

Attachment and Sexual Communication Behaviour

by

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I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

Attachment theory is one of the major theoretical frameworks for understanding romantic relationships. Attachment styles are formed through interactions with caregivers, and shape an individual's expectations of subsequent interpersonal relationships. In this study, we examined how attachment styles influence a participant's ability to communicate with the partner about problems in their sexual relationship. A community sample of 81 couples engaged in two video-recorded discussions, one representing an aspect of the couple's sexual relationship where the male partner wanted change and the second representing an aspect of the sexual relationship where the female partner wanted change. Conversations were then coded, with each person being rated on three positive communication dimensions (positive affect, offering solutions, and responsiveness) and three negative communication dimensions (hostility, negative affect, and unskilled communication behaviours). Two factors were then created for each partner: one for the positive dimension and one for the negative dimension of that individual's sexual communication. As predicted, attachment avoidance was related to more negative and less positive communication for both the individual and his/her partner. Our observational data did not reveal any significant effects of attachment anxiety on an individual's own communication behaviour or the partner's communication behaviours. These results can be contrasted with findings from self-report studies that do suggest that an anxious attachment adversely impacts sexual communication.

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Sexual communication is an essential part of developing and maintaining healthy sexual relationships. Sexual self-disclosure promotes understanding of sexual preferences and may allow partners to develop a sexual repertoire that is mutually satisfying (Simon & Gagnon, 1986). In addition to directly improving sexual satisfaction, sexual communication enhances relationship quality by fostering closeness, intimacy, acceptance, and safety (MacNeil & Byers, 2009).

Across studies, there is robust and consistent support for the role of effective sexual communication in promoting positive sexual and relationship outcomes (see review by Byers & Rehman, 2014). Not only is sexual communication one of the strongest predictors of sexual and relationship satisfaction, it also influences the degree to which risk factors, such as negative body image, predict sexual satisfaction (Rehman, Fallis, & Byers, 2013). Despite these benefits, the degree of sexual communication in relationships can be less than optimal. Even couples in long-term relationships often lack a good understanding of each other's sexual likes and dislikes (MacNeil & Byers, 2009). Thus, it is important to investigate the barriers to such disclosure and to identify factors that promote or hinder sexual communication.

Over the last several decades, attachment theory has become one of the major theoretical perspectives for studying romantic relationships (Feeney, & Noller, 2004). This paper will examine barriers to sexual communication from the lens of attachment theory. According to attachment theory adult romantic relationships involve three distinct behavioural systems: attachment, caregiving, and sexuality (Shaver, Hazan, & Bradshaw, 1988; Mikulincer & Shaver 2007). The attachment system's function is to maintain proximity to caregivers, and it is comprised of beliefs and expectations about close others. These beliefs are formed from the bonds with a caregiver in childhood (Bowlby, 1969). Thus, attachment is the earliest of these

three systems to develop and, as a result, it plays a crucial role in the developing of both the caregiving and sexuality domains. The sexual system, which is the drive to pass genes on, has been linked to the attachment system since sexual behaviour, preferences, and motives can serve both attachment and sexual needs (Davis, Shaver, & Vernon, 2004; Shaver & Mikulincer, 2006; Schachner & Shaver, 2004). There is extensive empirical research showing that attachment orientations shape the way both adolescents and adults conceptualizes both their romantic relationships (Feeney, 1999), and their sexual interactions (Feeney & Noller, 2004). Research has more recently suggested a reciprocal relationship with the sexual domain influencing attachment due to the role sex plays in promoting bonding and intimacy in relationships (Birnbaum, 2007; Hazan & Zeifman, 1994; Schachner & Shaver, 2004). This study will examine these two systems by focusing on how attachment affects couples ability to communicate about sexual problems in their relationship.

In the current study, we focus specifically on sexual problems, as compared to other types of sexual communication, because it is inevitable that couples will face challenges to their sexual relationship over time (e.g., discrepancies in desire, or different preferences) and these challenges need to be negotiated to maintain sexual health (Day, Muise, Joel, & Impett, 2015). Furthermore, past studies have shown that how couples navigate such difficulties is associated with their relationship quality and stability.

Sexual communication, in particular, is likely to be affected by attachment because the communication tends to involve disclosures that are highly personal and sensitive, which can make an individual feel vulnerable. Sexual issues also tend to be avoided by romantic partners, more so than other domains of communication (Anderson, Kunkel, & Dennis, 2011), possibly because partners tend to view sexual communication as more risky compared to nonsexual

communication. Thus, we would expect that individuals who tend to view their own needs as legitimate and worthy, as a result of early developmental experiences with a responsive, trustworthy, and caring caregiver, would be more likely to communicate those needs effectively.

In this paper I will provide an overview of attachment theory and how it was initially developed. I will then review the literature connecting attachment to relationship processes in general, then discuss how attachment impacts sexuality, and how it relates to communication in relationship. Following this, I will review how attachment styles impact sexual communication specifically, and highlight the limitations in this research which I will address in the present study.

Attachment Theory

In his seminal work, Bowlby (1969, 1980) theorized that people internalize the early patterns of interacting with their caregivers and that these patterns shape the individual's "working model" of the self and others. These working models of attachment are then used to anticipate and interpret the behavior of close others and in order to guide the individual's own behavior in interpersonal contexts.

Bowlby (1969, 1980) hypothesized that the individual's working model of attachment would form as a complement to the child's relationship with their caregiver. For example, a child who experiences rejection in their relationship with their caregiver would develop a working model of the self as being unlovable and others being unsafe. In contrast, a child who is raised by a warm and loving caregiver who is responsive to the child's needs would likely develop a working model of the self being lovable and others being comforting.

Based on these theories, Ainsworth, Bell, and Stayton (1974) conducted a study focusing on mother's sensitivity to their child's needs and how it affected the quality of the infant-

caregiver relationship. In their study, sensitivity was defined as an amalgamation of noticing the child's signals, interpreting those signals, and responding appropriately. The study found that mothers who were sensitive to their infants needs in the early months had children who cried less, were more obedient, and enjoyed close contact more, while demanding contact less.

The mother's sensitivity also had a large impact on how children behaved in a laboratory experiment, referred to as the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). For this experiment, the mother would leave the child in a room with a variety of toys. Upon returning, children who had sensitive mothers would often approach their mother, seeking out closeness and comfort from her, and then return to exploring the room and toys. This group of children was labeled as securely attached. When mothers were less sensitive to their child's needs, the children often did not respond with the same level of warmth when the mother returned. The children that did not respond with warmth to their mothers were labeled as insecurely attached. The behaviour of the children with insecure attachments were broadly classifiable into two different patterns, specifically, children would either respond with ambivalence (express desire for contact, but respond with anger or resistance) or avoid the mother (snubbed her, walk away, or refusing to interact). These patterns of behaviour are commonly referred to as anxious attachment and avoidant attachment, respectively.

Based on this initial work early research on attachment often placed people into attachment categories based on self-report, informant-report, or by trained observers-ratings. However, in a seminal work, Brennan, Clark and Shaver (1998) conducted a factor analysis of all self-report measures of attachment. The result of their work identified two orthogonal factors that were labeled anxious and avoidant attachment. As a result, this work suggested that secure attachment could be conceptualized as an low score on both dimensions.

Theoretically, anxious attachment is often conceptualized as a hyperactivation of the attachment system. Anxious attachment is characterized by a desire for seeking closeness to others, while also having anxiety about close others not being available or withdrawing. These fears can also result in excessive reassurance seeking, where individuals constantly seek validation from others (Shaver, Schachner, & Mikulincer, 2005). In addition to the reassurance seeking, anxious attachment is associated with hypervigilance, where the individual constantly monitors relationships for signs of rejection (Cassidy & Berlin, 1994; Simpson, Ickes, & Grich, 1999).

In contrast, the avoidant dimension is associated with a withdrawal from close relationships. This dimension can be conceptualized as a deactivation of the attachment system, with individuals coping with an unresponsive environment by becoming more self-reliant and not seeking out support from others during times of distress (e.g., Simpson, Rholes, & Nelligan, 1992). Avoidant attachment is also associated with discomfort with intimacy and closeness (Bartholomew & Horowitz, 1991; Campbell, Simpson, Kashy, & Rholes, 2001).

Despite forming early in childhood, these early models of attachment are used for subsequent interactions in the person's life. As a result, attachment tends to show a moderate amount of stability across an individual's life (Fraley, 2002; Fraley, Vicary, Brumbaugh, & Roisman, 2011; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Specifically, in a meta-analysis by Fraley (2002), the author tested a prototype model, which suggested that there was a there was, approximately, a correlation of .39 for attachment in early life and attachment at any point in adulthood. Furthermore, attachment styles tend to be correlated across different relationship domains (e.g., Cook, 2000; Klohnen, Weller, Luo, & Choe, 2005). For example, individuals who are high in attachment anxiety with their mother tend to also report higher

anxiety about their relationship with their friends or romantic partners.

Attachment & Adult Romantic Relationships

Over the last several decades, attachment theory has become one of the major theoretical perspectives for studying romantic relationships (Feeney & Noller, 2004). Romantic partners tend to be the primary attachment figures for adults (Fraley & Davis, 1997), making attachment particularly pertinent for understanding relationship dynamics.

Research has shown that attachment styles have a large effect on relationship satisfaction and stability. It has been consistently shown that secure attachment styles are associated with more stable relationships, higher relationship quality, satisfaction, and more commitment for both the individual and their partners (for a review see: Cassidy & Shaver, 2016).

Individuals high in avoidant attachment tend to experience lower relationship quality and satisfaction (Brennan & Shaver, 1995; Feeney, 1994; Simpson, 1990) and they are also likely to have shorter relationships with less stability (e.g., Collins & Read, 1990; Kirkpatrick & Davis, 1994). High anxious attachment is also associated with lower relationship quality, lower satisfaction, and less stability (Campbell, Simpson, Boldry, & Kashy, 2005; Feeney, 1994; Kirkpatrick & Davis, 1994). Because anxious attachment is associated with a fear of abandonment, they tend to put more work in maintaining their relationships, even when they are less satisfying (e.g., Collins & Read, 1990; Kirkpatrick & Davis, 1994).

There have been several mediators which have been investigated in order to better understand why insecure attachment is related to lower relationship quality. For example, insecure attachment is associated with more stress related to conflict. Specifically, attachment anxiety is related to higher levels of stress about conflict and also with more escalations of conflict in the relationship (Campbell, Simpson, Boldry, & Kashy, 2005; Cann, Norman,

Welbourne, & Calhoun, 2008; Simpson, Rholes, & Phillips, 1996). Avoidant attachment is associated with less warmth and supportive behaviour during conflicts (Simpson, et al., 1996). Research by Mikulincer (1998) suggests that one reason secure attachment is related to better relationship quality is that secure attachment is associated with feeling more trust towards a romantic partner. Furthermore, they found that people high in secure attachment have an easier time coping with violations of trust from a romantic partner, for example if a one person reads a partner's email without permission.

The effects described to this point highlight how attachment can affect the individual themselves. However, as noted in Hazan and Shaver (1987), relationship quality is affected by both partners. Therefore, attachment styles can influence a partner in addition to the effects it has on the individual themselves. Early work on attachment and romantic relationships investigated this question by looking at how couples matched in terms of their attachment. Senchak and Leonard (1992) had both members of a couple self classify themselves as either secure or insecure. They then sorted these couples into three groups, one where both partners were identified as secure, one where both partners were insecure, or a mixed couple. Their results suggested that secure couples had higher relationship quality. In a similar study Cohn, Silver, Cowan, Cowan, and Pearson (1992), sorted couples into the same groups, however they used observer ratings to assess marital quality, and found that both secure couples and mixed couples had higher relationship quality as compared to the insecure couples.

Recent studies have continued to assess partner effects using more sophisticated analytic techniques, such as the Actor-Partner Interdependence Model (APIM; Kashy & Kenny, 1999). The APIM model makes several assumption. First, it assumes that romantic partners will be similar, therefore their scores on measures should be correlated with one another. Second, the

model assumes that both an individual and their partner can have a unique effect for predicting a variable. Therefore, the APIM models provides two effects estimates: an actor effect, which estimates the effect of a participant's predictor variable on his or her own dependent variable (e.g., the effect of a wife's level of anxious attachment on the wife's communication behaviour), and a partner effect, which examines how a partner's score on a predictor variable affects an actor's dependent variable.

Using this model, researchers have found several effects of attachment and how it affects relationships. For example, Kane and colleagues (2007), examined how a partner's attachment style affected an individual's relationship satisfaction. Their results showed that women's anxious attachment predicted lower relationship quality for men and men's avoidant attachment predicted lower relationship quality for the women. In another example, Lavy, Mikulincer and Shaver (2013), showed that the actor's anxious attachment and the partner's avoidant attachment both uniquely predicted self reports of intrusive behaviour, such as violating a partner's privacy.

In summation, although attachment styles initially form in childhood, these attachment styles can continue to influence adult relationships. Attachment styles play a role in many interpersonal processes in relationships, and as a result they have a large impact on both the individual and their partner's relationship (Cassidy & Shaver, 2016). Broadly, these findings suggest that secure attachment is related to higher relationship quality, while insecure attachment is associated with lower quality.

Attachment and Sexuality

As discussed above, attachment theorists have proposed that adult relationships are based on three interacting behavioral systems- attachment, caregiving, and sex (Shaver, Hazan, & Bradshaw, 1988; Mikulincer & Shaver 2007). The attachment domain and the sexual domain are

especially linked to one another because sex plays an important role in bonding and intimacy in relationships (Hazan & Zeifman, 1994; Schachner & Shaver, 2004).

Research examining how attachment styles relate to sexuality have shown that attachment is associated with a variety of sexual outcomes including an individual's sexual behaviour, sexual identity, and sexual satisfaction (Fricker & Moore, 2002; Morrison, Goodlin-Jones, & Urquiza, 1997). Secure attachment is generally associated with positive sexual outcomes such as comfort with sexuality, openness to sexual activities, and more positive emotions about sexual relationships (e.g., Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006). Secure attachment is also associated with fewer casual sexual experiences, and it is also associated with belief that sex should occur in committed relationships (Brennan & Shaver, 1995; Cooper, Shaver, & Collins, 1998).

Insecure attachment has been linked to a variety of sexual problems. Generally, both anxious and avoidant attachment predict lower levels of sexual satisfaction, less sexual arousal and less sexual pleasure (e.g., Butzer & Campbell, 2008; Khoury & Findlay, 2014). For women, both anxious and avoidant attachment are also associated with more unwanted, but consensual, sexual experiences, while only the avoidant dimension was associated with unwanted sexual experiences for men (Gentzler & Kerns, 2004).

Although both dimensions of insecure attachment are related to negative sexual outcomes, evidence suggests each dimension has unique effects (Davis, Shaver, Widaman, Vernon, Follette, & Beitz, 2006). For example, sex can be seen as a sign of love and desire (Davis, Shaver, & Vernon, 2004), which may be validating for individuals high in anxious attachment, while simultaneously making things more uncomfortable for people who report higher avoidant attachment.

The avoidant dimension of attachment is most often associated with strategies designed to reduce closeness associated with sexuality. Thus, it is expected that avoidance would influence how an individual approaches and navigates a sexual relationship with another, given the greater intimacy inherent in sexual activity, compared to other types of interpersonal interactions. For example, individuals high on avoidance are more likely to have their first sexual experience at a later age (Gentzler & Kerns, 2004). Furthermore, avoidance is associated with engaging in relationships that limit intimacy, for example avoidance is associated with more short-term relationships and engaging in more casual sex (Gentzler & Kerns, 2004). Their motivation for having sex also tends to focus on non-romantic goals, such as having sex to avoid an argument with their partner, or in order to improve their status with a peer group (Impett, Gordon, & Strachman, 2008; Schachner & Shaver, 2002, 2004). People high in avoidance also perceive more risk associated with sex, for example, they believe there is a higher likelihood of contracting sexual transmitted disease compared to more secure or anxiously attachment individuals (Feeney, Peterson, Gallois, & Terry, 2000).

Anxious attachment is also associated with some unique sexual outcomes. Contrasting the findings with the avoidant dimension, anxious attachment is often associated with engaging in sex to please their partner and improve intimacy. In addition, individuals high in anxious attachment are more likely to engage in sex to reduce their insecurities, to prevent tension, and to prevent their partner from losing interest (Impett, et al., 2008; Impett & Peplau, 2002; Schachner & Shaver, 2002, 2004). Individuals high in anxious attachment often have sex at a younger age, they are more likely to view condoms as reducing intimacy and spontaneity, they perceive less risk of contracting a sexual transmitted disease relative to their friends, and they report more infidelity in their relationships (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004; Schachner &

Shaver, 2004). In a study by Davis and colleagues (2006), they showed that in established relationships, individuals high in anxious attachment often use sex as a barometer for monitoring their relationship, meaning they use sexual desire as a sign that their partner cares for them, while a lack of desire from their partner is seen as a sign of romantic rejection. As a result, individuals high in anxious attachment reported having more difficulty expressing their sexual needs, potentially because of their concern about the implications of sexual behaviour in relationships. Using sex as a barometer for relationship satisfaction was also related to feeling less control over what happens in their sex lives.

While the majority of studies have focused on the link between one's own attachment style and one's sexual outcomes, some studies have investigated how a romantic partner's attachment style affects sexual outcomes. For example, Butzer and Campbell (2008) collected a sample of married couples to investigate how attachment impacted both the individual and partner's sexual satisfaction. Their results replicated previous findings for the individual, with both insecure dimensions being related to reduced satisfaction. However, they also showed that only the avoidant dimension was associated with lower sexual satisfaction for partners. In another example, Impett and colleagues (2008) examined how a partner's attachment orientation affected daily sexual goals. They had both members of the couple complete a measure of attachment, and they then had one member of the couple complete a daily diary measuring their sexual goals for 14 days. The study included 10 sexual goals that individuals commonly have when engaging in sex, including: to feel good about myself, to please my partner, to avoid conflict in the relationship, or because I felt obligated to engage in sex. Their results showed that avoidance predicted an actor being motivated to engage in sex for their own sexual pleasure, as compared to the partner's pleasure. This finding is consistent with the idea that avoidance is associated with

less responsiveness to the romantic partner's needs. The study did not find any significant partner effects for anxious attachment. Finally, in a study examining couples of gay men, Starks and Parsons (2014), found that partners anxious and avoidant attachment predicted less weekly sexual activity, suggesting both dimensions affect sexual frequency.

In conclusion, this works highlights the link between the sexuality and attachment domains in romantic relationships. Attachment consistently predicts satisfaction and sexual quality (e.g. Birnbaum, et al., 2006), as well as affecting domains associated with sexuality, such as sexual motivation (e.g. Impett, et al., 2008).

Attachment and Communication

One reason why people with more insecure attachments have worse sexual outcomes is that they have more difficulty communicating their needs to their partners (e.g. Roberts & Noller, 1998; Davis & Follette, 2000; Collins & Feeney, 2000; Khoury & Findlay, 2014; Timm & Keiley, 2011). Using observational data with married couples, Tan, Overall, and Taylor (2012) found individuals with more insecure attachments (both anxious and avoidant dimensions), disclosed less thoughts and feelings about their relationship. Due to the discomfort with intimacy, avoidant attachment, in particular, is related to lower levels of self-disclosure in relationships (e.g., Anders & Tucker, 2000; Bradford, Feeney, & Campbell, 2002; Mikulincer & Nachshon, 1991).

In addition to their effects on self-disclosure, both dimensions of insecure attachment are associated lower levels of support-seeking behaviours (Collins & Feeney, 2000) and fewer expressions of needs in romantic relationships (Davis & Follette, 2000). Physiologically, insecure attachment has also been shown to relate to more cortisol reactivity in response to a conflict (Powers Pietromonaco, Gunlicks, & Sayer, 2006), suggesting more stress for these

individuals. During conflicts, anxious attachment is also associated with more validation seeking when interacting with other people (Mikulincer & Shaver, 2003).

Because of the inherent threat during conflict discussion, insecure attachment is also related to more difficulty constructively dealing with conflicts in relationships (Creasey, 2002; Creasey & Hesson-McInnis, 2001). In particular, anxious attachment is associated with putting more pressure on a romantic partner during conflict resolution (Corcoran & Mallinckrodt, 2000), and more stress and anxiety during discussions (Simpson Rholes, & Phillips, 1996).

Furthermore, anxious attachment is associated with more demand-withdrawal patterns during discussions and less mutual understanding following these discussions (Feeney, Noller, & Callan, 1994). Following a conflict discussion, individuals high on the anxious dimension, viewed their relationships and their less partners less positively (Simpson, Rholes, & Phillips, 1996).

During conflict discussions, avoidant attachment is associated with fewer displays of warmth and less signs of support for their partner (Simpson et al., 1996). It is also associated with less confidence regulating negative moods (Creasey, Kershaw, & Boston, 1999). The avoidance dimension is also associated with less compromising when resolving the conflict (Corcoran & Mallinckrodt, 2000).

Contrasting these results on insecure attachment, a more secure attachment is associated with more self-disclosure (Mikulincer & Nachshon, 1991), more compromising communication strategies (Corcoran & Mallinckrodt, 2000), communicating with less verbal aggression (Senchak & Leonard, 1992; Creasey, Kershaw, & Boston, 1999), and less withdrawal when communicating. Individuals with a primarily secure attachment also report being more expressive with their partner, expressing both their positive and negative feelings more freely

compared to insecurely attached individuals (Caldwell & Shave, 2012; Feeney 1995).

In summation, attachment plays an essential role in communication. Fundamentally, attachment styles are a set of beliefs and expectations that largely focus on how other people react when needs are expressed. Previous research has consistently shown that secure attachment is associated with more positive communication and with greater comfort in expressing needs and desires in relationships (e.g. Mikulincer & Nachshon, 1991). In contrast, both dimensions of insecure attachment are associated with more negative communication, with avoidant attachment being related to less comfort with expressing their own needs, whereas anxious attachment is associated with anxiety about rejection if they assert their needs (e.g. Simpson Rholes, & Phillips, 1996).

Attachment and Sexual Communication

Given that sexual communication is inherently an intimate form of communication and discomfort with intimacy is a core issue in insecure attachment, we would expect that attachment styles would influence how individuals communicate about sexual needs and preferences with their partners. This impact has been seen in previous work that has shown that attachment styles have a significant effect on self-reported sexual communication (e.g., Feeney, Peterson, Gallois, & Terry, 2000; Khoury & Findlay, 2014; Davis et al., 2006). Specifically, Timm and Keiley (2011) found that secure attachment predicted better self-reported sexual communication. Furthermore, they found that sexual communication fully mediated the effect of attachment security on sexual satisfaction, and partially mediated the effect of attachment on relationship satisfaction. Davis and her colleagues (2006) examined how anxious and avoidant attachment relate to sexual communication in a large community sample. The results of their study showed that both anxious and avoidant attachment were associated with more inhibited sexual

communication. In their follow-up study, Khoury and Findlay (2014) replicated these effects, showing significant correlations between both anxious and avoidant attachment and self-reported sexual communication (-.44 and -.54 for anxious and avoidant respectively).

In the current study, we plan to build on this work by examining how attachment styles relate to observable communication behaviour. Self-reports about sexual communication are informative for understanding how a person perceives the effectiveness of his/her communication. However, a number of factors, such as the individual's self-awareness and introspection influence these reports, making self-reports more appropriately suited for examining an individual's perceptions of communication. Furthermore, it has been established that insecure attachment, the anxious dimension specifically, is related to hypervigilance in relationships (Alexander, Feeney, Hohaus, & Noller, 2001; Ein-Dor, Mikulincer, & Shaver, 2011). This excessive monitoring may result in an over-reporting of communication problems or exaggeration of normal communication difficulties. Thus, it may be difficult to determine if communication difficulties reported by individuals high in anxious attachment reflect this hypervigilance to relationship problems or whether anxiously attached individuals tend to have relationship characterized by poorer communication.

The overall goal of the current study is to revisit the association between attachment style and sexual communication using a methodology that allows us to directly observe couples' sexual communication. To our knowledge, this study was the first to examine how an individual's attachment style affects his/her partner's sexual communication. Previous research on sexual communication and attachment has almost exclusively examined only one member of a couple. Yet, one individual's attachment style may elicit certain communication behaviours from their partner. For example, if individuals high on anxious attachment frequently engage in

reassurance seeking during a conversation, this may lead the partner to withdraw (Christensen & Heavey, 1990). The dyadic design of the present study makes it possible to explore this question in order to see how attachment styles impact both the individual and their partner's communication.

Hypotheses

In this study we offer two hypotheses:

H1: Based on consistent findings from studies of self-reported communication, we expect that higher levels of avoidant and anxious attachment will be associated with more negative and less positive sexual communication behaviours for the individual.

H2: Based on the previous studies showing an actors insecure attachments is associated with negative effects for partners, it is predicted that both anxious and avoidant attachment will be associated with more negative communication and less positive sexual communication for the individual's partner.

Method

Participants

A convenience sample of 81 couples, in committed relationships, participated in the current study (N=162 individuals). All participating couples identified as heterosexual. Data for the current study were gathered as part of a larger, longitudinal study (described in the next section). The current study used data from the third wave of data collection (T3), which took place two years after their initial participation. Couples were originally recruited from the southwestern area of Ontario. The study was advertised with posters placed in local businesses, offices of physicians, and offices of mental health professionals. Advertisements were also placed in local newspapers and in online classified ads (e.g., Kijiji). Couples therapists and sex therapists referred approximately 2% of the couples that participated in the study. Couples were originally required to meet several criteria: (a) either married or living together for a minimum of 2 years; (b) aged 21 to 65; (c) able to speak and read English at a minimum of an eighth grade level (to ensure they were able to respond accurately to the questions used in the study); and, (d) both members had to agree to participate. See Table 1 for the demographic characteristics of the current sample.

Measures

Background Questionnaire. The background questionnaire gathered information about their general demographic characteristics (e.g., age, income, educational achievement), relationship histories (e.g., marital status, relationship length), and sexual histories.

Experience in Close Relationship Scale- Short form. Both anxious and avoidant attachment were measured using the 12-item version of the Experiences in Close Relationship scale (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007). Participants responded on a 7-point

Likert scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Attachment avoidance was measured by six items such as “I want to get close to my partner, but I keep pulling back.” Attachment anxiety was measured by six items, such as “My desire to be very close sometimes scares people away.” For females, the anxiety items (Cronbach’s $\alpha = .75$) and the avoidance items (Cronbach’s $\alpha = .84$) were found to have good internal consistency. For males, for the anxiety items had good internal consistency (Cronbach’s $\alpha = .85$), while the avoidance items demonstrated modest, but acceptable, internal consistency (Cronbach’s $\alpha = .69$).

Sexual Problems Questionnaire. The Sexual Problems Questionnaire (SPQ) was developed for the current study and was used to identify topics for the discussion task described in the next section. The measure lists 25 sexual issues about which partners might disagree (e.g., “frequency of sexual relations,” “showing interest in having sex”). Participants were asked to rate the extent to which the issue is a problem in his/her relationship on a scale from 1 (*Not at all*) to 7 (*Very much so*). Items for the SPQ were selected based on lists of sexual “concerns” and “problems” identified by Frank, Anderson, and Rubinstein (1978) and MacNeil and Byers (1997), as well as suggestions from therapists and clinical psychologists who provide couples therapy. The scale also included five blank spaces for couples to identify sexual problems that are not captured by the other items. In the last part of the SPQ, participants are asked to list the “four most important” sexual problems in their relationship in order of importance, with the top listed items representing the issue that is viewed by the participants as the biggest sexual problem in the relationship.

Procedure

All study measures and procedures were reviewed and approved by the university’s research ethics board. Participants were originally recruited for a prospective, 2-year longitudinal

study. At Time 1, participating couples completed a lab assessment in which they answered a variety of measures and engaged in observational tasks designed to understand the role of interpersonal factors in sexual satisfaction and sexual functioning. One year after this participation, couples completed an interview over the phone (Time 2). One year after this phone conversation (two years after this initial session), couples participated in a second in-lab assessment (Time 3). Data from Time 3 was used for the current study.

A research assistant contacted the couples by telephone or email to schedule the Time 3 assessment. Of the 113 couples that completed the Time 1 assessment, 84 couples participated in the Time 3 assessment. In regard to those who did not participate at Time 3, 8 couples did not participate because their relationship had ended and 21 did not participate because they were not interested or could not be reached. Excluding the couples who were no longer in the same relationship, the retention rate was 80%. Of the 84 couples who participated in the Time 3 assessment, two couples did not engage in the videotaped interaction and one couple's data were lost due to a technical issues. Thus, the final sample of the current study was 81 couples.

During the Time 3 lab assessment, two trained research assistants worked individually with each couple. When a couple arrived at the lab, the research assistants reviewed the information letter and consent forms with them. One research assistant was randomly assigned to work with each partner from that point forward. The male and female partners were separated into two different rooms where they completed study measures individually. Participants completed a series of questionnaires including the Background Questionnaire, the SPQ, and the ECR-S. Participants also completed additional questionnaires unrelated to the current study while research assistants used their responses to the Sexual Problems Questionnaire to select the topics for the two sexual conflict discussions. For the observational component of the study,

partners were brought together to engage in two discussions about sexual problems in their relationships.

One of these discussions focused on an aspect of the couple's sexual relationship in which the male partner wanted change and the other focused on an aspect in which the female partner wanted change (referred here onward as the 'male topic discussion' and 'female topic discussion'). The topics selected for the two conflict discussions were based on problems that the male and female partners' independently identified on the Sexual Problems Questionnaire. If the male and female partner identified different topics as their top-rated issue, then these two topics were selected for the two discussions. If both partners identified the same issue as the top-rated problem, then the research assistant considered the second highest issue identified by both partners. If the issues ranked as second highest were different for the two participants, these topics were selected as the discussion topic. If they were the same, the research assistants reviewed the third ranked issue for both partners, and so on. In our study two couples matched on their first choice and, as a result, both couples discussed their second most important issue.

This protocol was developed with two goals in mind: first, we wanted to ensure that partners were discussing different issues during their conversations. Second, we wanted the topics of the discussions to be of equal ranking so that there were no systematic differences in the degree of importance of the female topic versus the male topic. The order of the two conversations was counterbalanced. Before each discussion, each research assistant informed the partner he/she was working with about the topic of discussion to determine if the participant was willing to discuss that issue. In our study all participants were willing to discuss the topics they selected.

Discussion Task. Partners were seated across each other (rather than adjacent) so that video cameras mounted on the wall above each partner's head could capture the interaction using split-screen technology. One research assistant provided instructions for the discussion task while the other research assistant prepared to start the recording in a different room. Participants were given the following instructions:

“As you know you are going to be discussing (*topic*). You will have 8 minutes to discuss (*topic*). In a moment I'm going to leave you alone to start your discussion. We won't hear what you are saying while you have your discussion. After 8 minutes have passed (*research assistant's name*) will knock on the door to let you know that the time is up and you may end the discussion. Please try to discuss the issue as naturally as possible, exactly as you would at home. Do you have any questions or concerns?”

The research assistant addressed any questions and then instructed the couple to begin their discussion when the door closed. The recording began when the door closed. At the eight-minute mark a research assistant knocked on the door and ended the interaction. The procedure was then repeated for the second discussion topic.

After completing the discussion tasks, participants completed questionnaires unrelated to the current study and were debriefed. At the end of the study, participants were given a feedback letter and a list of sexual health resources. In appreciation for their participation each partner received \$50.00 (Cdn) for their time. The entire procedure took approximately three hours.

Coding. After data collection was complete, research assistants independently viewed each couple's discussions. These research assistants were given detailed definitions, instructions, and training on each of the constructs being coded. During the first viewing, raters watched the

conversation in its entirety, paying attention to both partners and both verbal and non-verbal behaviors. Following this initial viewing, the raters then watched the video again, and rated a specific individual based on the frequency and intensity of a particular behaviour or display. These ratings focused on three dimensions of positive communication and three dimensions of negative communication and were rated on a 7-point scale ranging from *none* to *a great deal*.

The three positive dimensions were: (a) displays of positive affect (this dimension included expressions of affection, warmth, validation, and understanding); (b) offering solutions to the problem; and (c) responsiveness to the partner (this included behaviors such as soliciting information from a partner, asking follow-up questions, or encouraging a partner to share their perspective). We focused on positive affect based on the extensive literature demonstrating that greater displays of positive affect in romantic relationship predict greater relationship satisfaction and stability (see review by Ramsey & Gentzler, 2015). The specific behaviors we coded under positive affect were based on the *Specific Affect Coding System* (Gottman & Krokoff, 1989), a widely used system for coding couple interactions. We included the dimension of partner responsiveness in light of evidence demonstrating that this construct is critically important to relationship well-being (e.g., Reis, 2012). Further, past research has shown that observed partner responsiveness can be coded in a reliable fashion (e.g., Birnbaum, Reis, Mizrahi, Kanat-Maymon, Sass, & Granovski-Milner, 2016). Although not a central focus of our research, we wanted to examine whether partners would be able to identify and discuss solutions to their existing sexual problems as it has been theorized that sexual problems may be perceived as particularly difficult to solve (Metts & Cupach, 1989). Our code of “offering solutions” was based on a coding system developed by Sillars, Coletti, Parry, and Roger (1982) that is designed to capture a range of conflict management strategies used in interpersonal communication.

The three negative dimensions were: (a) hostile and domineering negative affect (this dimension included expressions of contemptuous, hostile, and domineering behaviours); (b) reactive/defensive negative affect (this dimension included expressions of annoyance, frustration, whining, and defensiveness); and (c) unskilled communication behaviours (this included behaviors such as blaming one's partner, rejecting a partner's feelings, making assumptions about a partner's thoughts, and expressing hostile demands for change). The behaviours coded under "hostile and domineering negative affect" and "reactive/defensive affect" were based on negative affect codes from the *Specific Affect Coding System* (Gottman & Krokoff, 1989). The dimension of "unskilled communication behaviours" was based on the coding system developed by Sillars and colleagues (1982), described previously.

One research assistant coded all conversations and a second research assistant independently coded 58 randomly selected targets and conversations (35% of total conversations) to examine inter-rater reliability. The inter-rater correlations for the six constructs ranged from .75 - .87 suggesting good overall reliability. When two raters were available, ratings were averaged. Coded variables were averaged across the same subject and gender for the two conversations to improve reliability. For example, the males communication behavior during the male discussion topic and female discussion topic was averaged. By averaging across these topics we obtain a more reliable estimate of the individuals general communication, and we limit topic specific effects. This resulted in three measures of positive communication and three measures of negative communication for each participant. An exploratory factor analysis was used to examine the factor structure of these coded variables.

Results

Models were tested using Mplus v7. Evaluations of the models were conducted using a Chi-square test of model fit, with a non-significant Chi-square indicating good overall model fit. In addition, models were evaluated using standard criteria of acceptable fit: comparative fit index (CFI) > .90 and root-mean-square error of approximation (RMSEA) < .06 with a 90% confidence interval (CI) including .05 (Schermelleh-Engel, Moosbrugger, & Muller, 2003).

Factor Analysis of Communication Variables

Initial examination of the communication variables revealed significant and high correlations between many of the six communication variables (correlations shown in Table 2). Because of these high correlations we conducted an exploratory factor analysis (EFA) with a maximum likelihood extraction method, using Mplus. We tested one and two factor solutions, and compared the models based on fit. A geomin rotation was used, which allows the factors to correlate with one another.

The one factor solution had a significant chi-square, indicating poor model fit ($X^2 = 56.37$, $df=9$, $p<0.001$), good fit on CFI, and poor fit on RMSEA (CFI= .91, RMSEA= 0.18, 90% CI [0.14, 0.23]). The two factor solution had a non-significant chi-square, suggesting the model fit the data well ($X^2 = 8.02$, $df=4$, $p=0.09$). Additionally the two factor solution had good fit on CFI, but relatively poor fit on RMSEA (CFI = .99, RMSEA = 0.08, 90% CI [0.00, 0.16]). Although RMSEA was high, small sample size and low degrees of freedom can result in RMSEA being an unreliable measure of model fit (Kenny, Kaniskan, & McCoach, 2015).

Taken together, these results supported a two factor solution. The two factors suggested that the communication variables could be divided into positive communication variables (offering solutions, positivity and responsiveness), and negative communication (hostility,

negative affect and unskilled communication behavior). The exploratory factor analysis indicated a correlation between the two factors of $r = -.70$. Although this correlation is high, it is consistent with other measure of positive and negative dimensions, such as positive and negative affect (Zou, Schimmack & Gere 2013). The factor loadings generated for the two-factor solution are shown in Table 3.

Based on the EFA we created two composite measures, one for positive and one for negative communication behaviours. These scores were created for both the male and female partners by averaging across the three positive dimensions and averaging across the three negative dimensions. These composite scores were used as a measure of participants' overall communication skills. The positive dimension was shown to have good overall reliability for both women (Cronbach's $\alpha = .72$) and men (Cronbach's $\alpha = .74$). The negative dimension also had good reliability for both women (Cronbach's $\alpha = .91$) and men (Cronbach's $\alpha = .88$).

Model Overview

Given the interdependent nature of couples' data, we analyzed our data with a variation of Kashy and Kenny's (1999) Actor-Partner Interdependence Model (APIM), shown in Figure 1. The APIM model is a widely used tool for studying couples. One of the benefits of this model is that it provides two effects: actors effects, which represent a the effect of a participant's predictor variable on his or her own dependent variable, and partner effects, which examines how a partner's score on a predictor variable affects an actor's dependent variable. The model is most often applied to studies examining one predictor variable and one dependant variable, however this study used a variation of this model which included two predictor variables for each person: anxious attachment and avoidant attachment. Previous research has shown that attachment is highly correlated in individuals and within couples (Wei et al., 2007), so all predictor variables

were allowed to freely correlate. The current model also included two dependent variables for each person: positive and negative communication behaviours. Based on previous research, and the results of our factor analysis, the positive and negative communication behaviours were allowed to correlate in the model (Crawford & Henry, 2004). The correlation matrix for the variables used in our model is shown in Table 4.

To test our model with a sufficient sample size, we constrained the regression paths in our model to be equal across gender, meaning we examined only actor and partner effects rather than gender specific effect (for example, male anxious attachment -> male positive communication was used to estimate the same effect as female anxious attachment -> female positive communication). Means and variances were allowed to vary freely for each gender. These constraints result in 32 free parameters in our model, which requires a sample of 160 participants (Bentler & Chou, 1987).

Research suggests that underpowered studies can lead to erroneous findings (Francis, 2012); therefore, actor and partner effects were constrained to be equal across gender. Furthermore, previous studies that have examined the association between sexual communication and attachment, and have reported on gender differences, either did not find any differences (Timm & Keiley, 2011), or found only minor sex differences which did not meaningfully improve model fit (Davis et al., 2006).

Model Results

The proposed theoretical model, shown in Figure 1, was tested to examine how well this model fit the data. This initial model was shown to have good model fit based on the X^2 results ($X^2 = 12.55$, $df=12$, $p=0.4$) and excellent fit for other indices (CFI= .997, RMSEA= 0.024, 90% CI [0.00, 0.117]). This result suggests that the gender constraints do not result in a poor fitting

model, which is consistent with previous studies (Davis et al., 2006; Timm & Keiley, 2011). Because this model was shown to have good fit, it was then used to examine the relationship between attachment and sexual communication. The parameter estimates for this model are shown in Figure 2.

Actor Effects for Avoidant Attachment

Higher levels of avoidant attachment significantly predicted greater levels of negative communication ($\beta = 0.30$, $SE = 0.08$, $p < 0.001$) and lower levels of positive communication ($\beta = -0.25$, $SE = 0.09$, $p = 0.005$). Thus, individuals who scored higher on the avoidant attachment dimension were significantly less likely to engage in positive communication behaviours and significantly more likely to use negative communication strategies when discussing sexual problems in their relationship.

Partner Effects for Avoidant Attachment

Our results revealed a significant partner effect for avoidant attachment and negative communication behaviour, with avoidance predicting more negative communication behaviour by the partner when discussing sexual problems ($\beta = 0.27$, $SE = 0.08$, $p < 0.001$). There was no significant association between an individual's level of avoidant attachment and his or her partner's use of positive communication behaviours during discussion of sexual problems ($\beta = -0.13$, $SE = 0.08$, $p = 0.11$).

Actor Effect for Anxious Attachment

In contrast to the findings seen with the avoidant dimension, the anxious attachment dimension was not a significant predictor of an individual's own positive ($\beta = 0.12$, $SE = 0.08$, $p = 0.14$) or negative ($\beta = -0.04$, $SE = 0.08$, $p = 0.62$) communication behaviours. That is, there

was no association between anxious attachment and the use of positive or negative communication behaviours during sexual problem discussions.

Partner Effects for Anxious Attachment

There were no significant partner effects for anxious attachment and positive communication ($\beta = -0.11$, $SE = 0.08$, $p = 0.19$) or negative communication ($\beta = 0.13$, $SE = 0.08$, $p = 0.11$). Thus, on average, partners of individuals with higher levels of anxious attachment are no more likely to use negative and positive communication when discussing sexual problems in their relationships.

Discussion

This study builds on previous work linking the attachment and sexual systems (Mikulincer & Shaver 2007; Shaver, Hazan, & Bradshaw, 1988). In adult relationships, partners generally act as both the primary attachment figure and as a sexual partner (Hazan & Zeifman, 1994). As such, there is large empirical support showing a reciprocal relationship between both the sexual domain and the attachment domain. These domains are linked since sexual quality promotes relationship satisfaction and stability, while attachment has been shown to influence sexual satisfaction (See Cassidy & Shaver, 2016 for a review). The current study expands on the existing literature by linking attachment with the ability to communicate about sexual problems. Sexual communication is an intimate form of communication and navigating sexual problems can be a high anxiety experience for individuals (Rehman, Lizdek, Fallis, Sutherland, & Goodnight, 2017). The two dimensions of insecure attachment inherently involve discomfort with intimacy (avoidant attachment) and anxiety about threats to a relationship (anxious attachment). Therefore these dimensions of attachment have the potential to be particularly impactful on sexual communication.

Previous research has supported this link showing that, compared to secure attachment, insecure attachment styles are related to less effective self-reported sexual communication (Davis et al., 2006; Khoury & Findlay, 2014; Timm & Keiley, 2011;). Self-reports provide insight into how an individual conceptualizes his/her communication, but with self-report methodology it is not possible to determine whether the report reflects a perceptual bias or whether there are actual communication difficulties, such as increased negativity in the tone of the discussion. This issue becomes particularly problematic when examining the association between attachment style and communication of sexual needs and desires because attachment

style could likely influence how an individual perceives the legitimacy of his/her sexual needs, how easy it is for him/her to express those needs, and how he/she reacts to perceived responsiveness or dismissal of those needs by his/her sexual partner. Thus, even though the actual process of communication may not look different for individuals with different attachment styles, certain attachment styles, such as anxious attachment, may make it more likely for an individual to perceive the communication more negatively.

In this study, we addressed this concern by utilizing an observational method to assess sexual communication. Couples were video-recorded having conversations about sexual difficulties in their relationships. These videos were then used to examine how levels of anxious and avoidant attachment related to observable communication. Our analyses revealed several important findings about attachment styles and sexual communication behaviour.

First, our study showed that anxious attachment was not significantly related to sexual communication, either positively or negatively. These results are inconsistent with some previous work showing that anxious attachment is related to self-reported sexual communication problems (Davis et al., 2006; Khoury & Findlay, 2014). This inconsistency may be the result of individuals high in anxious attachment being more hypervigilant. Hypervigilance may lead these individuals to be sensitive to noticing normal communication difficulties, which results in them reporting more problems when communication is evaluated using self-report measures. Alternatively, the communication codes used in this study may not capture other negative behaviors that could be associated with anxious attachment, such as excessive reassurance seeking (Shaver, Schachner, & Mikulincer, 2005). It is also possible there is a small effect of anxious attachment on communication behaviour that our study does not have the power to detect.

In addition to examining the effect of anxious attachment on one's own communication, our study examined how one's anxious attachment relates to a partner's communication behaviours. We found no significant association between anxious attachment in one partner and the other partner's communication behaviour. Our results complement previous research on attachment and sexual satisfaction which suggested that anxious attachment is unrelated to partner sexual satisfaction (Butzer & Campbell, 2008).

Similar to findings from self-report studies that show that avoidant attachment is associated with worse sexual communication (Davis et al., 2006; Khoury & Findlay, 2014), the observational data we gathered suggest that individuals high on avoidant attachment express themselves more negatively and less positively when discussing sexual problems with their partner. Furthermore, our study showed that avoidant attachment is associated with more negative communication from relationship partners. We did not find any association between attachment avoidance and positive communication behaviours by the partner. It is possible that there is a small partner effect for positivity but the effect required more power to detect.

Overall, our results suggest that only the avoidance dimension of attachment insecurity is related to less effective sexual communication. One reason avoidant attachment may be more relevant in these conversations might be that the discussions are centered on difficulties in the sexual domain. Sex is one of the most intimate acts in relationships, and avoidant attachment involves discomfort with closeness and intimacy (Bartholomew & Horowitz, 1991); therefore, these conversations may be especially stressful for individuals high in avoidance. As a result of this increased stress, avoidant individuals may respond more negatively when discussing sexual issues. Avoidant attachment may also affect communication in ways that were not examined in our study. For example avoidance could lead to more withdrawal, which could lead to increased

negativity in their partner, which would then be reciprocated by the individual himself or herself. Another potential reason for the observed effects may be that individuals higher in avoidant attachment may predict benefit from engaging in conversations about sexual difficulties (Gere, MacDonald, Joel, Spielmann, & Impett, 2013).

Our results also suggest that anxious attachment might be less impactful on sexual disagreements. One potential explanation for why we are not finding significant effects could be that sexual disagreements are inherently threatening and anxiety provoking for most people. If most people are feeling highly anxious and threatened during a sexual disagreement, people high on anxious attachment may be responding in a more typical way.

Limitations and Future Directions

This study provides novel insights into how attachment styles relate to discussions about sexual difficulties. The observational nature of this study offered many benefits for examining our key questions. For example, it provides a view of what a typical conversation would look like in the home for both partners (Gottman, & Krokoff, 1989; Foster, Caplan, & Howe, 1997), and allows for an independent rater to judge the effectiveness of the communication. There are a number of ways in which the current research could be replicated and extended in the future. As we noted, past studies of sexual communication have measured sexual communication using self-report methods, whereas we used observational techniques. In future work, it would be worthwhile to assess sexual communication using both methods together. This would allow us to answer questions that neither methodology can answer on their own.

In addition, our results for anxious attachment did not replicate findings from past work. Specifically, whereas some past studies have found that anxious attachment is related to worse sexual communication, our data did not find such an association. We reasoned that this

discrepancy may be due to methodological or measurement differences between past studies and our study. However, this claim would be strengthened by demonstrating that the discrepancy between perceived sexual communication (as measured by self-report) and observed sexual communication is greater for individuals high on anxious attachment, as compared to individuals high on avoidant or secure attachment.

It is also important to highlight that we investigated a specific type of sexual communication: sexual partners discussing aspects of their sexual relationship with which they were dissatisfied. This is an important domain of communication in intimate relationships as it is inevitable that sexual partners will face challenges to their sexual relationship that need to be negotiated (e.g., discrepancies in desire or different preferences; Day, Muise, Joel, & Impett, 2015). However, it is unclear if our findings would also generalize to other types of sexual communication (e.g., a pure disclosure task in which partners share their sexual likes and dislikes), and to other types of nonsexual communication between romantic partners. This question also relates to the underlying mechanism that explains the association between attachment avoidance and sexual communication. We have argued that individuals high on avoidant attachment may demonstrate less skill during sexual communication because they fear intimacy and sexual communication tends to be a more intimate type of communication. To test this mechanism, we would need to design observational tasks that vary in the degree of intimacy. This could be accomplished by using a similar methodology we have used in this study. For example couples could engage in three different conversations about sexual issues and use both dimensions of attachment to predict performance. The path coefficients could then be compared to see if there were significant differences based on the level of intimacy in the conversation.

Finally, in the current study, we characterized the interaction by the mean level of negativity and positivity expressed by each interactional partner. While this allows us to view the conversation as a whole, it is important to note that this leaves out a rich source of information related to how partners' communication behaviour changes over the course of a conversation. By examining how each partner's behaviour changes over time and examining how partners influence each other over the course of an interaction, we would be able to capture the dynamic aspects of the conversation. For example, are individuals high in avoidance more likely to express negative behaviour or to suppress positive behaviour in response to a partner's bid for closeness and intimacy? By examining moment-to-moment fluctuations in positive and negative affect, we would be able to investigate this question at the macro and micro levels.

When interpreting the results of the current study, some limitations need to be kept in mind. In our analyses, we were able to capitalize on the dyadic nature of the study to increase statistical power, but our overall sample size limited some of the analyses we were able to conduct.

In addition, this study focused exclusively on couples in long-term relationships and how they navigate sexual difficulties. This focus means that it is still unclear how attachment styles might affect sexual negotiations for newer couples, which are still in the process of establishing sexual relationships. It is possible that anxious attachment may be more important in these early relationships because there is a higher likelihood of rejection when a relationship is still new.

Finally, our sample is fairly homogenous in ethnic background and community samples tend to have high relationship satisfaction, and our sample (as detailed in: Fallis, Rehman, Woody & Purdon, 2016) was similar to other community samples showing high relationship satisfaction. Thus, our findings may not generalize to a more ethnically diverse sample and to

more distressed couples lower in relationship and sexual satisfaction. In future work, it will be important to examine these questions in samples characterized by greater diversity on these dimensions.

Conclusion

In conclusion, this study extends the research linking the attachment and sexual systems in relationships. Furthermore, our results highlight the important role attachment styles play in relationship processes and how they are especially relevant to the sexual domain. Specifically, it expanded on previous literature to show that avoidant attachment is a particular barrier to effective communication, for both people high in avoidant attachment and their partners. Understanding these barriers is an essential part of helping couples improve their sexual communication.

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Table 1. *Sample demographics*

	Men	Women
Age		
M	40.3	38.2
Range	23-67	23-68
SD	11.3	11.3
Relationship length		
M	13	12.5
Range	3.6 - 41.1	2.4 - 41.1
SD	8.9	8.09
Education		
M	16.1	16.2
Range	9-24	9-26
SD	2.8	3.1

Note. All variables in years

Table 2. Zero-order correlations between the six coded communication behaviours and attachment

	1	2	3	4	5	6	7	8
1. Hostility	-							
2. Negative Affect	0.73***	-						
3. Positivity	-0.55***	-0.66***	-					
4. Unskilled communication	0.77***	0.77***	-0.63***	-				
5. Responsiveness	-0.43***	-0.48***	0.63***	-0.56***	-			
6. Solutions	-0.26***	-0.31***	0.46***	-0.31***	0.41***	-		
7. Anxious attachment	0.35***	0.25**	-0.18*	0.20*	0.03 ^{ns}	-0.03 ^{ns}	-	
8 Avoidant attachment	0.41***	0.39***	-0.38***	0.34***	-0.19*	-0.15 ^{ns}	0.41***	-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, ns=not significant; N=162

Table 3. Factor Structure of the communication variables

	Factor 1	Factor 2
	(Negative Communication)	(Positive Communication)
Hostility	0.88	0.03
Negative Affect	0.70	-0.21
Unskilled communication	0.78	-0.17
Positivity	-0.09	0.80
Responsiveness	0	0.74
Solutions	0.17	0.66

Interfactor correlation $r = .7$

Table 4. Zero-order correlations between attachment and communication behaviour

	1	2	3	4	5	6	7	8
1. Female Positive Communication	-							
2. Female Negative Communication	-0.78***	-						
3. Male Positive Communication	0.32**	-0.38***	-					
4. Male Negative Communication	-0.41***	0.59***	-0.68***	-				
5. Female Avoidant Attachment	-0.27**	0.40***	-0.35***	0.48***	-			
6. Female Anxious Attachment	-0.09 ^{ns}	0.28**	-0.32**	0.40***	0.49***	-		
7. Male Avoidant Attachment	-0.21*	0.44***	-0.37***	0.53***	0.51***	0.49***	-	
8. Male Anxious Attachment	-0.22*	0.36***	-0.10 ^{ns}	0.22*	0.44***	0.28**	0.41***	-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, ns=not significant; N=81

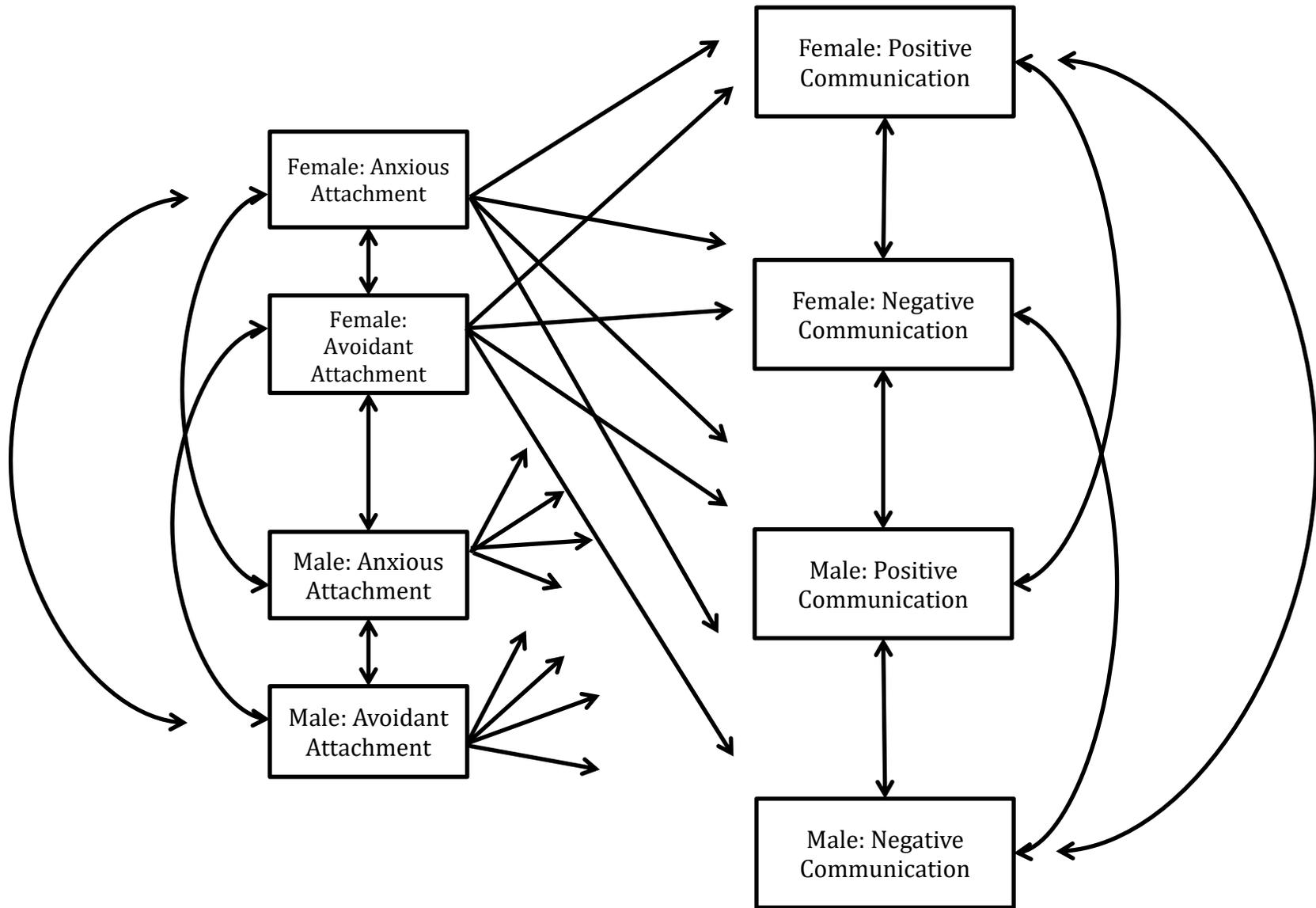


Figure 1. Hypothesized model linking anxious and avoidant attachment to positive and negative communication behaviour. Path coefficients were constrained across gender, with means and variances allowed to vary freely.

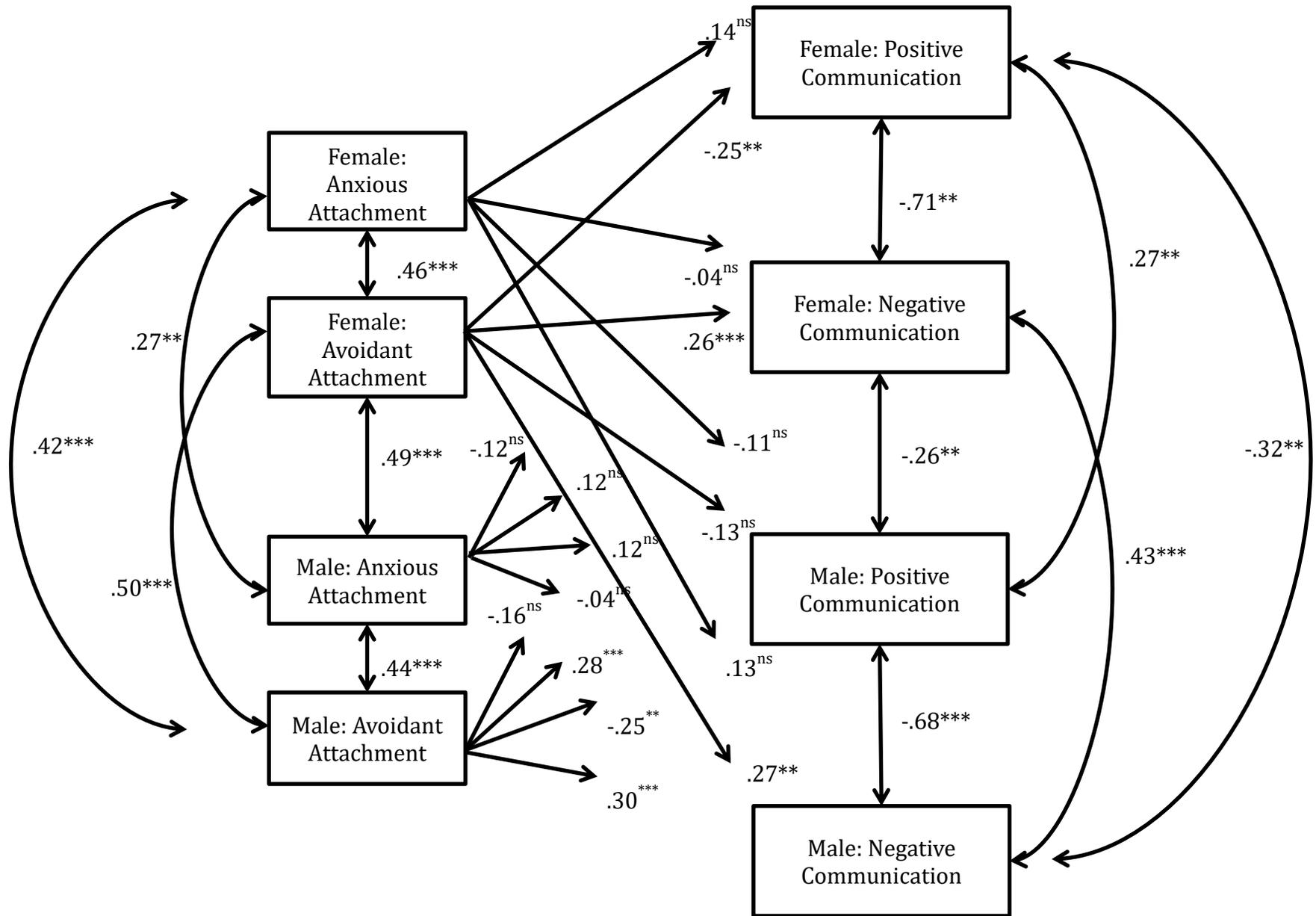


Figure 2. Standardized path coefficients for the model. Path coefficients are constrained across gender, with means and variances allowed to vary freely. * $p < .05$, ** $p < .01$, *** $p < .001$, ns=not significant