives' SDD doesn't really change across time. Additionally, another unique contribution is that wives were shown to have more congruence with actual and desired sexual frequencies. This work adds to the growing literature on SDD and sexual satisfaction within mid-life couples and raises awareness of predictive factors for SDD.

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Table 1

	Husbands		Wives	
	$\bar{X}$	(S.D) /% Range	$\bar{X}$	(S.D) /% Range
Age Time 1	45.29	(6.03) 27-62	43.45	(5.35) 27-59
Length of Marriage in Years	17.78	(4.83) 2-40	17.91	(4.95) 2-40
Number of Children	2.36	(.99) 1-6	2.36	(.99) 1-6
Race				
Caucasian	87.3%		82.1.0%	
African Am	5.6%		4.2%	
Hispanic	0.6%		2.9%	
Asian American	1.6%		4.9%	
Multiethnic	2.6%		1.9%	
Other	3.0%		4.0%	
Education				
Less than H.S.	0.0%		1.3%	
High School Diploma	6.5%		4.9%	
Some College	22.4%		24.0%	
Bachelor's Degree	40.3%		40.9%	
Master's Degree	18.5%		21.4%	
Professional/Ph.D Degree	12.3%		7.5%	
Household Income				
Under \$20000	1.9%		1.9%	
\$20,001-40,000	5.2%		7.5%	
\$40,001-60,000	15.0%		15.9%	
\$60,001-80,000	17.5%		17.5%	
\$80,001-100,000	16.6%		19.5%	
\$100,001-120,000	13.3%		13.3%	
\$120,001-140,000	9.4%		5.4%	
\$140,001-160,000	4.9%		5.8%	
\$160,001-180,000	5.2%		4.5%	
\$180,001-200,000	6.5%		6.8%	
\$200,001+	1.6%		1.6%	

Table 1. Demographic Characteristics of Sample (N=331; paired data)

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Table 2

Table 2. Means and Standard Deviations (N=331)

Variables	Wives $\bar{X}$ (SD)	Husbands $\bar{X}$ (SD)
Insecure Attachment		
I am afraid that I will lose my partner's love.	1.89 (1.34)	2.15 (1.50)
I often worry that my partner will not want to stay with me.	1.77 (1.79)	1.96 (1.35)
I often worry that my partner does not really love me.	1.72 (1.33)	1.95 (1.45)
I often wish that my partner's feelings for me were as strong as my feelings for him or her.	2.04 (1.54)	2.45 (1.67)
I prefer not to show my partner how I feel deep down.	2.07 (1.45)	2.39(1.49)
I find it difficult to allow myself to depend on my partner.	2.51 (1.77)	2.38 (1.59)
Sexual Desire Discrepancy		
Wave 1	.445 (.62)	1.228 (.80)
Wave 2	.382 (.83)	1.206 (.83)
Wave 3	.372 (.71)	1.168 (.82)
Wave 4	.289 (.74)	1.149 (.89)
Wave 5	.300 (.58)	1.201 (.87)

ATTACHMENT AND SEXUAL DESIRE DISCREPANCY

Table 3

Table 3. Correlations for all the Observed Variables in the Model

Variables	1	2	3	4	5	6	7	8
Indicators of Insecure Attachment								
1. p1adatt1_1 (wife)	1.0							
2. p1adatt1_2 (wife)	.83***	1.0						
3. p1adatt1_3 (wife)	.81***	.74***	1.0					
4. p1adatt1_4 (wife)	.58***	.58***	.59***	1.0				
5. p1adatt1_5 (wife)	.52***	.48***	.55***	.39***	1.0			
6. p1adatt1_7 (wife)	.26***	.27***	.27***	.25***	.38***	1.0		
7. p2adatt1_1 (husband)	.26***	.26***	.29***	.19***	.31***	.32***	1.0	
8. p2adatt1_2 (husband)	.29***	.29***	.30***	.22***	.34***	.38***	.84***	1.0
9. p2adatt1_3 (husband)	.29***	.25***	.33***	.19***	.35***	.34***	.76***	.80***
10. p2adatt1_4 (husband)	.23***	.21***	.26***	.16**	.25***	.31***	.55***	.50***
11. p2adatt1_5 (husband)	.19***	.19***	.22***	.26***	.27***	.24***	.44***	.43***
12. p2adatt1_7 (husband)	.17**	.13*	.15**	.19***	.20***	.18**	.37***	.35***
Sexual Desire Discrepancy								
13. Wave 1 (wife)	.25**	.28**	.13	.17*	.25**	.27**	.07	.07
14. Wave 2 (wife)	.30**	.29**	.06	.25**	.18*	.20*	.07	.07
15. Wave 3 (wife)	.08	.05	.12	.18	.10	.20*	.13	.20*
16. Wave 4 (wife)	.07	.23*	.02	.27**	.23*	.20	-.04	-.03
17. Wave 5 (wife)	.14	.12	.11	.23*	.11	.15	.23*	.24*
18. Wave 1 (husband)	.10	.07	.08	.01	.05	.18**	.18**	.14*
19. Wave 2 (husband)	.00	-.04	-.02	-.03	.05	.16*	.24***	.18**
20. Wave 3 (husband)	-.05	-.02	.04	.06	.08	.25***	.13	.13
21. Wave 4 (husband)	.17*	.14*	.16*	.06	.15*	.17*	.11	.06
22. Wave 5 (husband)	-.04	.01	.06	.06	.16*	.24**	.15*	.17*

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

ATTACHMENT AND SEXUAL DESIRE DISCREPANCY

Table 3

Table 3. Correlations for all the Observed Variables in the Model Continued

Variables	9	10	11	12	13	14	15	16
Indicators of								
Insecure Attachment								
1. p1adatt1_1 (wife)								
2. p1adatt1_2 (wife)								
3. p1adatt1_3 (wife)								
4. p1adatt1_4 (wife)								
5. p1adatt1_5 (wife)								
6. p1adatt1_7 (wife)								
7. p2adatt1_1 (husband)								
8. p2adatt1_2 (husband)								
9. p2adatt1_3 (husband)	1.0							
10. p2adatt1_4 (husband)	.57***	1.0						
11. p2adatt1_5 (husband)	.46***	.39***	1.0					
12. p2adatt1_7 (husband)	.40***	.31***	.46***	1.0				
Sexual Desire Discrepancy								
13. Wave 1 (wife)	.12	-.04**	.15	.06	1.0			
14. Wave 2 (wife)	.11	.05	.19*	-.04	.32**	1.0		
15. Wave 3 (wife)	.13	.02	.06	.00	.28*	.46***	1.0	
16. Wave 4 (wife)	-.06	-.04	.13	-.09	.16	.40**	.41***	1.0
17. Wave 5 (wife)	.34***	.18	.17	.20*	.17	.49***	.36**	.52***
18. Wave 1 (husband)	.17**	.24***	.19**	.07	.15	.29**	.10	.01
19. Wave 2 (husband)	.18**	.23**	.11	.08	-.14	.20	.15	-.01
20. Wave 3 (husband)	.20**	.12	.06	.06	-.10	.14	.43**	.05
21. Wave 4 (husband)	.14	.25***	.11	.04	.04	.16	.10	.08
22. Wave 5 (husband)	.12	.12	.09	.08	-.08	.07	.08	.03

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

ATTACHMENT AND SEXUAL DESIRE DISCREPANCY

Table 3

Table 3. Correlations for all Observed Variables in the Model Continued

Variables	17	18	19	20	21	22
Indicators of Insecure Attachment						
1. p1adatt1_1 (wife)						
2. p1adatt1_2 (wife)						
3. p1adatt1_3 (wife)						
4. p1adatt1_4 (wife)						
5. p1adatt1_5 (wife)						
6. p1adatt1_7 (wife)						
7. p2adatt1_1 (husband)						
8. p2adatt1_2 (husband)						
9. p2adatt1_3 (husband)						
10. p2adatt1_4 (husband)						
11. p2adatt1_5 (husband)						
12. p2adatt1_7 (husband)						
Sexual Desire Discrepancy						
13. Wave 1 (wife)						
14. Wave 2 (wife)						
15. Wave 3 (wife)						
16. Wave 4 (wife)						
17. Wave 5 (wife)	1.0					
18. Wave 1 (husband)	.04	1.0				
19. Wave 2 (husband)	.13	.59***	1.0			
20. Wave 3 (husband)	.18	.53***	.60***	1.0		
21. Wave 4 (husband)	.27*	.53***	.52***	.60***	1.0	
22. Wave 5 (husband)	.08	.41***	.49***	.52***	.39***	1.0

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

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Table 4

Table 4. Standardized Model Comparison Table

	Unconditional Model	Conditional Model
Wife Insecure Attachment	-	Factor Loadings Wave 1-5 respectively (.881, .849, .908, .655, .618, .331)
Husband Insecure Attachment	-	Factor Loadings Wave 1-5 respectively (.843, .865, .916, .636, .511, .448)  Significant predictor path of husband intercept .288***
Wife Intercept	Mean .544***	Mean .367
Wife Slope	Mean -.34*	Mean .547
Husband Intercept	Mean 1.466***	Mean 1.296*
Husband Slope	Mean -.088	Mean .085
(Control) Income	-	Significant predictor path of husband slope -.311*
(Control) Race	-	Significant predictor path of husband intercept -.144*
(Controls) Age, Education, Length of Marriage	Non-significant	Non-significant

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



Figure 1

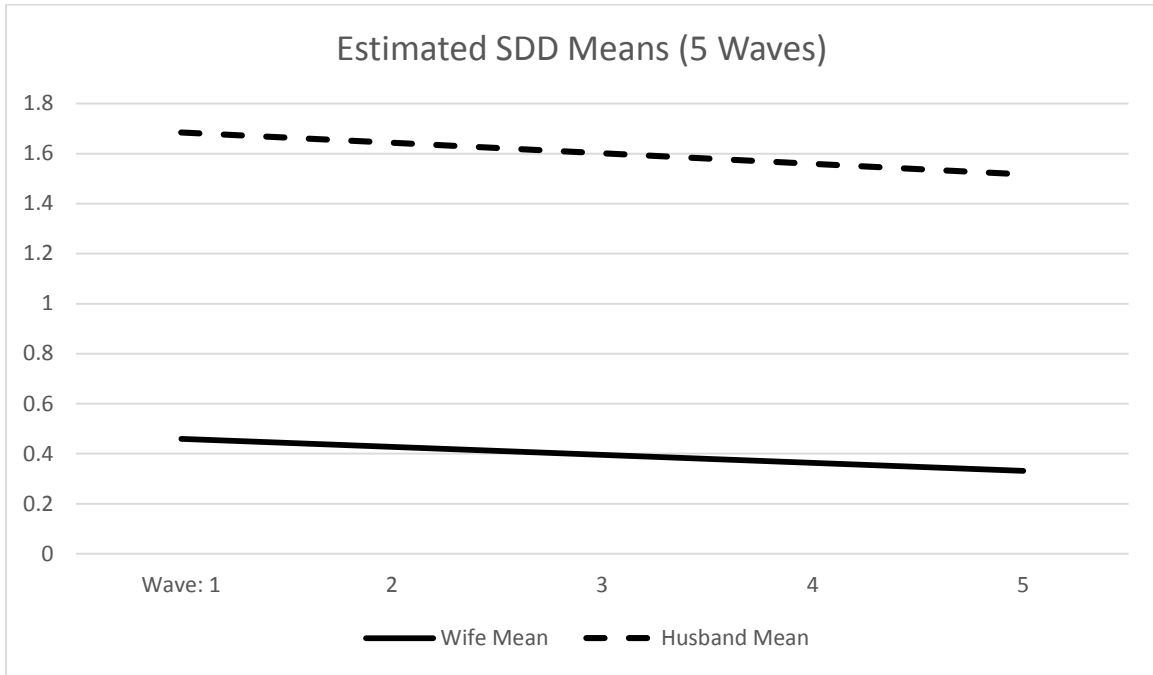


Figure Captions

Figure 1. Estimated Sexual Desire Discrepancy 5 Year Mean Trajectories for Husbands and Wives

Appendix A

Insecure Attachment Scale

Answer how much you agree or disagree with each statement:

Ranging from 1 & 2 = Strongly Disagree to 6 & 7 = Strongly Agree

1. I am afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner does really love me.
4. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
5. I prefer not to show my partner how I feel deep down.
6. I feel comfortable sharing my private thoughts and feelings with my partner.
7. I find it difficult to allow myself to depend on my partner.
8. I am very comfortable being close to my partner.

Reliability (Fraley, Waller, & Brennan, 2000):

Anxiety subscale: .91

Avoidance subscale: .90

Reliability (Flourishing Families, Wave 1):

Overall Scale: P1 = .708 (P2 = .709)

Anxiety subscale: P1 = .892 (P2 = .884)

## ATTACHMENT AND SEXUAL DESIRE DISCREPANCY

Avoidance subscale:  $P1 = .700$  ( $P2 = .723$ )

Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.

# ATTACHMENT AND SEXUAL DESIRE DISCREPANCY

## Appendix B

### Sexual Desire Discrepancy Scale

How often do you do the following:

0=Never

1=Less than once a month

2=1-3 times/month

3=About once a week

4=2-4 times/week

5=5-7 times/week

6=More than once/day

1. About how often do you currently have sex with your partner?
2. How often do you desire to have sexual intercourse with your partner?

Busby, D. M., Holman, T. B., & Taniguchi, N. (2001). RELATE: Relationship evaluation of the individual, cultural, and couple contexts. *Family Relations, 50*, 308-316.