MIAMI UNIVERSITY
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We hereby approve the Dissertation

of

Yuliya Kaplinska

Candidate for the Degree

DOCTOR OF PHILOSOPHY

_____
Terri Messman-Moore, PhD, Director

_____
Elizabeth Kiel, PhD, Reader

_____
Vaishali Raval, PhD, Reader

_____
Elise Radina, PhD, Graduate School Representative

ABSTRACT

PREDICTING VERBAL SEXUAL COERCION VICTIMIZATION IN COLLEGE WOMEN:
THE ROLE OF ADULT ROMANTIC ATTACHMENT, SEX MOTIVES, AND EMOTION DYSREGULATION

by

Yuliya Kaplinska, M.A.

Compared to securely-attached individuals, individuals with insecure adult attachment report more sexual concerns and adverse sexual experiences and outcomes, such as negative affect during sexual activity and higher rates of engaging in unwanted, but consensual sex (i.e., compliant sex). Complying with unwanted sex increases women's risk for later experiencing sexual aggression (i.e., forced or substance facilitated sexual assault). The current study used an attachment framework to examine factors associated with verbal sexual coercion victimization in a sample of 650 college women. Higher scores on a self-report measure of adult romantic attachment anxiety and avoidance (ECR-R) predicted higher odds of verbal sexual coercion victimization. In four serial-mediation emotion-motivation models two types of emotions dysregulation (global and cognitive; DERS) and two types of avoidance-based sex motives (other-focused and self-focused; SMS) explained the link between attachment insecurity and victimization. Attachment anxiety predicted total emotion dysregulation, which predicted partner-approval and self-affirmation sex motives, which predicted coercion victimization. Attachment avoidance predicted cognitive emotion dysregulation, which predicted partner-approval and self-affirmation sex motives, which predicted coercion victimization. Unique patterns of simple and indirect effects emerged in the models. Findings support the proposal that sex motives represent hyperactivating and deactivating (i.e., anxious and avoidant) attachment strategies in romantic relationships, and that emotion dysregulation and avoidance-based motivation increases the risk for sexual victimization. Results are explained in context of attachment theory and recommendations are made for future research and clinical implications.

PREDICTING VERBAL SEXUAL COERCION VICTIMIZATION IN COLLEGE WOMEN: THE ROLE OF ADULT ROMANTIC ATTACHMENT, SEX MOTIVES, AND EMOTION DYSREGULATION

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Yuliya Kaplinska, M.A.

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INTRODUCTION

Individual differences in adult attachment orientation are linked to differences in sexual experience (for a review, see Mikulincer & Shaver, 2010). This relationship is based on the assumption that the attachment system, as the earliest developing social-behavioral system, influences the later developing sexual system. Through repeated experiences with attachment figures and intimate partners, people develop relational expectations and goals that subsequently shape their construal and experience of sexual interactions (Dewitte, 2012). Sexual encounters become contexts in which to express and satisfy attachment needs (Dewitte, 2012). Attachment dynamics affect the way people generate and express sexual emotions (Mikulincer, 2006), and sexual behavior can sometimes serve the needs of the attachment system (Davis, Shaver & Vernon, 2004). Differences in the sexual experiences of securely-attached and insecurely-attached individuals have been consistently noted in the literature (e.g., Birnbaum, Reis, Mikulincer, Gillath & Orpaz, 2006; Bogaert & Sadava, 2002; Brassard, Shaver & Lucier, 2007; Brennan & Shaver, 1995; Davis et al., 2006; Feeny, Noller, & Patty, 1993; Feeney, Kelly, Gallious, Peterson, & Terry 1999; Gentzler & Kerns, 2004; Hazan, Zeifman, & Middleton, 1994; Tracy, Shaver, Albino, & Cooper, 2003). Compared to individuals characterized by secure attachment, insecurely-attached individuals are more likely to report greater sexual concerns and adverse sexual experience and outcomes, such as presence of worries or negative affect during sexual activity (Birnbaum, 2007; Birnbaum & Reis, 2006; Bogaert & Sadava, 2002; Tracey et al., 2003), and higher rates of engaging in unwanted, but consensual sex (i.e., compliant sex; Impett & Peplau, 2003; Impett & Peplau 2002; Gentzler & Kerns, 2004). The latter finding is particularly concerning considering that some studies have linked sexual compliance (i.e., engaging in unwanted, but non-forced, sex) to increased vulnerability for experiencing later sexual victimization (i.e., being a victim of coerced or forced sex; Krahe et al., 2000; Shotland & Hunter, 1995).

Even though *perpetration* of sexual coercion has been conceptualized within an attachment framework (e.g., Davis, 2006; Smallbone & Dadds, 2000), little attention has been devoted to conceptualizing the *experience* of sexual coercion victimization in this framework. There are no available studies that investigate whether individuals characterized by insecure romantic attachment are more vulnerable than securely-attached individuals to experience

coerced sexual experiences. Despite links between attachment insecurity and compliant sex (Impett & Peplau, 2003; Impett & Peplau 2002; Gentzler & Kerns, 2004), and between compliant sex and later experience of sexual aggression (Krahe et al., 2000; Shotland & Hunter, 1995), no study to date has examined the association between attachment insecurity and verbal coercion sexual victimization. Thus, one of the primary aims of the present study is examine the relation between attachment insecurity and experiences of coerced sex.

Securely-attached individuals and those characterized by anxious and avoidant attachment (i.e., insecurely-attached individuals) not only report differences in sexual experience, but also appear to be motivated by different reasons for sex (Birnbaum, Mikulincer & Austrelitz, 2013; Birnbaum, Mikulincer, & Gillath, 2011; Birnbaum, Weisberg, & Simpson, 2010; Cooper et al., 2006; Davis, Shaver, & Vernon, 2004; Impett & Peplau, 2002; Impett et al., 2008; Schachner & Shaver, 2004). Moreover, there is emerging evidence that sex motives are not static characteristics associated with attachment styles; rather, sex motives may play a role in the process that links attachment dynamics and sexual outcomes (Cooper et al., 2006), including sexual victimization.

Another factor that may impact the role of attachment style in sexual experience and outcomes is emotion regulation. Similar to attachment in parent-child relationships, adult attachment relationships are characterized by diverse ways of regulating emotions, and seeking physical and psychological proximity in response to distress (for a review, see Shaver & Mikulincer, 2007). Affect regulation plays an important role in shaping responses in sexual situations (Dewitte, 2012; Janssen, Eveaerd, Spiering, & Janssen, 2000; Toates, 2009). Moreover, a number of attachment-sex studies have found that the habitual ways that insecurely-attached individuals manage emotions, regulate distress, and meet their attachment-related needs were reflected in the in sex motives reported by anxiously and avoidantly-attached individuals, especially when sex motives were accessed following distress or threat that activated the attachment system (Birnbaum et al., 2012; Birnbaum et al., 2010; Birnbaum et al., 2008; Davis, Shaver, & Vernon, 2004). Emotion regulation and sex motives may mediate the link between attachment dynamics and sexual outcomes, including sexual victimization. However this has not been investigated empirically. Thus the purpose of the present study is to test an emotion-motivation pathway linking attachment insecurity and verbal sexual coercion victimization.

It is noted that the present research centers on sexual victimization experiences of college women. The author acknowledges that sexual assault affects all genders and studies are needed to address various combinations of victim-perpetrator gender and age. The author is also compelled by the 2014 report from the White House Council on Women and Girls which points out that 1 in 5 women (versus 1 in 71 men) have been raped in their lifetime and 1 in 5 college women report an experience of sexual assault. The author hopes that other researchers are similarly called to action and apply their resources and expertise to investigating different aspects of this complex problem.

Background and rationale

Attachment theory provides a broad theoretical framework for understanding how individuals learn to 1) relate to others, especially in romantic and/or sexual relationships, and 2) regulate emotional states. Formulated by Bowlby (1969, 1982), the theory of attachment proposes that relationships with caregivers influence a child's social and emotional development, and contribute to the formation of lifelong patterns of relating to others (Mikulincer & Florian, 1998). The theory includes two key concepts: the formation of *internal working models,* and the conceptualization of the attachment system as a *control system.* The theory proposes that through early interaction with caregivers, individuals form internal working models (i.e., attachment beliefs), which are generalized as representations of self (e.g., "Am I worthy of love and capable of getting my emotional needs met?"; anxiety dimension), and representations of others, (e.g., "Are others trustworthy and can I count on them, especially in times of need?"; avoidance dimension; Bowlby, 1969, 1982; Main, Kaplan, & Cassidy, 1985). As the individual matures, internal working models consolidate into relational beliefs, become incorporated into core aspects of personality, and guide the individual's emotional and cognitive construal of relational experiences and behavior (Cooper, Pioli, Levitt, Talley, Micheas & Collins, 2006). Early formed attachment orientations continue to shape adult relationships in part because the mental representations people hold of past relationships are highly accessible and are called upon to guide interpersonal behavior when novel relational circumstances are encountered (Brumbaugh & Fraley, 2006). Despite the capacity for self-reliance and self-protection, adults nevertheless benefit from seeking contact with partners who are invested in their wellbeing and can provide needed help and assistance in times of distress (Collins & Feeney, 2004). Thus, in

adulthood, romantic relationships fulfill the role of attachment relationships because they have the *potential* to provide partners with emotional and physical security.

Attachment and emotion regulation strategies

According to attachment theory, individual differences in relating to others and strategies for regulating distress arise from early, recurrent experiences with attachment figures. If attachment figures are consistently available, sensitive, and responsive to a child's bids for proximity, optimal functioning of this primary *affect regulatory strategy* is facilitated. Simultaneously felt security is promoted, positive expectations about reliability of others and positive view of self are formed, and the major affect-regulatory strategies are organized around these positive beliefs (Mikulincer, Shaver & Pereg, 2003; Shaver & Mikulincer, 2002). This results in development of a constructive way of coping in which the secure individual learns that distress can be expressed openly and dealt with successfully, and emotional avoidance, suppression, or denial is not necessary (Mikulincer et al., 2003; Shaver & Mikulincer, 2002).

On the other hand, if the caregiver is unavailable, insensitive, or unresponsive, proximity seeking fails to alleviate distress, a sense of security is not attained, negative representations of self and other arise, and alternative affect-regulatory strategies (i.e., *secondary attachment strategies)* are formed (Mikulincer et al., 2003; Shaver & Mikulincer, 2002). One of two secondary mechanisms may develop. If proximity seeking as a means of regulation is seen as a *viable* option, *hyperactivating strategies* may develop. If appraisal of proximity seeking is seen as a nonviable option, *deactivating strategies* may develop.

Hyperactivating strategies are characteristic of anxiously-attached individuals, who through a history of inconsistent and intrusive care giving (Shaver & Hazan, 1993), are thought to have developed profound doubts about their worthiness (i.e., negative view of self), and a deep need for attention and approval of others (i.e., ambivalent view of others) to assure their worth and wellbeing (Collins & Read, 1990; Feeney & Noller, 1990; Mikulincer, 1995). Hyperactivating strategies elicit cognitive appraisals that exacerbate negative affect, increase attention to real or imagined threats, and preclude use of effective emotion regulating strategies, as the individual desperately seeks the attention of the attachment figure (for reviews, see Mikulincer, et al., 2003; Shaver & Mikulincer, 2002). In adult romantic relationships, these strategies are expressed as ambivalent approach- avoidance conflicts that stem from an intense wish for proximity and security coupled with a fear of rejection, doubts about one's lovability,

and availability of support (for reviews, see Feeney, 1999; Mikulincer & Shaver, 2003; and Shaver & Clark, 1994). Generally, hyperactivating strategies are focused on amplification of affect.

Deactivating strategies are characteristic of avoidantly-attached individuals, who through a history of unresponsive or emotionally distant caregiving (Shaver & Hazan, 1993), have come to believe that attachment figures are unreliable and should not be sought for support (i.e., hold a negative view of others; Brennan & Shaver, 1995; Feeney & Noller, 1990). Deactivating strategies work by averting attention from emotional threats, suppressing negative thoughts and affect, and distancing people from their internal emotional experience and from attachment figures (for reviews, see Mikulincer, et al., 2003; Shaver & Mikulincer, 2002). In adult romantic relationships these strategies are expressed as denial of attachment needs, avoidance of intimacy and interdependence with partners, and compulsive self-reliance (for reviews, see Feeney, 1999; Mikulincer & Shaver, 2003; and Shaver & Clark, 1994). Generally, deactivating strategies are aimed at deflecting attention away from affect.

Adult attachment and sexual experience

Adult attachment is linked to sexual experience. For example, securely-attached individuals appear to be comfortable with their sexuality, enjoy a variety of sexual activities, and hold a generally positive (erotophillic) views of sex (Hazan, Zeifman, & Middleton, 1994), as well as more positive sexual self-schemas (Tracy et al., 2003). According to self-reports, they are more likely than insecurely-attached individuals to have sex in committed relationships, to have mutually initiated sex, and to use sex to express love and foster intimacy (Brennan & Shaver, 1995; Feeny, Noller, & Patty, 1993; Hazan et al., 1994). Securely-attached individuals tend to experience more positive and less negative feelings during sexual activity (Tracy et al., 2003), are less likely to have extra-pair partners (i.e., to cheat), casual or promiscuous sex, and one-night stands (Cooper, et al., 1998; Hazan et al., 1994).

Attachment anxiety. In contrast to those with a secure attachment style, sexual experiences of anxiously-attached individuals tend to reflect a lack of positive self-schemas, need for approval from others, and preoccupation with abandonment and rejection (Cooper et al, 2006). They appear to consider sex as a route for proximity, and tend to engage in sex as means to achieve unmet attachment needs, such as to attain reassurance and avoid being rejected (Cooper et al., 2006; Schachner & Shaver, 2004; Tracy et al., 2003). Additionally, attachment

anxiety is associated with less positive and more negative feelings during sex, lower levels of sexual satisfaction, and more concerns about sexual performance (Birnbaum, 2007). Worries about attractiveness (Bogaert & Sadava, 2002), and about one's ability to please their partner (Tracey et al., 2003) are commonly cited by anxiously-attached individuals. Anxiously-attached individuals appear to conflate sex and love (Davis et al., 2004), and because sex is used as a "barometer" of love, they tend to be hypervigilant to sexual rejection and sensitive to sexual disappointment (Cooper et al, 2006). Due to low self-worth, need for approval, and fear of rejection, anxiously-attached individuals may sacrifice their own sexual preferences and defer to the needs of their partners, as well as engage in risky sexual practices. These individuals are more likely to have sexual intercourse at a younger age (Bogaert & Sadava, 2002), are more reluctant to speak about safer sex (Feeney et al., 1999), more frequently use alcohol and drugs before intercourse (Feeney et al., 2000), and are likely to experience higher rates of sexually transmitted diseases and unwanted pregnancy (Cooper et al., 2006). Moreover, anxiously-attached individuals report feeling that their sexuality is controlled by others, and consequently have more difficulty communicating their sexual needs and preferences (Davis et al., 2006) and resisting pressures to have sex (Feeney, Peterson, Gallois, & Terry, 2000). Concerns about attention, approval, and response from attachment figures influence the sexual experiences of individuals with high attachment anxiety.

Attachment avoidance. Avoidantly-attached individuals prefer to remain personally distant and emotionally detached from the attachment figure and tend to experience sex and love as independent and distinct (Dewitte, 2012). This attitude is maintained in two possible ways: 1) by distancing themselves from sexual activities, and 2) by limiting intimacy via engaging in either solitary sex (masturbation), or by having sex in the context of non-committed or short-term relationships. Avoidantly-attached adolescents have sex at an older age, tend to dismiss the importance of sex, and tend to have a more negative view of sex (i.e., are erotophobic; Bogaert & Sadava, 2002; Cooper et al., 1998; Tracey et al., 2003). Avoidantly-attached adults also tend to have sex less often and some report not enjoying sex (Brassard et al., 2007). Further, attachment avoidance is associated with more positive attitudes toward casual sex (Brennan & Shaver, 1995; Cooper et al., 1998), lower likelihood of having sex with a committed partner (Gentzler & Kerns, 2004), higher likelihood of having sex with strangers and one-night stands (Feeney et al., 2000), and with solitary sexual activities (Bogaert & Sadava, 2002). Like

anxiously-attached individuals, avoidantly-attached individuals report feeling that their sexuality is controlled by others (Feeney et al., 2000). However, unlike anxiously-attached individuals, avoidantly-attached individuals report more comfort with communication about STD risk, positive attitudes about condom use, and a tendency to use condoms more frequently and consistently (Feeney et al., 2000). Attachment avoidance is also associated with less positive and more negative feelings during sex, lower subjective sexual arousal, less open sexual communication and exploration, lower sexual satisfaction, and doubts about sexual performance (Bogaert & Sadava, 2002; Davis et al., 2006).

Attachment and unwanted sexual experiences

Both anxiously-attached and avoidantly-attached individuals report engaging in unwanted, but consensual, sex at higher rates than their securely-attached counterparts, albeit for different reasons (Impett & Peplau, 2003; Impett & Peplau 2002; Gentzler & Kerns, 2004). For example, Impett and Peplau (2000, as cited in Impett & Peplau, 2003) found that more than twice as many anxiously-attached women as securely-attached women consented to unwanted sex because of fears that their partner would lose interest in them (42% vs. 18%), and about twice as many anxiously-attached women as securely- attached women consented because they feared their partner would threaten to end the relationship (21% vs. 10%). Similarly, Impett and Peplau (2002) found that compared to women low in attachment anxiety, women high in attachment anxiety were more likely to report consenting to unwanted sex in a hypothetical scenario. Moreover, they reported doing so in order to avoid relationship conflict or prevent their partner from losing interest in the relationship. On the other hand, while attachment avoidance did not predict unwanted, consensual sex, women high in attachment avoidance were more likely to report "relationship obligation" as the reason for compliance. Another reason for compliance commonly cited by avoidantly-attached women in the sample was "because it was easier than saying no," possibly suggesting that these women saw the consequences of resisting sex as potentially more troubling than giving in (Impett & Peplau, 2002).

Gentzler and Kern (2004) also found that avoidantly-attached men and women, and anxiously-attached women reported engaging in more unwanted, but consensual, sexual experiences than secure individuals. The researchers proposed that avoidant individuals may prefer to have unwanted sex rather than deal with an alternative scenario that may follow a refusal—i.e., a discussion of intimate thoughts and feeling about sexual activity. Given that

avoidantly-attached individuals tend to experience discomfort with emotional intimacy, they may prefer to avoid a discussion that invokes a sense of vulnerability and instead go along with the sexual act.

Sexual compliance and sexual coercion

Although some studies find that individuals who have complied with unwanted sex report positive feelings regarding their decision (e.g., report an altruistic attitude that unwanted sex was an expression of love and commitment to their partner, or enhanced feelings of intimacy), other studies find more negative consequences of sexual compliance, such as feeling disappointment, anger, or shame (for a review, see Impett & Peplau, 2003). Even more concerning, some studies link sexual compliance to increased vulnerability for experiencing later sexual aggression. Among college women, those who had consented to unwanted sex at least once in the past were roughly three times as likely as women who have never complied to report that they were sexually victimized with force or while in an incapacitated state (Krahe et al., 2000). Similarly, another study found that women who had previously consented to unwanted sex were more likely to have been raped under the influence or alcohol or drugs than women who had never engaged in compliant sex (Shotland and Hunter, 1995).

Given that insecurely-attached individuals are more prone to consenting to unwanted sex (Gentzler and Kerns, 2004; Impett & Peplau, 2002; Impett & Peplau, 2003), they may also be more vulnerable to experiencing verbal coercion victimization. In fact, one study on adolescent relationship violence found that self-rated adolescent attachment scores moderated the relation between child maltreatment and male adolescents' perpetration and experience of coercion from a partner (Wekerle & Wolfe, 1999). However, no study to date has investigated the relation between adult romantic attachment and experiences of verbal coercion sexual victimization. Additionally, no study has examined these variables in a sample of college-aged women, even though previous research shows that this demographic is at high risk for sexual victimization (Koss, 1990). Thus, one aim of the current study is to apply an attachment theory perspective to examine attachment insecurity as a risk factor for verbal sexual coercion victimization in a college-aged sample of women. Specifically, the proposed study will examine whether high levels of attachment anxiety and attachment avoidance are associated with verbal sexual coercion victimization.

Mechanisms linking attachment and sexual experience

Recent theories of sexual experience conceptualize sexual responses as a dynamic interplay between cognitive, affective, and motivational factors (for a review, see Dewitte, 2012). According to this view, attachment dynamics shape individual sexual experiences in part because attachment schemas and habitual ways of regulating distress (i.e., secondary attachment strategies of hyperactivation and deactivation) impact processing of and responding to sexual stimuli (Dewitte, 2012). Moreover, sex may be one way in which secondary attachment strategies are enacted in the context of romantic relationships (Impett et al., 2008), and individual differences in *motivation* for sex reflect attachment-related differences in interpersonal expectations, relational goals, and ways of managing distress (Birnbaum et al., 2013, Birnbaum et al., 2011, Davis et al., 2004; Impett & Peplau, 2002; Schachner & Shaver, 2004).

Emotion Regulation. Emotion regulation plays an important role in generating responses to sexual stimuli (for a review, see Dewitte, 2012). Presence of a sexual stimulus automatically generates affective responses, and emotion regulation processes— such as attention, appraisal, and response generation—are involved in the regulation of and response to this affect (Toates, 2009; Janssen et al., 2000). Relational schemas and motives bias attentional processing and appraisal of sexual stimuli, because the beliefs people hold about others and themselves as well as their interpersonal goals affect the meaning they ascribe to sexual information (Dewitte, 2012).

Differences in adult attachment are linked to individual differences in emotion regulation strategies, and adults with high levels of attachment anxiety and avoidance evidence deficits in effective emotion regulation (see Mikulincer et al., 2003 and Shaver & Mikulincer, 2002 for theoretical reviews; see Shaver & Mikulincer, 2007 for an empirical review). Affect-regulation of anxiously-attached individuals is aimed at intensification of emotions that activate the attachment system (e.g., fear, anger, jealousy, sadness, shame, guilt), rather than down-regulating these emotions. For example, attachment anxiety is associated with distress-increasing appraisals of stressful events, such as marriage break-up (Birnbaum, Orr, Mikulincer & Florian, 1997) and transitioning to parenthood (Alexander, Feeney, Hohaus & Noller, 2001). Individuals high in attachment anxiety are more impaired in their ability to suppress separation-related thoughts (e.g., Fraley & Shaver, 1997). When coping with distress, anxiously-attached

individuals tend to direct attention toward distress rather than focusing on possible solutions (e.g., Mikulincer & Florian, 1998), and tend to respond by amplifying their emotions following events such as romantic relationship breakup, divorce, and wartime separation from partner (Birnbaum et. al., 1997; Medway, Davis, Cafferty, Chappell & O'Hearn, 1995). Lastly, anxiously-attached individuals appear to have difficulties with multiple aspects of emotion regulation, including a lack of emotional awareness, lack of emotional clarity, difficulties refraining from impulsive behavior when distressed, difficulties engaging in goal-directed behavior when distressed, holding beliefs that one has limited access to effective emotion regulation strategies, and non-acceptance of negative emotions *(*Marganska, Gallagher & Miranda, 2013). In summary, hyperactivating strategies associated with attachment anxiety elicit cognitive appraisals that exacerbate negative affect, increase attention to real or imagined threats, and preclude use of effective emotion regulating strategies.

In contrast, individuals high in attachment avoidance tend to rely on emotion regulation strategies that keep the attachment system deactivated, in order to avoid additional distress caused by an unavailable attachment figure (Mikulincer et al., 2003; Shaver & Mikulincer, 2002). This is achieved through attempts to down-regulate threat-related emotions (e.g., anger, fear, jealousy, sadness, shame, and guilt) by deflecting attention from threat related stimuli, excluding emotion-information from processing and decision-making (i.e., keeping emotional information out of awareness and reducing emotional clarity), denying emotion-related thoughts and memories (i.e., emotional non-acceptance), and inhibiting emotional expression. Deactivating strategies also include denial of attachment needs, inhibition of support seeking, and attempts to manage distress alone (Mikulincer et al., 2003; Shaver & Mikulincer, 2002). For example, distancing coping, such as use of repression (Mikulincer & Orbach, 1995), behavioral blunting (Feeney, 1995), cognitive distancing, and passive resignation (Turan, Osar, Turan, Ilkova, & Damaci, 2003) have been found among avoidantly-attached individuals. In studies examining management of attachment-related threat, attachment avoidance was related to greater ability to suppress separation-related thoughts (Fraley & Shaver, 1997), and an ability to keep these thoughts inaccessible during a Stroop-task (Mikulincer, Dolev & Shaver, 2004). Compared to other individuals, highly avoidant individuals had the poorest access to sad and anxious memories (Mikulincer & Orbach, 1995). At least sometimes, deactivation strategies employed by avoidantly- attached individuals are *preemptive* in nature—that is, rather than simply repressing

the material that has been encoded, these individuals block threatening information from entering their awareness and memory, and prevent encoding (Fraley, Garner & Shaver, 2000). Additionally, avoidantly-attached individuals score highly on a measure of emotional non-acceptance (Marganska et al., 2013). In summary, deactivating strategies associated with attachment avoidance work by averting attention from emotional threats, suppressing negative thoughts and affect, and distancing people from their internal emotional experience and from attachment figures.

Emotion regulation and sexual experience. Difficulties with emotion regulation have been consistently linked to sexual outcomes, particularly risky behavior and negative outcomes. For example emotion dysregulation predicts lifetime number of partners and frequency of sex with a stranger (Messman-Moore, Walsh & DiLillo, 2010), having sex while using drugs or with a partner using drugs (Charnigo et al, 2013), and lifetime risky sexual behavior (Deckman & DeWall, 2011). In a sample of treatment seeking substance users, emotion dysregulation predicted risky sexual behavior, such as sex in exchange for money (i.e., sex with a commercial partner) and sex without a condom with a commercial partner, over and above other risk factors such as substance use severity, depression, trauma exposure and demographic variables (Tull, Weiss, Adams & Gratz, 2012). Moreover, emotion dysregulation is linked to increased risk for sexual victimization. In a prospective study of alcohol-involved sexual assault (AISA), emotion dysregulation predicted AISA at a 10-week follow-up (Messman-Moore, Ward, Zerubavel, Chandley & Barton, 2015). Additionally, emotion dysregulation appears to be one of the mechanisms that links early trauma, such as childhood sexual abuse, and subsequent sexual victimization in adulthood (Messman-Moore, et al., 2010). It is also possible that emotion dysregulation plays a role in the mechanism that links attachment insecurity and verbal coercion sexual victimization. However, this has not yet been investigated empirically.

Sexual Motivation. Another mechanism that links attachment dynamics and sexual experience is sexual motivation (Cooper et al., 2006). Sexual motivation can be conceptualized along two dimensions (Cooper et al., 1998). The first dimension captures sexual behavior that is motivated by approaching a positive or pleasurable experience (i.e., approach orientation), or avoiding a negative or painful experience (i.e., avoidant orientation). The second dimension distinguishes sexual behavior that is motivated by agency, identity, or autonomy-competence

needs (self-focused orientation) from sexual behavior motivated by needs rooted in the goal of communion or belongingness (other-focused orientation; Cooper et al., 1998).

Attachment schemas influence the goals with which individuals pursue sexual encounters, and a number of studies have confirmed differences in sex motives of participants with different attachment orientations (Impett et al., 2008; Cooper et al., 2006; Schachner & Shaver, 2004; Impett & Peplau, 2002). For instance, generally sexual motivation of securely-attached individuals reflects their positive view of self and others, and thus is *approach-driven, other-focused*, and used for communion with others (e.g., having sex to build intimacy and express love).

Individuals scoring highly on measures on attachment anxiety tend to report *avoidance-based, other-focused* sex motives, such as to please their partner, to prevent partner's anger or rejection, and to gain approval (Impett & Peplau, 2002; Schachner & Shaver, 2004; Cooper, 2006; Impet, Gordon & Starchman, 2008; Davis, Shaver & Vernon, 2004). Anxiously-attached individuals also report intimacy sex motives (Impet, Gordon & Starchman, 2008; Davis, Shaver & Vernon, 2004); however, their motivation for sex generally tends to reflect a negative view of self and positive/ambivalent view of others. Anxiously-attached individuals are also motivated by avoidance-based, *self-focused* sex motives (e.g., to cope with threats to self-esteem), but this finding is less consistent in literature. For example, Schachner and Shaver (2004) found that attachment anxiety was positively correlated with having sex to affirm desirability and to feel valued (i.e., self-focused motives). On the other hand, Cooper et al., (2006) found that attachment anxiety was negatively related to self-affirmation sex motives among the men in the study. Further research is needed to clarify the inconsistencies previously found in literature.

Individuals scoring highly on measures of attachment avoidance tend to report *avoidance-based, self-focused* sex motives, for example to affirm desirability, to cope with stress or threats to self-esteem, and to exert control over a partner (Cooper et al., 2006; Schachner & Shaver, 2004). These motives reflect relational distrust, avoidance of intimacy, and tendency toward compulsive self-reliance. Individuals scoring highly on a measure of attachment avoidance are less likely to report sex motives associated with building intimacy and expressing emotional value for a partner (i.e., "other-focused motives"; Davis et al., 2004; Schachner & Shaver, 2004). However, sexual motivation of avoidantly-attached individuals is not entirely self-centered, and they appear to be at least somewhat concerned about preventing a negative

reaction in their partner during a sexual encounter. For example, Impett et al., (2008) found that among women, attachment avoidance *positively* predicted having sex "to prevent partner from becoming upset," "to prevent partner from losing interest," and "to avoid conflict." Interestingly, this "other-focused' aspect of avoidantly-attached individuals' sexual motivation appears to be complicated and ambivalent. In the same sample, Impet et al., (2008) found that attachment avoidance also *negatively* predicted "sex to please partner." The contradiction between motivation to prevent a partner's negative reaction and lacking motivation to please a partner is curious, and may be related to the emotionally-deactivated characteristics of avoidantly-attached interpersonal style. Additional research using a two-dimensional approach to measure sex motives (i.e., self-other dimension and approach-avoidance dimension) may provide more clarity about the relation between attachment avoidance and sexual motivation.

Sex motives and sexual experience. The reasons why people have sex shape their sexual experiences, although few empirical studies have been conducted. The only study that has focused on attachment, sex motives, and actual sexual behavior found that sex motives mediated the relation between adolescent attachment and sexual outcomes in adulthood (Cooper et al., 2006). However, numerous other sex motives studies have consistently shown that individual differences in sex motives are associated with distinct behavioral correlates (e.g., Browning, Hatfield, Kessler, & Levine, 2000; Cooper et al., 1998; Gebhardt, Kuyper, & Greunsven, 2003; Hill & Preston, 1996;). Importantly, individuals who report avoidance-based sex motives are at higher risk for negative outcomes, such as engaging in promiscuous sex, failure to take safety precautions (i.e., use birth control), and unplanned pregnancy (Browning, et al., 2000; Cooper et al., 1998; Gebhardt et al, 2003; Hill & Preston, 1996; Impett, Gable & Peplau, 2005). Moreover, using sex to cope with negative affect is linked to a higher number of lifetime sexual partners, and also mediates the link between childhood sexual abuse and adult sexual assault (Orcutt, Cooper & Garcia, 2005). Avoidance-based behavior may be dangerous because it only provides individuals with something to move away from, rather than a path toward a particular goal (Carver, Lawrence & Scheier, 1999), and thus may interfere with information processing and with the ability to direct one's behavior (Gebhardt, Kuyper & Dusseldorp, 2006). Furthermore, individuals who are motivated by avoidance-based, other-focused sex motives (i.e., partner or peer approval motives) may be more vulnerable to external pressures for sex because of a lack of strong positive internal incentives for sex (Cooper et al., 2006). Individuals highly motivated to

appease their partner may find it difficult to assert themselves in sexual situations, and may be more prone to adverse sexual outcomes, such as unwanted sexual experiences, as a result (Cooper et al., 1998). Indeed, assertiveness in refusing sexual activity in a relationship is a protective factor against revictimization (Ulman & Vazquez, 2015; Livingston, Testa & VanZile-Tamsen, 2007).

In summary, *why* people have sex matters, at least in terms of sexual outcomes. Among individuals with high attachment avoidance and anxiety, avoidance-based sex-motives may increase vulnerability for adverse and nonagentic (i.e., unwanted, coerced) sexual experiences.

Attachment, emotion regulation, sex motives and sexual victimization

A dominant perspective in attachment-sex research assumes that differences in sexual motivation reflect attachment-related differences in strategic use of sex to meet the needs of the attachment system (see Dewitte, 2012 for a summary). In other words, individual differences in relational beliefs and emotion regulation strategies (i.e., hyperactivating and deactivating strategies) shape the motives individuals have for sex. These motives are especially pronounced under conditions of attachment system activation, such as when individuals are faced with threat or stress that activates the attachment system. Several studies show that following an interpersonal stressor induced in the lab (e.g., relational conflict, relational or emotional threat to the attachment system) anxiously and avoidantly-attached individuals reported sex motives that reflected their habitual way of coping with threats to the attachment system (Birnbaum et al., 2013; Birnbaum, Weisberg & Simpson 2010; Davis et al., 2004). Anxiously-attached individuals tended to report sex motives consistent with a hyperactivating emotion regulation style (i.e., tendency to amplify emotions and seek others for regulation; Birnbaum et al., 2013; Birnbaum, et al., 2010; Davis et al., 2004). They reported motives such as having sex in order to increase intimacy, to reduce insecurity, to please and satisfy one's partner, to prevent partner's anger, to feel valued by partner, and to experience their partner's power. When asked to describe the content of a sexual fantasy post-relational threat, participants high in attachment anxiety reported picturing themselves as helpless or humiliated (Birnbaum, Mikulincer & Gillath, 2011; Birnbaum et al., 2008).

In contrast, avoidantly-attached individuals tended to report sex motives that are consistent with a deactivating approach to emotion regulation (i.e., tendency to keep emotions out of awareness and processing and focus on self-reliance) following threats to the attachment

system (Birnbaum et al., 2013; Birnbaum et al., 2010; Davis et al., 2004). Avoidantly-attached individuals were less likely to report sex motives that are related to increasing intimacy, expressing care-giving, and showing emotional value for partners. They were more likely to report sex motives that are related to gaining personal pleasure, relief from stress, self-affirmation, and enhanced sense of power or control (Birnbaum et al., 2013; Birnbaum et al., 2010; Davis et al., 2004). When asked to describe a sexual fantasy, women scoring highly on a measure of attachment avoidance reported a desire to be desired following a relational threat, and avoidant men and women reported imagining others as alienated and distant following an emotional threat (Birnbaum et al., 2011; Birnbaum et al., 2008). Thus, among insecurely attached individuals, sexual situations trigger both attachment-related and sexual meanings (Dewitte, 2012). Sex motives represent one way of enacting hyperactivating and deactivating self-regulation styles in sexual encounters.

Additionally, studies outside of adult attachment research have also found an association among emotion regulation variables, sex motives, and sexual experience, specifically unwanted sexual experience. One recent study exploring sexual victimization and barriers to sexual assertiveness in a sample of college women found that greater difficulties with cognitive emotion regulation (i.e., lack of emotional awareness and clarity, and nonacceptance of emotional responses) were associated with lower sexual assertiveness, lower sexual agency, and more sexual compliance (i.e., the tendency to have sex for partner approval motives such as to avoid partner abandonment or anger; Zerubavel & Messman-Moore, 2013). Moreover, the researchers found higher levels of emotion dysregulation and sexual compliance among women with a history of sexual victimization, and found that among victims, emotion dysregulation interacted with fear of sexual powerlessness to predict sexual compliance (Zerubavel & Messman-Moore, 2013). Although the study's cross-sectional design precludes inferences about temporal association between variables, the findings highlight the importance of emotion regulation and sexual motivation variables in research on negative sexual experiences.

To review, both emotion and motivation factors are involved in sexual situations. Attachment dynamics shape the goals with which individuals enter sexual encounters (Birnbaum et al., 2013; Birnbaum et al., 2011; Davis et al., 2004; Impett & Peplau, 2002; Cooper et al., 2006; Schachner & Shaver, 2004;), influence how they respond to sexual information (Dewitte, 2012), and affect how they manage sexual emotions (Toates, 2009; Janssen et al., 2000). Among

insecurely attached individuals, hyperactivated and deactivated approaches to emotion regulation may predict sexual outcomes through impact on sexual motivation. This mechanism may also impact nonagentic sexual encounters, such as when an individual is pressured or coerced by a sexual partner. However, this has not yet been investigated through an adult attachment framework. Thus the aim of the present study is to test an emotion-motivation model linking attachment insecurity and verbal sexual coercion victimization. Specifically, it is hypothesized that attachment insecurity will predict emotion dysregulation, which will predict avoidance-based sex motives, which in turn will predict verbal coercion victimization.

Proposed study and hypotheses

Several of the reviewed emotion-motivation attributes of anxious and avoidant adult attachment orientations may increase insecure individuals' vulnerability to be "taken advantage of" (i.e., experience sexual coercion victimization) by a coercive partner. Thus, the present study will apply attachment theory to the study of verbal sexual coercion victimization. Specifically, the proposed study will:

Aim 1) Test whether insecure attachment (i.e., higher scores on measures of attachment anxiety and attachment avoidance) corresponds to increased vulnerability to experience verbal sexual coercion.

Hypothesis 1: Higher scores on measures of adult attachment anxiety are expected to predict verbal coercion victimization.

Hypothesis 2: Higher scores on measures of adult attachment avoidance are expected to predict verbal coercion victimization.

Aim 2) Test four emotion-motivation (serial mediation) models linking insecure attachment and verbal sexual coercion victimization through emotion dysregulation and two types of avoidance-based sex motives—two models examining *other-focused* sex motives; and two models examining *self-focused* sex motives. Specifically, it is hypothesized that:

Model 1: Emotion dysregulation and partner approval sex motives (i.e., avoidance-based, other-focused motives) will serially mediate the relation between attachment *anxiety* and victimization.

Hypothesis 3: Higher scores on a measure of attachment anxiety will predict higher scores on a measure of emotion dysregulation, which will predict higher scores partner-

approval sex motives, which will predict higher odds of experiencing verbal coercion sexual victimization.

Model 2: Cognitive emotion dysregulation and partner-approval sex motives (i.e., avoidance-based, other-focused motives) will serially mediate the relation between attachment *avoidance* and victimization.

Hypothesis 4: Higher scores on a measure of attachment avoidance will predict higher scores on a measure of cognitive emotion dysregulation, which will predict higher scores partner-approval sex motives, which will predict higher odds of experiencing verbal coercion sexual victimization.

Model 3: Emotion dysregulation and self-affirmation sex motives (i.e., avoidance-based, self-focused motives) will serially mediate the relation between attachment *anxiety* and victimization.

Hypothesis 5: Higher scores on a measure of attachment anxiety will predict higher scores on a measure of emotion dysregulation, which will predict higher scores self-affirmation sex motives, which will predict higher odds of experiencing verbal coercion sexual victimization.

Model 4: Cognitive-emotion dysregulation and self-affirmation sex motives (i.e., avoidance-based, self-focused motives) will serially mediate the relation between attachment *avoidance* and victimization.

Hypothesis 6: Higher scores on a measure of attachment avoidance will predict higher scores on cognitive emotion dysregulation, which will higher scores on a measure of self-affirmation sex motives, which will predict higher odds of experiencing verbal coercion sexual victimization.

METHOD

Participants

Analyses were conducted on a pre-existing data set. The sample was drawn from a larger set of approximately 828 undergraduate women recruited from introductory psychology courses at Miami University, who received course credit for their participation. One hundred and seventy eight (21.5%) women reported forcible or substance-facilitated sexual assault, and were excluded from the analyses. The final sample consisted of 650 women. Participant ages ranged from 18-24, with a mean age of 19. The sample is ethnically and socio-economically representative of the

university, with the majority of participants identifying as Caucasian (91%) and reporting mean income of $50,000 to $74,000.

Procedure

The procedures for this study were approved by the University's Committee for Human Subjects in Research (i.e., Internal Review Board). Participation in this research was an option for meeting a requirement in an undergraduate psychology course open to all majors, and all participants were informed verbally and in writing that their participation was voluntary and could be withdrawn at any time without penalty. Data were collected during group sessions of approximately 5 to 30 women. Each participant was handed an envelope labeled with her participant code number which contained counterbalanced questionnaires (the measures were organized in one of ten different permutations). In order to keep the questionnaires anonymous, no record was kept of the student's code numbers.

Measures

Adult Romantic Attachment. Adult romantic attachment, in the form of anxiety- related and avoidance-related attachment, was measured using the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998). The ECR is a 36-item self-report questionnaire that asks participants to respond to questions based on how they generally feel in romantic relationships (Brennan et al., 1998) The anxiety subscale measures participants' fear of rejection and abandonment (i.e., "I worry a lot about my relationships"), whereas the avoidance subscale measures one's level of discomfort depending on others and discomfort with closeness and intimacy (i.e., "I find it difficult to allow myself to depend on romantic partners."). Participants were asked to rate their level of agreement with each of the statements on a 7-point Likert scale, ranging from 1 ("disagree strongly") to 7 ("agree strongly"). A mean score for each subscale, calculated by summing all scores for all the items that pertain to the respective scale and dividing by total number of items, was used for each subscale. The ECR has demonstrated good internal consistency and construct validity (Brennan et al., 1998). The ECR has also demonstrated good external validity, with participants who score highly on the attachment-related anxiety scale also showing a tendency to report a negative model of the self, increased desire for other's acceptance, increased dependency needs, and vulnerability for psychopathology (Conradi, Gerlsma, van Duijn, & de Jong, 2006). On the other hand, participants who score highly on the attachment-related avoidance scale also report a tendency for self-protection, a negative model of

others, maladaptive interactions with relational partners, and low relationship satisfaction (Conradi et al., 2006). Reliability in this study for the total score of items on the Anxiety subscale was supported with Cronbach alpha of .90. Reliability for the total score of items on the Avoidance subscale was supported with Cronbach alpha of .93.

Sexual Motivation. Motives for sexual behavior were assessed using the Sex Motives Scale (SMS; Cooper et al., 1998). The SMS contains 29 questions about different reasons why people have sex and asks participants to indicate on a Likert scale ranging from 1 ("almost never/never") to 5 ("almost always/always") how often they have sex for the presented reasons. The measure was scored by taking an average score for each subscale. Two motive scales were examined: self-affirmation sex-motives, as a self-focused avoidant motives (e.g., "having sex to reassure yourself that you are sexually desirable") and partner approval sex motives as other-focused avoidant motives (e.g., "having sex because you don't want your partner to be angry with you"). The SMS has demonstrated good internal consistency and construct validity (Cooper et al., 1998). In this study, reliability for the average score on the partner-approval subscale was demonstrated with a Cronbach alpha of .90. The reliability for the average score on the self-affirmation subscale was demonstrated with a Cronbach alpha of .83.

Emotion Dysregulation. Emotion dysregulation was measured using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The DERS is a 36- item self-report measure that assesses several characteristics of emotion dysregulation, including nonacceptance of emotional responses (nonaccept), difficulties engaging in goal directed behavior (goals), difficulties with impulse control (impulse), lack of emotional awareness (aware), limited access to emotion regulation strategies (strategy), and lack of emotional clarity (clarity; Gratz & Roemer, 2004). Participants were asked to use a 5-point Likert scale ranging from 1 ("almost never") to 5 ("almost always") to indicate how often the listed statements apply to them. Examples of statements include: "I am attentive to my feelings," "When I'm upset, I become out of control," "I am confused about how I feel," and "When I'm upset, I can still get things done." The scale shows good validity and reliability (Gratz & Roemer, 2004).

Given previous evidence that anxiously-attached individuals score highly on all six DERS subscales (i.e., have difficulties with multiple aspects of emotion regulation; Marganska et al., 2013), a total DERS score, representing a sum of all items, was used in analyses of attachment anxiety. In this study the reliability for the total score on the DERS scale was

supported with a Cronbach alpha of .94. On the other hand, emotion regulation style of avoidantly- attached individuals is primarily based on emotional suppression, including tactics such as deflection of attention, exclusion of emotion-information from processing and decision-making, and denial of emotion-related thoughts and memories (for a review, see Mikulincer et al., 2003; Shaver & Mikulincer, 2002). Theoretically, this style is represented by the construct of *cognitive emotion dysregulation* (i.e., difficulties with emotional awareness, emotional clarity and non-acceptance of negative emotions). This construct has proven to be clinically informative in previous research (e.g., Aldao, Nolen-Hoeksema & Schweizer, 2010; Garnefski, Kraaji, & Spinhoen, 2001). Additionally, there is evidence that cognitive emotion dysregulation is related to a history of sexual coercion victimization and to sexual compliance, and negatively impacts sexual assertiveness and sexual agency (Zerubavel & Messman-Moore, 2013). Thus, in the present study, analyses of attachment avoidance included a measure of cognitive emotion dysregulation, comprised of a sum score of items from scales measuring difficulties with emotional awareness, emotional clarity and non- acceptance of negative emotions. In this study the reliability for the Cognitive-DERS scale was supported with a Cronbach alpha of .88.

Verbal Sexual Coercion Victimization. History of sexual victimization in adolescence and adulthood was assessed using a modified version of the Sexual Experiences Survey (SES; Koss & Oros, 1982). The survey contains 17 yes/no questions pertaining to specific types of unwanted sexual activity occurring since the age of 14, ranging from sexual contact (kissing, fondling), oral sex, vaginal or anal intercourse, to penetration by objects (fingers, or other objects). Verbal sexual coercion victimization was defined as the participant having had unwanted sex play (fondling, kissing or petting) or unwanted intercourse (oral, anal, or vaginal) due to perpetrator threats to end the relationship, continual arguments and pressure, or use of perpetrator's position of authority, in the absence of physical or substance-related coercion. Unwanted sexual experience due to physical force or threat of physical force by the perpetrator or due to the participant being unable to give her consent to or resist the perpetrator due to her own alcohol or drug use, was not be included in this definition. Moreover, those who meet criteria for an unwanted experience due to these reasons (178 women, 21.5%) were excluded from analyses.

RESULTS

Missing values analyses

Missing Value Analysis in SPSS revealed a non-significant Little MCAR test, $\chi 2$ (490) = 90.98 p=0.99, consistent with missing data occurring completely at random. Missing values on the SMS, DERS, and ECR measures were imputed following guidelines provided by Graham (2009). There were no missing data on verbal coercion sexual victimization. Twenty imputed datasets were generated. The imputed values were then averaged to create one dataset for regression analysis.

Descriptive statistics and bivariate correlations

In the final sample of 650 women, 130 women (20%) reported verbal coercion victimization. Descriptive statistics and correlations among variables are presented in Table 1. Examination of skew and kurtosis revealed strong kurtosis (9.95, SE=.17) for partner approval sex motives. This variable was transformed by taking the natural log. This transformation brought the kurtosis value down to 4.79 (SE=.20). Running the serial mediation models with raw and transformed variables yielded the same results. Thus, results are reported using the raw partner approval sex motives values for ease of interpretation.

Serial mediation analyses

Four separate serial mediation analyses were conducted using the SPSS PROCESS macro (Hayes, 2013). This procedure uses an ordinary-least squares path analysis to estimate coefficients in the model in order to determine the direct and indirect effects of attachment insecurity on verbal coercion victimization. Seven specific effects, three indirect effects, a total indirect, and total effect were computed in each model (see Figures 1-4). Path a1 represented the effect of the independent variable (IV; attachment variable) on the first mediator (emotion dysregulation variable). Path a2 represented the effect of the IV on the second mediator (sex motives variable). Path a3 represented the effect of the first mediator on the second mediator. Path b1 represented the effect of the first mediator on the dependent variable (DV; verbal coercion victimization). Path b2 represented the effect of the second mediator on the DV. Path c' represented the direct effect of IV on the DV. Finally, path c represented the total effect of the IV on the DV.

Three indirect effects represented: mediation through the first mediator (Indirect path 1: Attachment IV → Emotion dysregulation → Coercion); mediation through the second mediator

(Indirect path 3: Attachment IV → Sex motives → Coercion); and full serial mediation through both mediators (Indirect path 2: Attachment IV → Emotion dysregulation → Sex motives → Coercion). Coefficients estimating the effects on verbal coercion victimization (a dichotomous outcome variable) are reported in logits (i.e, logged odds) and are also converted to odds ratios to facilitate interpretation. Bias-corrected 95% confidence intervals for specific effects, total indirect effects, and contrast between indirect effects were obtained through bootstrapping, a method that does not rely of the normally distributed sampling distribution of the indirect effects. Results are reported in Tables 2 - 3 and in Figures 1 – 4.

Aim 1: Attachment insecurity and verbal sexual coercion victimization. Hypotheses 1 and 2 were supported in the analyses of all four models, showing that higher scores on measures of attachment anxiety and attachment avoidance predicted greater odds of experiencing verbal coercion victimization. In Models 1 and 3, the total effect (path c) of attachment anxiety on verbal coercion victimization was significant (B= .27, Z= 3.17 $p< .01$), indicating that a one-unit increase in attachment anxiety score increased the odd of victimization by 1.31. In Models 2 and 4 the total effect of attachment avoidance on verbal coercion victimization was significant (B= .33, Z= 3.56, $p< .001$), indicating that a one-unit increase in attachment avoidance score increased the odds of victimization by 1.38.

Aim 2: Testing emotion-motivation serial-mediation models: Other-focused sex motives. Results of Model 1 analyses supported Hypothesis 3, such that attachment anxiety significantly positively predicted total emotion dysregulation (B=9.02, $t= 15.95$, $p<.001$), which in turn positively predicted partner-approval sex motives (B= .01 , $t=3.59$, $p<.001$), which positively predicted verbal coercion victimization (B= .61, Z=3.44, $p<.001$). As predicted, difficulties with emotion dysregulation and partner-approval sex motives serially mediated the relation between attachment anxiety and verbal sexual coercion victimization (i.e., Anxiety → DERS → Partner Approval → Coercion), with the total indirect effect equal to .02 (SE =.01, CI [.01, .05]). Mediation through partner approval sex motives only (i.e., Anxiety → Partner Approval → Coercion), was also significant, with the indirect effect equal to .07 (SE=.03, CI [.03, .13]). The path through the single mediator, partner approval sex motives, was significantly stronger than the path through mediators, 95% CI [-.11, -.01], see Table 3.

Results of Model 3 analyses supported Hypothesis 4, such that attachment avoidance significantly positively predicted cognitive emotion dysregulation (B=3.78, $t=11.26$, $p<.001$),

which in turn positively predicted partner-approval sex motives (B=.01, *t*=6.39, *p*<.001), which positively predicted verbal coercion victimization (B=.59, Z=3.40, *p*<.01). As predicted, cognitive emotion dysregulation and partner-approval sex motives serially mediated the relation between attachment avoidance and verbal sexual coercion victimization (i.e., Avoidance → Cog-DERS → Partner Approval → Coercion), with the total indirect effect equal to .03 (SE=.01, CI [.01, .06]). Mediation through cognitive emotion dysregulation only (Avoidance → Cog-DERS → Coercion) was also significant, point estimate equal to .09 (SE=.05, CI [.01, .18]). There was no significant difference between these two indirect effects (95% CI [-.04, 17]), see Table 3.

Testing emotion-motivation serial-mediation models: Self-focused sex motives. Results of Model 3 analyses supported Hypothesis 5, such that attachment anxiety significantly positively predicted total emotion dysregulation (B=9.02, *t*=15.95, *p*<.001), which in turn positively predicted self-affirmation sex motives (B=.01, *t*=2.19 *p*<.05), which positively predicted verbal coercion victimization (B=.28, Z=2.10, *p*<.05). As predicted, difficulties with emotion dysregulation and self-affirmation sex motives serially mediated the relation between attachment anxiety and verbal sexual coercion victimization (i.e, Anxiety → DERS → Self-Affirmation → Coercion), with the total indirect effect equal to .01 (SE =.01 CI [.00, .03]). Mediation through emotion dysregulation only (i.e., Anxiety → DERS → Coercion) and through self-affirmation sex motives only (i.e, Anxiety → Self-Affirmation → Coercion), was also significant, with the indirect effects equal to .12 (SE=.05, CI [.03, .24]) and .04 (SE=.02, CI [.00, .09]) respectively. There were no significant differences between the effects sizes for the paths through the singe mediators 95% CI [-.03, .21]. However, these effects were significantly stronger than the indirect effect through both serial mediators (DERS only, 95% CI [.02, .23]; Self-Affirmation only, 95% CI [-.09, -.00]), see Table 3.

Results of Model 4 analyses supported Hypothesis 6, such that attachment avoidance significantly positively predicted cognitive emotion dysregulation (B= 3.78, *t*=11.26 *p*<.001), which in turn positively predicted self-affirmation sex motives (B=.02, *t*= 5.19 *p*<.001), which positively predicted verbal coercion victimization (B=.33, Z=2.50 *p*<.05). As predicted, cognitive emotion dysregulation and self-affirmation sex motives serially mediated the relation between attachment avoidance and verbal sexual coercion victimization (i.e., Avoidance → Cog-DERS → Self-Affirmation → Coercion), with the total indirect effect equal to .02 (SE=.01, CI [.00, 04]). Mediation through cognitive emotion dysregulation only (Avoidance → Cog-DERS

→ Coercion) was also significant, point estimate equal to .11 (SE=.04, CI [.02, 19]). The path through the single mediator, cognitive emotion dysregulation, was significantly stronger than the path through serial mediators, 95% CI [.00, .18], see Table 3.

Post hoc power analysis

A post hoc power analysis was performed for each of the four models. The sample size of 650 was used for the statistical power analysis with three predictors. The alpha level used for the analysis was $p < .05$. The post hoc analyses revealed that in all four models the statistical power was > .99, indicating adequate power to detect a significant effect.

DISCUSSION

Intimate relationships in adulthood have the potential to provide a safe haven, a refuge where proximity eases distress and fulfills the basic human needs to feel safe and connected (Bowlby, 1969; 1982). In adulthood, attachment relationships are also *sexual* (Hazan, Zeifman & Middleton, 1994). For many people, sexual encounters are a time they are held, reassured, and able to connect with feelings of vulnerability and dependency needs. Unfortunately, for some individuals adult attachment relationships trigger insecurity regarding one's lovability, and elicit worries about the dependability of others to provide comfort and care. Among insecurely attached individuals, sexual encounters can trigger doubts, negative affect, dissatisfaction, and sometimes lead to adverse outcomes (Birnbaum, 2007; Birnbaum & Reis, 2006; Bogaert & Sadava, 2002; Tracey et al., 2003). Findings of the present study extend previous research on attachment and sexual experience, demonstrating that attachment insecurity in adulthood also increases a young woman's chances of a non-agentic, verbally coerced sexual experience. Furthermore, this research shows that emotion dysregulation and avoidance-based sex motives play a role in the explaining the link between attachment insecurity and verbal coercion victimization. However, the pattern of effects differs for each dimension of attachment insecurity (i.e., attachment anxiety versus attachment avoidance).

Aim 1: Does attachment insecurity predict verbal coercion sexual victimization?

The first aim of the present study supported hypotheses that attachment anxiety and attachment avoidance would predict higher odds of experiencing verbally coerced sexual victimization. That is, the more worries a woman expressed about being loved and possibly abandoned, the more likely she was to be a victim of a verbally coerced sexual act(s). Similarly, the more discomfort a woman reported about getting emotionally close to and depending on

partners, the more likely she was to report a verbally coerced sexual experience. Odds ratios suggest a meaningful increase in risk, as women with significantly higher anxiety (or avoidance) than average (more than 2 SD higher) would be almost 3 times more likely to experience victimization compared to women with average levels of attachment anxiety (or avoidance). These findings provide important contextual information regarding risk factors that may help explain the high rate of sexual assault among college women. It is estimated that between 6% and 65% of women on college campuses experience some form of sexual aggression or unwanted sexual contact (see Adams-Curtis & Forbes, 2004 for a review). Perpetrators of sexual violence are believed to target women who are particularly vulnerable and thus more easily coerced (Messman-Moore & Long, 2003). Women with insecure romantic attachment may appear particularly vulnerable to potential perpetrators, becoming targets for verbal coercion sexual victimization. Additional research is needed to determine whether attachment insecurity increases the odds of experiencing other types of sexual assault, for example substance-facilitated or physically coerced victimization.

This is the first study to find a direct relation between adult romantic attachment insecurity and verbal coercion sexual victimization in a sample of college women. Results build on previously identified links between attachment insecurity and compliant sex (i.e., engaging in unwanted, but non-forced, sex; Gentzler & Kerns, 2004; Impett & Peplau, 2003; Impett & Peplau 2002), and show that attachment insecurity also increases the odds of unwanted, *verbally forced* sex. Sexual compliance is distinct from sexual coercion, although the two phenomena appear related. For example, some studies have found that engaging in compliant sex is associated with later experience of sexual aggression (Krahe et al., 2000; Shotland & Hunter, 1995). In a longitudinal study, Katz and Tirone (2010) found support for the hypothesis that women may choose to consent to unwanted sex in an established relationship after learning that their partner may coerce them if they refuse; initial reports of partner sexual coercive behavior predicted women's compliance six weeks later with the same partner (Katz & Tirone, 2010). The authors postulated that compliance allows women to bypass possible coercion. Attachment-related difficulties in managing relationship conflict, regulating intense affect, and asserting one's sexual wishes can enhance feelings of sexual powerlessness, increasing the likelihood a woman will acquiesce. Indeed, Zerubavel and Messman-Moore (2013) found that greater difficulties with cognitive emotion regulation were associated with lower sexual assertiveness,

lower sexual agency, and more sexual compliance. It is not yet clear whether compliance occurs *before* coercion or vice versa, or whether attachment insecurity *simultaneously* increases the risk for sexual compliance and sexual coercion among insecurely attached women. It is also unclear whether the risk of coercion associated with insecure attachment is transferred *between* relationships with different partners, such that complying with unwanted (unforced) sex in one relationship increases the risk of being a victim of sexual coercion by another partner in a different relationship. Longitudinal designs would be particularly useful to answer such questions about temporal relations among variables. Additionally, future research should consider contextual factors, such as the nature of relationship the woman had with the perpetrator and whether it included sexual precedence—a factor that has been linked to sexual victimization (Livingston, Buddie, Testa & VanZile-Tamsen, 2004).

In this study verbal coercion victimization was defined as the participant having had unwanted sex play (fondling, kissing or petting) or unwanted intercourse (oral, anal, or vaginal) due to perpetrator threats to end the relationship, continual arguments and pressure, or use of perpetrator's position of authority, in the absence of physical or substance-related coercion. Verbal and psychological coercion is a frequently used method of coercion in established relationships (Katz and Tirone, 2010*),* perhaps because the tactic of pressure and manipulation allows the perpetrator to take advantage of the woman's investment in the established relationship. A woman's insecurity about the relationship (i.e., romantic attachment insecurity) is clearly relevant to this process, as is highlighted by present findings. The use of the attachment framework thus appears particularly fitting for research on verbal pressures for sex. Moreover, previous studies find that verbal coercion victimization has distinct risk correlates than other forms of victimization. For example, variables such as low self-esteem, low assertiveness (Testa & Derman, 1999), and self-criticism (Messman-Moore, Coates, Gaffey & Johnson, 2008) are linked to verbal coercion but not rape. Bridging cognitive, behavioral, and emotional factors via a single theory framework is desirable, given that in vivo experiences involve a confluence of all of these factors. This is the focus of the second aim of the study.

Aim 2: Do difficulties with emotion regulation and avoidance-based sex motives serially mediate the effect of attachment insecurity on verbal coercion victimization?

The second aim of the study was to examine emotion dysregulation and two types of avoidance-based sex motives—self-focused and other-focused motives—as a mechanism linking

attachment insecurity (i.e., attachment anxiety and avoidance) to increased risk for sexual victimization. Full serial mediation was supported in all four models: Model 1 i.e., Anxiety → DERS→ Partner-approval → Coercion; Model 2 i.e., Avoidance → Cognitive-DERS→ Partner-approval → Coercion; Model 3 i.e., Anxiety → DERS →Self-affirmation →Coercion; and Model 4 i.e., Avoidance → Cog-DERS →Self-affirmation →Coercion. Moreover, in Models 1, 2 and 3, attachment insecurity did *not* predict coercion victimization directly. Rather, the risk was conveyed through emotion dysregulation and avoidance-based sex motives, that is, through the proposed emotion-motivation pathway. In contrast, in Model 4, attachment avoidance continued to have a significant direct effect on victimization when both mediators were in the model. Using Dewitt's (2012) conceptualization of the attachment-sex link as a dynamic interplay of cognitions, emotions and motivations in research on nonagentic sexual experiences findings demonstrate that risk for victimization is conferred through multiple attachment-related processes.

Adult attachment and sex motives: the role of emotion regulation. Findings contribute to a growing literature on adult romantic attachment and sexual motivation in several ways. Results support the proposal that sex motives are not simply correlates of attachment styles, but rather are "extensions" of hyperactivating and deactivating attachment strategies into sexual situations, (Birnbaum et al., 2011; Davis et al., 2004; Impett & Peplau, 2002; Schachner & Shaver, 2004). As predicted, attachment-related deficits in emotion regulation predicted having sex to avoid unwanted/negative feelings and outcomes, such as to avoid partner anger and to avoid feelings of low self-worth. As put by Impett et al., (2008), sex motives represent one way that secondary attachment strategies are enacted in the context of romantic relationships. This study's cross sectional design precludes firm conclusions about true temporal relation between emotion regulation and sex motives variables. However, findings do lend support for investigating these factors in a sequential model.

This study builds on previous sex-attachment research by including a distinct measure of emotion regulation. Prior studies on hyper/deactivation and sex motives have failed to differentiate assessment of attachment schemas and emotion regulation variables (e.g., Birnbaum et al., 2011, Davis et al., 2004; Impett & Peplau, 2002). Inclusion of emotion regulation in the models was associated with unique patterns of effects. For example, attachment anxiety directly predicted emotion dysregulation, partner-approval sex motives (Model 1) and self-affirmation

(Model 3) sex motives, suggesting that these two types of avoidance-based sex motives may exist independent of difficulties with emotion regulation for those who endorse relationship anxiety. On the other hand, attachment avoidance only indirectly predicted partner-approval sex motives (Model 2) and self-affirmation sex motives (Model 4) via impact on cognitive emotion dysregulation. Self-affirmation was not directly associated with avoidance in the correlational analysis, and the relationship only emerged when cognitive emotion dysregulation was present in the model. In other words, low emotional clarity, low emotional awareness, and emotional non-acceptance accounted for the avoidance-based sexual motivation among women reporting high discomfort with emotional closeness in romantic relationships. This supports the proposal that avoidance-based sexual motivation arises from deactivating attachment strategies (Birnbaum et al., 2012; Birnbaum, Weisberg & Simpson 2010; Davis et al., 2004). The differences in the pattern of effects have potential implications for interventions. For example, increasing emotional awareness, clarity and acceptance via psychoeducation or psychotherapy may lead to changes in avoidance-based sexual motivation among women who are strongly attachment avoidant but not for women who are strongly attachment anxious.

Avoidance sex-motives as a form of emotion regulation. It's possible that avoidance-based sex motives function as a form of emotion regulation among insecurely attached women who evidence deficits in constructive emotion regulation skills. Having sex in order to avoid an argument or to avoid low self-esteem may *compensate* for the lack of effective strategies for dealing with negative emotions in interpersonal situations. This interpretation fits with prior research on sexual compliance. Impett and Peplau (2003, 2002) found that anxiously attached women reported consenting to undesired sex order to avoid relationship conflict and to prevent relationship breakup, and avoidantly attached women stated that they complied "because it was easier than saying no." In the absence of necessary skills, women with poor self-regulation may become dependent on the course of "least resistance" choosing to engage in the unwanted sex or acquiescing to the partner's pressures may feel like the only way to prevent the situation and associated negative affect, from escalating further. Acquiescence to the sexual demands and desires of the male partner is reinforced socio-culturally. Sexual scripts place men in the sexually dominant role and place women in the role of gatekeepers (Kimmel, 2007). Moreover, within the emergent hook-up culture—a dominant source of sexual norms on college campuses—sex is expected to be casual and spontaneous, and involve minimal pre-sex negotiations about each

partner's wants and desires (Garcia, Reiber, Massey & Merriwether, 2012). Together these messages may work to *normalize* demanding and aggressive male sexuality, disconnect women from their own sexuality, and increase women's fears of the outcome of a sexual refusal. In other words, wider socio-cultural variables likely interact with personal-vulnerability variables to increase risk of victimization.

Avoidance motivation and risk for victimization. Deficits in emotion regulation (overall and the cognitive facets specifically) and both types of avoidance-based sex motives (i.e., self-affirmation, partner approval) increased risk for verbal coercion victimization both directly and in a serial fashion. This replicates previous research linking emotion dysregulation to adverse sexual outcomes (Charnigo et al, 2013; Deckman & DeWall, 2011; Messman-Moore, et al., 2010; Messman-Moore, et al., 2015; Tull, et al., 2012), and further supports the assumption that avoidance-driven sex motives place individuals at increased risk for adverse sexual outcomes (Browning, et al., 2000; Cooper et al., 1998; Gebhardt et al, 2003; Hill & Preston, 1996; Impett, Peplau & Gable, 2005), in particular sexual assault (Orcutt, Cooper & Garcia, 2005). Perhaps the reason that avoidance-based behavior is risky is because it doesn't provide one with a clear goal to move toward and may interfere with information processing and decision-making (Carver et al., 1999; Gebhardt et al., 2006). Having clarity about one's sexual goals is an important component of an assertive response to a coercive partner. On the other hand, uncertainty about one's sexual goals might delay or negatively impact assertive resistance and increase the likelihood that a coercive partner gets their way. Indeed, sexual ambivalence is associated with both unplanned and unsafe sexual behavior (MacDonald & Hynie, 2008), and delayed risk-response is linked to sexual victimization (Walsh, DiLillo & Messman-Moore, 2012). Lack of clarity and/or ambivalence may also negatively impact sexual communication (Gentzler & Kers, 2004).

Partner approval sex motives emerged as a strong predictor of victimization, such that women endorsing significantly higher scores on partner approval sex motives than average (more than 2 SD higher) would be almost 2 times more likely to experience victimization compared to women reporting average levels of partner approval sex motives. Using sex to meet relational goals may lead to feelings of intimacy when the sexual act is mutually desired. However, in a situation when the woman does not desire sex, the conflict between sexual goals (e.g., "I don't want sexual contact") and relational goals (e.g., "I don't want to lose my partner's interest") may

lead to cognitive conflict which may negatively impact an assertive resistance response. Lack of an assertive refusal response is linked to sexual victimization (Livington, Testa & VanZile-Tamsen, 2007), and specifically to verbal coercion victimization (Testa & Dermen, 1999). Moreover, this relation is reciprocal, such that history of victimization predicts low assertiveness, which in turn predicts prospective victimization (Livington, Testa & VanZile-Tamsen, 2007). Anxiously attached women report lower sexual assertiveness, which in one study explained the association between attachment anxiety and sexual functioning (Leclerc et al., 2015). Thus, among women who are anxious about their partner's love, motives to engage in sex to prevent rejection may interact with deficits in sexual assertiveness, increasing vulnerability to be coerced by continued arguments and pressure for unwanted sex. On the other hand, skillful sexual refusal assertiveness may buffer the risk-enhancing effects of partner-approval sex motives. Pending empirical support, sexual refusal assertiveness training may be a possible avenue for intervention for insecurely attached women.

One surprising finding was the indirect relation between attachment avoidance and partner-approval sex motives. Theoretically, avoidantly attached individuals prefer to remain detached from relationship partners, instead focusing on personal needs and self-reliance (Birnbaum, 2015). Thus, it's not surprising that studies find a consistent link between attachment avoidance and *self-focused* sex motives, such as to bolster self-esteem and enhance personal power or status (e.g., Cooper et al., 2006; Davis et al., 2004; Schachner & Shaver, 2004). The link between avoidance and *other-focused* sex motives, such as to appease a partner, is less understood and appears to be more complicated. For example, in one study Impett et al., (2008) found apparently contrasting findings regarding attachment avoidance. Among women, attachment avoidance *positively* predicted having sex to prevent one's partner from becoming upset and losing interest, and also *negatively* predicted having sex to please one's partner. In the current findings, women's romantic attachment avoidance predicted both self-focused and other-focused motives via cognitive emotion dysregulation. A number of explanations are possible. First, we may assume that avoidantly attached individuals are indeed motivated for communion (and wish to avoid rejection), but this desire is kept out of conscious awareness in order to prevent disappointment that may arise from a rejection. Second, avoidant women may be motivated to appease a partner, but for a different reason than anxious women. Anxiously attached women fear that their partner will leave them if they refuse sexual advances. In contrast,

avoidantly attached women may fear the emotional upheaval and possibly intimate conversation that may go along with refusing sexual advances.

Although the aforementioned models support theory that emotion dysregulation may increase engagement in problematic sex motives, in some cases a more parsimonious model emerged. For example, in the first model focused on attachment anxiety, the impact of partner approval sex motives predicted significantly more variance (albeit by a small margin) in sexual coercion victimization than did a serial model that also included emotion dysregulation as a predictor of partner approval sex motives. This is not entirely unexpected given that the serial path represents a product of two paths of values smaller than one. However, this might also suggest that among anxiously attached women partner approval motives increase risk for victimization independent of deficits in emotion regulation. Other-focused sex motives (i.e., partner approval, peer approval, intimacy) are commonly reported by attachment-anxious individuals (Birnbaum, 2015 for a review). Theoretically, focusing on the needs of the partner/attachment figure allows the attachment-anxious individual to achieve their dependency goals. Unfortunately, it appears that in sexual situations, focusing on the needs of the other with intentions of circumventing an argument or rejection increases the risk of being coerced into an unwanted sexual act.

In anxiety Model 3, significant single-variable mediation occurred through total emotion dysregulation and through self-affirmation sex motives. These two indirect effects were not significantly different from each other, suggesting that when examined together these variables appear equally important in explaining the relation between attachment anxiety and verbal sexual coercion victimization. However, each of these indirect effects accounted for significantly more variance in verbal coercion victimization than the indirect effect through the serial path. Again, it is not unexpected that the serial path was associated with a smaller effect, given that this coefficient represents a product of two effects less than zero. On the other hand, this finding may suggest that emotion dysregulation and self-affirmation sex motives operate in parallel, rather than in serial. In other words, these risk factors may develop simultaneously, rather than sequentially. Longitudinal research and inclusion of related factors may help clarify the temporal relations. One variable of interest is self-esteem, given that low self-esteem mediated the relation between anxiety and negative affect about sexual experiences (Gentzler & Kerns, 2004). It possible that having sex to bolster confidence is preceded by attachment-related deficits in self-

esteem (rather than emotion dysregulation); and this risk pathway develops alongside but separate from problems in affect regulation.

In contrast, in both models of attachment avoidance, single-variable mediation occurred only through cognitive emotion dysregulation and not through sex motives. This is not surprising, given that attachment avoidance was not directly linked to either type of sex motives. Rather, cognitive emotion dysregulation fully mediated the relation between avoidance and sex motives. In Model 4, the indirect effect through cognitive-emotion dysregulation only predicted significantly more variance in verbal coercion victimization than the indirect effect through the serial path. It appears that among women reporting relationship avoidance, it is the deactivated stance to emotions (low emotional awareness, low emotional clarity, and emotional nonacceptance) that is central to increasing risk for negative outcomes. Emotional avoidance is a component of the more general process of experiential avoidance—a problematic phenomenon which distances the individual from their internal experience, and thus obscures the path toward valued (and presumably safe) directions (Kashdan, Barrios, Forsyth, & Steger, 2006). More research is needed to understand the overlap between cognitive emotion dysregulation and experiential avoidance in attachment-avoidant individuals, and how both of these constructs increase risk for sexual coercion victimization.

Summary

In summary, in a large sample of college women, adult romantic attachment insecurity positively predicted an experience of verbal coercion sexual victimization, such that higher scores on a measure of attachment anxiety and attachment avoidance increased the odds of a history of victimization. Attachment anxiety predicted global deficits in emotion regulation—defined as low emotional clarity and awareness, nonacceptance of emotions, impulse control difficulties, limited access to emotion regulation strategies, and difficulties engaging in goal directed behavior—which predicted partner approval and self-affirmation sex motives, which in turn predicted victimization. Attachment avoidance predicted deficits in cognitive aspects of emotion regulation—defined as low emotional clarity, low emotional awareness and nonacceptance of emotions—which predicted partner approval and self-affirmation sex motives, which in turn predicted victimization.

Limitations

While this study makes important contributions to the literature, several limitations should be considered. First, the data used to inform the analyses is drawn from a study that was cross-sectional in design, yielding retrospective data. Inferences about temporal and causal relations between and among variables are therefore restricted. Additional research is needed to replicate findings using prospective and longitudinal designs. Second, data were collected utilizing self-report questionnaires, which may be limited in assessment of adult attachment and emotion dysregulation. Future investigations should consider interviewing women about their attachment history and sexual experiences, utilizing objective assessment of emotion regulation variables in conjunction with measures of physiological arousal, and behavioral observations of participants in the lab, as well as experimental designs to manipulate such variables. Third, the generalizability of the findings is limited given the sample included only young women attending a mostly-Caucasian public university. Women who are not attending college, women representing diverse ethnic and cultural backgrounds, and individuals who identify with a variety of gender-identities should be a focus of future research. Fourth, in addressing sexual victimization the study focused on women as the victim. However, men are also targets of sexual assault and more research is needed to understand their unique vulnerability for verbal coercion victimization. Likewise, virtually no research examines attachment-related vulnerability for adverse sexual experience among individuals who identify with a non-binary gender identity, even though members of gender and sexual minority groups are known to be victimized at much higher rates than their majority-group counterparts (Freidman et al., 2011; Hendricks & Testa, 2012).

Research implications and future directions

Pending replication, findings provide support for the utility of the adult romantic attachment model as a guiding framework in research on sexual victimization, particularly within relationships. Attachment theory is well articulated and extensively supported by empirical research. Moreover, the theory is developmentally focused, proposing that through repeated experiences with attachment figures and intimate partners, individuals develop relational expectations and goals that subsequently guide emotional and cognitive construal of relational experiences and influence interpersonal behavior (Bartholomew & Horowitz, 1991; Cooper, et al., 2006; Hazan & Shaver, 1987). This conceptualization offers a valuable framework for

understanding how risk for sexual victimization may arise across time and relationship experiences. Additionally, there is growing support that attachment anxiety and avoidance may mediate the link between childhood adversity and adult outcomes. For example Roche, Runtz and Hunter (1999) found that a history of child sexual abuse predicted adult attachment style, which in turn predicted adult psychological adjustment. Sutton and Simons (2015) found that avoidant attachment style accounted for the relation between exposure to interparental hostility and sexual assault perpetration by men and victimization among women. Furthermore, among women anxious attachment style accounted for the link between harsh parenting and sexual victimization. This work drew on the intergenerational transmission of violence hypothesis, which proposes that children who grow up in hostile and aggressive families are likely to either engage in or be exposed to these similar behaviors in their later relationships (Sutton, Simons, Wickrama & Futris, 2014). Applying attachment theory to research on sexual victimization may provide the necessary bridge between research on childhood sexual abuse and adulthood sexual victimization. Assessing attachment and attachment related variables might be especially valuable in studies of sexual revictimization—a line of research on factors that increase an individual's vulnerability to re-experience victimization multiple times across the life span (for a review, see Classen, Palesh, Aggarwal, 2005). Greater understanding of underlying mechanisms may lead to interventions and treatments that help prevent re-traumatization.

Furthermore, additional research utilizing an attachment theory framework would improve the current literature on risk for sexual coercion in relationships given this theory describes differences between individuals along process-based dimensions. Defined here, a process-oriented approach allows researchers to investigate the attachment system as a dynamic control system rather than a static set of characteristics, and to investigate moderating and mediating effects of other multi-component processes, such as emotion regulation processes. Applying an attachment framework to the study of sexual victimization will allow researchers to postulate hypotheses and developed nuanced experimental designs.

Given that the emotion-motivation mechanism tested in this study accounted for only a small portion of variance in victimization other factors should be considered in future research. Sexual communication may be one such variable. Research shows that sexual communication is related to a less optimal sexual script, more sexual problems, and coercive sexual experiences (Byers et al., 2004). Moreover, anxiously attached individuals report feeling that their sexuality

is controlled by others and consequently have more difficulty communicating their sexual needs and preferences (Davis et al., 2006). Additionally, Gentzler and Kerns (2004) point out that an emotionally deactivated approach to sexual encounters (i.e., avoidant style) may negatively impact sexual communication, which may create vulnerability for an unwanted sexual experience. Given these findings, difficulties with communication should be considered a possible mechanism in future research.

Avoidantly attached individuals tend to report more positive attitudes toward casual sex (Brennan & Shaver, 1995; Cooper et al., 1998), a lower likelihood of having sex with a committed partner (Gentzler & Kerns, 2004), and a higher likelihood of having sex with strangers and one-night stands (Feeney et al., 2000). Involvement in casual or unplanned sex, such as hooking-up, is related to a greater frequency and severity of sexual assault victimization and perpetration (Flack et al., 2007; Yost and Zurbriggen 2006). Hook-ups are particularly common on college campuses. Unfortunately, the ambiguous nature of the encounters, as well as the associated alcohol consumptions, create a context were perpetrators may be especially likely to pressure sexual contact. Indeed Sutton and Simmons (2015) found that participation in the hook-up culture predicted sexual assault victimization among women. Moreover this link was mediated by avoidant attachment. Thus, future research should examine adult attachment in relation to the context in which the assault occurred, giving particular attention to hook-up culture.

Presumably the effectiveness of a verbally coercive tactic (i.e., the likelihood that the tactic resulted in coercing the woman into the sexual act) may depend on the woman's commitment to preserving the relationship. Differences in the perpetrator-victim relationship can affect the outcomes of assault, for example impacting the levels of posttraumatic symptomatology (Lucenko, Gold & Cott, 2000). Furthermore, the victim's relationship to the perpetrator and her commitment to the relationship may moderate the effect of attachment insecurity on verbal coercion victimization.

Subsequent studies should assess substance-related sexual assaults, and include an assessment of drug and alcohol use. Insecurely attached college students report using alcohol at increased rates (Brennan & Shaver, 1995), including before sexual contact (Feeney, Petereson, Gallious & Terry, 2000). Unfortunately alcohol use is highly predictive of sexual victimization (Abbey, McAuslan & Zawacki, 2001; Ullman, Karabatsos & Koss, 1999). Intoxication is

associated with impaired risk perception (Eshelman, Messman-Moore, & Sheffer, 2015). It's possible that drug and alcohol use before sexual contact may moderate the link between attachment insecurity and victimization.

Clinical application

The findings of the current work, and attachment theory more broadly, can be applied to clinical interventions with women at risk for, or with a history of verbal coercion victimization as well as to programs aimed at prevention of sexual violence. For example, during the early phase of psychotherapy, assessment of unwanted sexual experiences—including sexual compliance, sexual coercion, and other types of sexual victimization—is particularly important when patients endorse insecure representations of attachment figures. A nonjudgmental attitude is crucial for establishing the therapeutic relationship as a *secure base* from which the client can explore how she relates to other people based on particular goals, perceptions, expectations and fears (Mikulincer & Shaver, 2007). Given that self-blame is quite common among women who have unwanted sexual experiences (Breitenbecher, 2006), it is very important that the clinician should not reinforce such ideas. Instead, it is critical to help the client identify patterns of relating and attachment that may have increased her vulnerability to coercion, and to help her identify new, alternate patterns, that may improve her ability to respond differently when such pressures occur in the future. Information about the client's attachment tendencies should be used to guide conversations about the client's sexuality and related factors, such as client's motivations for sex, patterns of sexual behavior, emotions aroused in sexual situations, feelings regarding sexual power, difficulties with sexual communication, and potential conflicts between sexual and relational goals. If risky sexual behavior (e.g., having sex with strangers, using drugs before sexual contact) is reported, than focusing on harm reduction (e.g., Marlatt, Lerimer & Witkiewitz, 2012) is appropriate before changes in underlying issues are facilitated. It is important to use knowledge of the client's attachment style and interpersonal history (including relational injuries sustained in childhood and adulthood) to understand risky and/or avoidance-driven sexual behavior in order to reduce the stigma associated with these behaviors and increase the client's self-compassion—a construct that is linked to better overall psychological functioning (Barnard & Curry, 2011). Moreover, self-compassion may offer resiliency to self-focused anxiety (i.e., insecurity). For example, self-compassion was found to buffer against the debilitating emotional impact of priming personal inadequacies (Neff, Kirkpatric & Dijitthirat,

2004) and imagining distressing social events (Leary et al., 2007). Self-compassion is associated with more adaptive coping, and this effect is mediated by greater emotional clarity (Neff et al, 2004). Avoidance strategies, thought suppression, and denial are all negatively correlated with self-compassion (Thompson & Walts, 2008; Neff, 2007; Neff, 2005). It appears that self-compassion allows for greater perspective on one's situation and facilitates use of effective actions to change oneself or the environment (Neff, 2004). Thus, interventions increasing self-compassion are especially promising for mitigating attachment-related vulnerability for verbal coercion victimization. For example, the therapist might enlist the use of a two-chair technique where the client role-plays an unconditionally kind, accepting and compassionate imaginary friend talking to the client. This technique typically allows the client to practice extending a more mindful and caring attitude toward herself. This experiential learning can then be utilized by the client in challenging and emotionally charged interpersonal situations—particularly in sexual situations where attachment insecurity is triggered—in a way that promotes the client's self-promoting and self-protecting behavior.

At important contribution of the current study is the emphasis on emotion dysregulation as a bridge between attachment insecurity and verbal coercion sexual victimization. Thus, reducing emotion dysregulation via targeted skills training is one goal of prevention-focused treatment. Mindfulness and acceptance-based approaches (e.g., DBT, ACT, MBSR) may be especially beneficial given that these approaches emphasize attunement to internal states, non-reactive awareness of distress, and value-driven, rather than avoidance-driven behavior (Linehan, 2015; Hayes, Strosahl, & Wilson, 2011; Kabat-Zinn, 1982, 1990). These approaches are efficacious in regard to improving clients' ability to regulate internal states and to hold a more compassionate attitude towards the self. For example, group participants in an 8-week MBSR (i.e., Mindfulness-Based Stress Reduction) treatment program evidenced significant reductions in anger suppression, fear of emotions, worry, and difficulties regulating emotions, and showed increases in mindfulness and self-compassion (Robin, Keng, Ekblad & Brantley, 2012). When utilized with insecurely attached clients, these interventions should focus on increasing awareness of way clients' emotions fluctuate based on interpersonal triggers (e.g., in response to partner behaviors that increase or decrease relational distance; in response to coercive partner behavior). Greater acceptance and tolerance of these emotional responses should theoretically reduce reliance on maladaptive emotional and relational strategies to manage activation of the

attachment system. When the client is less preoccupied with managing affect associated with attachment activation psychic resources can be devoted to self-promoting and safety-enhancing behavior.

Furthermore, improved emotion regulation may also reduce risk for verbal coercion victimization indirectly by shifting one's sex motives along the approach-avoidance dimension. Although this hasn't yet been established empirically, improved ability to manage and effectively respond to emotions (especially in an interpersonal situation) may reduce an individual's tendency to endorse avoidance-based motivations for sex. In other words, with more adaptive ways of dealing with affect, a woman may be less likely to use sex to meet emotion regulation needs (i.e., less likely to endorse partner approval and self-affirmation sex motives).

A note on *skills training* as it relates to prevention of sexual victimization: Sexual assault prevention programs often target skills training as a way to help victims protect themselves from assault, for example by focusing on improving sexual communication and increasing sexual refusal assertiveness (e.g., Kidler, Boell & Moyer, 1983). Critics of this approach aptly point out that the "just say no" tactic to preventing unwanted sexual experiences is overly simplistic and deeply problematic in that: it ignores the fact that saying *no* is difficult in any context; it overrides "culturally normative ways of indicating refusal;" and it excludes conversational analysis research showing that "refusals are complex and finely organized conversational interactions," thus, are not easy to *train for* (Kitzinger & Frith, 1999; p. 294). This author aligns with these critics' concern about basing interventions in the 'miscommunication' theory (Tannen, 1991, as cited in Kitzinger & Frith, 1999) of acquaintance sexual assault. According to this theory assault occurs because the male aggressor misinterprets a female victim's verbal and non-verbal communication; he mistakenly believes that she desires sex; and she fails to say 'no' clearly. This theory unfairly places the burden of responsibility for the sexual assault back on the woman and ignores societal responsibility for addressing gender-power imbalances. An insecurely attached woman's difficulties with communication are not to blame for the assault; nor will training her to say *no* with more oomph guarantee that she is not victimized with use of physical force or drugs.

Furthermore, focusing on changing dysfunctional coping strategies alone does not guarantee that the individual will eventually cope well (Wie, 2008). In part because the maladaptive strategies that individuals have acquired and continue to use have previously served

an adaptive function, helping the person achieve their basic psychological needs such as connection, competence, and autonomy (Wei, Shaffer, Young, & Zakalik, 2005). Thus, reworking *internal working models* (i.e., cognitive-emotional maps of relating) and helping a woman learn new ways to satisfy psychological and emotional needs is an important component of reducing a her vulnerability for coercive sexual experiences. Insecure modes of relatedness tend to be characterized by extremes of connection or autonomy, that is, intense enmeshment or avoidance of intimacy. The therapist-patient relationship can provide a context for a smooth balance between connection and exploration (Biringer, 1994). The experience of a "close relationship without the loss of self-boundaries with the other person…[and] without risking total break and loss of the close relationship" (Biringer, 1994, p. 408) provides an opportunity to learn how to navigate fluctuations in closeness and distance and manage associated affect. This learning can then be extended into the woman's personal life, such that interpersonal encounters are not driven by unmet attachment needs and personal safety and integrity are not sacrificed in pursuit of relational goals.

The stated recommendations have focused on interventions designed to help women reduce individual risk, manage challenging interpersonal situations, and ultimately protect themselves in ways that are within their control. However, by definition being a victim of violence is an experience of powerlessness and lack of control. Even securely attached individuals can be victimized, and the best efforts to protect oneself do not guarantee that an aggressor will not force sexual activity. Sexual victimization is a socio-cultural problem. Society has a responsibility to reduce the incidence of sexual perpetration, minimize conditions that give rise to sexual and relational violence, and protect victimized persons from additional harm. One avenue for positive action is increased support for the families, the sphere where maladaptive relational behavior is learned (Alexander, 1992). For example, Sutton and Simons (2015) found that childhood exposure to interparental hostility and harsh parenting predicted attachment insecurity among college students, which in turn predicted sexual assault victimization among women and sexual assault perpetration among men. The authors advised that policies be aimed at increasing supportive parent-child relationships, such as relationship education with at-risk parents to reduce negative couple interactions and increase effective co-parenting and positive discipline (e.g., Adler-Baeder et al., 2013).

Furthermore, national media, school-based mental health, and community-level processes are examples of additional spheres of influence, and thus should be targets for policy and support. College-campuses, where sexual assault occurs at alarming rates, are a critical context for education and prevention programs. Campus-based relationship education can be used to help young adults gain awareness of the connection between problematic relationship beliefs and the occurrence of sexual violence, as well as to encourage development of healthy views of relationships and sexuality. Considering that the problem of sexual violence contains multiple sources, prevention is most likely to be successful when approached ecologically and with a life-course development lens.

CONCLUSION

Individuals who feel securely attached to their partners tend to have a more elaborated, coherent and positive sense of self. They are able to access and share their distress in a way that maintains a balance between interdependence and autonomy. On the other hand, insecurity tends to constrain the way inner experience and interactional responses are constructed and given meaning. Anxiety and avoidance restrict how emotions are processed and dealt with. Bowlby (1991, p. 294) states, *"The principal function of emotion is one of communication—namely, the communication to the self and the other of the current motivational state of the individual."* If you are over-identified with your emotions, you are prone to be ruled by your feelings rather than informed by them. If you are under-identified with your emotions, you are prone to miss a valuable source of information. In situations that have the potential to lead to coerced sexual activity, delegating internal resources to altering emotions detracts from the woman's ability to act effectively in a self-protective way. Avoidance-based sexual motivation may be enlisted by the individual as a way of *protecting* oneself from a painful rejection or for *protecting* a sense of personal esteem; however, it comes with a potential cost of harm that further alienates the individual from self-integrity and relational security.

Nevertheless, attachment insecurity does not have to be a "life sentence." Even in a state of emotional turmoil and motive-conflict, taking a mindful—aware and detached—approach to emotions and cognitions will ensure that important signals from the situation and personal values are incorporated into decision-making. During a state of mindfulness, the individual is more likely to experience balanced attunement to intrapsychic and interpersonal processes, notice conflicts between approach and avoidance tendencies, and respond in value-driven ways. Mindful states are often marked by feelings of acceptance, security and connection both to self and others. Much like the *corrective emotional experience*, mindfulness may provide an avenue to move from a state of insecurity and constriction to a state of healthy balance and vitality.

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APPENDIX A

Table 1: Correlations among study variables

	1	2	3	4	5	6	7	8	9
1. Age	1								
2. Income	.00	1							
3. Attachment Avoidance	-.02	-.04	1						
4. Attachment Anxiety	.06	-.00	.34**	1					
5. Total DERS	.02	-.00	.31**	.53**	1				
6. Cognitive DERS	.02	.00	.40**	.42**	.87**	1			
7. Self-affirmation Sex Motives	.08	-.10	.06	.31**	.24**	.21**	1		
8. Partner Approval Sex Motives	.06	-.06	.18**	.34**	.29**	.29**	.54**	1	
9. Verbal Sexual Coercion (Y/N)	.02	.04	.14**	.13**	.16**	.17**	.13**	.20**	1
Mean	18.73	5.14	2.68	3.38	78.31	36.63	1.44	1.23	--
SD	.95	3.67	1.07	1.15	19.67	9.99	.69	.53	--

*Correlation is significant at the 0.05 level (2-tailed) ** Correlation is significant at the 0.01 level (2-tailed).

Table 2: Summary of path coefficients

Predictor Variable **Model 1**	B	*SE*	*95% CI*	*t/Z*	*p*	*(OR)*
(Predicting DERS-Total)						
Attachment anxiety	9.02	.57	7.91, 10.12	15.95	.00	
(Predicting partner approval sex motives)						
Attachment anxiety	.12	.02	.08, .16	6.05	.00	
DERS-Total	.01	.00	.00, .01	3.59	.00	
(Predicting verbal coercion victimization)						
Attachment anxiety	.05	.10	-.16, .25	.44	.66	1.04
Partner approval sex motives	.61	.18	.26, .95	3.44	.00	1.84
DERS-Total	.01	.01	-.00, .02	2.12	.03	1.01
Model 2	*B*	*SE*	*95% CI*	*t/Z*	*p*	*(OR)*
(Predicting Cog-DERS)						
Attachment avoidance	3.78	.34	3.12, 4.44	11.26	.00	
(Predicting partner approval sex motives)						
Attachment avoidance	.04	.02	-.00, .07	1.87	.06	
Cog-DERS-Total	.01	.01	.01, .02	6.30	.00	
(Predicting verbal coercion victimization)						
Attachment avoidance	.18	.10	-.02, .38	1.76	.08	1.20
Partner approval sex motives	.59	.17	.25, .93	3.40	.00	1.80
Cog-DERS	.02	.01	.00, .05	2.23	.03	1.02
Model 3	B	*SE*	*95% CI*	*t*/Z	*p*	*(OR)*
(Predicting DERS-Total)						
Attachment anxiety	9.01	.57	7.90, 10.13	15.95	.00	
(Predicting self-affirmation sex motives)						
Attachment anxiety	.16	.03	.11, .21	5.93	.00	
DERS-Total	.01	.01	.00, .01	2.19	.03	
(Predicting verbal coercion victimization)						
Attachment anxiety	.08	.10	-.12, .29	.80	.42	1.08
Self-affirmation sex motives	.28	.13	.02, .55	2.10	.04	1.33
DERS-Total	.01	.01	.00, .03	2.50	.01	1.01
Model 4	B	*SE*	*95% CI*	*t/Z*	*p*	*(OR)*
(Predicting Cog-DERS)						
Attachment avoidance	3.78	.34	3.12, 4.44	11.26	.00	
(Predicting self-affirmation sex motives)						

Attachment avoidance	-.02	.03	-.07, .03	-.77	.47	
Cog-DERS	.02	.01	.01, .02	5.19	.00	
(Predicting verbal coercion victimization)						
Attachment avoidance	.22	.10	.02, .41	2.13	.03	1.24
Self-affirmation sex motives	.33	.13	.07, .58	2.50	.01	1.38
Cog-DERS	.03	.01	.01, .05	2.69	.01	1.02

Table 3: Summary of total and indirect effects and contrasts of indirect effects.

Path	Effect	Boot SE	Boot Lower Limit CI	Boot Upper Limit CI
Model 1				
Total *	.21	.06	.08	.33
(Ind 1) Anx-> DERS -> Coercion	.11	.06	-.00	.22
(Ind 2) Anx-> DERS -> Partner SMS ->Coercion *	.02	.01	.01	.05
(Ind 3) Anx-> Partner SMS -> Coercion *	.07	.02	.03	.13
(Contrast 1) Ind 1 minus Ind 2	.09	.06	-.03	.19
(Contrast 2) Ind 1 minus Ind 3	.04	.06	-.09	.15
(Contrast 3) Ind 2 minus Ind 3 *	-.05	.02	-.11	-.01
Model 2				
Total *	.15	.05	.06	.24
(Ind 1) Avd->Cog-DERS->Coercion *	.09	.04	.01	.18
(Ind 2) Avd->Cog-DERS->Partner SMS->Coercion *	.03	.01	.01	.06
(Ind 3) Avd->Partner->Coercion	.02	.02	-.00	.07
(Contrast 1) Ind 1 minus Ind 2	.06	.05	-.04	.17
(Contrast 2) Ind 1 minus Ind 3	.07	.05	-.03	.18
(Contrast 3) Ind 2 minus Ind 2	.01	.02	-.02	.04
Model 3				
Total *	.18	.06	.07	.29
(Ind 1) Anx-> DERS -> Coercion *	.13	.05	.03	.24
(Ind 2) Anx-> DERS -> Self-Affir SMS ->Coercion *	.01	.01	.00	.03
(Ind 3) Anx-> Self-Affirm SMS -> Coercion *	.04	.02	.00	.09
(Contrast 1) Ind 1 minus Ind 2 *	.12	.06	.02	.23
(Contrast 2) Ind 1 minus Ind 3	.08	.06	-.03	.21
(Contrast 3) Ind 2 minus Ind 3 *	-.04	.02	-.09	-.00
Model 4				
Total *	.12	.04	.04	.21
(Ind 1) Avd->Cog-DERS->Coercion *	.11	.04	.02	.19
(Ind 2) Avd->Cog-DERS->Self-Affir SMS->Coercion*	.02	.01	.00	.04
(Ind 3) Avd->Self-Affirm SMS->Coercion	-.01	.01	-.03	.01
(Contrast 1) Ind 1 minus Ind 2 *	.09	.05	.00	.18
(Contrast 2) Ind 1 minus Ind 3 *	.12	.04	.04	.21
(Contrast 3) Ind 2 minus Ind 3 *	.03	.02	.00	.07

* Indicates significant path or significant contrast.

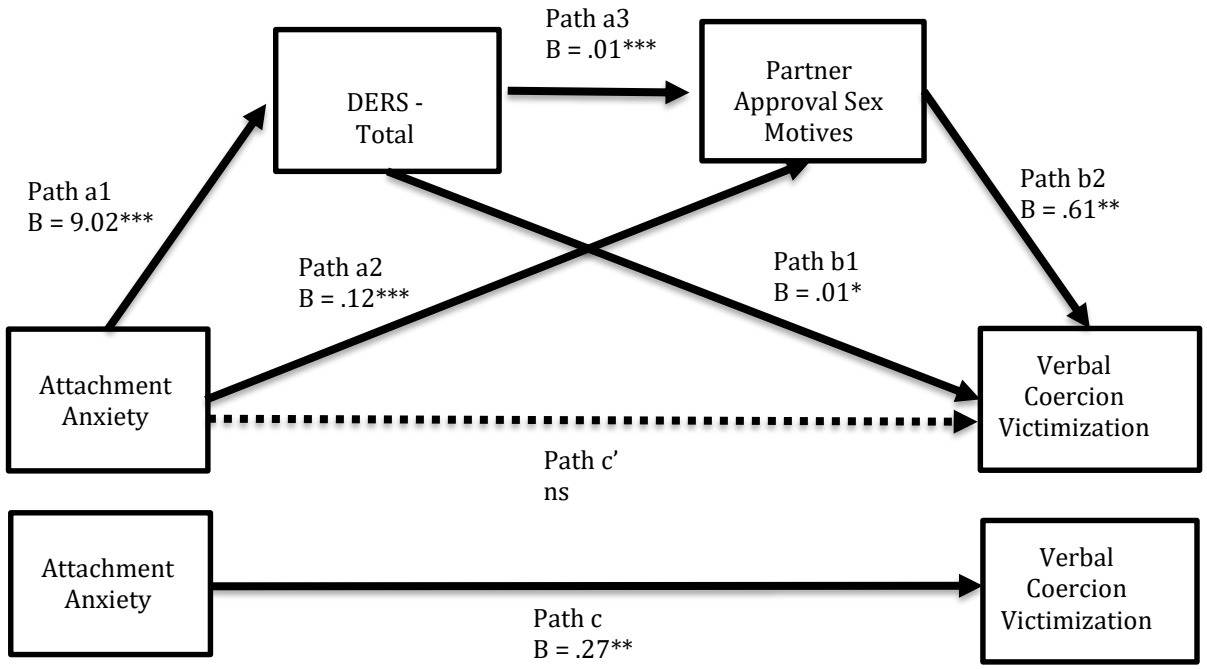

Figure 1: *Model 1, Attachment Anxiety, Total DERS, and Partner Approval Sex Motives predicting Verbal Coercion Victimization*. (* $p<0.05$ ** $p<0.01$; *** $p<.001$)

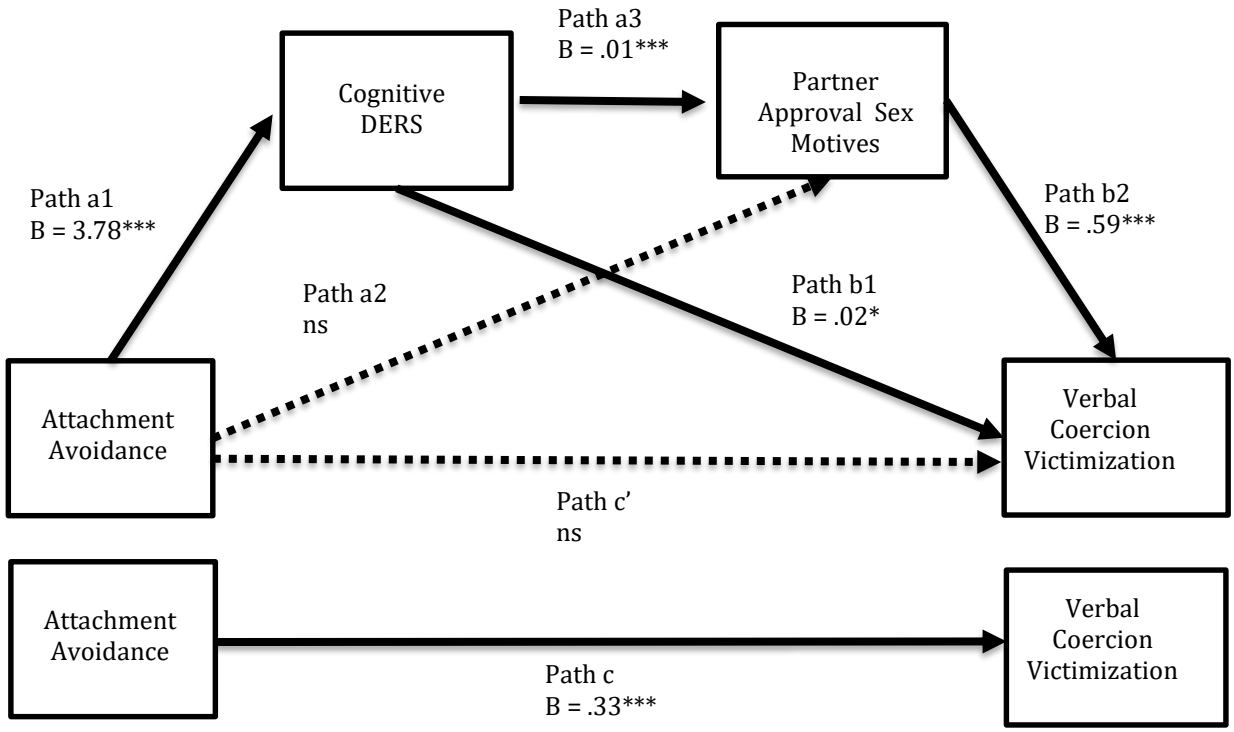

Figure 2: *Model 2, Attachment Avoidance, Cognitive DERS, and Partner Approval Sex Motives predicting Verbal Coercion Victimization.* (* $p<0.05$ ** $p<0.01$; *** $p<.001$)

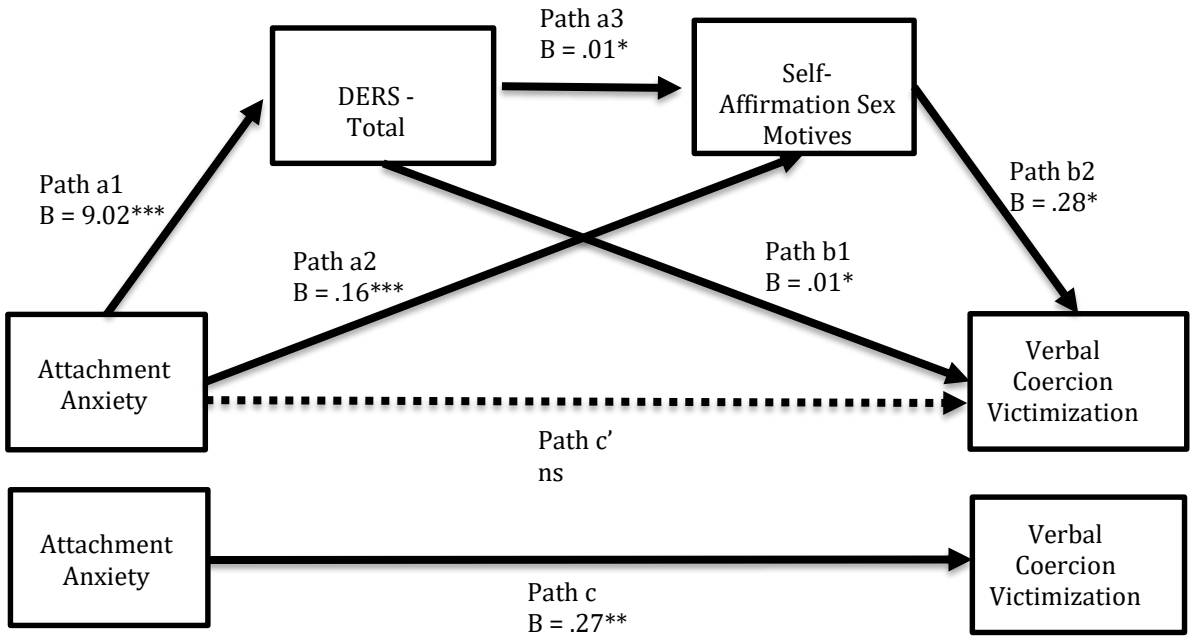

Figure 3: *Model 3, Attachment Anxiety, Total DERS, and Self-Affirmation Sex Motives predicting Verbal Coercion Victimization.* (* $p<0.05$ ** $p<0.01$; *** $p<.001$)

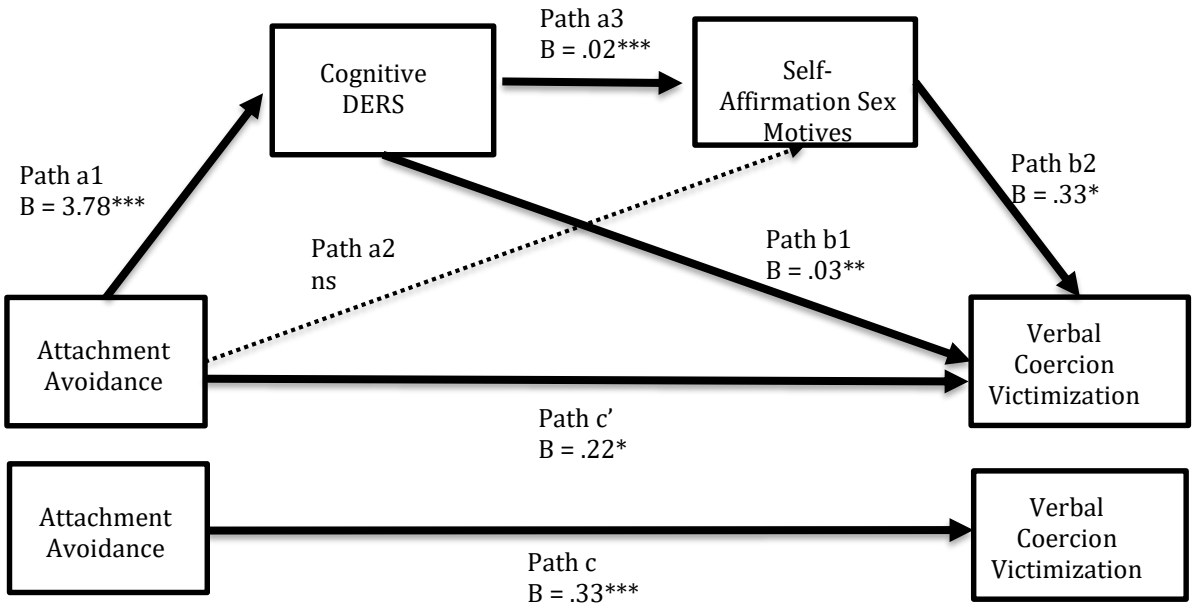

Figure 4: *Model 4, Attachment Avoidance, Cognitive DERS, and Self-Affirmation Sex Motives predicting Verbal Coercion Victimization.* (* $p<0.05$

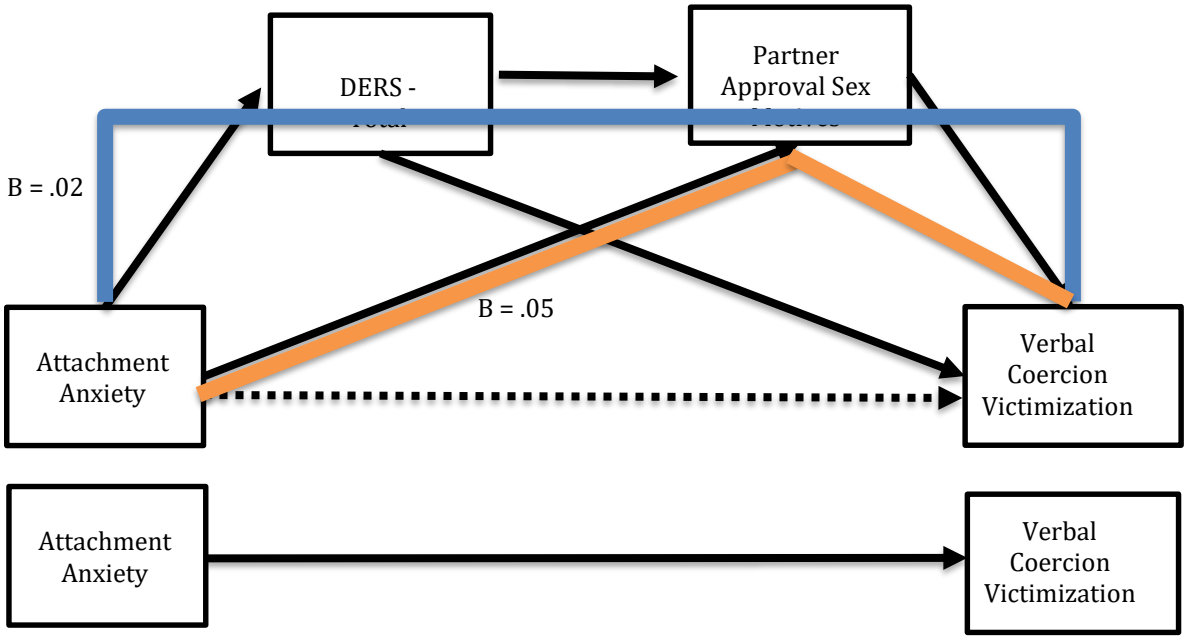

Figure 5: *Significant indirect effects in Model 1, Attachment Anxiety, Total DERS, and Partner Approval Sex Motives predicting Verbal Coercion Victimization.*

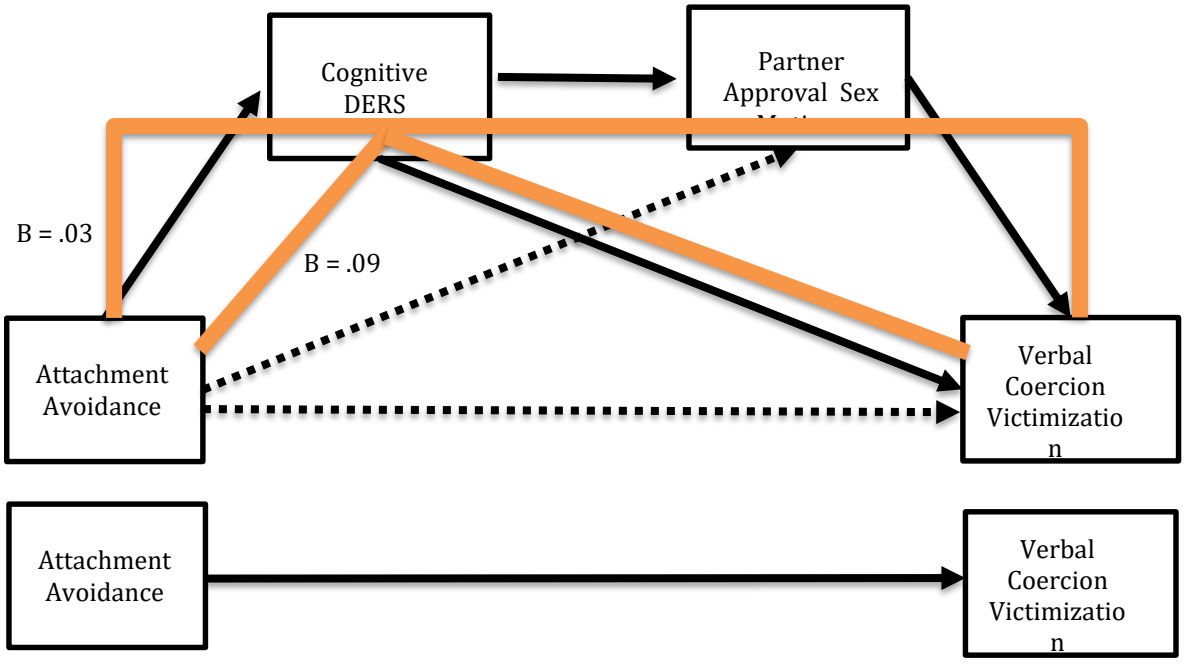

Figure 6: *Significant indirect effects in Model 2, Attachment Avoidance, Cognitive DERS, and Partner Approval Sex Motives predicting Verbal Coercion Victimization*

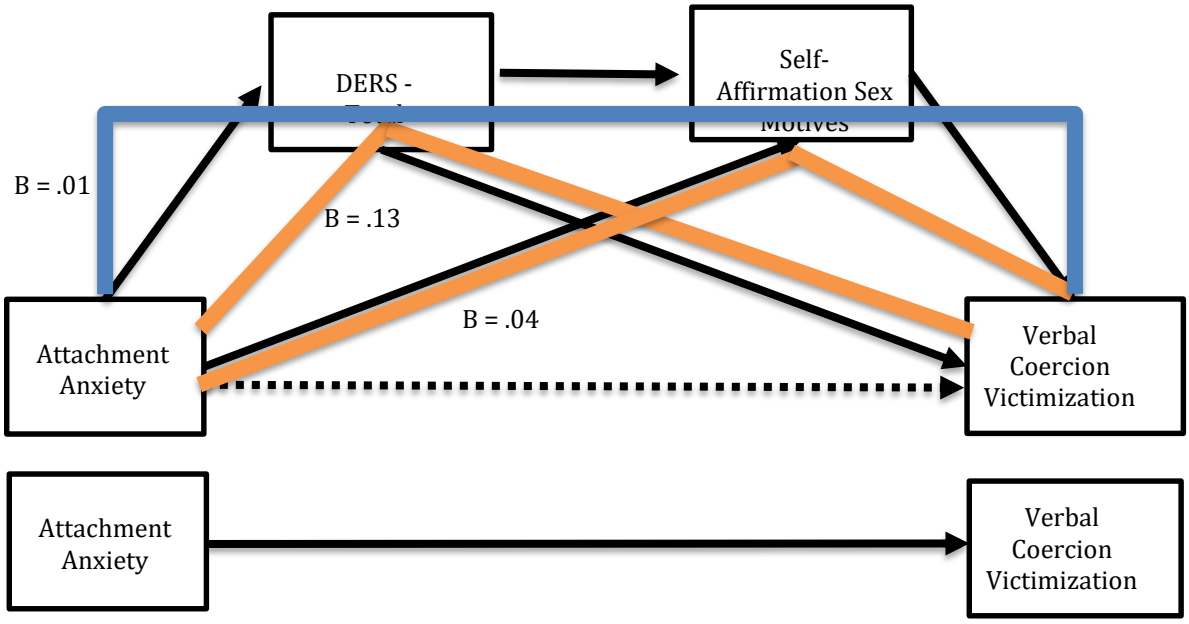

Figure 7: *Significant indirect effects in Model 3, Attachment Anxiety, Total DERS, and Self-Affirmation Sex Motives predicting Verbal Coercion Victimization*

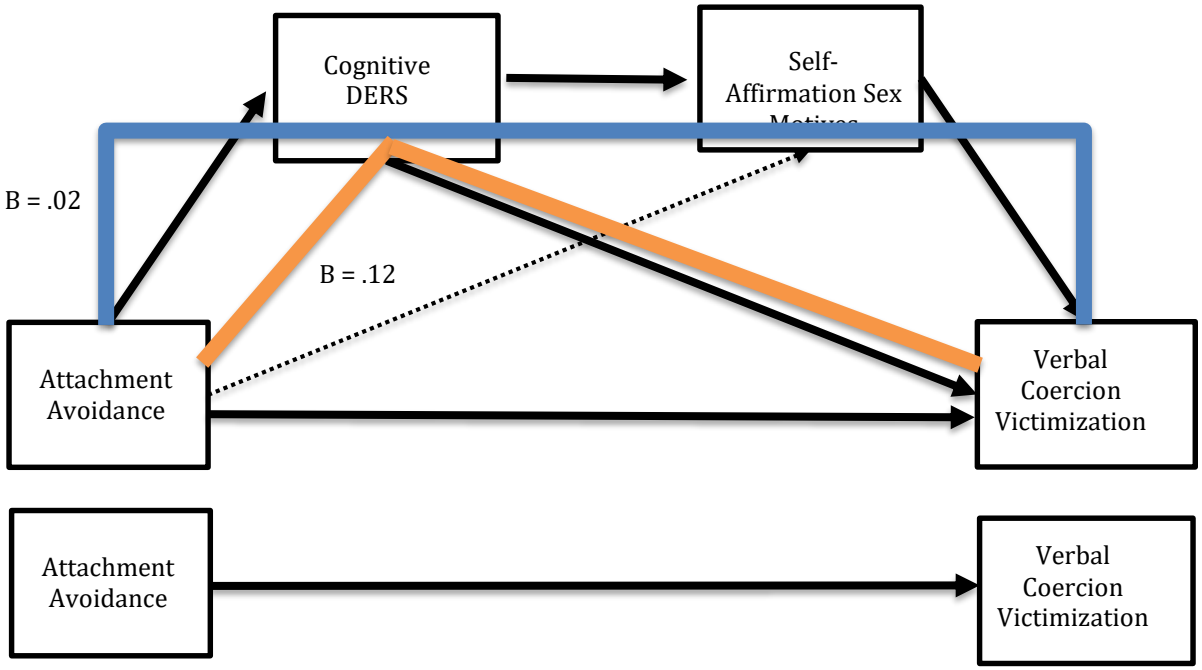

Figure 8: *Significant indirect effects in Model 4, Attachment Avoidance, Cognitive DERS, and Self-Affirmation Sex Motives predicting Verbal Coercion*