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## Physical Aspects of Sexuality, Attachment, and Sexual Satisfaction

Chelsea Zollinger Allen  
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Physical Aspects of Sexuality, Attachment, and Sexual Satisfaction

Chelsea Zollinger Allen

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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## **ABSTRACT**

### **Physical Aspects of Sexuality, Attachment, and Sexual Satisfaction**

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Master of Science

Healthy sexuality includes relational, emotional, and physical elements (Busby et al., 2021). However, there are gaps in what is known about the physical aspects of sexual relationships. Genital acceptance and physical sexual knowledge are two areas of physical relationships that may have an effect on the satisfaction of sexual relationships. Attachment, namely levels of anxious and avoidant attachment, is another factor that has been related to sexual relationships (Allsop et al., 2021; Bennett et al., 2019; Busby et al., 2020). Results from a dyadic sample of 515 couples who had been in a relationship for at least two years were studied. Structural equation modeling was used to estimate the direct and indirect actor and partner effects of physical sexual knowledge and genital acceptance on sexual satisfaction, working through mechanisms of anxious and avoidant attachment. Findings indicate the importance of considering genital acceptance and physical sexual knowledge, especially in regard to female bodies, to help move couples toward lower levels of insecure attachment and improved sexual relationships. Findings also denote the specific influence of avoidant attachment on sexual satisfaction in couple relationships as well as the importance of examining genital acceptance for men and women in a partnered context.

Keywords: sex, attachment, physical, couples

## **ACKNOWLEDGEMENTS**

I would like to thank my advisor and friend, Dean Busby, for his guidance and patient encouragement throughout this thesis process and throughout my journey in this program. His time and mentorship had an immeasurable impact on the work I was able to accomplish, the skills I was able to learn, and the researcher I was able to become.

I would also like to thank my thesis committee members, Chelom Leavitt and Alex Jensen, for their wise counsel and emboldening support throughout a rocky journey.

Last, but not least, I would like to thank my spouse, Marc Allen, my parents, family (including in-laws), and MFHD graduate friends for their unfailing support and compassionate understanding in cheering me on. Apparently, it takes a village to get a person through graduate school, and I could not have done it without you.

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## **Physical Aspects of Sexuality, Attachment, and Sexual Satisfaction**

Understanding sexuality is important to gain a greater comprehension of quality couple relationships (Fallis et al., 2016). Sexual satisfaction is important in predicting feelings of marital satisfaction (Schoenfeld et al., 2017). Sexual satisfaction, then, becomes a key factor of study to helping improve couple relationships. Moreover, factors predicting sexual satisfaction become just as critical to understand. Current research has illuminated the importance of physical, relational, and meaning aspects to a healthy sexual relationship (Busby et al., 2021), though more research is needed regarding the physical aspects of sexuality. Particularly physical aspects of emotional reactions to genitalia (Schick et al., 2010) and knowledge of the functioning of their own or their partners sexual body parts (Curtin et al., 2011). Couple attachment style is another factor that is associated with the sexual relationship. A quality sexual relationship helps with the development of secure attachment (Johnson & Zuccarini, 2010) and feelings of love (Hazan & Shaver, 1987), though this relationship is likely bidirectional. On the other hand, more insecurely attached relationships, namely anxious and avoidant, tend to be categorized as more lonely (Hazan & Shaver, 1987). Each partner in a coupled relationship enters the partnership with preexisting levels of bodily comfort and sexual knowledge, and previous literature has indicated that these are likely linked to satisfaction in the sexual relationship. The general approach or tendencies individual partners take to the sexual relationship, whether secure or insecure, may be what facilitates the connection between these physical aspects of sex and sexual outcomes. Specifically, the relationships of emotional reactions to genitalia, and knowledge of the physical aspects of sex with sexual satisfaction may be mediated by anxious or avoidant attachment in couple relationships.

In this study I utilize the sexual wholeness model as developed and empirically evaluated by Busby et al. (2021). In this model sexuality is seen as having three interrelated elements; physical, emotional, and meaning, that each contribute to sexual and relational outcomes for couples. More details can be found in the 2021 article on the origins of this model and its associations with other theories, but one of the conclusions of this research was a call to more carefully evaluate the three primary elements of sexual wholeness. In this study I focus more attention on the physical elements of the sexual relationship in terms of how individuals feel about their genitals and the degree of knowledge they have about the way the physical aspects of sex work in their relationship.

### **Body Image and Sexual Relationships**

Individuals' perception of their bodies can affect the experience they have in a sexual relationship. Objectification Theory suggests that women's self-concept is largely influenced by their own perceived attractiveness and any anxieties they have surrounding their bodies would probably affect their sexual satisfaction (Fredrickson & Roberts, 1997). This is supported empirically. Women who view themselves as sexually attractive are more likely to report higher marital satisfaction. And the husbands of women who view themselves as sexually attractive are also more likely to report higher marital satisfaction (Meltzer & McNulty, 2010). Overall body image has been related to an individual's sexual experience with negative body perceptions adversely impacting sexual experiences (Meltzer & McNulty, 2010; Milhausen et al., 2015; Pujols et al., 2010; Sanchez & Kiefer, 2007). Objectification Theory also proposes that because women are generally objectified more than men, and because of how that can impact their social and economic future, women experience more appearance anxiety than men (Fredrickson & Roberts, 1997). This may be part of the reason for the greater amount of research done regarding

female body image than that done on male body image. Even less research has been done regarding genital image, as a specific part of body image. In this study I hope to add insight to research regarding genital image for both sexes as individuals and as couples.

### ***Genital Acceptance***

Several studies have looked into genital self-image to capture feelings of acceptance toward one's genitals. A positive genital self-image has been associated with less sexual distress and more sexual desire (Berman et al., 2003). Genital self-image has also been positively associated with sexual satisfaction and functioning (Handelzalts et al., 2017; Jawed-Wessel et al., 2017; Komarnicky et al., 2019; Marvi et al., 2018; Pujols et al., 2010). Lower genital self-image has been associated with greater body image self-consciousness during sexual encounters, lower sexual esteem, reduced enjoyment of sexual experiences (Schick et al., 2010), and greater sexual anxiety and distraction during sex (Wilcox et al., 2015). Poor genital image has also been linked with body image concerns during sexual encounters for both men and women (Komarnicky et al., 2019). These findings suggest that the feelings individuals have regarding their genitals relate to some part of deeper relationship functioning.

One specific reaction to genitals may be disgust (opposite of genital acceptance). Although most men and women have positive views toward women's genitals (Mullinax et al., 2015), some women describe their genitals with words indicating disgust (Fudge & Byers, 2017). On one hand, disgust, in a general sense, has been shown to work in opposition to sexual arousal (Pawlowska et al., 2021), and on the other hand, disgust can be reduced by sexual arousal (Borg & de Jong, 2012). Interestingly, couples in which both partners have reported similar levels of sexual disgust are more likely to report higher sexual satisfaction at the beginning of their marriage and over the next two years than couples in which partners report differing levels of

sexual disgust (Peters & Meltzer, 2021). These findings are suggestive of partner effects for genital disgust. Clarification with how genital disgust, or in this study, genital acceptance, affects sexual relationships is needed. Thus, in this study I aim to explore effects of acceptance on sexual satisfaction in terms of not only actor effects, but partner effects.

### ***Knowledge of the Physical Aspects of Sex and Sexual Satisfaction***

There is a lack of literature surrounding sexual outcomes as related to knowledge about how the physical aspects of sex work, so this paper will lessen the gap by exploring this topic. More general sexual knowledge, nonetheless, is important to having improved sexual experiences (Curtin et al., 2011), and sexual satisfaction (Henry, 2013; Kim et al., 2020). A qualitative study by Henry (2013) exemplified the impact of knowledge to improve body image and sexual satisfaction. Particularly in the example of a female participant who realized she was distancing herself from her partner when he made sexual bids, but then chose to change her behavior because of what she learned in an undergraduate sexuality course. Sexual knowledge about the physical aspects of sex could also help improve satisfaction by increasing understanding of the differences and similarities between male and female sexuality (Metz & McCarthy, 2007). Because male and female genitalia are different and both important in contributing to pleasurable sexual experiences, an adequate understanding of these systems seems important to help couples have improved satisfaction (Busby et al., 2021). Additionally, general sexual knowledge has been associated with positive sexual attitudes (Ghaffari & Vahid, 2020), which attitudes may contribute to the development of secure or insecure attachment tendencies among new sexual relationships. In other words, more specific knowledge about the physical aspects of sex may also be related to the attachment process couples experience over time in their relationship.

## **Attachment**

In order to understand how insecure attachment tendencies may mediate the association between physical aspects of sexuality and sexual outcomes, a basis for attachment is needed. Attachment is a perspective originally researched by Bowlby (1969) in which he studied attachment styles between infants and their parents. Since then, this perspective has been applied to adult romantic relationships (Mikulincer & Shaver, 2016). Hazan & Shaver (1987) explained the role of secure and insecure attachment tendencies within couple relationships and the effect attachment has on how individuals approach and function within those relationships. Specifically, attachment is categorized into secure and insecure attachment types. Securely attached individuals describe their relationships as having characteristics like trust, happiness, and support despite flaws. Accordingly, relationships higher in secure attachment generally last longer than those with higher levels of insecure attachment. On the other hand, insecure attachment can be further divided into two groups, anxious and avoidant attachment. Individuals who are more anxiously attached tend to exhibit more obsession and need for reciprocation and worry of being abandoned. Individuals who are more avoidantly attached tend to have greater fear of intimacy and closeness and put more distance between themselves and others (Hazan & Shaver, 1987).

### ***Genital Acceptance and Attachment***

Genital acceptance may have a connection with adult relationships high in insecure attachment, though not much research has been done in this area. Women's attitudes toward their genitals affect their desire to engage in sexual activities, which may contribute to an overall sexual attitude for women (Cherkasskaya & Rosario, 2019). It's possible that insecurity in genital image would lead to insecurity in the relationship which then aids in the formation of

insecure attachment types such as increased clinginess and need for validation (anxious attachment) or withdrawal (avoidant attachment) (Johnson, 2007). Therefore, genital acceptance would likely influence the attachment process that develops in a committed sexual relationship. However, the relationship between genital acceptance and attachment is likely bidirectional as insecure attachment could also lead to negative feelings toward the genitals as insecure attachment levels have also shown a negative effect on body image (Gewirtz-Meydan et al., 2021).

### ***Knowledge of the Physical Aspects of Sex and Attachment***

The lack of literature around knowledge regarding the physical aspects of sex extends to attachment. However, important to note, are findings by Busby et al. (2021) in which a combined scale with items of both physical sexual knowledge and genital acceptance was found to be strongly related to overall secure attachment and sexual satisfaction. Authors of this study posited that genital knowledge and comfort may be crucial for aiding in vulnerability between partners, something that is difficult for those experiencing high levels of insecure attachment. It's possible that a lack of knowledge would result in the need for more validation (anxious attachment) or more distance between partners in an effort to avoid vulnerability (avoidant attachment) (Busby et al., 2021). However, nuances between partners and between different insecure attachment scales has not been studied yet in the sexual wholeness model. As with genital acceptance, relationships between knowledge of the physical aspects of sex and insecure attachment levels may be bidirectional. The current study will aim to add to this initial research by more specifically exploring both anxious and avoidant attachment measures as mechanisms through which genital acceptance and knowledge about the physical aspects of sex may influence relationship outcomes.

### *Avoidant and Anxious Attachment and Sexual Satisfaction*

For many couples, sexuality is an important part of early relationship formation (Laumann et al., 1994). Because attachment is not necessarily consistent over various life stages (Lewis et al., 2000), adult attachment within a romantic relationship needs time to form. It is likely that adult couple attachment, then, would form after engagement in sexual experiences as most couples now engage in sexuality very early in their relationship (Busby et al., 2013), though the relationship between attachment and sexual experiences is likely bidirectional. Numerous studies have sought to understand the connection between attachment and sexual experiences in adulthood. Lower levels of sexual satisfaction have been linked with higher levels of avoidant and anxious attachment (Allsop et al., 2021; Bennett et al., 2019; Busby et al., 2020). Moreover, lower levels of sexual satisfaction were also associated with individuals' own reports of avoidant attachment as well as spouses' avoidant attachment (Butzer & Campbell, 2008). In an effort to explain poor sexual experiences among insecurely attached individuals, researchers have conjectured that individuals in these relationships have their minds preoccupied with other concerns (Butzer & Campbell, 2008) or have insecurity getting in the way of connecting sexual experiences (Brassard et al., 2007). It is possible that concerns about genital image or a lack of sexual knowledge would contribute to insecurity in the relationship related to higher levels of insecure attachment. Conversely, researchers have not always agreed on these associations as occasionally anxious attachment, among men, has also been connected to improved sexual satisfaction (Dunkley et al., 2016).

Levels of insecure adult attachment often pair differently with men and women and have varying effects on the sexual relationship. The characteristics of avoidant and anxious attachment seemingly align with stereotypical gendered scripts for men and women, respectively (Dunkley

et al., 2016) which has been supported in empirical dyadic data (Brassard et al., 2007). Although, interestingly, among undergraduate samples of individuals in and out of relationships, sexual functioning has been negatively associated with avoidant attachment more so than anxious attachment in women, but positively associated with avoidant attachment for men, possibly due to a highly avoidant man's inclination to focus purely on the physical experience of sex without being concerned about pleasuring his partner (Dunkley et al., 2016). This is in contrast to the reduced sexual functioning due to lack of comfortable intimacy in married or cohabiting men with higher levels of anxious or avoidant attachment found by Brassard et al. (2007). Authors proposed that the insecurity in highly anxious individuals or the difficulty with manifestations of affection in highly avoidant individuals is what undermines comfort during sexual experiences.

On another note, researchers have also pointed to the importance of factors beyond that of attachment in predicting sexual outcomes for couples. Antičević et al. (2017) suggested that a lack of significance between different coupled participants' attachment on the relationship of sexual self-esteem and sexual depression with sexual satisfaction indicated the importance of an individual's own approach to sexuality over that of attachment style. Possibly missing variables to that of sexual attitudes are those of emotional reactions to genitalia which may or may not also show effects above and beyond those of attachment on sexual outcomes.

### **The Current Study**

Discovering factors that lead to sexual satisfaction is an important step in learning how to improve marital relationships (Schoenfeld et al., 2017). Previous literature has suggested effects on sexual satisfaction from genital acceptance and physical sexual knowledge. Poor genital image tends to result in less sexual satisfaction (Handelzalts et al., 2017), as does less sexual knowledge (Henry, 2013; Kim et al., 2020). The feelings individuals have toward physical

aspects of their sexual relationships may be related to the degree of insecure attachment individuals create within their relationship. In this study I will evaluate basic correlations and means and the results from a structural equation model (SEM) to explore the direct and indirect actor and partner effects of genital acceptance and physical sexual knowledge on sexual satisfaction through the mediators of anxious and avoidant attachment as illustrated in Figure 1. Results of this study will lessen gaps in current literature regarding dyadic data, gender differences on these variables, genital research, and specific degrees of anxious and avoidant attachment as mediators. Specifically, in this study I aim to answer the following research questions:

RQ 1: What are the direct and indirect effects of genital acceptance and physical sexual knowledge on sexual satisfaction? (See Figure 1).

RQ 2: What are the actor and partner effects of genital acceptance, physical sexual knowledge, anxious attachment, and avoidant attachment on sexual satisfaction?

## **Methods**

### **Sample**

The data analyses conducted in this study will be using data previously collected from the Dyadic Sexual Response Cycle Project dataset. Sample participants consist of 515 couples who have been in a committed relationship for at least two years. Majority of the individuals were white (75.43% of women, 72.23% of men), identified as cisgender (99.8% cisgender female and male), and reported the sexual attraction as completely heterosexual (73.01% of women, 83.11% of men). Mean age for women was 38.76 years and 40.91 years for men. Average relationship length was 132.09 months. Characteristics for these participants are listed in Table 1.

## **Procedure**

The original sample started with 975 couples and was collected through Bovitz Inc. Participants were required to have been in a committed relationship for at least two years, to complete at least 80% of the survey, and to speak English. After indicating consent and being informed of their rights as participants, participants who completed the survey were given a 67 cent Bovitz loyalty credit and \$8 compensation. Due to one partner failing to consent to the study, not answering the gender question, or a partner dropping out, 406 observations were dropped from the study. Failure to complete 80% of the survey or answer the attention check questions resulted in an additional 54 observations dropped. The final sample size was 515 couples.

## **Measurement**

### ***The Assessment of Physical Awareness of Sexuality Scale (TAPAS)***

TAPAS is a new measure by Busby et al. (2021) that uses a seven-point response scale to assess eight items measuring individuals' feelings of disgust toward their genital body parts as well as their knowledge about their sexual bodies. Confirmatory factor analysis (CFA) verified two subscales within TAPAS. The first is the Genital Acceptance subscale (responses were reverse-coded to clarify results). Example items on this scale are "The female sexual anatomy is disgusting to me" and "The male sexual anatomy is disgusting to me". Cronbach's alpha for partner 1 was .85 and partner 2 was .71. The second subscale is the Physical Sexual Knowledge subscale (responses were also reverse-coded). An example item on this scale is "In reference to sex, I wish I knew more about how my body works." Cronbach's alphas for partner 1 and 2 were .88.

### ***Anxious Attachment***

The Anxious Attachment measure consists of six items on a seven-point response scale that comes from the Attachment ECR-12 developed by Lafontaine et al. (2016). Items measure participant agreement with statements indicating anxious attachment within the current relationship. One example of an item is “I worry that romantic partners won’t care about me as much as I care about them.” Cronbach’s alphas for partner 1 was .86 and partner 2 was .87.

### ***Avoidant Attachment***

The Avoidant Attachment scale also comes from the Attachment ECR-12 created by Lafontaine et al. (2016) and uses six items and a seven-point response scale. These items measure participant agreement with statements aligning with avoidant attachment within their current romantic relationship. An example item is “I don’t feel comfortable opening up to romantic partners.” Cronbach’s alphas for partner 1 was .88 and partner 2 was .86.

### ***Sexual Satisfaction***

The construct for sexual satisfaction is from Lawrance & Byers (1995). This construct uses five items with a five-point response scale to measure participants responses to the question “In general, how would you describe your sexual relationship with your partner?” Example scales include “Good—Bad” and “Satisfying—Unsatisfying”. Cronbach’s alphas for partner 1 was .92 and partner 2 was .91.

### ***Control Variables***

Control variables include income (personal yearly gross), race (white or other), marital status (currently married or not), relationship length (in months), and sexual orientation (heterosexual or other). Sexual orientation is a dummy variable to identify if couples were currently in a committed heterosexual or non-heterosexual relationship. A heterosexual

relationship was defined as the two partners identifying as different genders and as any sexual preference except “completely homosexual”. Non-heterosexual relationships constituted as both partners identifying as the same gender and any sexual preference other than “completely heterosexual.” The log of relationship length was used due to skewness causing problems in the statistical software.

## Results

Basic correlations revealed significant associations ( $p < .05$ ) among almost all main variables for both partners (see Table 2), with the exception being the relationship between partner 2 genital acceptance and partner 1 sexual satisfaction. Significant relationships of genital acceptance and physical sexual knowledge with anxious and avoidant attachment were both negative. Relationships of anxious and avoidant attachment with sexual satisfaction were also negative.

Because partner 1 was made up of mostly women (96.50%) and partner 2 mostly men (96.89%), and relationship type was controlled for in the model, results from partners 1 and 2 will be referred to as female and male, respectively.

Model fit was evaluated using a chi-square statistic and baseline comparisons. The chi-square statistic result was  $\chi^2(1371) = 2682.35, p < .001$ . Results for baseline comparisons included a CFI of .93 and an RMSEA of .04, both indicating good model fit.

The estimated model, exemplified by Figure 1, included results showing actor (Figure 2) and partner (Figure 3) effects in the direct effects from genital acceptance and physical sexual knowledge to anxious and avoidant attachment types (see Table 3). Significant actor effects included female genital acceptance on female avoidant attachment levels ( $B = -.19, p < .001$ ) and male genital acceptance on male avoidant attachment levels ( $B = -.20, p < .001$ ) as well as

female physical sexual knowledge on female anxious attachment ( $B = -.37, p < .001$ ) and avoidant attachment ( $B = -.24, p < .01$ ) and male physical sexual knowledge on male anxious attachment ( $B = -.19, p < .001$ ). Additionally, results contained significant partner effects including female physical sexual knowledge on male anxious attachment ( $B = -.20, p < .001$ ), and male genital acceptance on female anxious attachment ( $B = -.14, p < .05$ )

Levels of anxious and avoidant attachment also had statistically significant direct relationships with the outcome variables seen in both actor and partner effects (see Table 3, Figure 2, and Figure 3). Actor effects included female avoidant attachment levels on female sexual satisfaction ( $B = -.43, p < .001$ ), and male avoidant attachment on male sexual satisfaction ( $B = -.40, p < .001$ ). Partner effects included female anxious attachment on male sexual satisfaction ( $B = -.11, p < .05$ ), male anxious attachment on female sexual satisfaction ( $B = -.13, p < .01$ ), female avoidant attachment on male sexual satisfaction ( $B = -.13, p < .05$ ), and male avoidant attachment on female sexual satisfaction ( $B = -.14, p < .01$ ).

Results from the predictor variables to the outcome variables included significant direct actor and partner findings as well as several indirect effects (see Table 3). A significant actor effect was seen in the relationship of female genital acceptance with female sexual satisfaction ( $B = .12, p < .01$ ). An anomalous significant partner effect was seen in the negative relationship of male genital acceptance also with female sexual satisfaction ( $B = -.10, p < .05$ ). It is unclear of the meaning of this finding, and more research is needed to understand the direct role of general male genital acceptance in female satisfaction. Significant indirect actor effects included female genital acceptance on female sexual satisfaction through female avoidant attachment ( $B = .08, p < .01$ ), male genital acceptance on male satisfaction through male avoidant attachment ( $B = .08, p < .01$ ), and female physical sexual knowledge on female sexual satisfaction through female

avoidant attachment ( $B = .10, p < .01$ ). Furthermore, significant indirect partner interactions included male genital acceptance on female sexual satisfaction through female avoidant attachment ( $B = .03, p < .05$ ), female physical sexual knowledge on female sexual satisfaction through male anxious attachment ( $B = .03, p < .05$ ), female physical sexual knowledge on male sexual satisfaction through female avoidant attachment ( $B = .04, p < .05$ ), and male physical sexual knowledge on female sexual satisfaction through male anxious attachment ( $B = .03, p < .05$ ). These results show that attachment works as an intervening variable in the relationship of physical sexual knowledge and genital acceptance with sexual satisfaction. The exceptions to this being the lack of significant direct or indirect relationships between male physical sexual knowledge and male sexual satisfaction, as well as female genital acceptance and male sexual satisfaction.

Due to the different results of sexual knowledge for men and women, and the fact that some of the knowledge questions asked about knowledge of their own body and other questions asked about knowledge regarding their partner's body, post-hoc tests of mean comparisons were examined to compare responses on items of the physical sexual knowledge measure. All mean comparisons were significantly different except for the item indicating knowledge impacting the quality of the relationship (see Table 4). These results indicated that in general, women had more knowledge about how the female and the male body works in regard to sex than men did, and women had more knowledge about the female body than the male body. In contrast men had more knowledge about their own bodies versus their partners' bodies.

### **Discussion**

The purpose of this study was to evaluate actor and partner direct and indirect effects of genital acceptance and physical sexual knowledge on sexual satisfaction through levels of

anxious and avoidant attachment. Exploring separate insecure attachment constructs, as well as separate genital acceptance and physical sexual knowledge from the two subscales of TAPAS, within the scope of dyadic data, adds to current literature exploring these topics and to understanding of physical elements of sex within the context of the sexual wholeness model developed by Busby et al. (2021). Specifically, the purpose of this study was to investigate direct and indirect actor and partner effects of genital acceptance and physical sexual knowledge on sexual satisfaction through anxious and avoidant attachment.

### **Direct and Indirect Effects**

Results from this study indicated evidence of direct and indirect effects from genital acceptance and physical sexual knowledge on sexual satisfaction. The only significant direct pathway from genital acceptance or physical sexual knowledge to sexual satisfaction was that of the positive direct path from genital acceptance to satisfaction. However, several negative direct pathways emerged from physical sexual knowledge and genital acceptance to anxious and avoidant attachment, and then from attachment to sexual satisfaction. Included in direct actor pathways were those from avoidant attachment to sexual satisfaction for both partners, and the negative relationship of female physical sexual knowledge with female anxious attachment. Furthermore, findings revealed several significant indirect pathways indicating the role of insecure attachment as a mechanism for genital acceptance and physical sexual knowledge on sexual satisfaction.

### ***Direct and Indirect Effects of Genital Acceptance***

One unexpected finding was the relationship between genital acceptance and attachment seen in both male and female partners. Findings revealed significant, negative relationships for both female and male genital acceptance with female and male avoidant attachment

(respectively). Due to how Objectification Theory (Fredrickson & Roberts, 1997) centers around the female experience and suggests women may generally have a lower body image than men, the significant relationship for men was unexpected. However, these findings echo those shown in a study by Lever et al. (2006) where they found more acceptance by women than men for male penis size. Male struggle with penis size seems likely tied to self-objectification happening during nudity in sexual relationships. However, another possible reason for the effect of genital acceptance seen in this study may be embarrassment. Embarrassment for physical changes arise during puberty and often leads to boys visually comparing themselves to others (Flaming & Morse, 1991). Does the visual aspect of an erection in the sexual process cause embarrassment? Is embarrassment tied to objectification or another variable entirely? Future research could benefit from exploring potential variables that influence genital acceptance. Especially as this negative significant relationship gives evidence that perhaps improving genital image could help individuals decrease levels of avoidant attachment and move toward higher levels of secure attachment to improve sexual relationships for men and women.

Significant effects for men and women were also seen in the indirect actor interactions of genital acceptance working through avoidant attachment on sexual satisfaction. Higher levels of avoidant attachment may develop as individuals experience decreased sexual mindfulness in order to escape discomfort with their bodies (Lafortune et al., 2021). Men may also employ avoidance techniques in an effort to evade the reactions of others (Flaming & Morse, 1991), in this scenario, employing emotional distancing to avoid the reaction of their partner to their genitals as prompted by self-objectification. This may also be applicable to women. The results in this study present the idea that Objectification Theory may be important and applicable to men

and women in the sexual context and elucidate the need for further research regarding genital acceptance in men, in addition to women, and especially within a partnered context.

### **Actor and Partner Effects**

Results from this study also indicated evidence of both actor and partner effects in the interactions of these variables. Both direct actor effects and direct partner effects included significant pathways from both genital acceptance and physical sexual knowledge. However, where direct actor effects only indicated significant pathways from avoidant attachment to sexual satisfaction, direct partner effects indicated significant pathways from both anxious and avoidant attachment to satisfaction. Interestingly, significant indirect actor pathways also only worked through the mechanism of avoidant attachment, whereas significant partner pathways worked through both insecure attachments. These results reiterated the function of both anxious and avoidant attachments as mechanism between partners, but also indicated the particular importance of looking further into how avoidant attachment is working in this model.

### ***Anxious and Avoidant Attachment on Sexual Satisfaction***

Another unexpected finding was the lack of significant direct actor associations of anxious attachment with sexual satisfaction for either partner. This finding, with the findings of significant direct pathways from avoidant attachment to sexual satisfaction for both partners, are important to consider within the context of the overall relationship. Given that insecurely attached individuals tend to be with insecurely attached partners (Collins et al., 2002), avoidant attachment may be accounting for more variance in relational outcomes due to the distancing brought on by individuals high in avoidant attachment (versus the need for closeness by individuals high in anxious attachment). This is exemplified by the significant correlation between partners both high in avoidant attachment as well as the significant correlation between

partners both high in anxious attachment (Figure 3). Avoidant attachment accounting for more variance would be due to several potential factors. In terms of actor effects, findings on avoidance may be similar to findings by Li & Chan (2012) which showed stronger negative relationships of avoidant attachment than anxious attachment on positive aspects of couple relationships. The authors postulated that those high in anxious attachment are able to feel positive parts of the relationship when they feel the partner is close, but those high in avoidant attachment defer to distancing strategies in all cases, thus experiencing a generally lower satisfaction. Likewise, results of this study may also be explained by the stronger effect of distancing strategies by highly avoidant individuals in the sexual relationship over the mixed positive and negative experiences of highly anxious individuals. In terms of partner effects, findings on avoidance echo those by Butzer & Campbell (2008) which revealed a stronger negative relationship for those with avoidant partners than those with anxious partners. They suggested that anxious individuals may try to use the sexual relationship as a way to become closer to their partners and therefore concede to their partners' sexual needs. Thus, partners of highly anxious individuals experience fewer negative effects than do the partners of highly avoidant individuals who are pushed away (Butzer & Campbell, 2008).

### ***Effects on Female and Male Sexual Satisfaction***

An additional unique result was the variety of pathways affecting female sexual satisfaction in comparison to those affecting male sexual satisfaction. Only two significant pathways emerged from either male or female physical sexual knowledge or genital acceptance to male sexual satisfaction. Both pathways for men worked through their own or their partners' levels of avoidance from their own genital acceptance and partners' physical sexual knowledge, respectively. Significant pathways leading to female sexual satisfaction from genital acceptance

and physical sexual knowledge varied in direct and indirect pathways and actor and partner influences. These pathways included both male and female levels of genital acceptance and physical sexual knowledge as well as male and female avoidance. Levels of female anxious attachment, however, was not a significant mechanism in any of these pathways. Interestingly, the majority of significant indirect pathways from knowledge or acceptance to satisfaction emerged for those in relation to female sexual satisfaction. These findings add understanding to the complexity of the female sexual experience and indicate possible avenues of helping women and their partners to positively influence female sexual satisfaction.

### ***Male and Female Effects in Genital Acceptance and Physical Sexual Knowledge***

Diving deeper into the relationships of genital acceptance versus physical sexual knowledge on sexual satisfaction reveal more gender differences. Male genital acceptance led to more significant pathways to self or partner sexual satisfaction than female acceptance. Whereas female physical sexual knowledge led to more significant pathways to self or partner sexual satisfaction than male knowledge. Additionally, significant direct actor effects are seen for both partners from physical sexual knowledge to anxious attachment (though not all were significant to avoidant attachment), and from genital acceptance to avoidant attachment (but not anxious attachment). The pairing of genital acceptance and the avoidant attachment mechanism was also seen in many of the significant indirect pathways, though physical sexual knowledge was split between avoidant and anxious attachment mechanisms. These findings, taken together, seem to suggest that possibly a greater lack of physical sexual knowledge may aid in the development of higher anxious attachment, and less genital acceptance (or greater genital disgust) may aid in the development of higher avoidant attachment. Alternatively, these findings indicate the possibility of improving in physical sexual knowledge or genital acceptance to help lessen levels of insecure

attachment for individuals and partners and possibly improve the sexual relationship.

Furthermore, though the size of the effects varies, male genital acceptance seems to influence the sexual relationship in more ways than female genital acceptance, and female physical sexual knowledge in more ways than male physical sexual knowledge, indicating the importance of gender acknowledgement in future research and possible interventions.

### ***Particular Influence of Female Physical Sexual Knowledge***

This influence of female physical sexual knowledge on sexual satisfaction is important to discuss. Because these scales included questions that evaluated knowledge for individuals about both their own and their partners bodies, mean comparisons were used to further identify the relationship occurring with physical sexual knowledge. These mean comparisons indicated an overall lack of confidence in the level of knowledge both partners have about the female body in comparison to the level of knowledge they have about the male body (see Table 4). A significant discrepancy was seen between partners in the responses regarding knowledge about how the female body works, with women reporting significantly more knowledge. Interestingly, women also reported significantly more knowledge than men about the male body. The higher levels of physical sexual knowledge on the part of women is consistent with previous literature that indicates daughters often receive more sexual communication and education than sons (Nolin & Petersen, 1992). Another significant discrepancy was seen in the lack knowledge men reported concerning the female body in comparison to their level of knowledge regarding the male body. The lack of knowledge and understanding about the female reproductive system and sexual response is also consistent with previous literature that indicates female sexuality to be complex and multifaceted (Leavitt et al., 2019). Taken together, these comparisons indicate a significant lack of knowledge regarding the female body, especially on the part of male partners. Thus, it

helps explain why female sexual satisfaction would be associated with sexual knowledge in more ways than male sexual satisfaction. Also, the higher level of knowledge by women about the male body—and consequent improved probability that women will have the ability to arouse or satisfy a male partner—would also explain why female physical sexual knowledge is associated with male sexual satisfaction. The link then with anxious attachment may possibly be explained by an underlying insecurity in sexual relationships, due to a lack of knowledge, and need for increased validation from partners. This signifies that research and distribution of information regarding female sexuality may be especially important in helping improve the sexual experience of both partners.

### **Limitations and Future Research**

Results of this study are limited in several ways. First, the measure for genital acceptance and physical sexual knowledge included questions about an individual's own body and about their partner's body. This makes implications of the actor and partner direct or indirect results from the tested model less clear. Future research would benefit from distinguishing measures of self and partner ratings on these items. Second, the likely reciprocal nature of sexual acceptance and knowledge on attachment could not be tested in this study. More longitudinal research is needed to better understand the directionality of these relationships. Third, the sample was made of long-term, committed couples willing to participate in a sexuality study. This selection bias may have overlooked samples of less securely-attached or less sexually satisfied individuals. Along these lines, the sample was also largely made up of heterosexual, white couples. Future studies could add to findings in this study by focusing on couples made up of other races, ethnicities, and sexual orientations.

## **Conclusion and Implications**

Results from this study elucidated the interaction of partner genital acceptance and physical sexual knowledge on the formation of attachment and the negative effects of insecure attachment on sexual satisfaction for both partners, indicating the importance of studying mental and emotional processes within physical relationships. Evidence was found that suggested the importance of including both men and women in studying objectification and body image. Additionally, results from this study demonstrated the power of avoidant attachment, over anxious attachment as a mechanism in the relationship between genital acceptance or physical sexual knowledge with sexual satisfaction. Lastly, both partners, even in a committed couple relationship, are less likely to know about the female reproductive system and this effects the sexual experience of both partners.

## References

- Allsop, D. B., Leavitt, C. E, Saxey, M. T., Timmons, J. E., & Carroll, J. S. (2021). Applying the developmental model of marital competence to sexual satisfaction: Associations between conflict resolution quality, forgiveness, attachment, and sexual satisfaction. *Journal of Social and Personal Relationships, 38*(4), 1216–1237.  
<https://doi.org/10.1177/0265407520984853>
- Antičević, V., Jokić-Begić, N., & Britvić, D. (2017). Sexual self-concept, sexual satisfaction, and attachment among single and coupled individuals. *Personal Relationships, 24*, 858–868.  
<https://doi.org/10.1111/pere.12217>
- Bennett, M., LoPresti, B. J., & Denes, A. (2019). Exploring trait affectionate communication and post sex communication as mediators of the association between attachment and sexual satisfaction. *Personality and Individual Differences, 151*, 1-7.  
<https://doi.org/10.1016/j.paid.2019.109505>
- Berman, L., Berman, J., Miles, M., Pollets, D., & Powell, J. A. (2003). Genital self-image as a component of sexual health: Relationship between genital self-image, female sexual function, and quality of life measures. *Journal of Sex & Marital Therapy, 29*, 11-21.  
<https://doi.org/10.1080/713847124>
- Borg, C., & de Jong, P. J. (2012). Feelings of disgust and disgust-induced avoidance weaken following induced sexual arousal in women. *PLoS ONE, 7*(9), 1-8.  
<https://doi.org/10.1371/journal.pone.0044111>
- Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York: Basic Books.

- Brassard, A., Shaver, P. R., & Lussier, Y. (2007). Attachment, sexual experience, and sexual pressure in romantic relationships: A dyadic approach. *Personal Relationships, 14*(3), 475–493. <https://doi.org/10.1111/j.1475-6811.2007.00166.x>
- Busby, D. M., Hanna-Walker, V. R., Leavitt, C. E., & Carroll, J. S. (2021). The sexual wholeness model: An initial evaluation with two samples. *Journal of Marital and Family Therapy, 47*(2), 125–141. <https://doi.org/10.1111/jmft.12529>
- Busby, D. M., Hanna-Walker, V., & Yorgason, J. B. (2020). A closer look at attachment, sexuality, and couple relationships. *Journal of Social and Personal Relationships, 37*(4), 1362–1385. <https://doi.org/10.1177/0265407519896022>
- Busby, D. M., Willoughby, B. J., & Carroll, J. S. (2013). Sowing wild oats: Valuable experience or a field full of weeds? *Personal Relationships, 20*(4), 706–718. <https://doi.org/10.1111/per.12009>
- Butzer, B., & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction: A study of married couples. *Personal Relationships, 15*(1), 141–154. <https://doi.org/10.1111/j.1475-6811.2007.00189.x>
- Cherkasskaya, E., & Rosario, M. (2019). The relational and bodily experiences theory of sexual desire in women. *Archives of Sexual Behavior, 48*, 1659–1681. <https://doi.org/10.1007/s10508-018-1212-9>
- Collins, N. L., Cooper, M. L., Albino, A., & Allard, L. (2002). Psychosocial vulnerability from adolescence to adulthood: A prospective study of attachment style differences in relationship functioning and partner choice. *Journal of Personality, 70*(6), 965–1008. <https://doi.org/10.1111/1467-6494.05029>

- Curtin, N., Ward, L. M., Merriwether, A., & Caruthers, A. (2011). Femininity ideology and sexual health in young women: A focus on sexual knowledge, embodiment, and agency. *International Journal of Sexual Health, 23*(1), 48-62.  
<https://doi.org/10.1080/19317611.2010.524694>
- Dunkley, C. R., Dang, S. S., Chang, S. C. H., & Gorzalka, B. B. (2016). Sexual functioning in young women and men: Role of attachment orientation. *Journal of Sex and Marital Therapy, 42*(5), 413-430. <https://doi.org/10.1080/0092623X.2015.1061075>
- Fallis, E. E., Rehman, U. S., Woody, E. Z., & Purdon, C. (2016). The longitudinal association of relationship satisfaction and sexual satisfaction in long-term relationships. *Journal of Family Psychology, 30*(7), 822-831. <https://doi.org/10.1037/fam0000205>
- Flaming, D., & Morse, J. M. (1991). Minimizing embarrassment: Boys' experiences of pubertal changes. *Issues in Comprehensive Pediatric Nursing, 14*(4), 211-230.  
<https://doi.org/10.3109/01460869109009039>
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*(2), 173-206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>
- Fudge, M. C., & Byers, S. E. (2017). "I have a nice gross vagina": Understanding young women's genital self-perceptions. *The Journal of Sex Research, 54*(3), 351-361.  
<https://doi.org/10.1080/00224499.2016.1155200>
- Gewirtz-Meydan, A., Mitchell, K. J., Spivak-Lavi, Z., & Kraus, S. W. (2021). Attachment insecurities and body image self-consciousness among women: The mediating role of pornography use. *Computers in Human Behavior, 124*, 1-9.  
<https://doi.org/10.1016/j.chb.2021.106916>

- Ghaffari, A., & Vahid, A. F. (2020). Comparing the effectiveness of sexual skills training and communication skills training on the sexual attitudes of married women. *Research and Education in Medical Education, 9*(3), 1-6. <https://doi.org/10.34172/rdme.2020.003>
- Handelzalts, J. E., Yaakobi, T., Levy, S., Peled, Y., Wiznitzer, A., & Krissi, H. (2017). The impact of genital self-image on sexual function in women with pelvic floor disorders. *European Journal of Obstetrics & Gynecology and Reproductive Biology, 211*, 164-168. <https://doi.org/10.1016/j.ejogrb.2017.02.028>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as a romantic process. *Journal of Personality and Social Psychology, 52*(3), 511-524. <https://doi.org/10.1037/0022-3514.52.3.511>
- Henry, D. S. (2013). Couple reports of the perceived influences of a college human sexuality course: An exploratory study. *Sex Education, 13*(5), 509-521. <http://dx.doi.org/10.1080/14681811.2013.767195>
- Jawed-Wessel, S., Herbenick, D., & Schick, V. (2017). The relationship between body image, female genital self-image, and sexual function among first-time mothers. *Journal of Sex & Marital Therapy, 43*(7), 618-632. <https://doi.org/10.1080/0092623X.2016.1212443>
- Johnson S. M. (2007). A new era for couple therapy: Theory, research, and practice in concert. *Journal of Systemic Therapies, 26*(4), 5-16. <https://doi.org/10.1521/jsyt.2007.26.4.5>
- Johnson, S. & Zuccarini, D. (2010). Integrating sex and attachment in emotionally focused couple therapy. *Journal of Marital and Family Therapy, 36*(4), 431-445. <https://doi.org/10.1111/j.1752-0606.2009.00155.x>

- Kim, I.-R., Jang, S. Y., Shin, H. S., Choi, H. J., Jung, C. W., Yoon, S.-S., Kim, J. S., Kim, S. J., Kim, K., Kim, W. S., Lee, C. H., Kang, D., & Cho, J. (2020). Association between sexuality knowledge and sexual dysfunction in hematopoietic stem cell transplantation patients and their partners. *Patient Education and Counseling, 103*(8), 1630-1636. <https://doi.org/10.1016/j.pec.2020.03.007>
- Komarnicky, T., Skakoon-Sparling, S., Milhausen, R. R., & Breuer, R. (2019). Genital self-image: Associations with other domains of body image and sexual response. *Journal of Sex & Marital Therapy, 45*(6), 524-537. <https://doi.org/10.1080/0092623X.2019.1586018>
- Lafontaine, M.-F., Brassard, A., Lussier, Y., Valois, P., Shaver, P. R., & Johnson, S. M. (2016). Selecting the best items for a short-form of the experiences in close relationships questionnaire. *European Journal of Psychological Assessment, 32*(2), 140-154. <https://doi.org/10.1027/1015-5759/a000243>
- Lafortune, D., Girard, M., Bolduc, R., Boislard, M.-A., & Godbout, N. (2021). Insecure attachment and sexual satisfaction: A path analysis model integrating sexual mindfulness, sexual anxiety, and sexual self-esteem. *Journal of Sex & Marital Therapy, 1-17*. <https://doi.org/10.1080/0092623X.2021.2011808>
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.
- Lawrance, K., & Byers, E. S. (1995). Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. *Personal Relationships, 2*, 267-285. <https://doi.org/10.1111/j.1475-6811.1995.tb00092.x>

- Leavitt, C. E., Leonhardt, N. D., & Busby, D. M. (2019). Different ways to get there: Evidence of a variable female sexual response cycle. *The Journal of Sex Research, 56*(7), 899-912. <https://doi.org/10.1080/00224499.2019.1616278>
- Lever, J., Frederick, D. A., & Peplau, L. A. (2006). Does size matter? Men's and women's views of penis size across the lifespan. *Psychology of Men & Masculinity, 7*(3), 129-143. <https://doi.org/10.1037/1524-9220.7.3.129>
- Lewis, M., Feiring, C., & Rosenthal, S. (2000). Attachment over time. *Child Development, 71*(3), 707-720. <https://doi.org/10.1111/1467-8624.00180>
- Li, T., & Chan, D. K-S. (2012). How anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology, 42*, 406-419. <https://doi.org/10.1002/ejsp.1842>
- Margo Mullinax, M., Herbenick, D., Schick, V., Sanders, S. A., & Reece, M. (2015). In their own words: A qualitative content analysis of women's and men's preferences for women's genitals. *Sex Education, 15*(4), 421-436. <http://dx.doi.org/10.1080/14681811.2015.1031884>
- Marvi, N., Golmakani, N., Esmaily, H., & Sareh, H. (2018). The relationship between sexual satisfaction and genital self-image in infertile women. *Journal of Midwifery & Reproductive Health, 6*(4), 1468-1475. <https://dx.doi.org/10.22038/jmrh.2018.21564.1233>
- Meltzer, A. L., & McNulty, J. K. (2010). Body image and marital satisfaction: Evidence for the mediating role of sexual frequency and sexual satisfaction. *Journal of Family Psychology, 24*(2), 156-164. <https://doi.org/10.1037/a0019063>

- Metz, M. E., & McCarthy, B. W. (2007). The “Good-Enough Sex” model for couple sexual satisfaction. *Sexual and Relationship Therapy, 22*(3), 351-362.  
<https://doi.org/10.1080/14681990601013492>
- Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood: Structure, dynamics, and change. (2<sup>nd</sup> ed.)*. The Guilford Press.
- Milhausen, R. R., Buchholz, A. C., Opperman, E. A., & Benson, L. E. (2015). Relationships between body image, body composition, sexual functioning, and sexual satisfaction among heterosexual young adults. *Archives of Sexual Behavior, 44*(6), 1621-1633.  
<https://doi.org/10.1007/s10508-014-0328-9>
- Nolin, M. J., & Petersen, K. K. (1992). Gender differences in parent-child communication about sexuality: An exploratory study. *Journal of Adolescent Research, 7*(1), 59-79.  
<https://doi.org/10.1177/074355489271005>
- Pawlowska, A., Borg, C., & de Jong, P. J. (2021). Up-regulating sexual arousal and down-regulating disgust while watching pornography: Effects on sexual arousal and disgust. *The Journal of Sex Research, 58*(3), 353-363.  
<https://doi.org/10.1080/00224499.2020.1863316>
- Peters, S. D., & Meltzer, A. L. (2021). Newlywed couples’ own and partner sexual disgust sensitivities interact to predict their marital satisfaction through their sexual satisfaction. *Archives of Sexual Behavior, 50*, 2563–2577.  
<https://doi.org/10.1007/s10508-020-01872-y>
- Pujols, Y., Meston, C. M., & Seal, B. N. (2010). The association between sexual satisfaction and body image in women. *The Journal of Sexual Medicine, 7*(2), 905-916.  
<https://doi.org/10.1111/j.1743-6109.2009.01604.x>

- Sanchez, D. T., & Kiefer, A. K. (2007). Body concerns in and out of the bedroom: Implications for sexual pleasure and problems. *Archives of Sexual Behavior, 36*(6), 808-820. <https://doi.org/10.1007/s10508-007-9205-0>
- Schick, V. R., Calabrese, S. K., Rima, B. N., & Zucker, A. N. (2010). Genital appearance dissatisfaction: Implications for women's genital image self-consciousness, sexual esteem, sexual satisfaction, and sexual risk. *Psychology of Women Quarterly, 34*(3), 394-404. <https://doi.org/10.1111/j.1471-6402.2010.01584.x>
- Schoenfeld, E. A., Loving, T. J., Pope, M. T., Huston, T. L., & Štulhofer, A. (2017). Does sex really matter? Examining the connections between spouses' nonsexual behaviors, sexual frequency, sexual satisfaction, and marital satisfaction. *Archives of Sexual Behavior, 46*, 489-501. <https://doi.org/10.1007/s10508-015-0672-4>
- Wilcox, S. L., Redmond, S., & Davis, T. L. (2015). Genital image, sexual anxiety, and erectile dysfunction among young male military personnel. *The Journal of Sexual Medicine, 12*(6), 1389-1397. <https://doi.org/10.1111/jsm.12880>

**Table 1**  
*Descriptive Statistics*

Variables	Partner 1 (515)			Partner 2 (515)		
	Mean or %	SD	Range	Mean or %	SD	Range
Religiosity	3.00	1.20	1-5	2.87	1.29	1-5
Age	38.76	12.06	18-82	40.91	12.36	19-88
Relationship Status			1-6			1-7
Single	1.75%			1.75%		
Cohabiting	31.65%			31.84%		
Married	55.14%			53.40%		
Separated	0.58%			0.39%		
Divorced	0.58%			0.39%		
Remarried	10.29%			12.04%		
Widowed				0.19%		
Gender			1-3			1-3
Male	3.30%			96.89%		
Female	96.50%			2.91%		
Transgender	0.19%			0.19%		
Relationship Length	132.09	119.64	24-720	129.29	115.52	24-720
Sexual Orientation			1-5			1-5
Completely Homosexual	7.96%			8.16%		
Mostly Homosexual	2.14%			1.94%		
Bisexual	8.93%			3.30%		
Mostly Heterosexual	7.96%			3.50%		
Completely Heterosexual	73.01%			83.11%		
Education			1-7			1-7
Less than High School	2.52%			4.85%		
High School Graduate	21.75%			27.38%		
Some College	25.63%			22.72%		
2 Year Degree	16.70%			14.95%		
4 Year Degree	23.69%			20.39%		
Master's	7.77%			7.96%		
Doctorate	1.94%			1.75%		
Income			1-12			1-12
None	11.26%			4.08%		
Under \$20,000	17.48%			11.46%		
\$20,000 - \$39,999	23.89%			27.18%		
\$40,000 - \$59,999	19.61%			20.58%		
\$60,000 - \$79,999	10.29%			13.79%		
\$80,000 - \$99,999	6.99%			8.93%		
\$100,000 - \$119,999	3.30%			4.47%		
\$120,000 - \$139,999	4.08%			4.85%		
\$140,000 - \$159,999	1.17%			1.17%		
\$160,000 - \$199,999	1.17%			2.91%		
\$200,000 - \$299,999	0.58%			0.19%		
\$300,000 or above	0.19%			0.39%		
Race			1-7			1-7
African (Black)	9.51%			11.26%		
Asian	3.69%			2.14%		
White	75.34%			72.23%		
Native American	0.97%			0.78%		
Latino	7.38%			9.90%		
Mixed/Biracial	2.52%			3.11%		
Other	0.58%			0.58%		

**Table 2**  
*Bivariate Correlations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. GenAcc (P1)	1.00																
2. GenAcc (P2)	<b>0.48</b>	1.00															
3. SexKnow (P1)	<b>0.35</b>	<b>0.27</b>	1.00														
4. SexKnow (P2)	<b>0.34</b>	<b>0.42</b>	<b>0.67</b>	1.00													
5. AnxAtt (P1)	<b>-0.20</b>	<b>-0.22</b>	<b>-0.36</b>	<b>-0.31</b>	1.00												
6. AnxAtt (P2)	<b>-0.20</b>	<b>-0.22</b>	<b>-0.31</b>	<b>-0.34</b>	<b>0.37</b>	1.00											
7. AvAtt (P1)	<b>-0.31</b>	<b>-0.17</b>	<b>-0.25</b>	<b>-0.18</b>	<b>0.27</b>	<b>0.29</b>	1.00										
8. AvAtt (P2)	<b>-0.21</b>	<b>-0.21</b>	<b>-0.17</b>	<b>-0.18</b>	<b>0.28</b>	<b>0.28</b>	<b>0.52</b>	1.00									
9. SexSat (P1)	<b>0.22</b>	0.06	<b>0.19</b>	<b>0.13</b>	<b>-0.18</b>	<b>-0.26</b>	<b>-0.54</b>	<b>-0.38</b>	1.00								
10. SexSat (P2)	<b>0.18</b>	<b>0.11</b>	<b>0.14</b>	<b>0.15</b>	<b>-0.24</b>	<b>-0.23</b>	<b>-0.38</b>	<b>-0.49</b>	<b>0.66</b>	1.00							
11. Inc (P1)	-0.01	-0.06	0.02	-0.01	<b>-0.12</b>	0.02	-0.01	-0.03	0.05	0.05	1.00						
12. Inc (P2)	-0.03	-0.00	0.03	-0.00	-0.04	-0.05	0.02	-0.01	0.03	0.06	<b>0.58</b>	1.00					
13. Race (P1)	0.03	0.08	-0.07	<b>-0.11</b>	-0.01	0.01	0.05	-0.00	-0.01	0.04	0.00	-0.00	1.00				
14. Race (P2)	0.06	0.08	<b>-0.10</b>	-0.08	-0.02	-0.05	-0.01	-0.05	0.04	0.06	0.04	-0.01	<b>0.63</b>	1.00			
15. MarStat	0.03	-0.05	-0.05	-0.00	<b>0.10</b>	0.07	-0.01	-0.02	0.03	0.04	<b>-0.15</b>	<b>-0.19</b>	0.08	<b>0.09</b>	1.00		
16. ReLength	-0.01	<b>0.14</b>	<b>0.11</b>	-0.08	-0.08	-0.03	<b>0.10</b>	0.04	<b>-0.17</b>	<b>-0.13</b>	0.00	0.04	<b>-0.12</b>	<b>-0.13</b>	<b>-0.35</b>	1.00	
17. RelTyp	-0.03	-0.08	0.05	0.01	0.02	0.04	0.06	0.05	-0.02	-0.04	<b>0.10</b>	-0.03	0.03	0.07	<b>0.14</b>	-0.06	1.00

(P1)=Partner 1, (P2)=Partner 2, GenAcc=Genital Acceptance, SexKnow=Physical Sexual Knowledge, AnxAtt=Anxious Attachment, AvAtt=Avoidant Attachment, SexSat=Sexual Satisfaction, Inc=Income, Race=Race, MarStat=Marital Status, ReLength=Relationship Length, RelTyp=Relationship Type

**Bold numbers are significant at  $p < .05$**

**Table 3**  
*Standardized Coefficients – Direct, Indirect, and Total Effects*

Independent Variable	Sexual Satisfaction (P1)						Sexual Satisfaction (P2)					
	Direct	SE	Indirect	SE	Total	SE	Direct	SE	Indirect	SE	Total	SE
1. Genital Acceptance (P1)	0.119**	0.044	0.090**	0.030	0.210***	0.050	0.040	0.045	0.051	0.029	0.091	0.051
2. Genital Acceptance (P2)	-0.101*	0.049	0.085*	0.033	-0.016	0.057	-0.017	0.051	0.114***	0.031	0.097	0.056
3. Physical Sexual Knowledge (P1)	0.084	0.075	0.115**	0.037	0.199**	0.076	-0.025	0.073	0.095**	0.028	0.070	0.070
4. Physical Sexual Knowledge (P2)	-0.046	0.071	-0.016	0.035	-0.062	0.075	0.045	0.072	0.010	0.023	0.054	0.072
5. Anxious Attachment (P1)	0.047	0.049					-0.109*	0.049				
6. Anxious Attachment (P2)	-0.133**	0.049					-0.055	0.050				
7. Avoidant Attachment (P1)	-0.428***	0.053					-0.125*	0.055				
8. Avoidant Attachment (P2)	-0.140**	0.051					-0.398***	0.050				
9. Income (P1)	0.048	0.047	0.001	0.032	0.049	0.054	-0.008	0.048	0.044	0.031	0.035	0.054
10. Income (P2)	0.016	0.046	0.007	0.031	0.023	0.053	0.034	0.047	-0.007	0.030	0.027	0.053
11. Race (P1)	-0.004	0.050	-0.090**	0.032	-0.094	0.057	0.052	0.051	-0.057	0.031	-0.005	0.058
12. Race (P2)	0.014	0.049	0.066*	0.032	0.080	0.057	-0.001	0.051	0.056	0.031	0.054	0.058
13. Marital Status (C)	-0.012	0.041	-0.008	0.027	-0.020	0.048	0.009	0.042	-0.006	0.026	0.004	0.048
14. Relationship Length (C)	-0.107*	0.042	-0.088**	0.027	-0.195***	0.047	-0.085	0.043	-0.063	0.027	-0.148**	0.048
15. Relationship Type (C)	-0.010	0.042	-0.041	0.027	-0.051	0.048	-0.017	0.042	-0.033	0.026	-0.050	0.049

(P1)=Partner 1 (females), (P2)=Partner 2 (males), (C)=Couple

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

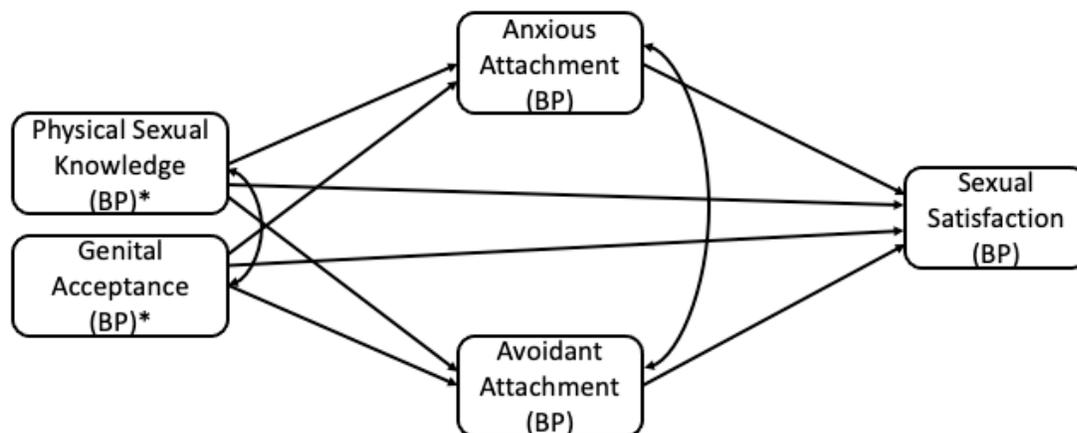
**Table 4***Physical Sexual Knowledge – Means and T Tests*

Items	Partner 1 (females)		Partner 2 (males)		T Test
	Mean	SD	Mean	SD	
1. My level of knowledge impacts the quality of the relationship.	5.94	1.54	5.97	1.53	-0.55
2. My level of knowledge of how my body works in reference to sex.	5.09	1.87	5.31	1.95	-2.51**
3. My level of knowledge about how my partner's body works in reference to sex.	4.79	1.97	4.43	2.16	4.11***
4. My partner's level of knowledge about how my body works in reference to sex.	4.24	2.10	4.48	2.10	-2.73**
5. My partner's level of knowledge about how his/her body works in reference to sex.	4.81	1.96	4.60	2.08	2.38**
6. My level of knowledge about how the female body works in reference to sex.	5.09	1.87	4.43	2.16	7.40***
7. My level of knowledge about how the male body works in reference to sex.	5.31	1.96	4.79	1.98	5.59***
8. Female level of knowledge about the female body vs the male body.	5.08	1.87	4.79	1.97	5.29***
9. Male level of knowledge about the female body vs the male body.	4.43	2.16	5.31	1.95	11.83***

\*p &lt; 0.05, \*\*p &lt; 0.01, \*\*\*p &lt; 0.001

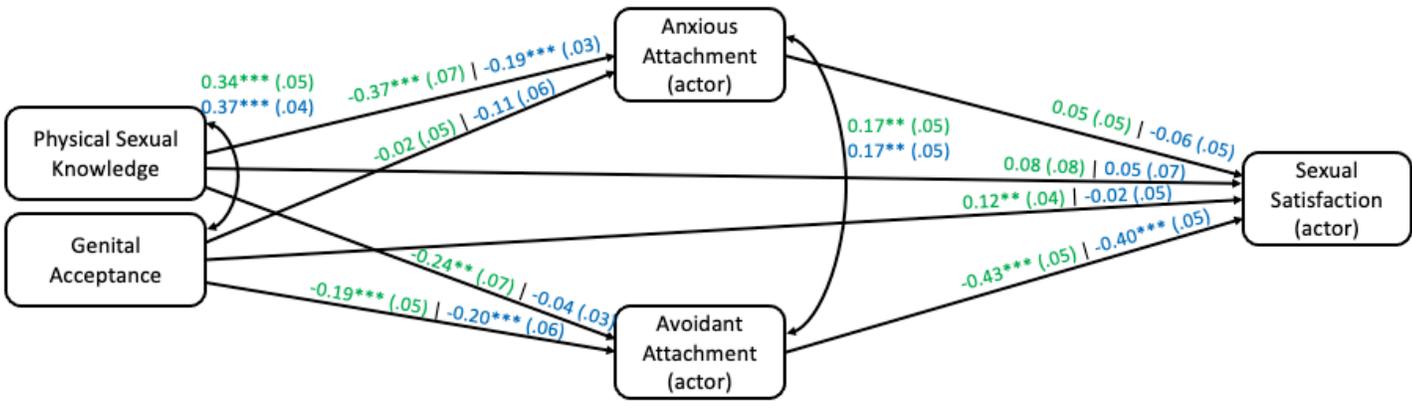
**Figure 1**

*Conceptual Model of the Pathways of Physical Aspects of Sexuality*



\*BP = Both Partners

**Figure 2**  
*Standardized Estimates for Direct Actor Effects*



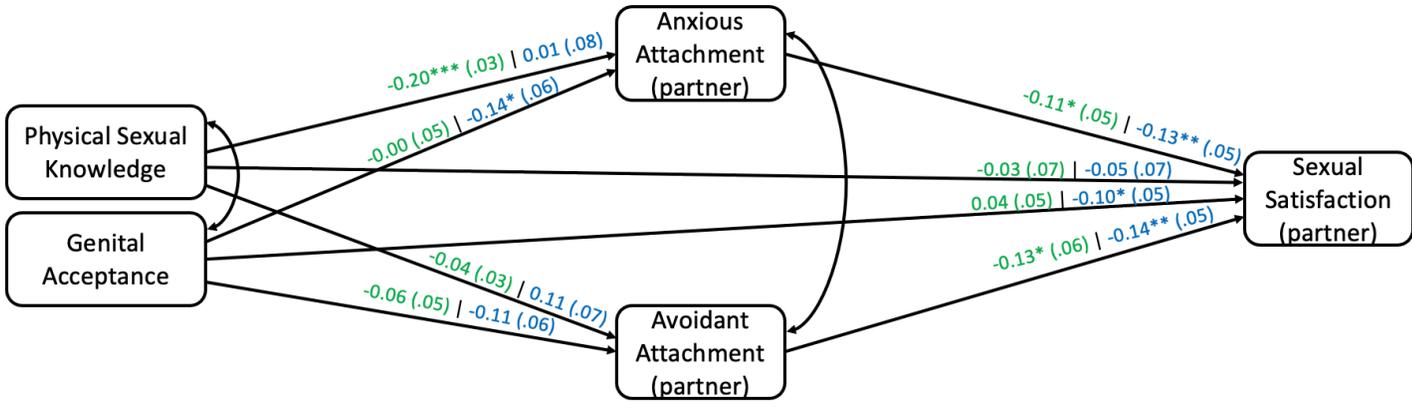
Partner 1 (female) Direct Actor Effects

Partner 2 (male) Direct Actor Effects

\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

Note: Numbers in parentheses are the Standard Errors.

**Figure 3**  
*Standardized Estimates for Direct Partner Effects*



Partner 1 (female) to Partner 2 (male) Direct Partner Effects

Partner 2 (male) to Partner 1 (female) Direct Partner Effects

\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

Note: Numbers in parentheses are the Standard Errors.