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EXAMINING ANXIOUS ATTACHMENT AND ITS EFFECTS ON SEXUAL BEHAVIORS IN ADULTHOOD

Justin Graham
University of Kentucky, justin.graham22@icloud.com
Author ORCID Identifier:
https://orcid.org/0009-0008-8865-8021
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Justin Graham, Student

Dr. Nathan D. Wood, Major Professor

Alexander T. Vazsonyi, Director of Graduate Studies

EXAMINING ANXIOUS ATTACHMENT AND ITS EFFECTS ON SEXUAL BEHAVIORS IN ADULTHOOD

THESIS

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Family Sciences in the
College of Agriculture, Food and Environment
at the University of Kentucky

By

Justin Garth Graham

Lexington, Kentucky

Director: Dr. Alexander T. Vazsonyi, Professor of Family Sciences

Lexington, Kentucky

2024

https://orcid.org/0009-0008-8865-8021

ABSTRACT OF THESIS

EXAMINNIG ANXIOUS ATTACHMENT AND ITS IMPACT ON SEXUAL BEHAVIORS IN ADULTHOOD

The current study aimed to investigate the relationship between anxious attachment and adult sexual behaviors. The study utilized pairfam, a nationally representative German sample, as a secondary data set for its quantitative analysis. Participants responded to two anxious attachment scales and questions regarding sexual desire, sexual confidence, and age at first sexual experiences. Analyzing data from 5561 individuals, averaging 29.27 years old, a path analysis was conducted to assess variable effects. Findings indicate that higher anxious attachment correlates with reduced sexual confidence and earlier onset of sexual intercourse. Future studies should investigate additional attachment scales and include a more diverse range of participant demographics. In a clinical context, it is suggested to prioritize attachment anxiety treatment during therapy sessions. Further research should also consider comparing self-reports with partner perceptions and examining the relationship between sexual desire and age at first intercourse.

KEYWORDS: Anxious attachment, Sexual behaviors, Adulthood, Pairfam, Quantitative Research

Justin Garth Graham

(Name of Student)

04/15/2024

Date

EXAMINNIG ANXIOUS ATTACHMENT AND ITS IMPACT ON SEXUAL BEHAVIORS IN ADULTHOOD

By
Justin Garth Graham

Nathan D. Wood
Director of Thesis

Alexander T. Vazsonyi
Director of Graduate Studies

04/15/2024
Date

To my wife Anna, who has been my rock and support throughout this entire experience.
To my daughter Eliza, who reminds me of the blessing it is to be a father.
I love you both.

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CHAPTER 1. INTRODUCTION

1.1 Background

One of the most intriguing and prevalent practices in society revolves around the pursuit of meaningful connections with others. Human beings, inherently social creatures, are often drawn to the idea of meeting, getting to know, and ultimately dating someone special. At various stages of this process, individuals may choose to engage in sexual behaviors. However, the intricacies of how people engage in these behaviors can vary significantly from one individual to another. Research has sought to illuminate these differences, providing insights into the reasons behind these diverse approaches (Birnbaum, 2010; Mikulincer & Shaver, 2007b).

Recent literature indicates an increase in the prevalence of sexual intercourse among adolescents (Guttmacher Institute, 2019). This data highlights a concerning trend, as current research suggests that early sexual debut is associated with contracting sexually transmitted infections (Buttman et al., 2014), experiencing major depressive symptoms (Lu et al., 2023), and being involved in dating violence (Kaplan et al., 2013). Furthermore, there is high rate of couples seeking sex therapy (Hall & Watter, 2023). One approach that continues to deepen the understanding of sexual behaviors is attachment theory.

In this paper, I seek to unravel the connection between attachment theory and first experiences of sexual behaviors. To begin, I will provide a concise overview of attachment theory. From there, I will delve into attachment theory specifically within adults, placing an emphasis on attachment anxiety and sexual behaviors. The aim of this manuscript is to investigate whether attachment anxiety could be a contributing factor to

recent trends in sexual behaviors. If so, this could provide insights into how to improve the clinical treatment of sexual behaviors through the lens of attachment theory.

1.2 John Bowlby

Attachment theory, one of the most influential theories in the field of family science, has contributed to the understanding of human relationships. Developed by British psychologist John Bowlby, this theory delves into the intricate and profound connections between caregivers and infants (Bowlby, 1969/1982, 1973, 1980) and led him to propose that the bond formed between an infant and their primary caregiver lays the foundation for the child's emotional and social development. He theorized that the quality of this initial relationship shapes an individual's attachment style, which, in turn, profoundly influences how they perceive others and interact within relationships (Bowlby, 1980). Thus, this initial attachment relationship serves as a prototype for all future relationships in an individual's life (Bowlby, 1973).

At the core of attachment theory is the caregiver-infant bond. Bowlby argued that infants are biologically predisposed to seek proximity and comfort from their primary caregivers, usually their parents (Bowlby, 1969). This innate inclination for proximity promotes survival and emotional well-being in early infancy. Through a series of attachment behaviors, such as crying, clinging, and seeking eye contact, infants establish a secure base from which to explore the world around them (Bowlby, 1973; 1988). Bowlby theorized that the child would create internalized representations of these relationships, known as internal working models, which would subsequently affect how individuals approach and interact with others throughout their lives (Bowlby, 1973, 1980).

1.3 Caregiver-Child Attachment

Mary Ainsworth, a colleague of Bowlby and the foundational researcher of attachment theory, designed the Strange Situation Procedure (Ainsworth et al., 1978) in the 1960's to test Bowlby's attachment theory and William Blatz's security theory (van Rosmalen, van der Veer, & van der Horst, 2015). This observational protocol unfolds in a controlled playroom setting. It involves several key stages: an initial period for the child to explore the environment in the presence of the caregiver, the introduction of a stranger, the caregiver's temporary departure, the stranger's attempt to interact with the child, the caregiver's return, and the reunion phase where the child's reactions to the caregiver's return are observed (Smith & Hamon, 2022). It is important to note that Ainsworth's focus of this study was not to identify specific qualities within a child, rather it was to analyze the *relationship* between a parent and child (van Rosmalen et al., 2015).

Through systematic analyses of the child's behavior, this study led to the development of a typology for parent-child attachment relationships. These styles include a secure attachment, insecure avoidant attachment, and insecure anxious attachment (Ainsworth et al., 1978). A fourth attachment pattern has also been identified: disorganized/disoriented (Main et al., 1985; Main & Solomon, 1990). These attachment styles, formed during infancy and theorized to be external representations of internal working models, were theorized to remain throughout life and significantly influence how individuals perceive themselves and others (Bowlby, 1973).

Based on how the mother and infant reacted during the Strange Situation Procedure, Ainsworth and colleagues (1978) created the following descriptions for the mother/infant attachment styles. Infants with *secure* attachment styles had caregivers who

were available, responsive, and warm. Although these infants were initially upset by the separation from their mother, they were sociable and curious as they interacted with their environment. The *insecure avoidant* group consisted of mothers who were cold, rigid, and disliked contact. These infants did not display distress when their mothers left, and they did not seek the proximity of her once she returned. Mothers classified within the *anxious-resistant*, resistant/ambivalent, or *anxious ambivalent* group exhibited insensitivity and inconsistency in their behaviors, frequently displaying delayed responses to their infants. As separation occurred, the children would display high levels of protest by crying and clinging. Upon the return of the mother, the child would seek her proximity but would often push away from the mother once there was contact. Although the *disorganized* attachment was not originally identified in the Strange Situation Procedure, recent research has shown that this pattern includes caregivers who are often abusive or depressed. The children of these caregivers do not have a strategy to cope with distress and behave with avoidance and ambivalence (Main et al., 1985; Main & Solomon, 1990). It is crucial to note that while Ainsworth analyzed the mother-infant relationship in the Strange Situation Procedure, suggesting that the child's attachment style depends on the mother, other studies suggest that fathers (Tracy et al., 1976), older siblings (Teti & Ablard, 1989), and daycare providers (Ahnert et al., 2006) can also serve as attachment figures.

1.4 Adult Attachment

During the 1980s, there was an exploration of applying the principles of attachment theory to adults (George et al., 1985; Hazen & Shaver, 1987). Adult attachment is defined as, “the stable tendency of an individual to make substantial efforts

to seek and maintain proximity to and contact with one or a few specific individuals who provide the subjective potential for physical and/or psychological safety and security" (Berman & Sperling, 1994). It is most common for an adult's key attachment figure to be with another adult, often in the context of a romantic relationship. This specific pair bond includes the attachment, caregiving, and sexual mating behavioral system (Hazen & Shaver, 1994). Adults can also form attachments with friends, children, or even a deity consistent with an individual's religious/spiritual tradition (Granqvist & Kirkpatrick, 2008). The intensity of an adult's attachment is typically only shown when the attachment figure is lost or threatened temporally (e.g., martial separation) or permanently (e.g., death) (Smith & Hamon, 2022).

Bartholomew (1990) proposed the idea that Ainsworth's avoidant attachment style seen in childhood might not accurately depict how adults demonstrate intimacy avoidance in their adult relationships. Seeking to effectively represent the adult population, Bartholomew created a two-dimensional, four-category prototype based on internal working models of self and other. Models of self can be positive or negative and indicate the degree to which an individual feels worthy of love and attention. The anxiety and dependency an individual has for other's approval create this model of self. Models of other can be positive or negative and are based upon the trust and availability, or the rejection and distance of the other. Thus, this model is founded on the other's pattern of pursuing closeness or withdrawing from closeness in relationships.

The four prototypes that Bartholomew (1990) created were secure, preoccupied, dismissing, and fearful. The *secure* prototype consists of a positive model of self and a positive model of others. Thus, adults who have this attachment prototype understand

their worth and are prone to engage in intimate relationships. Adults who have a *preoccupied* attachment prototype have a negative model of self and a positive model of others. These adults are driven to constantly seek approval and validation from others in order to develop their own worthiness. This prototype is related to the child attachment style of ambivalent. Adult avoidance is explained by the last two prototypes: *dismissing* and *fearful*. The *dismissing* prototype combines a positive model of self and a negative model of others. Adults with this prototype distance themselves from others because they imagine that they will be rejected. These individuals are able to keep a positive view of self because they avoid potentially harmful relationships. A core belief of adults with a *dismissing* prototype is that they do not need relationships. The *fearful* prototype consists of a negative view of self and others. Adults with this prototype strongly desire connection but bear high amounts of distrust and fear of rejection. Although they yearn for closeness and approval, their intense fear of rejection causes them to avoid social settings. The *fearful* prototype overlaps with the work of Hazen and Shaver's (1987) avoidant type. This research furthers the field of adult attachment and offers insights into how childhood attachment affects the way adults interact with others.

1.5 Measures of Adult Attachment

Early research conducted on adult attachment assumed that attachment styles were categorical, and thus every adult had one attachment style (eg., secure, avoidant, anxious-ambivalent, Fraley et al., 2015). However, in the 1980's researchers began to test if the differences that individuals exhibited with attachment were actually categorical. Some argued that a more appropriate explanation was that attachment security was a continuum that served as the foundation for attachment classifications (Cummings, 1990;

Richters et al., 1988; Waters & Deane, 1985). This resulted in a shift away from categorical measures beginning in the late 1990's. Guided by taxometric research, a methodology allowing one to see the latent structure of a construct (Meehl & Yonce, 1996; Waller & Meehl, 1998), attachment researchers determined that attachment security did vary continuously and not categorically (Fraley & Waller, 1998). Thus, adult attachment would be studied from a dimensional framework, rather than a categorical one.

Multi-item self-report measures were soon developed that could classify an individual's attachment within a dimension (Brennan et al., 1998). Although researchers widely accept this dimensional framework, it is common for categorical methods to still guide attachment research (Ravitz et al., 2010). This has the potential to create confusion for both the researcher and reader. Often referred to as the *types versus dimensions* question, it is important that there be the same framework used for attachment research (Fraley et al., 2015; Cohen, 1983). One weakness to continue using categorical measures is the oversimplification of the orientation of adult attachment. In an effort to solidify a common framework, recent research has found that with respect to one's attachment styles, people do indeed vary continuously rather than categorically (Fraley et al., 2015). The data collected by Fraley et al., (2015) suggests that attachment researchers should persist in conceptualizing and assessing individual differences using dimensional models.

1.6 Adult Attachment and Romantic Relationships

Hazen and Shaver (1987) were curious to know how infant-parent attachments affected adult relationships. Specifically, they were interested in looking at the impact of infant-parent attachments on adult romantic attachments. They examined romantic love

using the three original attachment styles: secure, anxious/ambivalent, and avoidant. Their findings revealed that individuals with different attachment styles indeed had distinct experiences of love.

The *secure* category consisted of adults who were involved in healthy relationships which were filled with happiness, friendliness, and trust. They had the capacity to embrace and support their partners, even in the face of their partner's limitations. These adults believe that they are easy to get to know and are well-liked by others. The mental models of these adults imply that others have good intentions.

Adults categorized as *anxious/ambivalent* displayed obsessive behaviors and a strong desire for reciprocation. These adults went through emotional highs and lows, often exhibiting intense sexual attraction and jealousy. They grappled with self-doubt, feeling frequently misunderstood or underappreciated, leading to a decreased likelihood of committing to a relationship.

Adults in the *avoidant* category are characterized by a fear of intimacy. They encountered emotional highs and lows and struggled with jealousy. They expressed self-doubt and were inclined to believe that love couldn't be rekindled after fading. Despite acknowledging their distance from others, they did not convey feelings of loneliness.

Although the literature on attachment theory shows that attachment patterns are reasonably stable from early childhood through adulthood, attachment theory also supports the possibility of change. According to Bowlby (1980), three factors support the claim that the same attachment patterns persist throughout an individual's lifespan. First, individuals typically choose environments that align with their preexisting beliefs about themselves and others. Second, information-processing biases influence how people

interpret social events, reinforcing their existing mental models (Mikulincer & Shaver, 2015). Third, these working models have the potential to be self-perpetuating; for example, an individual who holds the belief that others are untrustworthy might interact with them defensively, thereby provoking additional instances of rejection.

However, as was previously stated, it is possible for working models and attachment patterns to change. For example, research has shown that attachment styles can change due to war-related trauma (Mikulincer et al., 2011; Bachem et al., 2018) and therapy (Johnson, 2009; Taylor et al., 2015). Research also shows that engaging in a stable and fulfilling relationship can disconfirm negative experiences rooted in earlier expectations. The literature on individuals who have high secure attachment and are in stable relationships supports this claim (Feeney, et al., 1994; Senchak & Leonard, 1992). In research conducted by Baldwin & Fehr (1995), it was found that approximately 30% of participants changed their attachment style within the range of one week to a few months. Rather than stating that this finding is due to a methodological error within the attachment scale, it is assumed that this change in attachment occurs because of the current relational schema that is activated.

This leads to the discussion of whether attachment styles are stable throughout one's lifespan or if they reflect recent experiences within relationships. Regarding the stability of attachment styles, Kirkpatrick & Hazan's (1994) research indicates that attachment style exhibits greater stability than relationship status. However, other data suggest the significance of recent experiences, as changes in attachment have been associated with the formation and dissolution of couple bonds (Kirkpatrick & Hazan,

1994; Scharfe & Cole, 2006; Sbarra & Hazan, 2008), first-time parenthood (Feeney et al., 2003), and sexual assault (Maciel et al., 2023).

1.7 Attachment Anxiety and Sexual Behaviors

Research continues to show the impact of an anxious attachment style and sexual motivations and behaviors. In one of the first studies done on this subject, Hazan et al., (1994) collected data on individuals' attachment style and the frequency and enjoyment of different sexual behaviors. Women within the anxious style reported engaging in exhibitionism, voyeurism, and bondage. Men were more prone to be sexually reticent. Both sexes found enjoyment in holding, cuddling, and caressing, but not in behaviors that were more distinctly sexual.

Literature has shown that adults high in anxious attachment sexualize their desire for affection to compensate for their attachment insecurities (Davis et al., 2003, 2004; Gewirtz-Meydan & Finzi-Dottan, 2017). These adults are likely to exhibit low sexual confidence (Lafortune et al., 2022; Allen & Walter, 2018) and engage in sexual behaviors to not only receive reassurance from their partner but to please them as well (Davis et al., 2006; Schachner & Schaver, 2004; Drouin & Tobin, 2014). To that end, adults with higher anxious attachment are attracted to partners who can provide the validation they desire (Holmes & Johnson, 2009). The sexual fantasies of these individuals may also involve submission themes that meet the need to be strongly desired by their partner (Birnbaum, 2007b; Birnbaum et al., 2011). Relating to sexual satisfaction, attachment anxiety is often associated with performance anxiety, doubts about being loved, and experiencing negative emotions during sexual intercourse (Birnbaum et al., 2014; Birnbaum, 2007a; Birnbaum et al., 2006).

There have also been some gender differences with attachment anxiety and sexual mating in the literature (Birnbaum & Laserbrandt, 2002). Women with higher anxious attachment tend to merge sex and love, leading to the engagement in unrestricted and risky sexual behavior (Birnbaum, 2007a; Birnbaum et al., 2006). Compared to women high in secure or avoidant attachment, women with higher anxious attachment have sex at an earlier age, have a more positive outlook on uncommitted sex, and are more prone to participate in extradyadic affairs (Allen & Baucom, 2004; Bogaert & Sadava, 2002; Gangestad & Thornhill, 1997; Gentzler & Kerns, 2004). Combined with the desire to meet a partner's needs (Davis et al., 2006), this can result in a higher frequency of unwanted pregnancies for these women (Cooper et al., 1998; Impett & Peplau, 2002).

Men with higher anxious attachments exhibit different sexual expressions than women. While women with high anxious attachments tend to engage in sex at an earlier age, men with high anxious attachments typically engage in sex at a later age. These men are also less likely to have positive attitudes towards casual sex or participate in infidelity (Allen & Baucom, 2004; Gentzler & Kerns, 2004). Although both men and women with higher anxious attachments focus on pleasing their partners, the men tend to use pornography in place of authentic intimacy. It is hypothesized that men higher in anxious attachment are more likely to report that they gratify themselves while also avoiding potential rejection from their partner. Szymanski and Stewart-Richardson (2014) conclude that this behavior leads to sexual dissatisfaction and low relationship stability. One of the most damaging behaviors associated with a higher anxious attachment in men is their tendency to coerce their partners into sex. This type of behavior is thought to be a

demonstration of the male's plea to reestablish closeness with a partner perceived as unresponsive (Brassard et al., 2007).

1.8 Current Trends Among Romantic Dating

There are different definitions of romantic relationships in today's society (Giordano et al., 2016). The Toledo Adolescent Relationships Study (TARS) defined romantic relationships as "when you like a guy [girl] and he [she] likes you back," (Giordano et al., 2016). Project Star, a longitudinal study conducted by Furman and Hand (2016), defined dating as spending time with someone you see or go out with. Both studies make it clear that dating does not imply a formal date has to occur, and you don't have to be in love to be in a relationship (Furman & Hand, 2016; Giordano et al., 2016).

The concept of romantic dating is a recent invention (Coontz, 2016). Dating started among the working-class youth in the 1800s, and then spread to the middle class in the 1900s. In an era where men used to visit a woman's home to liberate her from parental control, this societal norm compelled women to depend on men for initiating a date, placing them in a vulnerable position to reciprocate either sexually or emotionally for the man's efforts in taking her out and covering expenses (Coontz, 2005).

No matter the definition of a romantic relationship or context of dating, the process of creating, maintaining, and gracefully ending romantic and sexual relationships is a critical development task of emerging adulthood (Snyder, 2016). Although the marriage rate currently sits at a 45-year low of 30.5 marriages per 1,000 unmarried women, (Reynolds, 2020), finding a long-term partner is still a strong desire for young adults (Scott et al., 2009). Researchers have discovered that 71% of high school seniors *expect* to marry (Brown, 2022). While this may seem like a stable percentage, it is a 10%

decline from the data collected on high school seniors in 2006 (Miech et al., 2021). 23% of high school seniors stated they had “no idea” if they expected to marry in the future (Brown, 2022). This is an increase from the all-time low of 15% in 2006 (Miech et al., 2021).

In recent years, cohabitation has passed marriage for the most common relationship experience in adulthood (Lamidi, 2015; Hemez & Manning, 2017). Of the 9.5 million individuals aged 18-19 that were interviewed for the survey, 24.7% of the respondents were cohabitating (Julian, 2022). Another recent development in romantic dating is the prevalence of dating apps (Castro & Barrada, 2020). One estimate projected that by the end of 2019, there were more than 200 million users on dating apps worldwide (Statista Market Forecast, 2019). Additionally, research shows that nearly 25% of new couples meet through dating apps (Neyt et al., 2019). Occurring during emerging adulthood, hookup behavior has seen itself become a common behavior among college students (Garcia et al., 2012).

1.9 The Present Study

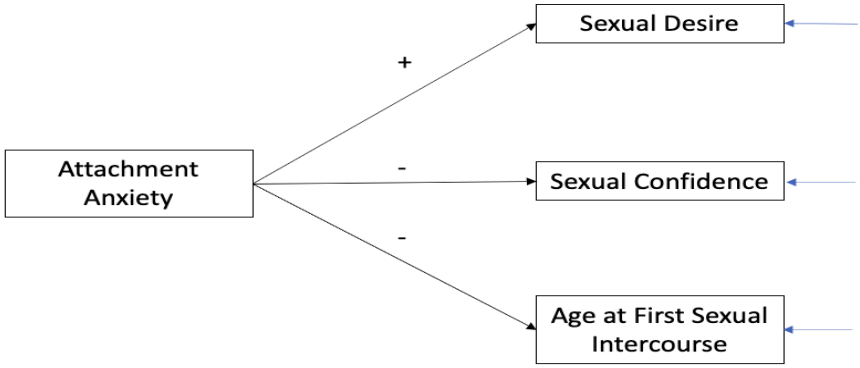
The purpose of this study is to analyze the extent that anxious attachment impacts intimate relationship behaviors in adults. In this study, anxious attachment is utilized as the dependent variable due to the absence of an avoidant attachment scale in the dataset. The following hypotheses will be tested (see Figure 1):

H1: Increases in anxious attachment will be associated with increases in sexual desire.

H2: Increases in anxious attachment will be associated with decreases in sexual confidence.

H3: Increases in anxious attachment will be associated with sexual intercourse at an earlier age.

Figure 1.1 Conceptual Model with Hypotheses



CHAPTER 2. METHODOLOGY

2.1 Procedure

I used the Panel Analysis of Intimate Relationships and Family Dynamics (pairfam) to test my hypotheses. Beginning in 2008, pairfam has been funded by the German Research Foundation with the goal of studying partner and family dynamics in Germany. Using stratified random sampling, researchers attempted to recruit 4,000 individuals (referred to as anchors) from three separate birth cohorts (1971-1973, 1981-1983, and 1991-1993). In total, 12,402 individuals met the requirements for the research, with more than 4,000 individuals from each birth cohort. Surveys were distributed to each anchor, as well as their children, partners, and parents. Upon completing the survey, anchors received £10 while partners, parents, and children received £5 (Kimes et al., 2015).

I chose the pairfam dataset for this study due to the insights it provides on attachment anxiety and sexual dating behaviors. This dataset is also valuable because it is recent; the most recent wave was conducted in 2020. Pairfam is particularly helpful to the specifics of this present study because it provides data for individuals who are in the adulthood stage of life.

2.2 Participants

Data from W3 of pairfam was used to ensure individuals were over the age of 18 at the time of data selection. 2970 women and 2591 men reported their age at W3. The average age of participants was 29.27, with 98.8% of the participants identifying as heterosexual. The average duration of education attained by participants was 11.65 years.

Additionally, the average monthly net household income was 2771.94 Euros, which is equivalent to $2958.08.

2.3 Measures

2.3.1 Anxious Attachment

To evaluate anxious attachment, a replication of the measurement approach used by Kimmes et al. (2015) with the pairfam dataset was used. Respondents were first prompted with the question, "When you think about your partnership, to what extent do the following statements apply to your situation?" They then rated (on a scale from 1=Not at all to 5=Absolutely) whether they liked their partner more than their partner liked them and the certainty of their partner enjoying their company as much as they enjoyed being with their partner. Higher scores indicate a higher level of anxious attachment. These inquiries gauged the extent to which their need for commitment from their partner was associated with the fear that this need might not be fulfilled.

Respondents were once again prompted with "When you think about your partnership, to what extent do the following statements apply to your situation?" Respondents again rated (on a scale from 1=Not at all to 5=Absolutely) their fear that their partner might view them as silly for making a mistake, their worry about their partner preferring to spend time with someone else, and their fear of their partner not wanting to be with them if they disappointed or annoyed them. Higher scores indicate a higher level of anxious attachment.

Consistent with Kimmes et al. (2015), scores for anxious attachment were computed using the item average or total score. A higher degree of anxious attachment was indicated by higher scores on both the ambivalence scale and the fear of love

withdrawal scale. Using an item average score for attachment anxiety, the sample average for this study was 1.73 with a standard deviation of .729. Consistent with Kimmes et al. (2015), the scale was reliable (α=.753).

2.3.2 Sexual Desire

Sexual desire was assessed in anchors who had higher anxious attachment. Individuals were asked, "If it were your choice alone, would you prefer to have sex with your partner less often or more often than during the past three months?" They then rated their answers (on a scale from 1=Much less often to 5=Much more often). Higher scores indicate a stronger desire for sex. The average answer for an anchor's sexual desire at W7 was 3.71 (sd = .824, n=3127,).

2.3.3 Sexual Confidence

Sexual confidence was assessed in anchors who had higher anxious attachment. Individuals were prompted with the question, "To what extent do the following statements apply to you?" The specific statements relating to sexual confidence were "1) I am a very good sex partner, 2) If I want something specific during sexual contact, I say it or show it 3) In general, I can fulfill the sexual needs and desires of my partner very well, and 4) Generally speaking, I can express my sexual needs and desires very well." They then rated their answers (on a scale from 1=Not at all to 5=Absolutely). Higher scores indicate a higher level of sexual confidence. The average answer for an anchor's sexual confidence at W3 was 3.8054 (sd = .75810, n=3178,). The scale for the present sample was reliable (α=.853).

2.3.4 Age at First Sexual Intercourse

The age at first sexual intercourse was assessed in anchors who had higher anxious attachment. Respondents were prompted with the question, “Which of the following sexual experiences have you experienced, and how old were you when you experienced them?” The specific statement relating to age at first sexual intercourse was “3) The first intercourse.” Although pairfam does not provide a definition for the term “intercourse,” research indicates that the majority of individuals interpret intercourse as penile-vaginal intercourse (Sewell & Strassberg, 2015). However, among individuals who are homosexual, research indicates that sex is defined penile-anal intercourse for men and oral-genital stimulation for women (Sewell et al., 2016). It is important to note that there is an assumption that there was consent to intercourse among the participants who answered this question. The average answer for an anchor’s age at time of first sexual intercourse was 15.06 (sd = 1.189, n=826,).

2.4 Analysis

In this study, a path analysis was used to analyze the effects of the variables. Attachment anxiety will be the predictor variable and sexual desire, sexual confidence, and the age at first sexual intercourse serving as the response variables. We are choosing this approach so we can model the impact of attachment anxiety on these variables simultaneously. Although prior studies have examined the influence of attachment anxiety on each of these variables separately, there has been no research integrating all three variables into a single study.

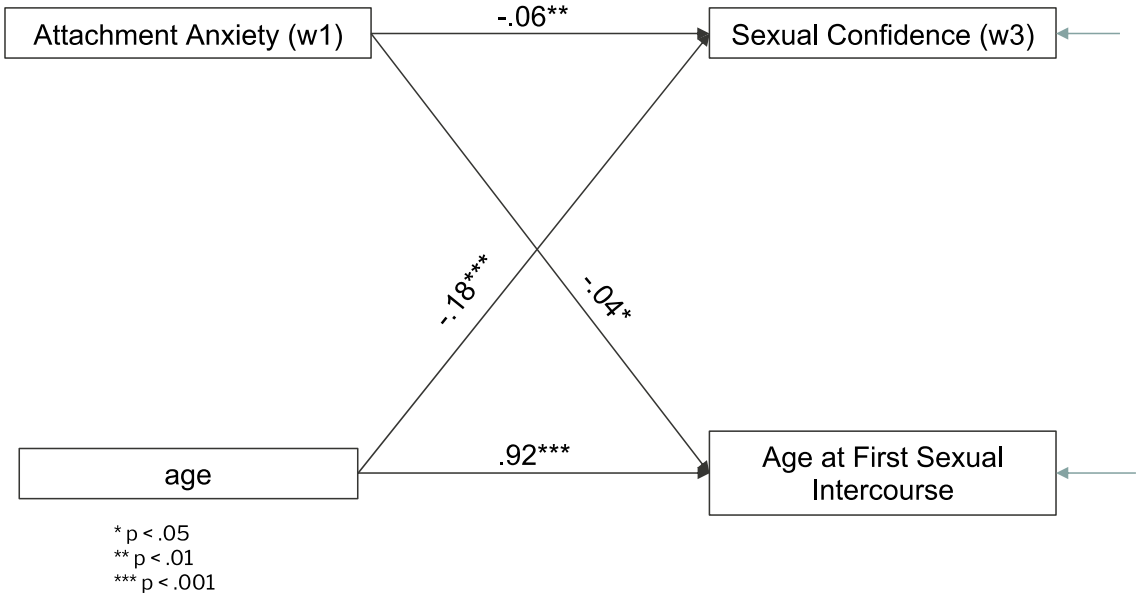
CHAPTER 3. RESULTS

Table 1 shows the correlation between the variables included in the model. Figure 2 shows the results of the path model. As this was a fully saturated model, typical fit statistics such as chi-square and CFI were not available to determine model fit. However, RMSEA indicated an acceptable fit (.058).

Table 1.1 Correlation Matrix

	M	SD	1	2	3	4
1. Age	29.27	7.735	--			
2. Anxious Attachment W1	1.652	0.705	-.172**	--		
3. Sexual confidence at wave 3	3.805	0.758	-.103**	-.049*	--	
4. Age first sexual intercourse	15.06	1.189	.187**	-.132**	-.080*	--

Figure 2.1 Results



3.1 Hypothesis 1

It was hypothesized that anchors who display high levels of anxious attachment would also display high levels of sexual desire. Initial models included sexual desire and the results were nonsignificant. However, given the fact that the data for this variable was collected 6 years after the waves used in the present study, it was removed from the model.

3.2 Hypothesis 2

It was hypothesized that anchors who display higher levels of anxious attachment would display lower levels of sexual confidence. Anchors did report lower levels of sexual confidence when also reporting higher levels of anxious attachment (β=-.065, p=.006) after controlling for age of the participant.

3.3 Hypothesis 3

It was hypothesized that anchors who display high levels of anxious attachment would report having engaged in sexual intercourse at earlier ages. Anchors did report having engaged in sexual intercourse at earlier ages when also reporting higher levels of anxious attachment (β=-.037, p=.045) after controlling for age of the participant. For every one standard deviation increase in attachment anxiety, there is roughly a 17 day decrease in age for first sexual intercourse.

CHAPTER 4. DISCUSSION

The aim of the current study was to analyze the extent that anxious attachment impacts intimate relationship behaviors in adulthood. Using existing data from the pairfam dataset, meaningful discoveries were made. The first hypothesis was that as anxious attachment increased in individuals, sexual desire would also increase. One possible explanation for the nonsignificant results in this study is the concept of stable versus changing attachment styles. The data for sexual desire was collected six years after the anxious attachment data, suggesting that individuals with higher anxious attachment may have experienced a change in their attachment dimension, and potentially in their sexual desire as well. Previous research by Feeney and colleagues (1994) as well as more recent work by Dansby Olufowote and colleagues (2020), suggests that insecure attachment in individuals can change to a secure attachment style when they are in stable relationships with securely attached individuals. Similarly, Johnson (2009) found that insecure attachment in individuals can transition to secure attachment through emotionally focused therapy. Whether these attachment-changing events occurred in the participants of this study is uncertain, but it could be explored in future research.

The second hypothesis was that as anxious attachment increased in individuals, sexual confidence would decrease. The results, consistent with other studies, support this hypothesis (Lafortune et al., 2022; Allen & Walter, 2018). This study suggests that as anxious attachment increases within individuals, their sexual confidence decreases. According to research on anxious attachment and sexual confidence, it is easy to understand why individuals with higher anxious attachment lack sexual confidence. Due to distressing thoughts about sexual confidence among individuals with higher anxious

attachment (Birnbaum et al., 2006), fears of rejection (Brennan et al., 2006), infidelity (Schachner & Shaver, 2002), and insecurities relating to physical attraction (Bogaert & Sadava, 2002; Brassard et al., 2015) are common.

The third hypothesis relates to anxious attachment and age at first sexual intercourse. Specifically, the third hypothesis was that increases in anxious attachment would be associated with first sexual intercourse at an earlier age. The present findings support this hypothesis, showing that individuals who had higher levels of attachment anxiety also engaged in first sexual intercourse at earlier ages. Previous work has also found similar results (Bogaert & Sadava, 2002). A possible explanation for this behavior is that individuals who display higher anxious attachment have strong sexual desires, leading them to participate in sexual intercourse as a means of fulfilling that desire (Davis et al., 2003, 2004). The potential connection between sexual desire and age at first sexual intercourse is a relationship that can be studied in future research.

4.1 Clinical Implications

The results from the current study have implications for clinical approaches regarding individuals who have higher anxious attachment. In the therapy room, clinicians should be mindful of how a client's attachment style is impacting themselves and the relationship they might find themselves in. By consistently asking attachment-based questions and striving to see the client through an attachment perspective, therapists can gain an understanding into why clients think and behave the way they do.

There are existing scales that can help a therapist understand how partners interact with one another from an attachment perspective. The Brief Accessibility, Responsiveness, and Engagement (BARE) Scale is a commonly used tool to measure for

attachment in couple relationships (Sandberg et al., 2012). This self-report measure, which can be given to couples once, periodically, or every session, focuses on the core attachment behaviors of accessibility and responsiveness. In addition to emphasizing the importance of couple bonding, the BARE accurately predicts relationship outcomes and stability (Sandberg et al., 2016). By utilizing the BARE in a clinical setting with couples, therapists can effectively understand the couple's attachment patterns and treat them accordingly.

The current study provides results that can further advance emotionally-focused therapy (EFT). Developed by Sue Johnson, EFT is a therapeutic modality based on attachment theory (Johnson, 2004). As the results of this study pertain to anxious attachment and its effects on individuals in an intimate relationship, EFT therapists should be aware of how certain behaviors are a result of having higher levels of anxious attachment. By treating potential relationship challenges from an attachment perspective and with the knowledge this study's results provide, therapists are better equipped to effectively treat couples.

In addition to highlighting a greater need for clinicians to consider attachment in their work, this study's findings also offer specific insights into the relationship between attachment anxiety and sex. For instance, findings from the present research suggest that individuals with higher levels of anxious attachment tend to have lower sexual confidence. This insight is particularly relevant as many couples are seeking sex therapy to improve their sexual intimacy (Hall & Watter, 2023). Consider a scenario where one partner in a relationship has low sexual confidence due to their high attachment anxiety. While sex therapists might initially focus on addressing the sexual confidence directly,

the current study's results suggest that treating the underlying attachment anxiety could be more beneficial. By addressing attachment anxiety, clinicians can potentially enhance clients' sexual satisfaction by addressing the root cause of their lack of sexual confidence.

Another clinical implication arising from the current study concerns the link between attachment anxiety and the age at which individuals first engage in sexual intercourse. The study reveals that higher levels of anxious attachment are associated with younger ages at first intercourse. Research indicates that early sexual debut is linked to various risky behaviors, including engaging in sex with multiple partners within 6 months, having intercourse with a commercial sex worker, contracting sexually transmitted infections, binge drinking, and smoking (Buttman et al., 2014). Moreover, studies suggest a positive correlation between early sexual debut and major depressive symptoms (Lu et al., 2023), as well as dating violence (Kaplan et al., 2013). With this in mind, one possible intervention that may decrease attachment anxiety and increase sexual confidence would be comprehensive sex education. If clinicians were to develop comprehensive sex education, prioritizing the underlying attachment anxiety and sexual confidence rather than focusing on treating the negative sexual outcomes, there may be a decrease in the negative sexual outcomes for younger populations.

4.2 Research Implications

The results of this study have multiple research implications. One of these implications would be to conduct a similar study but with a more racially and ethnically diverse dataset. As all the participants were German citizens, the results are based upon how attachment science works among a German population. By including other races,

ethnicities, and cultures, researchers would be able to gain a better understanding into how attachment science among all people.

A second research implication would be to include a baseline group of participants who are high in secure attachment. Pairfam did not include questions assessing for attachment dimensions other than anxious attachment. By assessing for other attachment dimensions such as a secure attachment, researchers would be able to compare results with individuals who are high in secure attachment and individuals who are high in anxious attachment. This may result in the data becoming even more reliable.

Another research implication would be to analyze data on the partner's perception of the other partner in the relationship. The results from this study were based off self-report measures for one partner. However, it could be insightful to see the perceptions of the other partner regarding the behaviors of their partner. Researchers could then see if there were discrepancies between self-report measures and partner perception, or if there was congruency between the two.

In future research, the connection between sexual desire and age at first sexual intercourse needs to be analyzed. While some studies have conducted research on this (Santtila et al., 2007 & Frankenbach et al., 2022), none have included the role of attachment in their studies. When conducting future research on this topic, it would be important to determine whether it is the attachment dimension that controls sexual desire and thus affects the age at first sexual intercourse, or if it is sexual desire alone that affects the age at first sexual intercourse.

The current study included an initial model with attachment anxiety and sexual desire, but the results were nonsignificant. A possible explanation for the nonsignificant

results is due to the 6-year time difference between the data collection of attachment anxiety and sexual desire. Future research should have more proximal assessments of attachment anxiety, sexual desire, and sexual confidence in order to obtain the most reliable results.

CHAPTER 5. CONCLUSION

This research examines the impact that an anxious attachment has on sexual behaviors in adulthood. The results provide statistically significant data that individuals with high levels of anxious attachment report lower sexual confidence and engage in sexual intercourse at an earlier age. This data is consistent with the findings of previous research, suggesting that anxious attachment does impact sexual behaviors (Lafortune et al., 2022; Allen & Walter, 2018; Bogaert & Sadava, 2002; Hazan et al., 1994). Moreover, these results illustrate the need to include other attachment dimensions when conducting future research on attachment and sexual behaviors.

APPENDICES

APPENDIX 1: ANXIOUS ATTACHMENT

"When you think about your partnership, to what extent do the following statements apply to your situation?"

1. I have the feeling that I like [name partner] more than he [female partner: she] likes me.
    a. 1: Not at all
    b. 5: Absolutely
2. Sometimes I'm not sure if [name partner enjoys being with me as much as I enjoy being with him [female partner: she]
    a. 1: Not at all
    b. 5: Absolutely
3. Sometimes I'm afraid that [name partner] would rather spend time with others than with me.
    a. 1: Not at all
    b. 5: Absolutely
4. I'm often afraid [name partner] will think I'm silly or stupid if I make a mistake.
    a. 1: Not at all
    b. 5: Absolutely
5. When I disappointed or annoyed [name partner], I'm afraid that he [female partner: she] won't like me anymore.
    a. 1: Not at all
    b. 5: Absolutely

APPENDIX 2: SEXUAL DESIRE

"If it were your choice alone, would you prefer to have sex less often or more often than during the past three months?"

1. Much less often
2. Somewhat less often
3. Exactly as often
4. Somewhat more often
5. Much more often

APPENDIX 3: SEXUAL CONFIDENCE

"When you think about your partnership, to what extent do the following statements apply to your situation?"

1. I am a very good sex partner.
    a. 1: Not at all
    b. 5: Absolutely
2. If I want something specific during sexual contact, I say or show it.
    a. 1: Not at all
    b. 5: Absolutely
3. In general, I can fulfill the sexual needs and desires of my partner very well.
    a. 1: Not at all
    b. 5: Absolutely
4. Generally speaking, I can express my sexual needs and desires very well.
    a. 1: Not at all
    b. 5: Absolutely

APPENDIX 4: AGE AT FIRST SEXUAL INTERCOURSE

"Which of the following sexual experiences have you experienced, and how old were you when you experienced them?"

1. The first intercourse
    a. Age __

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VITA

- Birthplace: Sioux Falls, South Dakota
- Bachelor's Degree in Marriage & Family Studies at Brigham Young University-Idaho
- Intern Therapist
- Justin Garth Graham