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## The Relationship Between Insecure Attachment and Premarital Sexual Timing

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The Relationship Between Insecure Attachment  
and Premarital Sexual Timing

Carly Ostler

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

Master of Science

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School of Family Life

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## ABSTRACT

### The Relationship Between Insecure Attachment and Premarital Sexual Timing

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Master of Science

Recent studies are beginning to show evidence of marital problems for couples that have engaged in early premarital sexual activity compared to those who do not. Adult attachment theory plays an important role in explaining many kinds of distress for couples and helps explain sexual interaction, thus, in this study it is posited that attachment may influence sexual timing patterns. This study focuses on the relationship between insecure attachment styles and early premarital sexual timing. The sample consisted of 256 couples who took the Relationship Evaluation (RELATE) to measure their attachment styles and sexual timing while controlling for length of relationship, religiosity, education and age, which may be related to sexual timing. Models were tested for males and females separately using structural equation modeling (SEM). Results showed a significant, positive relationship between female anxious attachment and early sexual timing. Results also showed a significant negative relationship between female avoidant attachment and early sexual timing. No results showed significant relationships between male insecure attachment and sexual timing. Implications for couples, clinicians and educators are discussed.

Key words: insecure attachment, premarital sex, sexual timing.

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### Introduction

Premarital sexual intercourse has become a normative and seemingly necessary part of testing relational compatibility, as well as a social and relational expectation (Fenigstein & Preston 2007). A study in 2006 found almost 90% of young adults had sex before marriage (Halpern et al. 2006). By their late teenage years, at least 3/4 of all unmarried men and women have had intercourse, and more than 66% of all sexually experienced teens have had two or more sexual partners (AGI, 2002). The National Center for Health Statistics reported that by the age of 18, the age most teenagers graduate from high school, 69 percent of males and 70 percent of females have had sexual intercourse (Mosher, Chandra & Jones, 2005). Sexual intercourse without a committed relationship has also become a normative social script. On average, young people have sexual intercourse for the first time at about age 17, but they do not marry until their mid or late 20's (U.S. Bureau of the Census 2009).

Despite these trends, some researchers have recently shown that sexual delay, and possibly even refraining from sexual activity before marriage is beneficial to later marital relationships (Busby, Carroll & Willoughby 2010; Busby, Willoughby & Carroll 2013). Those findings suggest early timing of sexual intercourse in an intimate relationship timeline may hinder communication, relationship satisfaction and relationship stability due to the lack of conversation and communication that early sexual timing can encourage. Sassler, Addo, and Lichter (2012) found similar results; for women, the speed of entry into sexual interaction in relationships was negatively associated with later marital quality. Research on the impact of premarital sexual intercourse on later marital outcomes has shown premarital sexual involvement to be a risk factor for later marital instability (Teachman, 2003; Larson & Holman, 1994; Kahn & London, 1991; Williams & Jacoby, 1989). Certain characteristics of premarital sexual activity such as age at sexual debut, stage of relationship at first sexual intercourse and the number of sexual partners before marriage were negatively related to later quality of marriage.

However, few studies have been found that look at why these normative scripts and research studies are not matching up.

Because attachment is a known factor in relationship and marital quality, as well as the main behavioral pattern through which adults lend from in their romantic relationships, it is hypothesized that attachment will play a role in sexual timing, which is an important part of adult romantic relationships. Researchers have found secure attachments are vital to healthy marriages (MacLean, 2001; Gallo & Smith 2001). Davila, Karney, & Bradbury (1999) found both the individual experiences and relationship experiences affect a couple's type of attachment. Again, no research has been done on whether there is a positive connection between insecure attachment and the timing of sexual intercourse. This study attempts to study the relationship between the two variables.

### **Theoretical Context and Review of Literature**

#### **Sexual compatibility theory and sexual restraint theory**

Researchers have developed two competing theories about sexual timing. Busby et al. developed the terms "sexual restraint theory" and "sexual compatibility theory" in their 2010 article: "Compatibility or Restraint? The Effects of Sexual Timing on Marriage Relationships". They defined sexual compatibility as the belief that testing sexual interactions between partners before marriage is a necessary step in assessing how well suited the couple is for each other. Cassell referred to this as "sexual chemistry", and considers it to be a necessary relationship characteristic young people seek out and test in romantic relationships before committing to more permanent relationships (Cassell, 2008). The generally accepted idea in premarital relationships is that sexual involvement leads to increased emotional intimacy early in the relationship timeline and it fosters feelings of self-worth. Cassell hypothesized that *not* testing sexual chemistry before committing to exclusivity puts couples at risk of entering into relationships that will not satisfy them in the future, thus leading to later marital distress

and failure (Cassell, 2008). This is because sex is such an important part of adult romantic relationships.

Initial scholars started conceptualizing “turning points” people use as signals of change in the commitment, magnitude, interpretation, or stage of development in their romantic relationships (e.g., Baxter & Bullis, 1986; Bullis, et al., 1993; Huston, et al., 1981). Baxter and Bullis (1986) coined the term ‘turning point’ as “any event or occurrence that is associated with change in the relationship”(p. 470) like a first kiss, saying, “I love you” for the first time, or becoming pregnant. More importantly, they found the “passion turning point”, or markers of initial sexual involvement, to be significant factors in dating relationship changes as it tends to catapult the relationship into a more intimate, or physically focused realm. This correlates with sexual timing theories in that it assumes sexual intercourse as a significant relationship marker that has the ability to alter relationship trajectories.

Metts (2004) took the “turning points” theory a step further to say that because the sequencing of commitment and sexual involvement was an important part of couple formation, having sex before commitment significantly changed the passion turning point for the couple. Metts’ (2004) study of college students found that for men and women in dating relationships, the explicit expression of love and commitment prior to sexual involvement in a dating relationship influenced the personal and relational meaning of the event by offering a form of communication as to what the sexual involvement would mean for them as a couple. So if the couple had not been together long enough to communicate or define what sexual involvement meant to them, sexual intercourse prior to this meaning-making was more likely to leave both partners feeling vulnerable and sense that their relationship might be at risk. When sexual involvement came before emotional expression and expression of commitment, the experience was more likely to be perceived as a negative turning point because the lack of conversation left both partners confused and insecure about what their actions meant. Metts (2004) found that sexual involvement was more likely to be perceived as a positive turning point in the relationship when higher

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levels of commitment were present in relationships. This is because both partners had similar or the same understanding that sexual involvement meant the relationship would become more serious and more committed.

Busby, Carroll and Willoughby's (2010) research found sexual restraint theory to be supported. Their results showed a positive relationship between waiting longer before having sex in a courtship relationship and relationship satisfaction and security in later marriage. They explained that if sexual intercourse occurs early on in a relationship, the focus of the relationship shifts more to physical and sexual aspects, as opposed to fostering commitment and communication (e.g. becoming better acquainted and attached). They found delayed sexual timing highly related to both perceived relational stability and increased quality of communication. They reasoned that this waiting period allows for couples to develop better communication, trust and commitment before pursuing sexual intercourse. Sassler, Addo, & Lichter's (2012) research garnered similar results. They found the tempo at which women entered into sexual relationships was negatively associated with relational quality. For women who waited at least 6 months before having sex reported significantly higher relationship quality than women who had sex within the first month of dating. Both men and women who reported delaying sexual involvement for at least 6 months were found to have higher levels of commitment as well as sexual satisfaction. In this study, cohabitation was found to be the main driving factor behind the association between speed of entry into sexual relationships and relationship quality (Sassler et al., 2012).

Despite the majority of research validating sexual restraint theory, research and statistics regarding sexual behaviors show that early sexual timing is most common, and often times normative (Santelli, Brener, Lowry, Bhatt, & Zabin, 1998; Fenigstein & Preston 2007). On average, young people have sexual intercourse for the first time at about age 17, but they do not marry until their mid or late 20's (U.S. Bureau of the Census 2009). Sassler et al. (2012) found 73% of both men and women had

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sex within the first six months of the relationship. In another study, sexual attitudes toward premarital sex were considered “permissive” (pg. 90) in that nearly 80% agreed that when couples love each other it is completely acceptable to have intercourse (Peplau, Rubin & Hill 1977).

The body of research regarding the motivations behind sexual timing that may explain the gap between research and actual behaviors is very small and conflicting. The first study found that looked at what motivates premarital sexual activity was done by Peplau, Rubin & Hill (1977). They divided 231 couples into three groups: “early sex” couples who had sex within the first month of dating, “later sex” couples who had sex after a month or more of dating, and “abstaining” couples who were waiting for marriage to have sexual intercourse. In this same study, women’s attitudes and prior sexual experience had much more influence on whether or not the couple had intercourse or not (Peplau, Rubin & Hill 1977). These findings led them to propose that women’s attitude’s about sex were what guided sexual timing and sexual behaviors (Peplau, Rubin & Hill 1977). Another theory behind sexual timing is societal “scripts” (Sprecher, Regan, McKinney, Maxwell, & Waziwinski, 1997) that assign normative behavior for each sex. For example, some societal scripts value “virginity” or having fewer partners (Jonason & Fisher 2009; Sprecher et al. 1997). Yet another study suggests early puberty increased the likelihood that young adults would not remain sexually abstaining into adulthood (Halpern et al., 2006). This study also found religiosity and parental disapproval of sex during adolescence to influence whether or not individuals postponed sexual activity until after they were married. Because these theories vary so vastly, more research is required.

### **Attachment theory**

One of the leading theories behind what motivates sexual activity is attachment theory (Dewitte, 2012; Hazan & Shaver 1987; Johnson & Zuccarini, 2010; Mikilincer & Shaver, 2007). Attachment was first theorized as the way we bond emotionally and physically in long-term relationships, starting from our initial relationship with our primary caregiver in infancy (Ainsworth 1978; Bowlby 1969; 1980)

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and continuing into our relationships with romantic partners (Hazan & Shaver 1987; Simpson 1990; 1992). Bowlby (1969) described relationships being influenced by three behavioral systems that also influence each other: attachment, caregiving and sex. His theory of attachment was given the most attention and further research was conducted to understand and define emotional attachment and attachment styles. Ainsworth (1967), Ainsworth and Wittig (1969) and Ainsworth et al. (1978) were some of the first to research the various behaviors related to attachment bonds in the family and developed the avoidant, secure, and anxious types of attachment for children and their attachment figures (e.g. parents). Main, Kaplan, and Cassidy (1985), and Hazan and Shaver (1987, 1990) defined adult attachment styles and in 1990, Simpson adapted Hazan and Shaver's avoidant, secure, and anxious adult constructs into Likert scale variables (Mikulincer & Shaver, 2007).

The individual *and* relationship dynamics affect a couple's attachment (Davila, Karney, and Bradbury 1999). Many factors contribute to a person's perceived attachment security including: the person's personal history with relationships in their family as a child, experiences with dating partners, and their perception of the current relationship (Doumas et al., 2008; Hughes, 2010). Hazan and Shaver (1987) found the style of attachment developed in childhood very likely to be similar to the attachment style exhibited in romantic love, or adult romantic relationships. They founded the theory that romantic love can be conceptualized as an attachment process. Fraley and Shaver (2000) went on to further develop the theory in pointing out that we tend to *borrow* from our childhood attachment style, rather than follow it precisely. For example, we may feel distressed when our attachment figure is absent, but we don't throw a tantrum, or go running after them as we might have done in childhood.

In securely attached adult romantic relationships both partners are emotionally accessible, responsive, and engaged in the other's life (Johnson, 2004). This means they have meaningful conversations; they take emotional risks, and confide in each other. When a partner is in need of reassurance or help, the listening partner is accessible and responds in a loving, caring way. This

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comfort and support lets the partner know they are important to them. These three attachment behaviors, accessibility, responsiveness, and engagement (ARE), help couples form a secure attachment (Sandberg et al., 2012; Brown, 2011).

Insecure attachment is divided into two types: avoidant attachment and anxious attachment. Anxious attachment is marked by anxiety about the attachment relationship. Those who are anxiously attached tend to feel fearful about the security of the relationship as well as tend to feel less trusting and less connected to their partners (Johnson & Zuccarini, 2010). Avoidant attachment tends to make individuals want to put up emotional walls, pull away from their partner emotionally and avoid connection (Johnson & Zuccarini, 2010).

The link between attachment and sex has been researched further since Bowlby's (1969) initial theories (Dewitte, 2012; Hazan & Shaver 1987; Johnson & Zuccarini, 2010; Mikilincer & Shaver, 2007). Some research has found links between different types of insecure attachment and sexuality. Davis, Shaver and Vernon (2004) found anxiously attached individuals to compulsively seek sex as a means of fulfilling their unmet needs for love and security. Schachner and Shaver (2004) found similar results in that individuals who were more anxiously attached were more likely to have sex to reduce insecurity and foster deep intimacy. Anxiously attached individuals are also said to place a high value on sex, as well as fare an increased vulnerability to sexual coercion (Davis et al. 2006; Mikulinger & Shaver, 2007). Not only are anxiously attached individuals more prone to sexual coercion, but they also have been found to use coercive strategies themselves, particularly when they feel their relationship is insecure (Davis et al. 2006).

Individuals with higher levels of avoidant attachment were found more likely to fear or avoid sex, have uncommitted sex, or choose abstinence (Mikulinger & Shaver, 2007). Like individuals more anxiously attached, individuals with higher levels of avoidant attachment were also found to use more sexually coercive strategies (Davis, Shaver, & Vernon, 2004). Married men who are more avoidant in

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their attachment style were found to have sex less often, and try to avoid having sex with their partners (Brassard, Shaver, & Lussier, 2007). Both men and women with higher levels of avoidant attachment, tend to pull away from sex with their anxiously attached partners (Brassard, Shaver, & Lussier, 2007). With different studies indicating contradicting results, more research is needed linking attachment with sexuality.

In summary, attachment is the framework through which we build our adult romantic relationships. Although there is a strong body of research implying attachment styles and behaviors as significant factors in sexual interaction decisions, no studies have been found indicating attachment has a direct influence on early sexual timing. Sexual timing is an important part of the adult romantic relationships and is framed by our attachment and attachment influences sexuality throughout adolescent and adult life, thus attachment was chosen as a proposed factor influencing when couples choose to engage in sexual activity.

### **Summary and Hypotheses**

The thesis of this research is that insecure, i.e. anxious and avoidant attachment behaviors of individuals in relationships will predict earlier timing of premarital sexual intercourse in romantic couple relationships. Thus, the general question to answer in this research is to ask if there is a relationship between the two types of insecure attachment and early sexual timing. Individuals who feel anxious about their romantic relationship and question the commitment and interest levels of their partner may initiate sexual relations earlier than if the individual felt more securely attached (Davis et al. 2006). An individual who has more avoidant attachment behaviors, may be able to detach feelings of connection from sexual relations which could lead them to engage in sexual relations early, and possibly without commitment (Davis, Shaver, & Vernon, 2004). Therefore it was hypothesized that there will be a positive relationship between both male and female insecure (avoidant and anxious) attachment behaviors and early sexual timing.

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In regards to more specific hypotheses, the current study hypothesizes the following relationships will be significant in the resulting structural equation model (See Figure 1):

1. Male avoidant attachment will be positively associated with earlier sexual timing.
2. Male anxious attachment will be positively associated with earlier sexual timing.
3. Female anxious attachment will be positively associated with earlier sexual timing.
4. Female avoidant attachment will be positively associated with earlier sexual timing.

In developing this model to test, it is recognized that existing research has shown other variables may affect sexual timing including religiosity (Hull et al. 2011). Thus religiosity was controlled for in this study by adding religiosity as a control variable as well minimizing the Latter Day Saint (LDS) population of the sample to 12%. Without this selection criteria, RELATE usually consists of a population up to 40% LDS, but we reduced the percentage as to not bias the sample toward sexually conservative people. Selection criteria included never married couples that were “exclusively dating” or engaged and were in the relationship between 6 and 24 months as to better ensure the sample is consisted of committed couples. Education has also been linked to different sexual attitudes and behaviors (Christopher & Sprecher, 2000), thus it will also be controlled for. Age may also be related to attachment behaviors, as well as sexual timing, so it was statistically controlled for as well

By controlling for the effects of these variables, we will be able to see more precisely how avoidant and anxious attachment behaviors relate to sexual timing. Gender may also play a role in both attachment and early sexual timing as it is common for men and women to place different meanings on sex in premarital relationships (Kaestle & Halpern, 2007; Christopher & Sprecher, 2000). Thus, we tested models for males and females separately (see Figure 1).

## Methods

### Sample

The sample for this study was 602 couples who completed the RELATE Questionnaire (Busby, Holman, & Taniguchi, 2001) between 2010 and 2013. All participants completed an appropriate consent form prior to the completion of the RELATE instrument and all data collection procedures were approved by the institutional review board at the authors' university. Participants completed RELATE online after becoming aware of the questionnaire from a variety of sources including an instructor of a class (43% of the sample), a therapist (18%), a clergy member (12.5%), after searching for it on the web (5%), from a friend or family member (9%), from an online or print ad (1%), or from "other" sources (11.5%).

The sample was predominantly white (74% white females, 78% white males), the majority of which had attended at least some college. Of the females, about 2% had a high school diploma or less when they took the questionnaire, 22% were currently enrolled in college, 30% had a bachelor's degree, and 37% had or were working on a graduate or professional degree. Of the males, about 9% had a high school diploma or less, 18% were enrolled in college, 35% had a bachelor's degree, and 25% had or were working towards a graduate or professional degree. The average age for males was 33.97 (SD 10.832) and 33.41 for females (SD 10.583). Participants were excluded unless they were unmarried, and in a committed relationship between 6 and 24 months long when they took RELATE. See Table 1.

Individuals in a variety of relationship types complete RELATE including those who are casually dating, seriously dating, engaged or married. Because of the nature of the variables of interest in this study, and our interest in the influence of early sexual timing on premarital relationships, only individuals who were seriously dating or engaged to be married at the time they took RELATE were included in the sample.

## Measures

All measures in this study were measured by subscales from the Relationship Evaluation (RELATE) questionnaire (Holman et al., 1997). The RELATE is an approximately 300-item online questionnaire designed to evaluate the quality of romantic relationships for individuals and couples. The questions examine four different relationship contexts—individual, cultural, family (of origin), and couple—in order to provide a comprehensive evaluation of challenges and strengths in their relationships. Participants received personalized feedback upon completing the questionnaire that may help them discuss the strengths and weaknesses in their relationship. Previous research has documented RELATE’s reliability and validity, including test-retest and internal consistency reliability; and content, construct, and concurrent validity (Busby et al., 2001). We refer the reader specifically to Busby et al.’s (2001) description of the RELATE for more detailed information regarding the theory underlying the instrument and its psychometric properties. The scores for participants on all the scales in this study will be mean scores when more than one question is combined. Some variables will be categorical (e.g. education level).

**Sexual timing.** This variable is measured using one item asking individuals at what point in their relationship they began to have sexual relations with their current partner. Responses to choose from include: “1. Before we started dating”, “2. On our first date”, “3. A few weeks after we started dating”, “4. From 1 to 2 months after we started dating”, “5. From 3 to 5 months after we started dating”, “6. From 6 to 12 months after we started dating”, “7. From 1 to 2 years after we started dating”, “8. More than two years after we started dating”, “9. We never had sexual intercourse” and “10. After we married”. Response 10 was coded to equal 9 and variable was measured as continuous. Higher scores indicate later sexual timing.

Couples are known to engage in a variety of sexually intimate behaviors other than sexual intercourse, such as oral sex, and the research to date suggests that no one type of sexual behavior has a

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different influence on relationships than other types, thus the term “sexual relations” was used (Busby et al., 2010; Christopher & Sprecher, 2000; Regnerus, 2007). Research has also shown that all of these types of sexual acts and behaviors are considered “sex” by most individuals (Regnerus, 2007).

**Avoidant attachment scale.** This variable is measured with eight items, responses range on a 7-point Likert scale (1= strongly disagree to 7 = strongly agree). Scores range from 8-56, lower scores refer to avoidant attachment whereas higher scores refer to less avoidance (securely attached). Items include: “I find it relatively easy to get close to others”, “I’m not very comfortable depending on others”(reverse coded), “I’m comfortable having others depends on me”, “I don’t like people getting to close to me” (reverse coded), “I’m somewhat uncomfortable being too close to others” (reverse coded), “I find it difficult to trust others completely” (reverse coded), “I’m nervous whenever anyone gets too close to me” (reverse coded), “Others often want me to be more intimate than I feel comfortable being” (reverse coded). Higher scores on these questions imply that individuals are more securely attached in their relationship, meaning they feel comfortable being intimate, trusting others, worry less about being abandoned and feel satisfied with the level of intimacy in their relationship(s) (i.e., the opposite of avoidant and anxious attachment). The internal consistency reliability coefficient for the Avoidant Attachment scale was .81.

**Anxious attachment scale.** This variable is measured with a nine-item scale, responses range on a 7-point Likert scale (1= strongly disagree to 7 = strongly agree). Scores range from 9-63, lower scores refer to anxious attachment while higher scores refer to less anxious attachment. Items include: “I rarely worry about being abandoned by others”, “Others are often reluctant to get as close as I would like” (reverse coded). “I often worry that my partner(s) don’t really love me” (reverse coded), “I rarely worry about my partner(s) leaving me”, “I often want to merge completely with others, and this desire sometimes scares them away” (reverse coded), “I’m confident others would never hurt me by suddenly ending our relationship”, “I usually want more closeness and intimacy that others do” (reverse coded),

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“The thought of being left by others rarely enters my mind”, “I’m confident that my partner(s) love me just as much as I love them”. Higher scores on these questions refer to higher levels of secure attachment, meaning individuals feel confident and secure in their relationships; they feel comfortable being intimate, trusting others, worry less about being abandoned and feel satisfied with the level of intimacy in their relationship(s). The internal consistency reliability coefficient for the Anxious Attachment scale was .83.

**Control Variables.** The Religiosity Scale from RELATE consists of three questions, the first two responses range on a 5-point Likert scale (1=Never to 5=Very Often). Higher scores refer to more orientation toward religiosity. Items include: “Spirituality is an important part of my life”, “How often do you pray?” and the final question “How often do you attend religious services?” responses range from “0. Weekly”, “1. At least monthly”, “2. Several times a year”, “3. Once or twice a year or less” and, “4. Never” (reverse coded). Scores range from 3 to 19. The internal consistency reliability coefficient for the Religiosity scale was .79.

In this study, relationship length is a categorical control variable. Individuals indicated in RELATE how long they have been in their relationship. Response categories are coded: 0-3 months = 1, 4-6 months = 2, 7-12 months = 3, 1-2 years = 4, 3-5 years = 5, 6-10 years = 6. Couples dating more than 24 months (a response higher than four) and less than 6 months (response less than 3) were excluded from the study. Couples who were previously married (dichotomous variable no = 0, yes = 1) were excluded from the study to ensure more proximal measures of premarital sex and marriage dynamics.

Age was indicated in RELATE by individuals typing in their age and it was measured continuously. Education was measured by a single item asking: “How much education have you completed?” and responses included “1. Less than high school”, “2. High school equivalency (GED)”, “3. High school diploma”, “4. Some college, not currently enrolled”, “5. Some college, currently

enrolled”, “6. Associate’s degree”, “7. Bachelor’s degree”, “8. Graduate or professional degree not completed”, “9. Graduate or professional degree, completed”.

## **Analyses**

The analyses included the following two steps. First, confirmatory factor analyses were run to examine measurement of the latent variables to ensure there was enough discriminant validity. Latent variables are a group of directly observed variables to infer another variable, in this study, that includes anxious attachment, avoidant attachment, and religiosity, all of which were scales that were created to measure one latent variable. Low intercorrelations among the constructs indicate the constructs were distinguished, while high intercorrelation between factors indicates that the factors are too similar to be considered separate factors. The confirmatory factor analysis also showed us how well the latent variables correlate as indicated by factor loadings. Measurement invariance between two informants was examined by comparing a model that had factor loadings freely estimated and one that had equality constraints imposed on the factor loadings, in terms of Wald Chi-square difference test (Muthén & Muthén, 1998-2012).

The reliability of items for measuring each construct were calculated with factor loadings in the following formula:  $\omega = (\sum \lambda_i)^2 / [(\sum \lambda_i)^2 + \sum \psi^2]$ , where  $(\sum \lambda_i)^2$  = square (the sum of standardized factor loadings),  $\sum \psi^2$  = sum of residual variances,  $i$  = items, and  $\psi^2_i = 1 - \lambda^2$  (McDonald (1999). Second, a structural equation model (SEM) (Wuensch, 2009) was run to examine how well the proposed model fit the data because of its ability to test both direct and indirect effects on the endogenous variable without the influence of measurement errors. SEM was used because of its’ ability to work with ordinal, latent, and observed variables as well as its’ ability to control for measurement error better than standard multiple regression (Kline, 1998). Because male and female

reports of sexual timing within the matched data set were only slightly different, a mean couple score was calculated to represent couple sexual timing.

Chi-square, comparative fit index (CFI) and root mean square error approximation (RMSEA) were used as goodness of fit indices. The chi-square test measures the difference between the model implied covariance matrix and sample covariance matrix with non-a significant value representing a better model fit (Byrne, 2001). The comparative fit index (CFI) analyzes the difference between the data and the hypothesized model (Gatignon, 2010). CFI values range between 0 and 1, but a value closer to 1 (.95 and above) indicates a well-fitting model (Hu & Bentler, 1999). The root mean square error approximation measures the discrepancy between the hypothesized model and the population covariance matrix. Values less than .05 indicate good model fit (Byrne, 2001). The final model was run using Bayesian estimation method without informative prior distribution specifications to help deal with multicollinearity problems (Montgomery, Peck, & Vining, 2006). Bayesian estimation analysis uses a 95% credibility interval that predicts probability that the population values are within the limits of the interval (Van de Schoot et al., 2013).

### **Results**

Correlations were calculated among all independent variables (see Table 2). Correlation findings were found to be significant in the following positive relationships: male avoidant attachment with male anxious attachment, female avoidant attachment with male anxious attachment, female anxious attachment with male avoidant attachment, female anxious attachment with female avoidant attachment, female anxious attachment with male anxious attachment, female age with male age, male education with male age, female education with male education, female age with female education, female education with male age, male religiosity with male avoidant attachment, male religiosity with male age, male religiosity with female age, male religiosity with male education, male religiosity with

female education, female religiosity with male religiosity, and female religiosity with female avoidant attachment. The following negative relationships were found: female religiosity with male age, and female religiosity with female age, male age with male avoidant attachment, female age with male avoidant attachment, female religiosity with male education, and female religiosity with female education, male religiosity with male age, male religiosity with male age, male religiosity with male education, and male religiosity with female education. The confirmatory factor analysis also showed all factor loadings indicate the constructs were measured well (see Table 3).

**Structural Equation Analysis.** Male age was found to be statistically significant in relation to sexual timing, as were female anxious attachment, female avoidant attachment, and female religiosity (see Figure 2). The positive relationship between female anxious attachment and sexual timing supports one hypothesis, however, the negative relationship between female avoidant attachment and sexual timing was contrary to the hypothesis (see Figure 2). Neither male avoidant attachment or male anxious attachment hypotheses were supported by the results, thus; only one of the four hypotheses was supported.

The analysis of the model indicated that the model was a good fit to the data. The sample size for the SEM analysis was 256 couples after selection criteria were applied. The Tucker Lewis Index (TLI) was .93, the Comparative Fit Index (CFI) was, .93, while the Root Mean Square Error of Approximation (RMSEA) was .05.

In testing the model, it was also found that women were more likely to report later sexual timing than men, despite the use of a matched data set.

### **Discussion**

Findings indicated good model fit and one of the four hypotheses supported by a positive relationship between female anxious attachment and sexual timing. The three hypotheses not supported

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were male anxious attachment and male avoidant attachment, which had insignificant relationships with sexual timing, as well as female avoidant attachment, which had a strong, negative relationship with sexual timing.

Female anxious attachment was shown in this study as having a positive relationship with early sexual timing. This may be because anxiously attached females may be more likely to place a higher meaning on sex, as well as be use sex as a way to foster emotionally intimacy and commitment. Schachner and Shaver's 2004 study found individuals who were more anxiously attached were more likely to have sex to reduce insecurity and foster a sense of deep intimacy. Davis et al. (2006) found similar results noting anxiously attached individuals to be more prone to sexual coercion, as well as use sexually coercive strategies, especially when they felt their relationship was insecure.

A positive relationship between male anxious attachment and early sexual timing may not have been found because of residual multicollinearity problems within the model that could not theoretically be adjusted for. Another explanation could be because males may be more prone to placing a higher meaning on sex when they have higher levels on anxious attachment. For example, males who have higher levels of anxious attachment may view sex as a significant event that would show commitment and seriousness within the relationship and want to shy away from commitment, thereby avoiding sex. However, there are no theories or studies found to support this explanation.

The lack of a positive relationship between male avoidant attachment and sexual timing may also be partly influenced by multicollinearity. It may also be that there are equal amounts of males with avoidant attachment who engage in early, detached sex, as there are men who avoid sex, thus creating a mean of both extremes that is insignificant. Brassard et al. (2007) found individuals with higher levels of avoidant attachment tend to avoid sex with their partners, whereas Mikulinger & Shaver (2007) found avoidant individuals more likely to have uncommitted sex.

Contrary to our hypothesis, female avoidant attachment had a strongly significant relationship with reporting *later* sexual timing. This may be because females with higher levels of avoidant attachment are less prone to casual sex, and more prone to avoiding sex in their insecure relationships. This is supported by both Mikulinger & Shaver's 2007 study, as well as Brassard, Shaver, & Lussier's 2007 studies that found higher levels of avoidant attachment led individuals to avoid and fear sex.

Religiosity was found to have a strong positive relationship for females with later sexual timing. Religiosity has been shown as a significant factor in later sexual timing and sexual attitudes (Hull et al. 2011; Ahrold et al., 2009) and thus was expected to show a significant result. Male religiosity was not found to have a significant relationship with sexual timing, which may be influenced by multicollinearity.

In testing the model, it was also found that women were more likely to report later sexual timing than men, despite the use of a matched data set. Normative social scripts that deem women more attractive when considered chaste, or sexually conservative and men more attractive when considered sexually experienced may explain these discrepancies (Fisher, 2009; Meier, 2003; Sprecher et al., 1997). Thus, women may tend to report later sexual timing for socially approved reasons.

### **Clinical Implications**

The present study is one of an exploratory nature and it is hoped that clinical decisions would not be made solely on the basis of these findings or recommendations, however it is hoped that this study will be helpful to sex educators, religious leaders and clinician. Sex education is taught throughout most schools, churches and community centers in the United States (Martinez, Abma, & Copen, 2010). However, no sex education curriculums were found that include attachment theory principles. The current study suggests that incorporating teaching attachment security in sex education lesson may benefit teens and adults in that it may help them choose to abstain from sexual relations

until a more secure relationship exists, thus benefitting their future relationships (Busby, Carroll, & Willoughby, 2010).

This study also implies attachment-securing discussions and activities could benefit parents worried about their children's promiscuous behavior. Parents interested in their children avoiding early sexual relations could work on their attachment behaviors with their children, in an effort to help their children choose to have sex later in their relationships. Ecclesiastical leaders could also benefit from utilizing this study as a means to incorporate attachment to God, as well as attachment to parents in teaching about chastity and abstaining from sexual relations. When members of religious bodies struggle with chastity and/or sex addictions, ecclesiastical leaders could offer attachment-bonding activities and discussions.

Clinicians can benefit from this in how they treat families struggling with young adult promiscuity. As mentioned above, clinicians can help guide parents through attachment activities and help teach families about their attachment styles and behaviors. This research also benefits clinicians working with premarital and engaged couples by helping them increase their attachment security and attachment awareness.

### **Limitations and Directions for Future Research**

Multicollinearity problems within the structural equation model were a limit that may have influenced the results. Another major limitation of this study is that the sample is not representative of the U.S. population and consists of a more educated, white population than a random sample would have produced. Also, the religious distribution of participants is not representative of national norms, despite selective criteria including only 12% Latter-day Saint (LDS) participants. These limitations make generalizing the findings of this study to a more diverse population unacceptable.

The reliability of self-report measures was also a limitation in this study. All of the variables in the sample are based on retrospective self-report, creating an opportunity for participants to be less than

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honest or able to accurately recall the incidents in their reports. This was particularly noticed in the measures concerning sexual timing as it was noted that males and females reported different sexual timing periods. Because we have controlled for religiosity as well as used only 12% LDS as selection criteria, we have been able to demonstrate that attachment has a unique effect beyond religiosity.

Future research regarding attachment and sexual timing should collect data from a more ethnically and educationally diverse sample, as well as include other potential motivators for early sexual timing such as lower levels of commitment, depression and/or anxiety measures. A theoretically sound model that controls for multicollinearity may also glean more significant results. Longitudinal research may also help in understanding how parent-child attachment relationships use adult romantic attachment as a mediator for early sexual timing.

### **Conclusion**

Sexual timing is an important part of relationships that may be ignored by many people entering into relationships. There are a few theories and studies that have founded ideas as to what motivates early sexual timing, but none were found that looked at attachment. This study examined attachment insecurity as a possible motivator for early sexual timing. The SEM model from this current study showed attachment influences sexual timing in varying ways. This study adds to the knowledge researchers and clinicians have regarding possible motivations for early sexual timing. This branch of research is slim, and more research is needed linking attachment styles and behaviors, as well as other motivators, to early sexual timing.

**References**

- Ahrold, T.K., Farmer, M., Trapnell, P.D., & Meston, C.M. (2001). The relationship among sexual attitudes, sexual fantasy, and religiosity. *Archives of Sexual Behavior, 40*(3), 619-630
- Ainsworth, M. D. S., Blehai, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum Assoc., Inc..
- Ainsworth, M. D. S. (1967). *Infancy in Uganda: Infant care and the growth of love*. Baltimore: Johns Hopkins University Press.
- Ainsworth, M. D., & Wittig, B. A. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In B. M. Foss (Ed.), *Determinants of infant behavior* (Vol. 4, pp. 113– 136). London: Methuen.
- Alan Guttmacher Institute (AGI) . (2002). *Sexual and reproductive health: Women and men*. Alan Guttmacher Institute. New York: AGI [http://www.guttmacher.org/pubs/fb\\_10-02.html](http://www.guttmacher.org/pubs/fb_10-02.html)
- Bowlby, J. (1969). *Attachment and loss: Attachment. Vol. I*. New York: Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Loss- sadness and depression. Vol. III*. New York: Basic Books.
- Busby, D. M., Carroll, J. S., & Willoughby, B. J. (2010). Compatibility or restraint: The effects of sexual timing on marriage relationships. *Journal of Family Psychology, 24*, 766-774.
- Busby, D.M., Holman, T.B., & Taniguchi, N. (2001). RELATE: Relationship evaluation of the individual, family, cultural, and couple contexts. *Family Relations, 50*, 308-316.
- Busby, D.M., Willoughby, B.J., & Carroll, J.S. (2013). Sowing wild oats: Valuable experience or a field full of weeds? *Journal of the International Association for Relationship Research, 4*, 1-13.
- Brassard, A., Shaver, P. R., & Lussier, Y. (2007). Attachment, sexual experience, and sexual pressure in romantic relationships: A dyadic approach. *Personal Relationships, 14*, 475–494.

## INSECURE ATTACHMENT AND SEXUAL TIMING

- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cassell, C. (2008). *Put passion first: Why sexual chemistry is the secret to finding and keeping lasting love*. New York, NY : McGraw-Hill.
- Christopher, F.S., & Sprecher, S. (2000). Sexuality in marriage, dating, and other relationships: A decade in review. *Journal of Marriage and Family*, 62, 999-1017.
- Davila, J., Karney, B. R., & Bradbury, T. N. (1999). Attachment change processes in the early years of marriage. *Journal of Personality and Social Psychology*, 76(5), 783-802. doi:10.1037/0022-3514.76.5.783
- Davis, D., Shaver, P.R., & Vernon, M.L. (2004). Attachment style and subjective motivations for sex. *Personality and Social Psychology Bulletin*, 30, 1076-1090.
- Davis, D., Shaver, P.R., Widaman, K.F., Vernon, M.L., Beitz, K., & Folette, W.C. (2006). "I can't get no satisfaction": Insecure attachment, inhibited sexual communication, and sexual dissatisfaction. *Personal Relationships*, 13, 465-483.
- Del Giudice, M. (2009). Sex, attachment, and the development of reproductive strategies. *Behavioral and Brain Sciences* 32, 1-67.
- Dewitte, M. (2012). Different perspectives on the sex-attachment link: towards an emotion-motivational account. *Journal of Sex Research* 49(2-3), 105-124.
- Dickstein, S., Seifer, R., St Andre, M., & Schiller, M. (2001). Marital attachment interview: Adult attachment assessment of marriage. *Journal of Social and Personal Relationships*, 18(5), 651-672. doi:10.1177/0265407501185005
- Doumas, D., Pearson, C., Elgin, J., & MicKinley, L. (2008). Adult attachment as a risk factor for intimate partner violence. *Journal of Interpersonal Violence*, 23, 616-634.

- Fraley, R.C., & Shaver, P.R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology* 4(2), 132-154.
- Fisher, T.D. (2009). The impact of socially conveyed norms on the reporting of sexual behavior and attitudes by men and women. *Journal of Experimental Social Psychology*, 45, 567-572.
- Gallo, L. C., & Smith, T. W. (2001). Attachment style in marriage: Adjustment and responses to interaction. *Journal of Social and Personal Relationships*, 18(2), 263-289.  
doi:10.1177/0265407501182006
- Gatignon, H. (2010). *Confirmatory factor analysis in statistical analysis of management data*. DOI: 10.1007/978-1-4419-1270-1\_4
- Gillath, O., & Schachner, D.A. (2006) How do sexuality and attachment interrelate? Goals, motives and strategies. In M. Mikulincer & G. Goodman (Eds.), *The dynamics of romantic love: Attachment, caregiving and sex* (pp. 337-355). New York: Guilford.
- Halpern, C.T., Waller, M.W., Spriggs, A., & Hallfors, D.D. (2006). Adolescent predictors of emerging adult sexual patterns. *Journal of Adolescent Health*, 39(5), 926. E1-926. E10
- Hazan, C. & Shaver, P.R. (1987) Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524.
- Holman, T.B., Busby, D.M., Doxey, C., Klein, D.M., & Loyer-Carlson, V. (1997). *Relationship Evaluation (RELATE)*. Provo, UT: Marriage Study Consortium.
- Hughes, A. (2010). *The relationship between couple attachment and sexual satisfaction with covert relational aggression as a mediator: A longitudinal study*. Brigham Young University, Provo, UT.
- Hull, S., Hennessy, M., Beakley, A., Fishbein, M., & Jordan, A. (2011). Identifying the Causal pathways from religiosity to delayed adolescent sexual behavior. *Journal of Sex Research*, 48(6), 543-553.

## INSECURE ATTACHMENT AND SEXUAL TIMING

- Johnson, S. M. (2004). *The practice of emotionally focused couple therapy*. New York, NY: Brunner-Routledge.
- Johnson, S., & Zuccarini, D. (2010). Integrating sex and attachment in emotionally focused couple therapy. *Journal of Marital and Family Therapy*, 30 (4), 431-445.
- Jonason, P. K., & Fisher, T. D. (2009). The power of prestige: Why young men report having more sex partners than young women. *Sex Roles*, 60, 151-159
- Kahn, J. R., & London, K. A. (1991). Premarital sex and the risk of divorce. *Journal of Marriage and the Family*, 53(4), 845-855.
- Kaestle, C. E., & Halpern, C. T. (2007). What's love got to do with it? Sexual behaviors of opposite-sex couples through emerging adulthood. *Perspectives on Sexual and Reproductive Health*, 39, 134–140.
- Kline, R. B. (1998). *Principles and practices of structural equation modeling*. New York: Guilford.
- Kolobe, L. (2006). *What is R-Squared?* Retrieved from the Connexions Web site:  
<http://cnx.org/content/m13447/1.1/>
- MacLean, Peter. (2001). Attachment in marriage: Predicting marital satisfaction from partner matching using a three-group typology of adult attachment style. Purdue University, Indiana,  
<http://proquest.umi.com/pqdlink?did=726340591&Fmt=7&clientId=79356&RQT=309&VName=PQD>
- Martinez, G., Abma, J., & Copen, C. (2010). Educating teenagers about sex in the United States. *NCHS Data Brief*, 44, 1-8.
- McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

## INSECURE ATTACHMENT AND SEXUAL TIMING

Meier, A.M. (2003). Adolescent transition to first intercourse, religiosity, and attitudes about sex.

*Social Forces* 81(3), 1031-1052.

Metts, S. (2004). First sexual involvement in romantic relationships: An empirical investigation of communicative framing, romantic beliefs, and attachment orientation in the passion turning point. In J. H. Harvey, A. Wenzel, & S. (Eds.). *The handbook of sexuality in close relationships* (pp. 135-158). Hillsdale, NJ: Lawrence Erlbaum Associates.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics and*. New York: Guilford Press.

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2006). *Introduction to linear regression analysis*. Hoboken, New jersey: John Wiley & Sons, INC.

Mosher, W.D., Chandra, A., & Jones, J. (2005). Sexual behavior and selected health measures: Men and women 15–44 years of age, United States, 2002. *Advance data from vital and health statistics*; no 362. Hyattsville, MD: National Center for Health Statistics.

Muthén, L.K. & Muthén, B.O. (1998-2012). *Mplus User's Guide*. Seventh Edition. Los Angeles, CA: Muthén & Muthén

Peplau, L. A., Rubin, Z., & Hill, C. T. ( 1977). Sexual intimacy in the dating relationship. *Journal of Social Issues*, 33, 86– 109.

Regnerus, M.D. (2007), *Forbidden fruit: Sex and religion in the lives of American teenagers*. New York: Oxford University Press.

Sandberg, J.G., Busby, D.M., Johnson, S.M., & Yoshida, K. (2012). The Brief Accessibility, Responsiveness and Engagement (BARE) scale: A tool for measuring attachment behavior in couple relationships. *Family Process*, 51(4), 512-526.

Sassler, S., Addo, F.R., & Lichter, D.T. (2012). The tempo of sexual activity and later relationship quality. *Journal of Marriage and Family*, 74, 708-725

## INSECURE ATTACHMENT AND SEXUAL TIMING

- Santelli, J. S., Brener, N. D., Lowry, R., Bhatt, A., & Zabin, L. S. (1998). Multiple sexual partners among U.S. adolescents and young adults. *Family Planning Perspectives, 30*, 271-275.
- Schachner, D.A., & Shaver, P.R. (2004). Attachment dimensions and sexual motives. *Personal Relationships, 11*, 179-195.
- Shaver, P. R., & Hazan, C. (1988). A biased overview of the study of love. *Journal of Social and Personal Relationships, 5*, 473-501.
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology, 59*(5), 971-980. doi:10.1037/0022-3514.59.5.971
- Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 62*, 434-446.
- Sprecher, S., Regan, P.C., McKinney, K., Maxwell, K., & Waziwinski, R. (1997). Preferred level of sexual experience in a date or mate: The merger of the two methodologies. *The Journal of Sex Research, 34*(4), 327-337.
- Stanley, S. M., Rhoades, G. K., & Markman, H. J. (2006). Sliding vs. deciding: Inertia and the premarital cohabitation effect. *Family Relations, 55*, 499–509
- Teachman, J. (2003). “Premarital sex, premarital cohabitation, and the risk of subsequent marital dissolution among women.” *Journal of Marriage and Family, 65*(2), 444-455.
- Ullman, J.B. (1996). Structural equation modeling. *Using multivariate statistics*, Third Edition. HarperCollins College Publishers. New York, NY
- U.S. Bureau of the Census, (2009). *America’s families and living arrangements*, Washington, DC: U.S. Government Printing Office.
- Van de Schoot, R., Denissen, J., Neyer, F.J., Kaplan, D., Asendorpf, J.B., & Van Aken, M.A.G. (2013). A gentle introduction to Bayesian analysis: Applications to developmental research. *Child*

## INSECURE ATTACHMENT AND SEXUAL TIMING

*Development*, 1-19. Retrieved from

<http://onlinelibrary.wiley.com/store/10.1111/cdev.12169/asset/cdev12169.pdf?v=1&t=hp5xpwa1&s=30de8235dd14d5c428f39fd1d06c8bbe354ce4ba>

Williams, J.D. & Jacoby, A.P. (1989). The effects of premarital heterosexual and homosexual experience on dating and marriage desirability. *Journal of Marriage and Family*, 51, 489-497.

Wuensch, K.L (2009). *An introduction to structural equation modeling*. Dept. of Psychology, East Carolina University, Greenville, NC USA

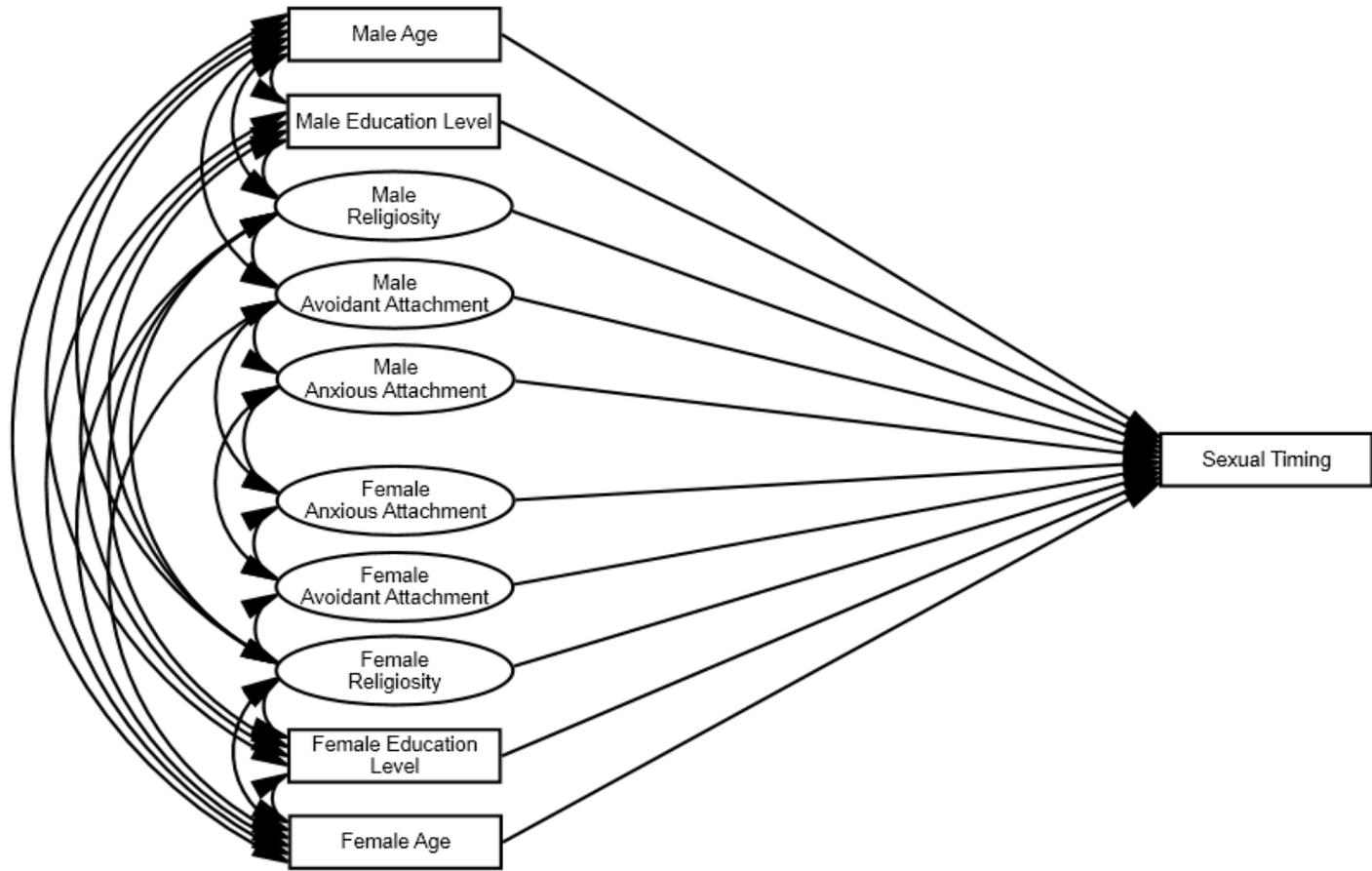


Figure 1. Conceptual Model of Effects of Anxious and Avoidant Attachment on Sexual Timing

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Table 1

*Demographics Characteristics of Sample*

Variables	Gender			
	Male N=602		Female N=602	
	Frequency	Percent	Frequency	Percent
<u>Education</u>				
Less than high school	5	0.8%	5	0.7%
High school equivalency (GED)	15	2.5%	3	0.5%
High school diploma	33	5.5%	5	0.8%
Some college, not currently enrolled	51	8.5%	27	4.5%
Some college, currently enrolled	108	17.9%	134	22.3%
Associate's degree	30	5.0%	27	4.5%
Bachelor's degree	213	35.4%	183	30.4%
Graduate or professional degree, not completed	41	6.8%	65	10.8%
Graduate or professional degree, completed	106	17.6%	154	25.6%
<u>Race</u>				
African (Black)	47	7.8%	38	6.3%
Asian	31	5.1%	48	8.0%
Caucasian (White)	467	77.6%	448	74.4%
American Indian	1	0.2%	3	0.5%
Latino (Mexican America, Puerto Rican, Cuban, etc)	24	4.0%	29	4.8%
Mixed/Bi-racial	19	3.2%	26	4.3%
Other (Please Specify)	13	2.2%	9	1.5%
<u>Age</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	33.97	10.83	33.41	10.58

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Table 2

Correlation Matrix of Dependent Variables

	1	2	3	4	5	6	7	8	9	10
1. Male Avoidant Attachment										
2. Female Avoidant Attachment	.05									
3. Male Anxious Attachment	.29***	.17**								
4. Female Anxious Attachment	.13*	.57***	.16**							
5. Male Age	-.14*	0	-.03	.2						
6. Female Age	-.11*	.08	0	0	.79***					
7. Male Education	.06	-.03	.06	-.07	.53***	.39***				
8. Female Education	-.03	-.02	.1	-.06	.53***	.61***	.52***			
9. Male Religiosity	.16**	.01	.05	.07	-.17**	-.25***	-.12*	-.23***		
10. Female Religiosity	.08	.14*	.03	.11	-.17**	-.2***	-.2***	-.26***	.78***	

NOTE : \* = p<.05, \*\* = p<.01, \*\*\*=p<.001

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Table 3

*Standardized factor loadings and reliabilities ( $\Omega$ ) of indicators of constructs in the study*

	Item Content	Male	Female
Avoidant Attachment	"I find it relatively easy to get close to others."	0.64	0.66
	"I'm not very comfortable having to depend on other people."	0.46	0.42
	"I'm comfortable having others depend on me."	0.51	0.45
	"I don't like people getting too close to me."	0.85	0.8
	"I'm somewhat uncomfortable being too close to others."	0.85	0.79
	"I find it difficult to trust others completely."	0.65	0.77
	"I'm nervous whenever anyone gets too close to me."	0.83	0.76
	"Others often want me to be more intimate than I feel comfortable being."	0.65	0.53
	$\Omega = .88$	$\Omega = .86$	
Anxious Attachment	"I rarely worry about being abandoned by others."	0.61	0.71
	"Others are often reluctant to get as close as I would like."	0.46	0.47
	"I often worry that my partner(s) don't really love me."	0.72	0.76
	"I rarely worry about my partner(s) leaving me."	0.69	0.71
	"I often want to merge completely with others, and this desire sometimes scares them away."	0.34	0.54
	"I'm confident others would never hurt me by suddenly ending our relationship."	0.73	0.78
	"I usually want more closeness and intimacy than others do."	0.36	0.49
	"The thought of being left by others rarely enters my mind."	0.7	0.79
	"I'm confident that my partner(s) love me just as much as I love them."	0.62	0.66
		$\Omega = .83$	$\Omega = .87$
Religiosity	"How often do you attend religious services?"	0.9	0.88
	"Spirituality is an important part of my life."	0.93	0.94
	"How often do you pray (commune with a higher power)?"	0.87	0.86
	"Some doctrines or practices of my church are hard for me to accept."	0.37	0.43
	$\Omega = .87$	$\Omega = .87$	

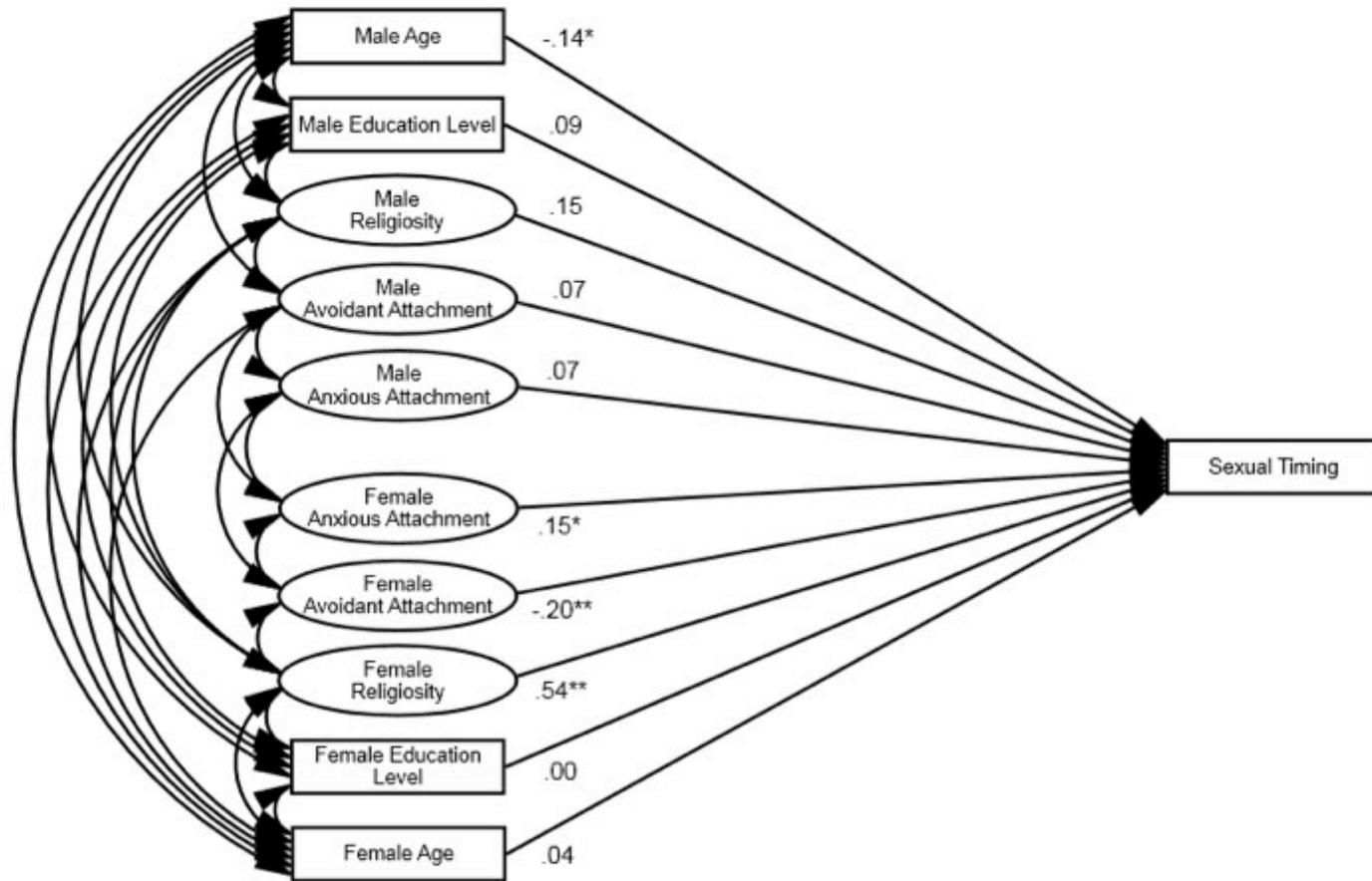


Figure 2. Effect Estimates of Anxious and Avoidant Attachment on Sexual Timing