



Theses and Dissertations

2015-03-01

The Relationship Among Male Pornography Use, Attachment, and Aggression in Romantic Relationships

Andrew P. Brown
Brigham Young University - Provo

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Marriage and Family Therapy and Counseling Commons](#)

BYU ScholarsArchive Citation

Brown, Andrew P., "The Relationship Among Male Pornography Use, Attachment, and Aggression in Romantic Relationships" (2015). *Theses and Dissertations*. 4397.
<https://scholarsarchive.byu.edu/etd/4397>

This Dissertation is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

The Relationship Among Male Pornography Use, Attachment,
and Aggression in Romantic Relationships

Andrew P. Brown

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

Jonathan G. Sandberg, Chair
Joseph A. Olsen
Brian J. Willoughby
Jeffrey H. Larson
Richard B. Miller

School of Family Life
Brigham Young University

March 2015

Copyright © 2015 Andrew P. Brown

All Rights Reserved

ABSTRACT

The Relationship Among Male Pornography Use, Attachment, and Aggression in Romantic Relationships

Andrew P. Brown
School of Family Life, BYU
Doctor of Philosophy

Clinicians and researchers question how pornography might be impacting the people who view it and their partners. In particular, does pornography link to couples attachment and levels of aggression? Using data collected by the RELATE institute a sophisticated structural equation model was set up to answer this question. In particular, an actor partner interdependence model was used to analyze the relationship among male pornography use, insecure attachment behaviors, relational aggression, and physical aggression in 1630 heterosexual couples. Results indicate higher reports of male pornography use are associated with higher reports of insecure attachment behaviors, relational aggression, and physical aggression. Differences between male and female results, including a direct relationship between male pornography use and male and female insecure attachment behaviors as well as female physical aggression, are discussed. Findings add to current literature on the impact pornography has on individuals and their partners. Implications for clinicians are discussed.

Keywords: male pornography use, attachment behaviors, relational aggression, physical aggression

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank the many people involved in making this possible. First and foremost I owe everything to my Savior, Jesus Christ, through whom all things are possible. His guidance and direction have been unparalleled. His love and support have been desperately needed and willingly offered. The “behind the scenes” work He performed has truly made this dissertation and my overall education a success. Secondly, I would like to thank my mother, for her support and belief in me. Thirdly, I’m grateful for my whole family for their love and support throughout my schooling. They have stuck with me through all of the ups and downs of grad life and have been a constant source of encouragement.

I would also like to thank several mentors. First, Dr. Jill Manning, whose guidance and support in helping me apply, interview, and prepare for graduate school was irreplaceable. Second, Dr. Karen Krupar and Dr. Bill Henry, whose generous research and professional mentoring was exactly what I needed to prepare for graduate work. I’m also indebted to Brent and Vicki Garfield and Jerry and Ellen Runyan, whose care and encouragement for me was part of the catalyst for me to make changes in my life that have brought me to this point.

Finally I would like to thank my dissertation chair and committee. I am tremendously thankful for Dr. Jonathan Sandberg. He is a true mentor. Dr. Sandberg’s level of support and dedication to me and this project exceeded my expectations for which I am deeply grateful. Overall, the personal, professional, and academic education I have received from him will have a positive influence on me the rest of my life. I also want to thank Dr. Joe Olsen, for the time he spent teaching and guiding me on the dissertation. His advice regarding the results, discussion, and overall paper were indispensable. I’m also grateful for the time, energy, and research suggestions offered by Dr. Jeffry Larson, Dr. Brian Willoughby, and Dr. Rick Miller.

Table of Contents

Table of Contents	iv
List of Figures	vi
List of Tables	vii
Introduction.....	1
Literature Review.....	3
Pornography Use by Individuals and Relationship Variables.....	3
Adult Attachment	4
Adult Attachment Behaviors.....	5
Attachment in Couples	6
Adult Attachment and Conflict	7
Relational Aggression	9
Intimate Partner Violence.....	10
Intimate Partner Violence and Pornography	12
Statement of Purpose.....	13
Methods.....	14
Participants	14
Procedure.....	17
Measures.....	17
Physical aggression.....	18
Relational aggression.....	19
Insecure attachment behaviors.....	19

Pornography use.....	20
Analysis.....	20
Results.....	21
Direct Effects.....	23
Hypothesis 1.....	23
Indirect Effects.....	23
Hypothesis 2.....	23
Hypothesis 3.....	27
Hypothesis 4.....	28
Discussion.....	28
Direct Effects.....	29
Hypothesis 1.....	29
Indirect Effects.....	31
Hypothesis 2.....	31
Hypothesis 3.....	35
Hypothesis 4.....	37
Clinical Implications.....	38
Future Research.....	41
Limitations.....	42
Conclusion.....	44
References.....	45

List of Figures

Figure 1. Hypothesized Structural Equation Model.	60
Figure 2. Final Structural Equation Model.	61

List of Tables

Table 1	62
Table 2	63
Table 3	64
Table 4	65
Table 5	66

Introduction

The internet is a medium of communication offering tremendous amounts of information and a variety of ways to connect with others. Search engines such as Google, Yahoo!, and Bing are used by millions each day to find information about an array of topics, including sex. For example, the number of pornographic websites has been estimated at roughly 7 million (Zhao & Cai, 2008). Additionally, a study conducted by Albright (2008) found that the majority of men (75%) who took an online survey on MSNBC.com intentionally looked at pornography. Similar numbers were found in a study among emerging adults who agreed pornography use was acceptable in a relationship (70.8% of men; Olmstead, Negash, Pasley, & Fincham, 2013). These findings may cause some concern because of the negative effects associated with pornography use. For example, pornography use has been linked to physical violence and fewer attachment behaviors in romantic relationships (Brown, 2011; Hald, Malamuth, & Yuen, 2010). Given the wide spread availability of pornography, the seemingly large interest by men to view it, and the potentially negative effects it has on relationships, it is important to examine the impact of male pornography use on couples. However, female pornography use will not be included in this paper due to the differences in use between females and males (Willoughby, Carroll, Busby, & Brown, 2015), in both reasons for and impact of use.

Physical violence of some form (reciprocal, male perpetrated, or female perpetrated) is also estimated to occur in 24% of all adult relationships between ages 18-28 (Whitaker, Haileyesus, Swahn, & Saltzman, 2007). Researchers have examined multiple variables associated with physical violence and found that a link exists between male pornography use and intimate terrorism (one of four sub-types of violence in which one partner physically abuses the other as a means to control that partner; Hald et al., 2010; Johnson & Ferraro, 2000; Johnson,

2006; Simmons, Lehmann, & Collier-Tenison, 2008). While these studies provide evidence for the potentially negative effects of male pornography use and one type of violence, the link between male pornography use and the occurrence of other types of violence have not yet been explored.

Relational aggression is another form of hostility experienced within couple relationships. It is considered to be non-physical aggressive behaviors by one or both partners that hurt the relationship. Although a new construct, Carroll et al. (2010) found the majority of couples in their study reported some level of relational aggression. This is important because a recent study on relational aggression identified an association between it and physical aggression (Oka, Sandberg, Bradford, & Brown, 2014). Nonetheless, no studies have examined the connection between pornography use, relational aggression, and physical aggression.

One theoretical perspective that offers understanding regarding the potential links between male pornography use, relational aggression, and physical aggression in couple relationships is attachment theory (Hazan & Shaver, 1987; Main, Kaplan, Cassidy, 1985; Mikulincer & Shaver, 2007). In only one study adult attachment was studied with both physical aggression and relational aggression (Oka et al., 2014). However, there is no empirical research linking adult attachment, male pornography use, relational aggression, and physical aggression. Thus, the purpose of this study is to better understand the relationship between male pornography use, attachment, and levels of relational aggression and physical aggression in couple relationships.

Literature Review

Pornography Use by Individuals and Relationship Variables

Researchers have found that pornography use by individuals is negatively associated with some relationship variables. For example, lower dedication, lower relationship quality, higher negative communication, more infidelity, and lower relational adjustment were reported by people who had viewed sexually explicit material versus those who never had (Maddox, Rhoades, & Markman, 2011; Manning, 2006). Using observational and experimental data, Lambert, Negash, Stillman, Olmstead, and Fincham (2012) found those who viewed pornography had similar results to Maddox et al. (2011) and Manning (2006), as well as lower levels of commitment.

Researchers have also suggested that pornography use by some was an attempt to escape from negative emotions, experiences, or relationships that were troubling (Adams & Robinson, 2001; Reid & Wooley 2006; Reid, Li, Gilliland, Stein, & Fong, 2011). In another study, compulsive users reported isolating or being secretive about their pornography viewing behaviors (Green, Carnes, Carnes, & Weinman, 2012). Additionally, Albright (2008) found that men who used pornography reported negative appraisal of their partner's bodies.

Concomitantly, pornography viewing by one's partner can be damaging to the partner who does not view pornography. For instance, researchers learned non-using partner's might feel pain, agony, lost, confusion, have a negative appraisal of their own body, and that their partner has been unfaithful to the relationship (Albright, 2008; Bergner & Bridges, 2002; Bridges, Bergner, & Hesson-McInnis, 2003; Manning & Watson, 2008; Zitzman & Butler, 2009).

When the man in a relationship uses pornography by himself, it may have an impact on his own and his partner's attachment. As described above, a person using pornography is likely

to be less dedicated and committed to the relationship. It is also possible that as his pornography use increases it may be an indication he is escaping from his emotions and troubles in the relationship. This could help explain recent research showing an inverse relationship between male pornography use and attachment behaviors, according to both the husband's self-report and spouse's report of him (Brown, 2011). This decrease in attachment behaviors may lead to a lack of security felt by the female in the relationship, which in turn becomes part of the catalyst for the female partner to decrease her attachment behaviors. Additionally, women who feel their partner's pornography use equates to infidelity and/or compulsive behavior might feel unsafe in the relationship. As researchers and practitioners have described, both infidelity and compulsive behavior can be traumatizing for a relationship (Johnson, 2002; Oka et al., 2014). Both of these scenarios of relationship insecurity could lead to a decrease in attachment behaviors by the female partner. In summary, there is some evidence of possible negative consequences of pornography use on a single user and his/her partner, but more research is needed to better understand the relationship between male pornography use and a couple's attachment.

Adult Attachment

The guiding theory for this study is adult attachment. Research has shown that attachment is central to romantic relationships and has been described as the primary motivating force behind human connection (Feeney & Noller, 1990; Mikulincer & Shaver, 2007). Over the years, researchers have sought to understand and define attachment (Bowlby, 1969, 1980; Ainsworth, Blehai, Waters, & Wall, 1978). Ainsworth and colleagues (1967, 1969, & 1978) researched attachment bonds in children including the various behaviors of the avoidant, secure, and anxious patterns. A second generation of attachment scholars (Main, Kaplan, Cassidy, 1985, Hazan & Shaver, 1987, 1990) built on that foundation in order to define adult attachment styles

(Mikulincer & Shaver, 2007). Since then, many researchers have studied adult attachment styles, and differing approaches to measuring attachment have been established and validated (Feeney, 2008).

Despite validated measurement tools already utilized by researchers and clinicians, Johnson and Greenman (2013) have expressed the need for a more precise measurement tool focusing on perceived couple attachment behavior. When measuring attachment style the focus is on the individual's feelings and beliefs about his/her romantic relationship whereas when measuring attachment behaviors the focus is on distinct actions carried out in a relationship that promote attachment security (Sandberg, Bradford, & Brown, in press). Sandberg, Busby, Johnson, and Yoshida (2012) developed and validated the Brief Accessibility, Responsiveness, and Engagement Scale (BARE), which measures attachment behaviors within a couple relationship. Examining attachment behaviors offers unique insight into relationships. For instance, a study measuring attachment styles and behaviors found that while both predict marital quality, attachment behaviors predicted more variance in marital quality than attachment style (Sandberg et al., in press). Consequently, this study will focus on attachment behaviors, rather than attachment style since attachment behaviors appear to more acutely measure the level of attachment in a couple. Because few studies to date have looked at attachment behaviors, relevant research on attachment styles will be referenced throughout the manuscript to create a conceptual and empirical framework.

Adult Attachment Behaviors

Researchers, beginning with Bowlby (1969, 1980) and Ainsworth (1967), have claimed certain behaviors are connected to secure, avoidant, and anxious attachment styles. Bowlby (1980) originally explained “accessible and responsive...” behaviors from an attachment figure

are essential in fostering a secure base (p. 39). In adult romantic relationships, the process is similar; behaviors demonstrating the presence of accessibility and responsiveness by both partners lead to a secure base. Furthermore, according to Johnson (2004), it is important for people who are in a close romantic relationship to engage each other on a deep, emotional level. She said, "...engagement with one's partner is the essence of [positive] change in" a relationship (p. 13). In a secure relationship, both partners take emotional risks, confide in each other, and engage each other in meaningful interchanges. Thus, secure attachment, for the purpose of this paper, is defined as both partners being accessible, responsive, and engaged (A.R.E.) in their romantic relationship (Sandberg et al., 2012).

Attachment in Couples

Adult attachment has been linked with romantic relationships (Feeney & Noller, 1990; Feeney, 2008). Furthermore, available research suggests attachment has a direct influence on couples relationship quality and levels of functioning. For instance, insecure attachment has been found to negatively impact the quality of midlife marriage (Hollist & Miller, 2005) while securely attached couples have higher relationship quality (Feeney, 2008). Moreover, effective family functioning has been associated with greater attachment security between romantic partners (Dickstein, Seifer, St. Andre, & Schiller, 2001). Over the years studies have demonstrated that positive affect, a sense of security, relief, a cushioning against every day stresses, and relationship satisfaction come from an adult having a secure attachment figure in their life (Feeney, 2008; Johnson & Whiffen, 2003; Mikulincer & Shaver, 2007).

Other researchers have found attachment/attachment like behaviors to be linked to marital functioning and satisfaction. One study found attachment style and numerous behaviors (eg. expressing support for spouse's feelings) predicted marital satisfaction (Feeney, 2002).

Another study found the relationship between the wives' attachment and marital satisfaction and functioning was mediated by perceived support from her husband (Rholes, Simpson, Campbell, & Grich 2001). Women who were ambivalently attached and perceived less support from their husbands had a decline in marital satisfaction, whereas women who perceived higher support from their spouse reported higher marital functioning, after a baby was born. More recently, specific measurable secure attachment behaviors: accessibility, responsiveness, and engagement have been linked with marital satisfaction and relationship functioning (Sandberg et al., 2012).

Many studies show adult attachment to be directly linked to health outcomes as well. For instance, couples who are securely bonded in satisfying relationships can have numerous mental and physical health benefits (Coan, Schaefer, & Davidson, 2006; Sandberg, Harper, Miller, Robila, & Davey, 2009). Unfortunately, a variety of physical and mental health problems including mental illness and violence, depressive symptoms, functional recovery from chronic fatigue and fibromyalgia , and pain severity have been linked with attachment avoidance or anxiety (Hammill, 2010; Mcevoy, 2005; Reis & Grenyer, 2004; Tremblay & Sullivan, 2010). One explanation for attachment affecting the quality and overall health of a relationship is the difference in ways people with secure attachment deal with conflict versus those with insecure attachment.

Adult Attachment and Conflict

People who are insecurely attached to their partners are more likely to use maladaptive strategies to resolve conflict and view conflict as more discomforting than people who are securely attached. For instance, fewer positive conflict tactics, poorer conflict management, and increased escalation have been found to be related to insecure attachment styles (Creasey & Hesson-McIness, 2001; Creasey, Kershaw, & Boston, 1999). Insecure attachment has also been

connected to poorer communication skills (assertiveness, interpersonal sensitivity, and self-disclosure; Anders & Tucker, 2000). These findings are supported by other research showing that highly anxious spouses rate their conflicts as coercive and distressing (Feeney, Noller, & Callan, 1994).

Conversely, secure attachment has been associated with positive strategies for handling conflict. Pistole (1989) reported secure individuals were more likely to use constructive problem solving strategies such as compromise and integration than those who were more anxiously attached. Securely attached people are also more likely to be open about expressing positive and negative feelings and show more flexibility and reciprocity when talking with their partner (Feeney, 2008). Furthermore, when a spouse was behaving negatively, the partner's secure attachment was inversely related to neglecting and exiting behaviors (Gaines, Work, Johnson, Youn, & Lai, 2000). Similarly, O'Connell Corcoran and Mallinckrodt (2000) found that confidence in self and others (characteristics of secure attachment) were negatively related to avoidance, and positively associated with integrating and compromising conflict strategies. Hence, insecurely attached people lack conflict management skills, creating greater difficulty in resolving problems with their partner when compared to people with secure attachment.

Not only do insecurely attached people have increased difficulty in resolving conflict, but they have more conflict in the relationship as well. This is supported by Besharat (2003), who discovered that couples with insecure attachment styles are likely to have more relational problems and marital conflict than couples with secure attachment styles. Likewise, Gallo and Smith's research (2001) showed that attachment style predicted the level of social support and conflict between partners. Couples who reported the most support scored below average on

avoidant attachment, while couples who scored above average on anxious attachment, had the most marital conflict.

Thus, available research supports attachment as the primary motivating force behind human connection (Feeney & Noller, 1990; Mikulincer & Shaver, 2007). Whether a person is secure or insecure in a relationship both types of people are motivated by attachment needs to manage closeness and distance in the relationship and the ensuing conflict. Those who are securely attached are more likely to use positive behaviors to deal with conflict and people who are insecurely attached are more likely to use negative behaviors to manage conflict. Likewise, the more secure a person feels in his/her relationship the more likely they will express secure attachment behaviors and fewer relationally aggressive behaviors; accordingly, the more insecure a person feels in the relationship the more likely they are to show fewer secure attachment behaviors and more relationally aggressive behaviors (Oka et al., 2014).

Relational Aggression

Relational aggression is typically defined as non-physical, aggressive actions taken by partners toward each other (Coyne et al., 2011; Carroll et al., 2010; Goldstein, Chesir-Teran, & McFaul, 2008) and is characterized by the “behaviors that harm others through damage (or the threat of damage) to relationships or feelings of acceptance, friendship, or group inclusion” (Crick & Grotpeter, 1995, p 711). Relationally aggressive approaches can include social sabotage (the spread of rumors about a partner, pulling in a third party into an argument with a partner, or embarrassing a partner in front of others) and/or love withdrawal (ignoring one’s partner intentionally or withholding affection; Carroll et al., 2010). As mentioned previously, relational aggression appears to be commonplace in many romantic relationships and across genders (Carroll et al., 2010; Linder, Crick, & Collins, 2002).

These verbal and emotional types of aggression might be maladaptive ways to regulate closeness between partners in a romantic relationship (Oka et al., 2014). For example, an anxious partner might threaten to leave the relationship in hopes their partner will ask them to stay. Or perhaps an avoidant partner might give his partner the cold shoulder because he is afraid to open up and discuss why he feels hurt inside. Unfortunately, relational aggression can have serious consequences. For instance, relational aggression has been linked to substance use, loneliness, social anxiety, and depression (Bagner, Storch, & Preston, 2007). Perhaps the reason many couples experience these types of ramifications is because relational aggression jeopardizes core attachment needs such as: belonging, acceptance, and intimacy. As research suggests, couples with the greatest attachment insecurity also report the highest amount of relational aggression (Wilson, 2010).

Since relational aggression is positively linked with insecure attachment, and is a negative way to manage closeness in a relationship, some researchers have speculated that relational aggression is also a precursor to violence (White, Smith, Koss, & Figueredo, 2000). Oka et al. (2014), found that higher levels of relational aggression were related to higher rates of physical aggression in couple relationships. A possible explanation for this finding is that if non-violent tactics prove ineffective, a partner may escalate to violence to get their relational needs met (Bagner, Storch, & Preston, 2007).

Intimate Partner Violence

Intimate partner violence (IPV) is experienced by both genders through perpetration and victimization. The majority of those injured by IPV are women. However, women may perpetrate violence more often than men (Archer, 2000). Whitaker et al., (2007) found that half of the violent couples in their national sample were reciprocal in violence. They also reported

that in cases of one-sided violence, 70% of the perpetrators were women. Overall, IPV in relationships can be carried out in several forms, such as reciprocal or one-way, and both genders perpetrate and/or are victims of violence.

Researchers have worked to define the various forms of IPV. Four types of IPV in heterosexual couples have been identified: intimate terrorism, violent resistance, mutual violent control, and situational couple violence (Johnson, 2006; Johnson & Ferraro, 2000). Intimate terrorism is one-sided violence in which the perpetrator is attempting to control and dominate their partner and the partner does not respond with violence; the other three types of IPV involve interactions where both partners are violent (Johnson, 2006; Johnson & Ferraro, 2000).

Though historically Feminist theorists and clinicians suggest that the desire for power and domination offer the best explanation for IPV, others argue for a relational/dyadic perspective (Bartholomew & Allison, 2006). One researcher has suggested that violence is a way to manage distance and closeness in a relationship (Pistole, 1994). Additional studies have also conceptualized IPV as having a circular relationship with attachment (Logan, 2006; Oka & Whiting, 2011; Stith, McCollum, & Rosen, 2011). In their review, Dutton and White (2012) found that attachment insecurity played a key part in the commission of IPV. For instance, one study found dismissive or fearful partners used violence as a tactic to create distance, while anxious-preoccupied partners used violence as a means for obtaining closeness (Allison, Bartholomew, Mayseless, & Dutton, 2008). Thus, IPV has been theorized from a dyadic perspective and has been linked with attachment; research suggests it is also related to pornography use (Hald et al., 2010).

Intimate Partner Violence and Pornography

A link between violence and pornography has been empirically established. According to a meta-analysis of nine non-experimental studies that included mostly male participants, pornography was positively linked to physical aggression (Hald et al., 2010). These studies suggest that viewing either non-violent or violent pornography is positively related to attitudes supporting violence against women, where watching violent pornography was more strongly associated with this finding than watching non-violent pornography. The authors concluded that future research identifying moderating variables would likely clarify the relationship between pornography and aggression towards women, since the overall results were weak.

More recently, Malamuth, Hald, and Koss (2012) found two moderating variables between pornography use and attitudes of aggression towards women. They found that "...the association between pornography use and attitudes supporting violence varied as a function of men's risk level for sexual aggression" (p. 435). They also found that frequent pornography use was associated with attitudes of aggression. However, the assessment for "frequency of use" used in this study was not defined beyond the following four options: 1-Never, 2- Seldom, 3- Somewhat frequently, and 4- Very Frequently. These findings help explain the contrasting results from Smith and Hand (1987), who found no link between aggression and pornography in a longitudinal study. In the preceding weeks, Smith and Hand (1987) asked 230 women about levels of aggression from their male partner, and then they showed those women and some of their partners a pornographic video. In the proceeding weeks, the authors asked the same women to report again on the level of aggression experienced by their male partners. Findings from this study suggest that a onetime viewing of pornography will not likely yield an attitude of aggression toward women. However, higher frequency of pornography use, as well as individual

risk for sexual aggression, are associated with attitudes supporting aggression towards women. This research supports the notion that moderating variables can help define the relationship between male pornography use and aggression towards women.

Statement of Purpose

As suggested by Hald et al. (2010), clearly identifying moderating variables would help clinicians and researchers better understand the link between male pornography use and physical aggression. Research and theory suggest the more a person views pornography there is a possibility insecure attachment will increase. As insecure attachment behaviors increase there is a chance of an increase in relational aggression in order to manage the relational tension and closeness. It has also been theorized, along with relational aggression, physical aggression is a means to manage the closeness in the relationship (it is important to note, the theory and model being proposed is simply one of several ways to explain these relationships). This type of relationship between the variables discussed led the researchers to believe that mediation would be a better test of the variables' relationships than moderation because mediating variables transmit or intervene between variables versus moderating variables that influence the relationship between two variables (Vogt, 2005). In other words, it is believed that insecure attachment and relational aggression will transmit the effects of male pornography use to physical aggression rather than influence the relationship between male pornography use and physical aggression. Thus, the purpose of this study is to test whether higher reports of male pornography use are associated with higher reports of physical aggression in both male and females. Another purpose is to test if higher reports of male pornography use are linked to both male and female insecure attachment behaviors and relational aggression in conjunction with both male and female physical aggression. It is hypothesized that:

1. **Direct effect.** Male pornography use will be associated with both male and female physical aggression (See Figure 1, paths A and B). Increase in pornography use will be related to increases in male/female physical aggression.
2. **Indirect effects related to insecure attachment and relational aggression.** The relationship between male pornography use and male/female physical aggression will be mediated by male/female insecure attachment behaviors and male/female relational aggression (see Figure 1, paths C-D-E, C-D-R, C-M-Q, C-M-H, F-G-H, F-G-Q, F-N-R, and F-N-E). As male pornography use increases insecure attachment behaviors, relational aggression, and physical aggression will increase.
3. **Indirect effects related to relational aggression.** Both male/female relational aggression will mediate the relationship between male pornography use and male/female physical aggression (See Figure 1, paths I-E, I-R, J-Q, and J-H). As male pornography use increases, male/female relational aggression will increase as well as male/female physical aggression.
4. **Indirect effects related to insecure attachment.** Both male/female insecure attachment behaviors will mediate the relationship between male pornography use and male/female physical aggression (See Figure 1, paths C-K, C-L, F-P, and F-O). As male pornography use increases, male/female insecure attachment behaviors and male/female physical aggression will increase.

Methods

Participants

The participants in this study were adults age 18 and over who took the RELATE questionnaire from March 2011 through January 2014.

Demographics from the data set utilized show a total of 1,630 couples (1,609 couples were heterosexual and 21 couples were missing one of the partner's gender self-identification). The majority of females reported their relationship statuses as engaged (56.4%), with the remaining participants reporting as either being in a serious dating relationship (23.3%) or married (19.8%). Males reported their relationship status as 23.8% seriously dating, 56% engaged, and 19.8% married. About 41% of women and 38% of men reported that they were cohabiting with their partner, but not married. The overall mean age for males = 32.57 (SD = 9.22, range 18-79), and for females = 30.67 (SD = 9.75, range 18-70). For males, 75.8% of the sample was Caucasian, 5% Asian, 5% Latino, 9.2% African American, 2.9% Mixed/Bi-racial, and 2.1% other. For females, 73% of the sample was Caucasian, 6.8% Asian, 5.7% Latina, 7.7% African American, 3.9% Mixed/Bi-racial, and 2.8% other. For males, 16.1% made \$19,999 or less, 34.3% earned between \$20,000 and \$59,999, the remaining 49.6% made between \$60,000 and \$300,000 or more. For females, 31.2% earned \$19,999 or less, 35.8% made between \$20,000 and \$59,999, the remaining 33% earned between \$60,000 and \$300,000 or more. For education, the number of males who have a high school diploma or less was 9.1%, 27% reported some college or an associate's degree, 32.5% have their bachelor's degree, and 31.5% were enrolled in a graduate program or completed their graduate degree. The number of females that have a high school diploma or less was 2.7%, 27.3% had some college or have an associate's degree, 29% have their bachelor's degree, 41% are enrolled in a graduate program or completed their graduate degrees.

Religious/non-religious representation for males in the sample was as follows: Protestant- 34.3%, None- 29.9%, Catholic – 19.9%, Latter Day Saints (LDS)- 1.8%, while the remaining 14.1% included: Jewish, Islamic, Hindu, Unitarian, Pagan, Bahai, and Other. The religious/non-

religious representation for the female partners in the sample was similar: Protestant- 33.6%, None- 23.7%, Catholic- 17.7%, LDS- 2.9%, the remaining 22.1% included: Jewish, Islamic, Buddhist, Hindu, Orthodox, Unitarian, Pagan, Bahai, and Other. In summary, the couples were about 30-32 years old, highly educated, middle-class, and Caucasian.

As research has shown men are more likely to accept and use pornography and women are less likely which is congruent with our sampling (Albright, 2008; Olmstead, Negash, Pasley, & Fincham, 2013). The majority of women either did not use pornography (61%) or viewed it infrequently (29.2% viewed it once a month or less). However, the majority of men in our sample did use pornography at some level. The following are percentages of male pornography use over a 12 month period: 26.5% who did not view pornography, 26.3% who viewed pornography once a month or less, 19.9% who viewed pornography 2-3 days a month, 15.4% who viewed pornography 1-2 days a week, 8.6% who viewed pornography 3-5 days per week, and 2.6% who viewed pornography almost every day. Approximately 60% of female partners estimated their male partner used pornography once a month or less to almost every day, the remaining 40% reported their male partner did not view pornography. Furthermore, 20.3% of the male sample reported viewing pornography with their partner at least some of the time, as follows: 11.6% viewed three quarters of the time alone and one quarter of time with their partner, 2% viewed half the time alone and half the time with their partner, 2.7% viewed one quarter of time alone and three quarters time with their partner, and 4% viewed 100% of the time with their partner. Due to the higher frequency of pornography use among males and the very low frequency of use among females the analysis will focus on male pornography use.

Procedure

Data was collected using the online **RELAT**ionship **E**valuation (RELATE; Busby, Holman, & Taniguchi, 2001) from March 2011 to January 2014, when the final revised BARE questions were added. The questionnaire consists of more than 300 items from various established measures, including those used for this analysis. RELATE is offered to those in relationships as well as those who are not. However, for this project, only those who took the assessment as a couple were included. Couples responded to items about perceptions of themselves and their partner on four major contexts: (a) individual, (b) couple, (c) family, and (d) social. Participants can choose to receive an evaluation of their responses which is to be interpreted by the participants themselves. Participants were recruited by referral from therapeutic professionals, professors, researchers, and various forms of advertising. Those included in the analysis consented to have their data used for future research projects.

Measures

The following control variables were used: male and female income, male and female education level, male and female amount of violence in home growing up, gender, and male and female age. Race, as argued by Rennison and Planty (2003), was no longer a factor when including gender and socioeconomic status, and therefore was not included.

Partner reports were used in place of self-reports for every measure except pornography use. For instance, the scores for men's Brief Accessibility, Responsiveness, and Engagement (BARE) scale are based on females' perceptions of their male partners' attachment behaviors. Research shows the actor's perception of his/her partner's attachment behavior predicts the same or more variance in the actor's perception of his/her relationship quality (Bradford, Novak, Sandberg, & Busby, 2015). Similarly, victims (i.e partners) are likely to report more incidents of

IPV than the perpetrator (Cui, Lorenz, Conger, Melby, & Bryant, 2005; Jouriles & O'Leary, 1985; Browning & Dutton, 1986). Moreover, self-reports of violence were found to have a negative correlation with social desirability (i.e trying to make a good impression socially), as social desirability increases reports of violence decrease (Sugarman & Hotaling, 1997).

Furthermore, in a study using male pornography use to predict self-report of his BARE and his partner's report of his BARE (Brown, 2011), results indicated significant relationships between the female partner's report of her male partner's BARE and his pornography use. Although no research to date has measured the difference between actor and partner perceptions of relational aggression, it is assumed partner reports are likely to produce similar results (predict more variance and show higher frequency rates than self-reports) according to the related research.

Self-report of pornography use was used based on research and the current sampling. Research shows people who use pornography tend to be more secretive about their viewing behaviors (Green et al., 2012). In this sample, approximately 60% of females reported their male partner using pornography, however 73.5% of men reported using pornography at some level. Since research suggests those who use pornography are more secretive and given the 13.5% discrepancy between males and females knowledge of male pornography use, it was decided to use male's self-report of pornography use because it appears to be a more accurate measure.

Physical aggression. To measure physical aggression, three indicators were used from the partner reports on the physical aggression sub-scale included in the Revised Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS-2 asked participants to report on the frequency of their behaviors and their partner's behaviors over the last year, and gives a choice of values ranging from 0 ("This has never happened") to 7 ("More than 20 times in the past year"). RELATE uses three items from the CTS-2 which were used to

form the latent *physical aggression* variable, the items are: “My partner threw something at me that could hurt,” “My partner pushed or shoved me,” “My partner punched or hit me with something that could hurt.” This scale has a Cronbach’s alpha of .670 for the female partner scale and .820 for the male partner scale.

Relational aggression. To measure relational aggression, we used items from the Couples Relational Aggression and Victimization Scale (CRAVIS), which was developed by Nelson and Carroll (2006). The CRAVIS is a modification of the Self-Report of Aggression and Victimization measure (Linder, Crick, & Collins, 2002). It was modified to specifically measure relational aggression in romantic relationships. This analysis included seven items from the full CRAVIS measure, measured on a 5-point scale ranging from 1 (“Never”) to 5 (“Very often”). Items included things like, “My partner has threatened to end our relationship in order to get him/her to do what I wanted;” or, “My partner has spread rumors or negative information about me to be mean.” Typically, for this measure, a higher total score would mean less relational aggression. However, for ease of analysis, we chose to reverse code the items, indicating, instead, that higher CRAVIS scores meant more relational aggression. The Cronbach alpha for the male partner scale was .835 and for the female partner scale was .830.

Insecure attachment behaviors. The measure of insecure attachment behaviors for this analysis was the Brief Accessibility, Responsiveness, and Engagement (BARE) Scale (Sandberg, et al., 2012). The BARE measures specific attachment behaviors (accessibility, responsiveness, and engagement) to help researchers and clinicians better understand the perceptions of attachment behaviors in the couple relationship. Participants use a Likert scale to rate each statement such as: “*I am rarely available to my partner.*” This 12-item (6-self and 6-partner) measure has displayed good reliability and validity (Sandberg, et al., 2012). As with the other

measures in this study, we used the partner reports (6 items) from BARE in the analysis as shown in the following example, “*My partner is rarely available to me.*” For this study, higher scores equate to higher rates of perceived insecure attachment behaviors. The Cronbach alpha for the male partner scale was .830 and for the female partner scale was .876.

Pornography use. Frequency of pornography use was measured using a single question. The question was, “During the last twelve months on how many days did you view or read pornography (i.e., movies, magazines, internet sites, adult romance novels)?” The selection of answers included: 0= None, 1= Once a Month or Less, 2= 2 or 3 days a month, 3= 1 or 2 days a week, 4= 3-5 days a week, 5= Almost Every day. Although this study is confined to the current question utilized in RELATE, some research shows there is a difference in the type of pornography used, specifically violent pornography has a stronger relationship with aggression than viewing non-violent pornography (Hald et al., 2010).

Analysis

Exploratory analysis of variables included: correlations, frequency distributions, and tests of skewness and kurtosis. These calculations helped determine the type of relationship between the variables explored. All scales reflect higher scores equating to more problematic behaviors.

The primary analysis conducted used the Actor Partner Interdependence Model (APIM; See Figure 1). APIM uses structural equation modeling (SEM) techniques to account for the relatedness of couple scores by using the couple as the unit of analysis (Kenny, Kashy, & Cook, 2006). In this case, we examined the relationship between the male predictor variable (male self-report of pornography use) to male and female outcome variables (insecure attachment behaviors, relational aggression, and physical aggression; See Figure 1). It is important to note, that although the model represents a way of conceptualizing the relationship among variables

that is consistent with previous research, we recognize there are other approaches to test associations among these variables (see Figure 1).

A full SEM estimates relationships among latent variables. This model includes six latent variables and 5 observable variables (four gender specific control variables, one predictor) for each gender. We determined goodness-of-fit based on the comparative fit index (CFI; Bentler, 1990), the non-normed fit index (NNFI or TLI in Mplus; Bentler & Bonett, 1980) and the root mean square error of approximation (RMSEA). We also computed the chi-square to degrees of freedom ratio (χ^2/df). For the CFI and TLI, values above .90 are necessary for acceptable fit, while values above .95 indicate a good fit (Hu & Bentler, 1999). For χ^2/df , values between 3 and 5 are considered acceptable fit, while values under 3 are seen as well fitting (Kline, 1998). Values under .06 are considered a good fit based on the RMSEA.

Results

Pearson two tailed correlations were calculated among all the observed variables but a table is not provided due to the number of variables used. The range of these correlations was $r = .018$ to $r = .702$. The correlations that were above .599 are as follows: male and female participants answering the following “My partner is rarely available to me” and “It is hard for me to get my partner’s attention” ($r = .601$, $p < .001$ and $r = .624$, $p < .001$, respectively), number of times female has hit and pushed male partner $r = .702$ ($p < .001$), frequency of male partner being cold and withholding physical affection $r = .686$ ($p < .001$), frequency of male partner being cold and intentionally ignoring his female partner $r = .636$ ($p < .001$). The range of correlations for all latent variables was .215 to .572 (See Table 1 for details).

Means and standard deviations of latent variables were also calculated and are as follows: Male Pornography Use = 1.61 (SD= 1.39), Male BARE = 1.88 (SD= .72), Female BARE= 1.81

(SD= .61), Male Relational Aggression= 1.45 (SD= .57), Female Relational Aggression= 1.6 (SD= .62), Male Physical Aggression= .14 (SD= .47), and Female Physical Aggression= .31 (SD= .82).

Test of Skewness showed positively skewed data regarding physical aggression and pornography use. Test of Kurtosis showed physical aggression to be leptokurtic. A large number in the sample report their partners as not being physically aggressive nor having been physically aggressive in the past. Skewness ranged from 3.667 to 4.863 (SE= .061) and kurtosis ranged from 15.952 to 28.199 (SE= .121; See Table 2 for a list of frequencies of latent variable indicators). Male pornography use had a slight positive skew (Skewness = .555, SE=0.061; Kurtosis =-.623, SE= 0.122) but overall had a reasonably good distribution: none= 432 (26.5%), once a month or less= 429 (26.3%), 2 or 3 days a month= 325 (19.9%), 1 or 2 days a week = 251 (15.4%), 3 to 5 days a week = 140 (8.6%), and almost every day = 43 (2.6%). Mplus, version 7.3, statistical software, by Muthen and Muthen, was used to calculate the APIM and to confirm the indirect effects. Mplus has a default estimator WLSMV to help compensate for the positive skew. Bootstrapping could not be used to diagnose indirect effects due to the high level of skewness (Kline, 1998) in physical aggression.

The model had a good fit according to the following indicators: CFI= .969, TLI= .961, RMSEA= 0.034, and $\chi^2(1064) = 3092.219, p < .001$. In addition, factor loading variables for all latent variables were within the range of 0.716 to 0.962 ($p < .001$; see Table 3). These results indicate that the latent variables were well represented by their indicators. The following results are standardized estimates of the direct and indirect pathways.

Direct Effects

Hypothesis 1. *Male pornography use will be associated with both male and female physical aggression. As pornography use increases, so will male/female physical aggression.*

This hypothesis was partially supported by the data. There was a significant path from male pornography use to female physical aggression ($\beta=.609$ (.164), $p<.001$); however, there was a non-significant path from male pornography use to male physical aggression ($\beta=.172$ (.101), $p=.089$). This suggests that male pornography use is not directly associated with physical aggression for males, as reported by his female partner, but it is associated with physical aggression in females as reported by her male partner. A one standard deviation increase in reports of male pornography use is associated with a .609 standard deviation increase in reports of female physical aggression. Throughout this paper units of measurement for all variables are standard deviations but for simplicity the term “units” will be used, and all latent variables represent partner reports.

Indirect Effects

Hypothesis 2. *The relationship between male pornography use and male/female physical aggression will be mediated by male/female insecure attachment behaviors and male/female relational aggression. As male pornography use increases insecure attachment behaviors, relational aggression, and physical aggression will increase.* This hypothesis was mostly supported by the data. For instance, even though male pornography use was not directly associated with his physical aggression, the sum of indirect paths was significant (.275 (.039), $p<.001$), including five of the eight specific indirect paths (see Table 4). Both the male’s insecure attachment behaviors and his relational aggression mediated the relationship between his pornography use and his physical aggression. Increases in male pornography use by one unit are

associated with a .524 (.051, $p < .001$) unit increase in his insecure attachment behaviors. A one unit increase in his insecure attachment behaviors are related to a .533 (.037, $p < .001$) unit increase in his relational aggression. And a one unit increase in the male's relational aggression is associated with a .316 (.067, $p < .001$) unit increase in his physical aggression (See Figure 2 for all of the regression coefficients). The product of the path coefficients over this three step indirect path from male pornography use to male physical aggression was .088 (.021; $p < .001$) units. Thus, a one unit increase in male pornography use is related to a .088 unit increase in his physical aggression as a result of this mediational sequence (See Figure 2 and Table 4).

As expected, there were also partner effects indirectly mediating the effect of male pornography use on male physical aggression. Both the female's insecure attachment behaviors and her relational aggression mediated the relationship between his pornography use and his physical aggression. A one unit increase in the male's pornography use is related to a .453 (.047, $p < .001$) unit increase in her insecure attachment behaviors. A one unit increase in her insecure attachment behaviors is associated with a .565 (.028, $p < .001$) unit increase in her relational aggression. And a one unit increase in the female's relational aggression is related to a .257 (.066, $p < .001$) unit increase in his physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to male physical aggression was .066 (.02, $p < .02$) units. Therefore, as a result of this mediational sequence a .066 unit increase in his physical aggression is related to a one unit increase in his pornography use (See Figure 2 and Table 4).

Additionally, both female insecure attachment behaviors and female relational aggression worked in conjunction with male insecure attachment behaviors and male relational aggression in mediating the relationship between male pornography use and male physical aggression. For

instance, one significant indirect path was male pornography use to female insecure attachment behaviors, to male relational aggression and male physical aggression. A one unit increase in male pornography use is associated with a .453 (.047, $p < .001$) unit increase in female insecure attachment behaviors. A one unit increase in female insecure attachment behaviors is related to a .115 (.035, $p < .02$) unit increase in male relational aggression. And a one unit increase in his relational aggression is associated with a .316 (.067, $p < .001$) unit increase in his physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to male physical aggression was .016 (.006, $p < .02$) units. A one unit increase in male pornography use is related to a .016 unit increase in his physical aggression through this particular pathway (See Figure 2 and Table 4).

Another significant path goes from male pornography use through male insecure attachment behaviors and female relational aggression, and then to male physical aggression. A one unit increase in male pornography use is associated with a .524 (.051, $p < .001$) unit increase in his insecure attachment behaviors. A one unit increase in male insecure attachment behaviors is associated with a .212 (.035, $p < .001$) unit increase in female relational aggression. And a one unit increase in her relational aggression is related to a .257 (.066, $p < .001$) unit increase in his physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to male physical aggression was .029 (.010, $p < .02$) units. According to this pathway, a one unit increase in male pornography use is associated with a .029 unit increase in his physical aggression (See Figure 2 and Table 4).

The sum of indirect paths from male pornography use to female physical aggression (.119 (.054), $p < .03$) as well as several specific indirect paths were significant. One path went from male pornography through female insecure attachment behaviors and female relational

aggression to female physical aggression. A one unit increase in male pornography use is related to a .453 (.047, $p < .001$) unit increase in her insecure attachment behaviors. A one unit increase in female insecure attachment behaviors is associated with a .565 (.028, $p < .001$) unit increase in female relational aggression. And a one unit increase in female relational aggression is related to a .489 (.065, $p < .001$) unit increase in her physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to female physical aggression was .125 (.025, $p < .001$) units. A one unit increase in male pornography use is associated with a .125 unit increase in her physical aggression through this pathway (See Figure 2 and Table 5).

The effect of male pornography use on female physical aggression was mediated through partner effects as well. For example, both male insecure attachment behaviors and male relational aggression mediated the effect of male pornography use on female physical aggression. A one unit increase in male pornography use is related to a .524 (.051, $p < .001$) unit increase in his insecure attachment behaviors. A one unit increase in male insecure attachment behaviors is associated with a .533 (.037, $p < .001$) unit increase in male relational aggression. And a one unit increase in his relational aggression is associated with a .153 (.065, $p < .001$) unit increase in her physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to female physical aggression was .043 (.019, $p < .05$) units. A one unit increase in male pornography use is related to a .043 unit increase in her physical aggression through this path (See Figure 2 and Table 5).

The other significant indirect path went from male pornography use to male insecure attachment behaviors and then to female relational aggression and physical aggression. A one unit increase in male pornography use is associated with a .524 (.051, $p < .001$) unit increase in his

insecure attachment behaviors. A one unit increase in male insecure attachment behaviors is related to a .212 (.035, $p < .001$) unit increase in female relational aggression. And a one unit increase in female relational aggression is associated with a .489 (.065, $p < .001$) unit increase in female physical aggression. The product of the path coefficients over this three step indirect path from male pornography use to female physical aggression was .054 (.015, $p < .001$) units. Through this specific path, a one unit increase in male pornography use is related to a .054 unit increase in her physical aggression (See Figure 2 and Table 5).

Hypothesis 3. *Both male/female relational aggression will mediate the relationship between male pornography use and male/female physical aggression. As male pornography use increases, male/female relational aggression will increase as well as male/female physical aggression.* This hypothesis was partially supported. There was no significant indirect path from male pornography use to female or male physical aggression through female relational aggression. However, there was a significant indirect path from male pornography use to male physical aggression mediated by male relational aggression. A one unit increase in male pornography use is associated with a .139 (.05, $p < .02$) unit increase in the male's relational aggression. And a one unit increase in his relational aggression is related to a .316 (.067, $p < .001$) unit increase in his physical aggression. The product of the path coefficients over this two-step indirect path from male pornography use to male physical aggression is .044 (.017, $p < .02$) units. Thus, a one unit increase in male pornography use is associated with a .044 unit increase in male physical aggression as a result of this particular path sequence (see Figure 2 and Table 4).

The other specific indirect path that was significant was from male pornography use to female physical aggression mediated by his relational aggression. A one unit increase in his pornography use is related to a .139 (.05, $p < .02$) unit increase in his relational aggression. And a

one unit increase in his relational aggression is associated with a .153 (.068, $p < .03$) unit increase in her physical aggression. The product of the path coefficients over this two-step indirect path from male pornography use to female physical aggression was .021 (.009, $p < .02$) units. A one unit increase in male pornography use is related to a .021 unit increase in female physical aggression through this pathway (see Figure 2 and Table 5).

Hypothesis 4. *Both male/female insecure attachment behaviors will mediate the relationship between male pornography use and male/female physical aggression. As male pornography use increases, male/female insecure attachment behaviors and male/female physical aggression will increase.* This hypothesis was not supported. There was only one specific indirect path and it had a suppression effect (the relationship between the two variables was reduced due to another variable/s in the model, Vogt, 2005). The path from male pornography use to female physical aggression as mediated by male insecure attachment behaviors, had a suppression effect on male insecure attachment behaviors according to the difference in sign between the regression coefficient ($\beta = -.178$ (.073), $p < .02$) and zero order correlation ($r = .361$ (.025), $p < .001$; Mplus TECH4 output).

Discussion

Overall, three of the four hypotheses were partially supported, and one hypothesis was not supported by the results. Male pornography use was directly related to both male and female attachment behaviors, male relational aggression, and female physical aggression. Male pornography use was also indirectly related to male and female physical aggression through relational aggression. These findings add to the current literature regarding pornography use and aggression in relationships. More specifically, this is the first study to show a direct relationship between male pornography use and female physical aggression. The findings also support

previous work regarding the association between male pornography use and male attachment behaviors and shed new light on the relationship between male pornography use and female attachment behaviors. Finally, it is crucial, at this point, to acknowledge that the model used and concurrent discussion are just one out of several ways to conceptualize the aforementioned relationships and future researchers are encouraged to explore other possible relationships where the outcome variables could serve as predictors.

Direct Effects

Hypothesis 1. *Male pornography use will be associated with both male and female physical aggression. As pornography use increases, so will male/female physical aggression. The pathways tested for this hypothesis are as follows: Male Pornography Use => Male Physical Aggression and Male Pornography Use => Female Physical Aggression.* This hypothesis was partially supported. In this sample, increases in male pornography use were related to increases in female partner's physical aggression, but not male physical aggression. There are a number of potential explanations for these findings. First, according to a meta-analysis, women are more likely to be physically violent than men (though male physical aggression is more lethal; Archer, 2000). Second, the initial discovery, confession, and/or ongoing use of pornography by the male partner could be traumatizing to the female partner. She might be feeling pain, lost, confusion, hurt that her partner might be looking at her body less favorably, fear of losing the relationship, or that he has been/continues to be unfaithful (Albright, 2008; Benjamin & Tlusten, 2010; Bergner & Bridges, 2002; Bridges et al., 2003; Manning & Watson, 2008; Zitzman & Butler, 2009). This may lead to an assessment the relationship is in jeopardy and trigger attachment fears (Zitzman & Butler, 2009). Research suggests a partner in this situation may use physical aggression to try to reach her male partner and elicit a response,

which can signify he still cares about the relationship (Allison et al., 2008; Bagner et al., 2007). More research is needed to better understand this phenomenon.

Additionally, male pornography use did not directly relate to his own physical aggression, which runs contrary to previous research (Hald et al., 2010). The reason for this discrepancy may be related to the mediating variables. To our knowledge, this is the first time both insecure attachment behaviors and relational aggression have been introduced as mediating variables between male physical aggression and male pornography use, both of which may influence the relationship between male pornography use and physical aggression. Moreover, instead of self-reports, partner reports were used for insecure attachment behaviors and relational aggression, providing a different perspective on both variables which may account for the lack of significance.

A post-hoc analysis confirmed that the use of partner reports affected the relationship between male pornography use and male physical aggression. Using the same APIM with self-reports instead of partner reports for the mediating variables, a direct effect was found between male pornography use and his female partner's report of his physical aggression ($\beta=.214$ (.089), $p<.02$). This finding might be explained by research showing the use of partner reports measuring attachment behaviors are likely to predict more variance in relationship quality than self-reports (Bradford et al., 2015). It is possible that the partner reports of both insecure attachment and relational aggression account for more of the variance between male pornography use and male physical aggression than self-reports, which may explain the non-significant finding. In this study, partner reports of physical aggression were used because previous research suggests partners tend to report higher frequencies than the perpetrators (Cui, Lorenz, Conger, Melby, & Bryant, 2005; Jouriles & O'Leary, 1985; Browning & Dutton, 1986).

Another possible reason why male pornography use did not directly relate to his physical aggression, as in previous research, may be due to differences in measurement. Hald et al. (2010), looked at attitudes supporting violence against women as well as attitudes towards rape and sexual harassment, whereas the current study measured reports of violent behaviors carried out in the relationship. Also, it is possible that the reason male pornography use did not directly relate to his physical aggression is because of a difference in samples. In this study, 413 couples reported experiences with violence at some level: 145 couples reported reciprocal violence (35%), 61 couples reported male perpetrated violence (15%), and 207 couples reported female perpetrated violence (50%). Hence, for some males, their physical aggression might be more interactive, rather than attempts to dominate, as described in previous research (Johnson, 2006; Johnson & Ferraro, 2000), which may help explain the related indirect effects.

Indirect Effects

Hypothesis 2. *The relationship between male pornography use and male/female physical aggression will be mediated by male/female insecure attachment behaviors and male/female relational aggression. As male pornography use increases, insecure attachment behaviors, relational aggression, and physical aggression will increase. (See Tables 4 and 5 for a complete list of pathways tested for this hypothesis).* This hypothesis was also partially supported by the data. The actor effects revealed that increases in male pornography use were related to increases in both partner's insecure attachment behaviors, relational aggression, and physical aggression. This mediation by insecure attachment behaviors and relational aggression could help explain why male pornography use is indirectly related to physical aggression. One way to explain the indirect effect from male pornography use through female insecure attachment behaviors and relational aggression to female physical aggression is through an attachment lens. Men who use

pornography might be emotionally escaping, isolating, feeling less dedicated and committed to the relationship, and/or avoiding their partner (as indicated by his insecure attachment behaviors; Adams & Robinson, 2001; Green et al., 2012; Lambert et al., 2012; Maddox et al., 2011; Reid et al., 2011; Reid & Wooley 2006), which in turn may contribute to feelings of insecurity for the female partner (as indicated by her insecure attachment behaviors). Furthermore, other researchers have suggested relational aggression can be used to manage closeness (Oka et al., 2014). If the relational aggression does not work to re-engage him, then it is possible a female partner may escalate to physical aggression as suggested by White et al. (2000).

The significant association between female relational and physical aggression was non-significant in previous research (Oka et al., 2014). The reason for this difference may be due to the addition of male pornography use, which Oka et al. (2014) did not include, and is related to increased insecure attachment behaviors and the overall indirect effect (See Table 5). Another potential explanation for these findings is the use of partner reports. Previous research has shown partner reports of insecure attachment behaviors account for more variance in relationship quality than actor reports (used in Oka et al. 2014; Bradford et al., 2015). Thus, in this study, it is plausible that a similar effect has occurred, namely, more variance might be accounted for in the use of the male partner's report of her relational aggression versus her self-report. In other words, in couple relationships the male partner's perspective of his female partner's relational and physical aggression is different than her own perspective and may be the reason a link between female relational aggression and female physical aggression was found in this study and not in previous work. Future research would need to test this possibility.

Likewise, Attachment Theory can be used to explain the indirect effects of male pornography use through his insecure attachment behaviors and relational aggression to his

physical aggression. When men view pornography, they may be feeling less dedicated or committed to the relationship, emotionally escaping, isolating, and/or avoiding their partner (Adams & Robinson, 2001; Green et al., 2012; Lambert et al., 2012; Maddox et al., 201; Reid et al., 2011; Reid & Wooley 2006) which could explain displays of insecure attachment behaviors. Moreover, relational aggression and physical aggression could be ways for the male to isolate and create distance between him and his partner. This concept is supported by Dumas, Pearson, Elgin, and McKinley (2008) who described avoidant men as less likely to be violent unless they are paired with an anxiously attached woman. Thus, the male's use of violence may be in response to his partner's insecure attachment behaviors or relational aggression in the relationship. Although this study is cross sectional and cannot confirm this interactive pattern surrounding IPV, the partner effects found indicate the presence of these variables between both partners.

Partner effects confirmed male pornography use, insecure attachment behaviors, relational aggression, and physical aggression are related not only for the actors but between actor and partner, suggesting an interactive pattern. For instance, his pornography use and increase in insecure attachment behaviors were correlated with an increase in his and her relational aggression, and also an increase in her physical aggression (see Table 5). For the female, these results may suggest she is appraising her male partner's pornography viewing and insecure attachment behaviors as threatening to the relationship and responding with aggression. For women who are unaware of their male partner's pornography use, (in this study 73.5% of men and only 60% of their female partners reported the male using pornography), they may assess their male partner's insecure attachment behaviors as threatening to the relationship and respond with aggression. Due to cross-sectional data, this is only an inference of the results.

According to previous research (Whiting, Smith, Oka, & Karahurt, 2012), this interactive pattern of aggression can be described as a three step process: condition, appraisal, and action. This model suggests that a relational event sparks a sense of safety or threat (condition; Whiting et al., 2012). In this case, the male's use of pornography and increase in insecure attachment behaviors, or his relational aggression (condition), may elicit a sense of threat to the relationship. This sense of threat, to the female, could bring up feelings of fear, anger, shame, and insecurity, which is part of the appraisal process (Whiting et al., 2012). After the appraisal, the model suggests an action is taken. Whiting et al., (2012) noted the most frequent response to threat appraisals was escalation/reaction, but people also reported stonewalling, placating, and de-escalating. To apply these findings to the current study, the female might respond to the threatening condition with relational and/or physical aggression. However, due to cross-sectional data this sequence of events is an inference of the results and future research would need to test this theory longitudinally or qualitatively.

Whiting et al. (2012) explained that this process of condition, appraisal, and action can be cyclical; as the action of one partner becomes the condition for the other. This explanation fits well with the partner effects relating to male physical aggression. Male pornography use was associated with both male and female insecure attachment behaviors, which also correlated with both partners' relational aggression, and finally male's physical aggression (See Table 4).

To illustrate, if the male uses pornography (condition), his female partner might view this as a threat to the relationship (appraisal), and respond with an increase in insecure attachment behaviors (action). This response by the female partner (condition), could be appraised by the male partner as a threat to the relationship, resulting in relational aggression (action), which could escalate to physical aggression. Likewise, as the male uses pornography (condition), the

female could appraise this as a threat to the relationship, and respond with insecure attachment behaviors, which could escalate to relational aggression (action), which is the condition for the male. He assesses her relational aggression as a threat (appraisal), and responds with physical aggression (action). In the final scenario, the male uses pornography and displays increases in his insecure attachment behaviors (condition), as a result the female partner might appraise the situation as a threat and respond with relational aggression (action), her relational aggression is not only the action for her but could also be the condition for him. The male might appraise the situation as a threat and respond with physical aggression. Clearly, all three scenarios represent hypothesized application of the Whiting et al. (2012) model and require longitudinal or qualitative research to establish.

Hypothesis 3. *Both male/female relational aggressions will mediate the relationship between male pornography use and male/female physical aggression. As male pornography use increases, male/female relational aggression will increase as well as male/female physical aggression. (See Tables 4 and 5 for a complete list of pathways tested for this hypothesis).* This hypothesis was also partially supported. Increases in male pornography use were directly related to increases in his relational aggression and his and her physical aggression, but not her relational aggression. This is contrary to research showing men and women are just as likely to use relational aggression (Linder, Crick, & Collins, 2002). A possible reason for this contrary finding can be found in the work of Manning and Watson (2008), which suggests that male pornography use may be, for the female partner, a more private issue than others. If the female partner has been emotionally hurt and embarrassed by her partner's pornography use, she might avoid spreading rumors, pulling people in to help her with the situation, or sharing this information with other people. As reported by Manning and Watson (2008), women whose male partner uses

pornography tend to isolate more due to the embarrassment, social constraints, and shame that can often be associated with this issue. In their qualitative study, Manning and Watson believed, "...that this group of women would not have experienced the same degree of isolation had it been a different kind of problem they were dealing with... (e.g., parenting concerns, marital conflict, finances, etc.)" (2008; p. 240-241). This helps clarify the contrary findings of Oka et al. (2014), a study that did not include pornography use, showing women's relational aggression was associated with male physical aggression.

Opposite of the female findings, increases in male pornography use was directly related to increases in his relational aggression and both his and her physical aggression. This could be due, in part, to a greater acceptance among men of pornography use than women (Carroll et al., 2008; Olmstead, Negash, Pasley, & Fincham, 2013) and thus less embarrassment or social constraint to use relationally aggressive tactics (e.g. say something behind the partner's back). Furthermore, the direct relationship between pornography use and an increase in relational and physical aggression could mean he is less engaged in the relationship and wants to maintain distance by being cold, withholding affection, and ignoring her, and at times escalates with physical aggression. His increased relational aggression is also related to her increased physical aggression. As described in Hypothesis 2 of the research using the Whiting et al. (2012) model, his relational aggression (action) could be the condition she appraises as a relationship threat and responds with physical aggression (action). However, this use of the model described by Whiting et al. (2012) is merely a hypothesis of these results and future longitudinal or qualitative research is needed to test this proposed cycle. Finally, this finding supports previous research showing men can be perpetrators of relational aggression (Carroll et al., 2010; Linder et al., 2002; Oka et al., 2014).

Hypothesis 4. *Both male/female insecure attachment behaviors will mediate the relationship between male pornography use and male/female physical aggression. As male pornography use increases, male/female insecure attachment behaviors and male/female physical aggression will increase. (See Tables 4 and 5 for a complete list of pathways tested for this hypothesis).* Both male and female insecure attachment behaviors did not mediate the relationship between male pornography use and physical aggression. This is contrary to Allison et al. (2008) study showing a direct link between attachment and male perpetrated violence. The reason for the difference in findings could be due to the addition of relational aggression. It is possible that relational aggression influences the relationship between insecure attachment and physical violence. Moreover, this is a non-clinical sample, whereas Allison et al. (2008), studied couples voluntarily seeking treatment or court ordered for treatment for physically abusive behaviors. Furthermore, in their qualitative study, Allison et al. (2008) noted, “partners were typically violent only when other behaviors failed to achieve a desired level of closeness” (p. 139). Thus, in a non-clinical sample of males, it is possible that relational aggression is used first, before turning to physical aggression (White et al., 2000) to manage distance and closeness; unfortunately, this could not be confirmed by this study, only inferred, due to cross-sectional data.

Even though insecure attachment behaviors did not mediate the relationship between pornography use and physical aggression, it is important to acknowledge the regression coefficients from male pornography use to male and female insecure attachment behaviors (see Figure 2). Consistent with recent research linking male pornography use to male insecure attachment styles and behaviors (Brown, 2011; Szymanski & Stewart-Richardson, 2014), this study directly links male pornography use with increases in his insecure attachment behaviors.

Likewise, an increase in male pornography use is directly related to an increase in her insecure attachment behaviors, shedding new light on the relationship between male pornography use and a female partner's attachment behaviors in the relationship. This is important because insecure attachment has been linked with having a negative impact on relationship quality, being directly related to health outcomes, and having additional relational problems (Besharat, 2003; Gallo & Smith, 2001; Hammill, 2010; Hollist & Miller, 2005; Mcevoy, 2005; Reis & Grenyer, 2004; Tremblay & Sullivan, 2010).

Overall, there are two distinct patterns from the results. First, male pornography use was related to both male and female insecure attachment, relational aggression, and physical aggression. It appears that some couples, where the male uses pornography, are more likely to experience insecurity and more likely to engage in aggressive behaviors. This may be an attempt to manage closeness and/or distance in the relationship. A second distinct finding was that male pornography use was related to female physical aggression. Specifically, male pornography use was directly related to her physical aggression and his relational aggression, as well as indirectly associated with both his and her physical aggression. The results suggest that when a male is using pornography, in some cases males and females may be more likely to use aggression as an attempt to manage closeness and distance.

Clinical Implications

At the beginning of this section, it is important to acknowledge the ethical concerns raised by researchers and clinicians for conducting therapy with a couple where physical violence is present in the relationship or has been in the past. For instance, couples who reciprocate violence have the likelihood for greater injury (Whitaker et al., 2007). In cases where violence is one sided, conjoint therapy with the victim might leave her/him blamed or pressured

to stay in a violent relationship (Loseke & Kurz, 2005). Furthermore, the victim can be at greater risk of being hurt if they are asked to be vulnerable and open with an abusive partner (Johnson, 2004). Therefore, it is crucial that therapists assess for Intimate Partner Violence before beginning therapy (for a systemic review of IPV research, guidelines, and screening methods see Todahl & Walters, 2011). The conceptual framework in this study suggests attachment theory can be used to better understand relational and physical aggression in relationships. For example, when dealing with these issues, clinicians might consider asking about frequency of pornography use (see below for details) and attachment behaviors in their initial assessment as well.

Therapists who treat physical aggression in couples, in addition to the concerns mentioned above, must be aware of current ethical practices and their own state laws surrounding this issue. Moreover, clinicians should be aware of the different proven methods for conceptualizing and treating relational violence (Stith, McCollum, Amanor-Boadu, & Smith, 2012). Establishing safety should be top priority. Once safety has been established, other issues concerning pornography use, relational aggression, and attachment can be explored in individual and even couple therapy. For instance, if clients can ask for relational needs in nonviolent ways (Oka et al., 2014), therapists might consider linking aggressive behaviors to attachment thoughts and feelings, helping the individual and his/her partner become aware of the need for closeness and connection in healthy ways (Tilley & Palmer, 2012). The clinician could then help the partners learn to ask for those needs and to reciprocate.

One model therapists might consider using to treat couples attachment, after safety has been established, is Emotionally Focused Couples Therapy (EFT; Johnson, 2004). EFT is an empirically validated model of therapy that incorporates attachment as a foundational theory (Johnson, 2004). The EFT model for treatment helps couples learn to ask for and reciprocate

relational needs for closeness and connection. For couples where one or both partners have suffered from attachment injuries, the Attachment Injury Resolution Model is designed to specifically address these issues in conjunction with EFT (Makinen & Johnson, 2006).

Moreover, couples who are high-risk or those dealing with significant attachment injuries in their relationship, and completed treatment with EFT or EFT and the Attachment Injury Resolution Model, appear to have stabilized at the time of follow-up (Clothier, Manion, Gordon-Walker, & Johnson, 2002; Halchuk, Makinen, & Johnson, 2010; Makinen & Johnson, 2006).

Finally, addressing pornography use in the context of therapy has ethical concerns that must be considered as well (Jones & Tuttle, 2012). Since the discovery of a partner's pornography use could be a serious attachment injury (Zitzman & Butler, 2009) more damage could be done to a relationship if a partner is asked to be vulnerable and share how the compulsive behavior hurts them and then the partner, unable to manage their behaviors, views pornography again. Thus, some therapy models are recommended to be used only when a partner is in full recovery and other models have been developed to specifically address compulsive behavior. For example, EFT may be most helpful when the partner is in recovery (Furrow, Johnson, & Bradley, 2011), versus other models which are specifically designed to address compulsive behavior for the individual and/or couple (Adams & Robinson, 2001; Butler, 2003, 2010; Delmonico, Griffin, & Carnes, 2002; Ford, Durtschi, & Franklin, 2012; Zitzman & Butler, 2005).

Before treatment can begin a person may need to decide if they are going to participate, and on what level. The ARISE model is unique in that it was designed to help families and therapists intervene in the family member's life who has a compulsive cybersex problem (which may include pornography use) in order to help that person decide to seek treatment (Landau,

Garrett, & Webb, 2008). Once a person or couple has come in for treatment, it is important to appropriately diagnose the problem (See Reid, Li, Gilliland, Stein, & Fong, 2011; Rosenberg, Carnes, & O'Connor, 2014). There are a variety of ways to treat compulsive pornography use including: spiritual (Butler, 2003, 2010), specific support for the partner (Manning & Watson, 2008), couples treatment (Butler, 2005; Ford, Durtschi, & Franklin, 2012), and working with shame, affect, and sexual boundaries (Adams & Robinson, 2001) among others.

When the partner has moved into recovery clinicians might consider addressing underlying attachment issues and behaviors in the relationship. For instance, couples can learn how to execute secure attachment behaviors and develop a secure attachment bond through the EFT model (Furrow, Johnson, & Bradley, 2011; Johnson, 2004). Furthermore, if an attachment rupture has taken place due to a partner's use of pornography (Zitzman & Butler, 2009) the attachment injury resolution model has been designed to give clinicians clear direction on how to help couples heal from those attachment injuries in conjunction with EFT (Makinen & Johnson, 2006; Reid & Woolley, 2006;).

Future Research

Clinical outcome studies are needed to further test the longitudinal effects of attachment-based treatment for couples who have been appropriately and ethically matched for this type of treatment based on specific types of violence (Oka et al., 2014) and level of pornography use.

Some theorists have suggested there are interaction patterns that amplify over time in couple relationships (Watzlawick, Bavelas, & Jackson, 1967). Future researchers might want to consider testing the hypothesized models of aggression longitudinally and/or qualitatively to help establish directionality of male pornography use, insecure attachment behaviors, relational aggression, and physical aggression over time.

The number of cross partner indirect effects suggests additional studies on couples' interactive patterns surrounding pornography use, attachment, and aggression are warranted. For instance, bi-directional research of each variable's interaction with other variables would likely give additional insight into more reciprocal interactive patterns. This would help hone the theory set forth in previous research (Whiting et al., 2012) and furthered in this study.

Another consideration for future research would be couple, female, single, and homosexual pornography use as it relates to physical aggression, relational aggression, and insecure attachment. The scant research available shows some unique differences among couples who view pornography together and those who do not view it, and couples where only one partner views it (Daneback, Træen, & Månsson, 2009; Maddox, Rhoades, & Markman, 2011; Poulsen, Busby, & Galovan, 2013). Similarly, pornography use research shows differing reasons why men and women use pornography with their partner and preferences for pornography use in a relationship (Benjamin & Tlusten, 2010; McKee, 2007; Olmstead et al., 2013). Very few studies have looked at female pornography use. Results suggests there are different reasons and outcomes associated with female pornography use versus male use (Poulsen, Busby, & Galovan, 2013; Willoughby, Carroll, Nelson, & Padilla-Walker, 2014). Thus, the differences in reason for use and the varying outcomes associated with female and couple pornography use warrant further research. Similarly, future research could look at how pornography impacts those who are single or are in a homosexual relationship.

Limitations

At this juncture it is important to note that this was a cross-sectional study and causality could not be established. Furthermore, the sequential relationships posited are tentative theoretical interpretations of the results. It is highly possible that the results presented are

evidence of cyclical relationships rather than unidirectional. For example, because a male feels insecure he might turn to pornography for escape. Also, the first sign of aggression may lead a partner to feel insecure in the relationship which amplifies insecure feelings surrounding pornography use. Essentially, this study shows the presence of each variable is associated with some likelihood of the presence of the others but it does not establish pornography as the cause of the other variables.

Additionally, this study was limited in how to define pornography use, due to the broad question answered by participants, which does not distinguish between types of pornography used. As previous research has shown viewing violent pornography has a stronger relationship to aggression than viewing non-violent pornography (Hald et al., 2010). Thus, it is possible that the relationship between pornography use and aggression might also be mediated by the types of pornography used, which this study was not able to account for.

Since a convenience sample was used in this study, and is not representative of the general population, the results cannot be generalized to the U.S. population. For example, approximately 74.4% of the sample was Caucasian compared with 65% of the national population (Henry J. Kaiser Family Foundation, 2013). Religious representation was also under represented in this sample with 26.8% claiming no religious affiliation and 33.95% claiming to be Protestant compared with the National totals of 16.9% and 51.3% respectively (Pew Research Center, 2008). And even though one study (Cunradi, Caetano, & Schafer, 2002) had overall findings that suggested religion does not strongly or directly impact the occurrence of IPV, it is important to acknowledge that religion might have been associated with IPV due to the addition of male pornography use, a contended moral issue. Thus, future research might want to consider controlling for this.

Conclusion

In distinct ways male pornography use is related to both male and female insecure attachment behaviors, relational aggression, and physical aggression. First and foremost, male pornography use is directly linked with female physical aggression and indirectly linked with male physical aggression. Secondly, actor effects showed insecure attachment behaviors and relational aggression mediate the relationship between male pornography use and male and female physical aggression. Thirdly, there were partner effects suggesting the possibility of an interactive pattern between male and female partners regarding their insecure attachment behaviors, relational aggression, and physical aggression. Fourthly, male pornography use has been directly related to male and female insecure attachment behaviors. These results point to the possibility of using attachment based treatment or interventions, at the appropriate level and time, when couples have suffered from physical aggression and male pornography use. And finally, the theory and model laid out in this paper are one of several ways in which the variables' relationships can be explained and further research is needed to test additional theories including directionality.

References

- Adams, K. M., & Robinson, D. W. (2001). Shame reduction, affect regulation, and sexual boundary development: Essential building blocks of sexual addiction treatment. *Sexual Addiction & Compulsivity*, 8(1), 23-44.
doi:10.1080/107201601750259455
- Ainsworth, M. D. S., Blehai, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum Assoc., inc..
- Ainsworth, M. D. S. (1967). *Infancy in Uganda: Infant care and the growth of love*. Baltimore: Johns Hopkins University Press.
- Ainsworth, M. D., & Wittig, B. A. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In B. M. Foss (Ed.), *Determinants of infant behavior* (Vol. 4, pp. 113– 136). London: Methuen.
- Albright, J. M. (2008). Sex in America online: An exploration of sex, marital status, and sexual identity in internet sex seeking and its impacts. *Journal of Sex Research*, 45(2), 175-186.
- Allison, C. J., Bartholomew, K., Mayseless, O., & Dutton, D. G. (2008). Love as a battlefield: Attachment and relationship dynamics in couples identified for male partner violence. *Journal of Family Issues*, 29(1), 125-150.
- Anders, S. L., & Tucker, J. S. (2000). Adult attachment style, interpersonal communication competence, and social support. *Personal Relationships*, 7, 379-389.
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin*, 126, 651–680.
- Bagner, D., Storch, E., & Preston, A. (2007). Romantic relational aggression: what about gender? *Journal of Family Violence*, 22(1), 19-24.

- Bartholomew, K., & Allison, C. J. (2006). An attachment perspective on abusive dynamics in intimate relationships. In M. Mikulincer, G. S. Goodman (Eds.), *Dynamics of romantic love: Attachment, caregiving, and sex* (pp. 102-127). New York, NY US: Guilford Press.
- Benjamin, O., & Tlusten, D. (2010). Intimacy and/or degradation: Heterosexual images of togetherness and women's embracement of pornography. *Sexualities, 13*(5), 599-623. doi:10.1177/1363460710376492
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107* (2), 238-246. doi:10.1037/0033-2909.107.2.238
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588-606. doi:10.1037/0033-2909.88.3.588
- Bergner, R. M., & Bridges, A. J. (2002). The significance of heavy pornography involvement for romantic partners: Research and clinical implications. *Journal of Sex and Marital Therapy, 28*(3), 193-206. doi:10.1080/009262302760328235
- Besharat, M. (2003). Relation of attachment style with marital conflict. *Psychological Reports, 92*(3), 1135-1140.
- Bowlby, J. (1969). *Attachment. Attachment and loss: Vol. III*. New York: Basic Books.
- Bowlby, J. (1980). *Loss- sadness and depression. Attachment and loss: Vol. III*. New York: Basic Books.
- Bradford, A.B., Novak, J., Sandberg, J.G., & Busby, D. (2015). *In the eye of the beholder: Actor and partner effects of perceived self- and other- attachment behaviors on relationship quality*. Manuscript submitted for publication.

- Bridges, A. J., Bergner, R. M., & Hesson-McInnis, M. (2003). Romantic partners' use of pornography: Its significance for women. *Journal of Sex and Marital Therapy, 29*(1), 1-14.
- Brown, (2011). *The relationship between male partner's pornography use and couples' attachment* (Unpublished master's thesis). Brigham Young University, Provo, Utah.
- Browning, J. J., & Dutton, J. G. (1986). Assessment of wife assault with the conflict tactics scale: Using couple data to quantify the differential reporting effect. *Journal of Marriage and the Family, 48*, 375-379.
- Busby, D. M., Holman, T. B., & Taniguchi, N. (2001). RELATE: Relationship evaluation of the individual, family, cultural, and couple contexts. *Family Relations, 50*(4), 308-316.
- Butler, M. H. (2003). Spiritual exodus: Recovery from addiction. *Marriage & Families, 18*-27.
- Butler, M.H. (2010). *Spiritual exodus: A Latter-Day Saint guide to recovery from behavioral addiction*. Provo, UT: BYU Academics
- Carroll, J. S., Nelson, D. A., Yorgason, J. B., Harper, J. M., Ashton, R., & Jensen, A. C. (2010). Relational aggression in marriage. *Aggressive Behavior, 36*(5), 315-329.
doi:10.1002/ab.20349
- Carroll, J. S., Padilla-Walker, L. M., Nelson, L. J., Olson, C. D., Barry, C. M., & Madsen, S. D. (2008). Generation XXX: Pornography acceptance and use among emerging adults. *Journal of Adolescent Research, 23*(1), 6-30.
- Cloutier, P. F., Manion, I. G., Walker, J. G., & Johnson, S. M. (2002). Emotionally focused interventions for couples with chronically ill children: A 2-year follow-up. *Journal of Marital and Family Therapy, 28*(4), 391-398. doi:10.1111/j.1752-0606.2002.tb00364.x
- Coan, J A., Schaefer, H.S., & Davidson, R.J. (2006). Lending a hand: Social regulation of the neural response to threat. *Psychological Science, 17*, 1032-1039.

- Coyne, S. M., Nelson, D. A., Graham-Kevan, N., Tew, E., Meng, K., & Olsen, J. A. (2011). Media depictions of physical and relational aggression: Connections with aggression in young adults' romantic relationships. *Aggressive Behavior, 37*(1), 56-62.
doi:10.1002/ab.20372
- Creasey, G., & Hesson-McIness, M. (2001). Affective responses, cognitive appraisals, and conflict tactics in late adolescent romantic relationships: Associations with attachment orientations. *Journal of Counseling Psychology, 48*, 85-96.
- Creasey, G., Kershaw, K., & Boston, A. (1999). Conflict management with friends and romantic partners: The role of attachment and negative mood regulation expectancies. *Journal of Youth and Adolescence, 28*, 523-543.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66* (3), 710-722. doi:10.1111/1467-8624.ep9506152720
- Cui, M., Lorenz, F. O., Conger, R. D., Melby, J. N., & Bryant, C. M. (2005). Observer, self-, and partner reports of hostile behaviors in romantic relationships. *Journal of Marital and Family Therapy, 67*, 1169–181.
- Cunradi, C. B., Caetano, R., & Schafer, J. (2002). Religious affiliation, denominational homogamy, and intimate partner violence among U.S. couples. *Journal for the Scientific Study of Religion, 41*(1), 139-151.
- Daneback, K., Træen, B., & Månsson, S. (2009). Use of pornography in a random sample of Norwegian heterosexual couples. *Archives of Sexual Behavior, 38*(5), 746-753.
doi:10.1007/s10508-008-9314-4

- Delmonico, D. L., Griffin, E., & Carnes, P. J. (2002). Treating online compulsive sexual behavior: When cybersex is the drug of choice. In A. Cooper (Ed.), *Sex and the Internet: A guidebook for clinicians* (pp. 147-167). New York, NY US: Brunner-Routledge.
- Dickstein, S., Seifer, R., St Andre, M., & Schiller, M. (2001). Marital attachment interview: Adult attachment assessment of marriage. *Journal of Social and Personal Relationships*, *18*(5), 651-672. doi:10.1177/0265407501185005
- Doumas, D. M., Pearson, C. L., Elgin, J. E., & McKinley, L. L. (2008). Adult attachment as a risk factor for intimate partner violence: The 'mismatching' of partners' attachment styles. *Journal of Interpersonal Violence*, *23*(5), 616-634. doi:10.1177/0886260507313526
- Dutton, D. G., & White, K. R. (2012). Attachment insecurity and intimate partner violence. *Aggression and Violent Behavior*, *17*(5), 475-481. doi:10.1016/j.avb.2012.07.003
- Feeney, J. (2002). Attachment, marital interaction, and relationship satisfaction: A diary study. *Personal Relationships*, *9*, 39-55.
- Feeney, J. A. (2008). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 456-481). New York, NY: The Guilford Press.
- Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, *58*(2), 281-291. doi:10.1037/00223514.58.2.281
- Feeney, J.A., Noller, P., & Callan, V.J. (1994). Attachment style, communication and satisfaction in the early years of marriage. In K. Bartholomew & D. Perlman (Eds.),

- Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 269-308). London: Jessica Kingsley.
- Ford, J. J., Durtschi, J. A., & Franklin, D. L. (2012). Structural therapy with a couple battling pornography addiction. *American Journal of Family Therapy*, 40(4), 336-348.
doi:10.1080/01926187.2012.685003
- Furrow, J. L., Johnson, S. M., & Bradley, B. A. (Eds.), (2011). *The emotionally focused casebook: New directions in treating couples*. New York, NY US: Routledge Taylor & Francis Group
- Gaines, S. J., Work, C., Johnson, H., Youn, M. P., & Lai, K. (2000). Impact of attachment style and self-monitoring on individuals' responses to accommodative dilemmas across relationship types. *Journal of Social And Personal Relationships*, 17(6), 767-789.
doi:10.1177/0265407500176004
- Gallo, L. C., & Smith, T. W. (2001). Attachment style in marriage: Adjustment and responses to interaction. *Journal of Social and Personal Relationships*, 18(2), 263-289.
doi:10.1177/0265407501182006
- Goldstein, S., Chesir-Teran, D., & McFaul, A. (2008). Profiles and correlates of relational aggression in young adults' romantic relationships. *Journal of Youth & Adolescence*, 37(3), 251-265. doi:10.1007/s10964-007-9255-6
- Green, B. A., Carnes, S., Carnes, P. J., & Weinman, E. A. (2012). Cybersex addiction patterns in a clinical sample of homosexual, heterosexual, and bisexual men and women. *Sexual Addiction & Compulsivity*, 19(1/2), 77-98.
doi:10.1080/10720162.2012.658343

- Halchuk, R. E., Makinen, J. A., & Johnson, S. M. (2010). Resolving attachment injuries in couples using emotionally focused therapy: A three-year follow-up. *Journal of Couple & Relationship Therapy, 9*(1), 31-47. doi: 10.1080/15332690903473069
- Hald, G. M., Malamuth, N. M., & Yuen, C. (2010). Pornography and attitudes supporting violence against women: Revisiting the relationship in nonexperimental studies. *Aggressive Behavior, 36*(1), 14-20. doi:10.1002/ab.20328
- Hammill, C. (2010). The relationship of childhood maltreatment and adult style to functional recovery in chronic fatigue syndrome and fibromyalgia. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 70*(9-B), 5820.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511-524. doi:10.1037/0022-3514.52.3.511
- Hazan, C., & Shaver, P. (1990). Love and work: An attachment-theoretical perspective. *Journal of Personality and Social Psychology, 59*, 270-280.
- Henry J. Kaiser Family Foundation (2013). *Distribution of U.S. population by race/ethnicity, 2010*. Retrieved from <http://kff.org/disparities-policy/slide/distribution-of-u-s-population-by-raceethnicity-2010-and-2050/>
- Hollist, C. S., & Miller, R. B. (2005). Perceptions of attachment style and marital quality in midlife marriage. *Family Relations, 54*(1), 46-57. doi:10.1111/j.0197-6664.2005.00005.x
- Hu, L. M. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1.
- Johnson, M. P. (2006). Conflict and control: Gender symmetry and asymmetry in domestic violence. *Violence Against Women, 12*, 1003–1018.

- Johnson, M. P., & Ferraro, K. J. (2000). Research on domestic violence in the 1990s: Making distinctions. *Journal of Marriage and the Family*, *62*, 948-963.
- Johnson, S. M. (2002). *Emotionally focused couple therapy with trauma survivors: Strengthening attachment bonds*. New York, NY: Guilford Press.
- Johnson, S. M. (2004). *The practice of emotionally focused couple therapy*. New York, NY: Brunner-Routledge.
- Johnson, S., & Greenman, P. (2013). Commentary: Of course it is all about attachment! *Journal of Marital & Family Therapy*, *39*(4), 421-423.
- Johnson, S. M., & Whiffen, V. E. (Eds.). (2003). *Attachment processes in couple and family therapy*. New York: Guilford Press.
- Jones, K. E., & Tuttle, A. E. (2012). Clinical and ethical considerations for the treatment of cybersex addiction for marriage and family therapists. *Journal of Couple & Relationship Therapy*, *11*(4), 274-290. doi:10.1080/15332691.2012.718967
- Jouriles, E. N., & O'Leary, K. D. (1985). Interspousal reliability of reports of marital violence. *Journal of Counseling and Clinical Psychology*, *53*, 419-421
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY US: Guilford Press.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York, NY US: Guilford Press.
- Lambert, N. M., Negash, S., Stillman, T. F., Olmstead, S. B., & Fincham, F. D. (2012). A love that doesn't last: Pornography consumption and weakened commitment to one's romantic partner. *Journal of Social and Clinical Psychology*, *31*(4), 410-438.
doi:10.1521/jscp.2012.31.4.410

- Landau, J., Garrett, J., & Webb, R. (2008). Assisting a concerned person to motivate someone experiencing cybersex into treatment: Application of invitational intervention: The ARISE model to cybersex. *Journal of Marital and Family Therapy*, 34, 4, 498-511.
- Linder, J., Crick, N. R., & Collins, W. (2002). Relational aggression and victimization in young adults' romantic relationships: Associations with perceptions of parent, peer, and romantic relationship quality. *Social Development*, 11(1), 69-86.
- Logan, T. K. (2006). *Women and victimization: Contributing factors, interventions, and implications*. Washington D.C.: American Psychological Association.
- Loseke, D. R., & Kurz, D. (2005). Men's violence toward women is the serious social problem. In D. R. Loseke, R. J. Gelles & M. M. Cavanaugh (Eds.), *Current controversies on family violence* (2nd edn). Thousand Oaks, CA: Sage.
- Maddox, A. M., Rhoades, G. K., & Markman, H. J. (2011). Viewing sexually-explicit materials alone or together: Associations with relationship quality. *Archives of Sexual Behavior*, 40, 441-448. doi: 10.1007/s10508-009-9585-4.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development*, 50(1/2), 66-104. doi:10.1111/1540-5834.ep11889989
- Makinen, J. A., & Johnson, S. M. (2006). Resolving attachment injuries in couples using emotionally focused therapy: Steps toward forgiveness and reconciliation. *Journal of Consulting and Clinical Psychology*, 74(6), 1055-1064.
doi:10.1037/0022006X.74.6.1055

- Malamuth, N., Hald, G., & Koss, M. (2012). Pornography, individual differences in risk and men's acceptance of violence against women in a representative sample. *Sex Roles, 66*(7/8), 427-439.
- Manning, J. C. (2006). The impact of internet pornography on marriage and the family: A review of the research. *Sexual Addiction & Compulsivity, 13*(2-3), 131-165.
doi:10.1080/10720160600870711
- Manning, J. C., & Watson, W. L. (2008). Common factors in Christian women's preferences for support when dealing with a spouse's sexually addictive or compulsive behaviors: The C.A.V.E.D. Theory. *Sexual Addiction & Compulsivity, 15*(3), 233-249.
doi:10.1080/10720160802288886
- Mcevoy, D. (2005). Attachment styles among violent and non-violent mentally ill and non-mentally ill jail inmates. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 65*(9-B), 4839.
- McKee, A. (2007). The positive and negative effects of pornography as attributed by consumers. *Australian Journal of Communication, 34*, 87–104.
- Mikulincer, M. & Shaver, P. R. (2007). Contributions of attachment theory and research to motivation science. In J. Shah & W. Gardner (Eds.), *Handbook of motivation science*. New York: The Guilford Press.
- Nelson D.A. & Carroll J.S., (2006). Couples Relational Aggression and Victimization Scale (CRAVIS). Provo, UT: RELATE Institute.
- O'Connell Corcoran, K., & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling and Development, 78*, 473-483.

- Oka, M., Sandberg, J. G., Bradford, A. B., & Brown, A. (2014). Insecure attachment behavior and partner violence: Incorporating couple perceptions of insecure attachment and relational aggression. *Journal of Marital & Family Therapy, 40*(4), 412-429.
- Oka, M., & Whiting, J. B. (2011). Contemporary MFT theories and intimate partner violence: A review of systemic treatments. *Journal of Couple & Relationship Therapy, 10*(1), 34-52. doi:10.1080/15332691.2011.539173
- Olmstead, S. B., Negash, S., Pasley, K., & Fincham, F. D. (2013). Emerging adults' expectations for pornography use in the context of future committed romantic relationships: A qualitative study. *Archives of Sexual Behavior, 42*(4), 625-635.
doi:10.1007/s10508-012-9986-7
- Pew Research Center (February, 2008). *Religion & public life project: Religious landscape survey (Report 1: Religious affiliation)*. Retrieved from <http://http://religions.pewforum.org/reports>
- Pistole, M. C. (1989). Attachment in adult romantic relationships: Style of conflict resolution and relationship satisfaction. *Journal of Social and Personal Relationships, 6*, 505-510.
- Pistole, M. (1994). Adult attachment styles: Some thoughts on closeness-distance struggles. *Family Process, 33*(2), 147-159. doi:10.1111/j.1545-5300.1994.00147.x
- Poulsen, F. O., Busby, D. M., & Galovan, A. M. (2013). Pornography use: Who uses it and how it is associated with couple outcomes. *Journal of Sex Research, 50*(1), 72-83.
doi:10.1080/00224499.2011.648027
- Reid, R. C., Li, D. S., Gilliland, R., Stein, J. A., & Fong, T. (2011). Reliability, validity, and psychometric development of the pornography consumption inventory in a sample of

- hypersexual men. *Journal of Sex & Marital Therapy*, 37(5), 359-385.
doi:10.1080/0092623X.2011.607047
- Reid, R. C., & Woolley, S. R. (2006). Using emotionally focused therapy for couples to resolve attachment ruptures created by hypersexual behavior. *Sexual Addiction & Compulsivity*, 13(2-3), 219-239. doi:10.1080/10720160600870786
- Reis, S. & Grenyer, B. (2004). Fear of intimacy of women: Relationship between attachment style and depressive symptoms. *Psychopathology*, 37(6), 299-303.
- Rennison, C., & Planty, M. (2003). Nonlethal intimate partner violence: Examining race, gender, and income patterns. *Violence and Victims*, 18(4), 433-443. doi:10.1891/-vivi.2003.18.4.433
- Rholes, W. S., Simpson, J. A., Campbell, L., & Grich, J. (2001). Adult attachment and the transition to parenthood. *Journal of Personality and Social Psychology*, 76, 940-957.
- Rosenberg, K. S., Carnes, P., & O'Connor, S. (2014). Evaluation and treatment of sex addiction. *Journal of Sex & Marital Therapy*, 40(2), 77-91.
- Sandberg, J. G., Bradford, A. B., & Brown, A. P. (in press). Differentiating between attachment styles and behaviors and their association with marital satisfaction. *Family Process*.
- Sandberg, J. G., Busby, D. M., Johnson, S. M., & Yoshida, K. (2012). The brief accessibility, responsiveness, and engagement (BARE) scale: A tool for measuring attachment behavior in couple relationships. *Family Process*, 51(4), 512-526. doi:10.1111/j.1545-5300.2012.01422.x
- Sandberg, J. G., Harper, J., & Miller, R., Robila, M., & Davey, A. (2009). The impact of marital conflict on health and health care utilization in older couples. *Journal of Health Psychology*, 14(9), 9-17.

- Simmons, C., Lehmann, P., & Collier-Tenison, S. (2008). Linking male use of the sex industry to controlling behaviors in violent relationships: An exploratory analysis. *Violence Against Women, 14*(4), 406-417.
- Smith, M., & Hand, C. (1987). The pornography/aggression linkage: Results from a field study. *Deviant Behavior, 8*(4), 389-399.
- Stith, S., McCollum, E., Amanor-Boadu, Y., & Smith, D. (2012). Systemic perspectives on intimate partner violence treatment. *Journal of Marital & Family Therapy, 38*(1), 220-240.
- Stith, S. M., McCollum, E. E., & Rosen, K. H. (2011). Session 5: Escalation and negotiated time-out. In Stith, S. M., McCollum, E. E., & Rosen, K. H. (Eds.), *Couples therapy for domestic violence: Finding safe solutions* (pp. 87-108). Washington D.C.: American Psychological Association.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2). *Journal of Family Issues, 17*, 283–316.
- Sugarman, D. B., & Hotaling, G. T. (1997). Intimate violence and social desirability: A meta-analytic review. *Journal of Interpersonal Violence, 12*, 275–290.
- Szymanski, D. M., & Stewart-Richardson, D. N. (2014). Psychological, relational, and sexual correlates of pornography use on young adult heterosexual men in romantic relationships. *Journal of Men's Studies 22*(1), 64-82.
- Tilley, D., & Palmer, G. (2012). Enactments in emotionally focused couple therapy: shaping moments of contact and change. *Journal of Marital and Family Therapy, 39*, 299–313.

- Todahl, J., & Walters, E. (2011). Universal screening for intimate partner violence: A systematic review. *Journal of Marital and Family Therapy*, 37(3), 355-369. doi:10.1111/j.1752-0606.2009.00179.x
- Tremblay, I. & Sullivan, M. (2010). Attachment and pain outcomes in adolescents: The mediating role of pain catastrophizing and anxiety. *The Journal of Pain*, 11(2), 160-171.
- Vogt, W. P. (2005). *Dictionary of statistics and methodology* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Watzlawick, P., Bavelas, J. B., & Jackson, D. D. (1967). *Pragmatics of human communication: A study of interactional patterns, pathologies, and paradoxes*. New York: W.W. Norton & Company.
- Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *American Journal of Public Health*, 97, 941–947.
- White, J. W., Smith, P. H., Koss, M. P., & Figueredo, A. J. (2000). Intimate partner aggression: What have we learned? Comment on Archer (2000). *Psychological Bulletin*, 126, 690–696.
- Whiting, J. G., Smith, D.B., Oka, M., & Karahurt, G. (2012). Safety in intimate partnerships: The role of appraisals and threat. *Journal of Family Violence*, 27(4), 313-320.
- Willoughby, B. J., Carroll, J. S., Busby, D. M. & Brown, C. (2015). *Differences in pornography use among romantic couples: Associations with satisfaction, stability, and relationship processes*. Manuscript submitted for publication
- Willoughby, B. J., Carroll, J. S., Nelson, L. J., & Padilla-Walker, L. M. (2014). Associations between relational sexual behaviour, pornography use, and pornography acceptance

among US college students. *Culture, Health & Sexuality*, 16(9), 1052-1069.

doi:10.1080/13691058.2014.927075

Wilson, J. B. (2010). Exploring the influence of dyadic adult attachment on physical, sexual, and relational aggression within romantic relationships. *ProQuest Dissertations and Theses*.

(Publication No. AAT 1489479)

Zhao, X., & Cai, X. (2008). From self-enhancement to supporting censorship: The third-person effect process in the case of internet pornography. *Mass Communication and Society*, 11(4), 437-462.

Zitzman, S. T., & Butler, M. H. (2005). Attachment, addiction, and recovery: Conjoint marital therapy for recovery from a sexual addiction. *Sexual Addiction & Compulsivity*, 12(4),

311-337. doi:10.1080/10720160500362652

Zitzman, S. T., & Butler, M. H. (2009). Wives' experience of husbands' pornography use and concomitant deception as an attachment threat in the adult pair-bond relationship. *Sexual*

Addiction & Compulsivity, 16(3), 210-240. doi:10.1080/10720160903202679

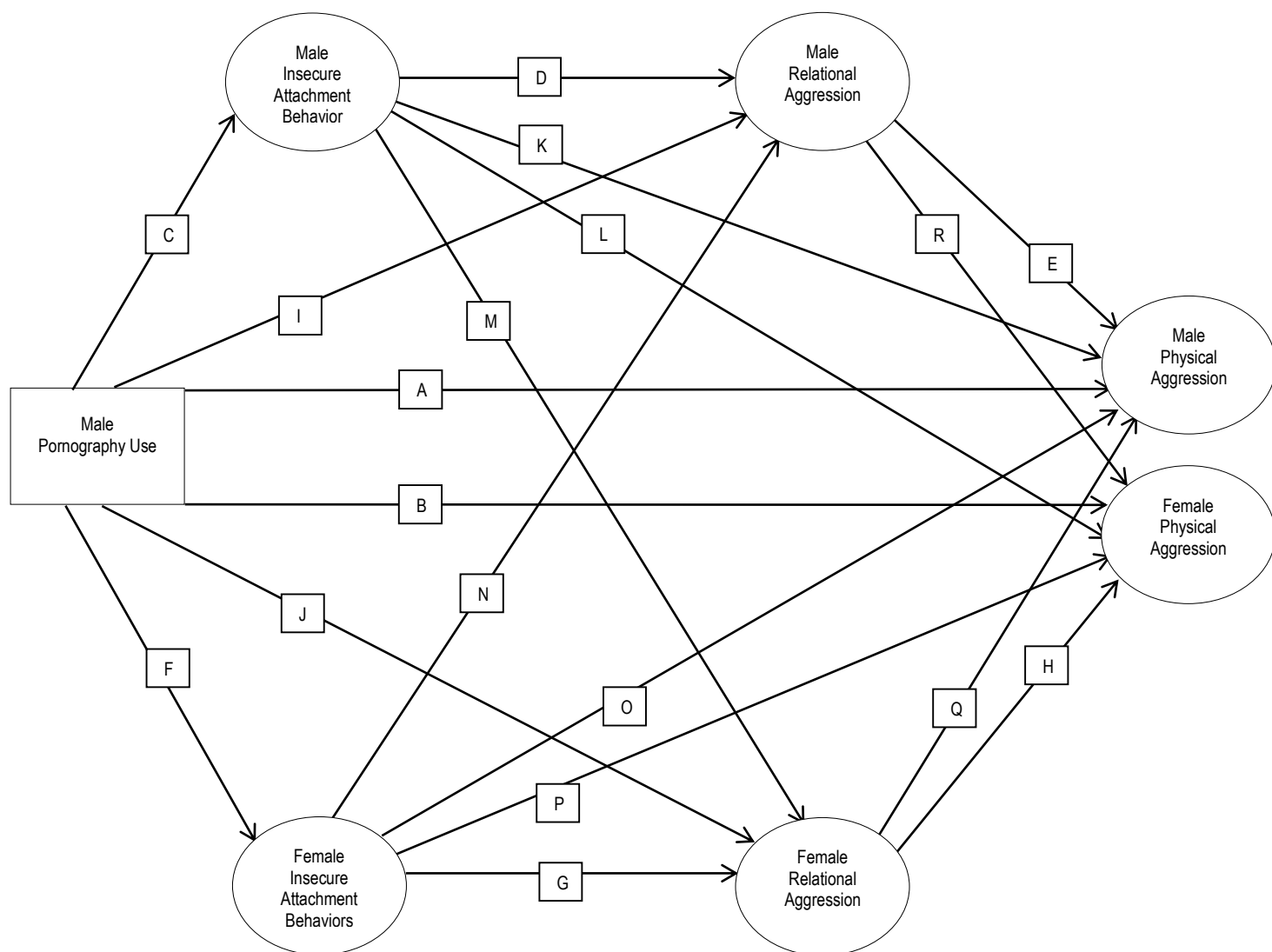


Figure 1. Hypothesized Structural Equation Model.

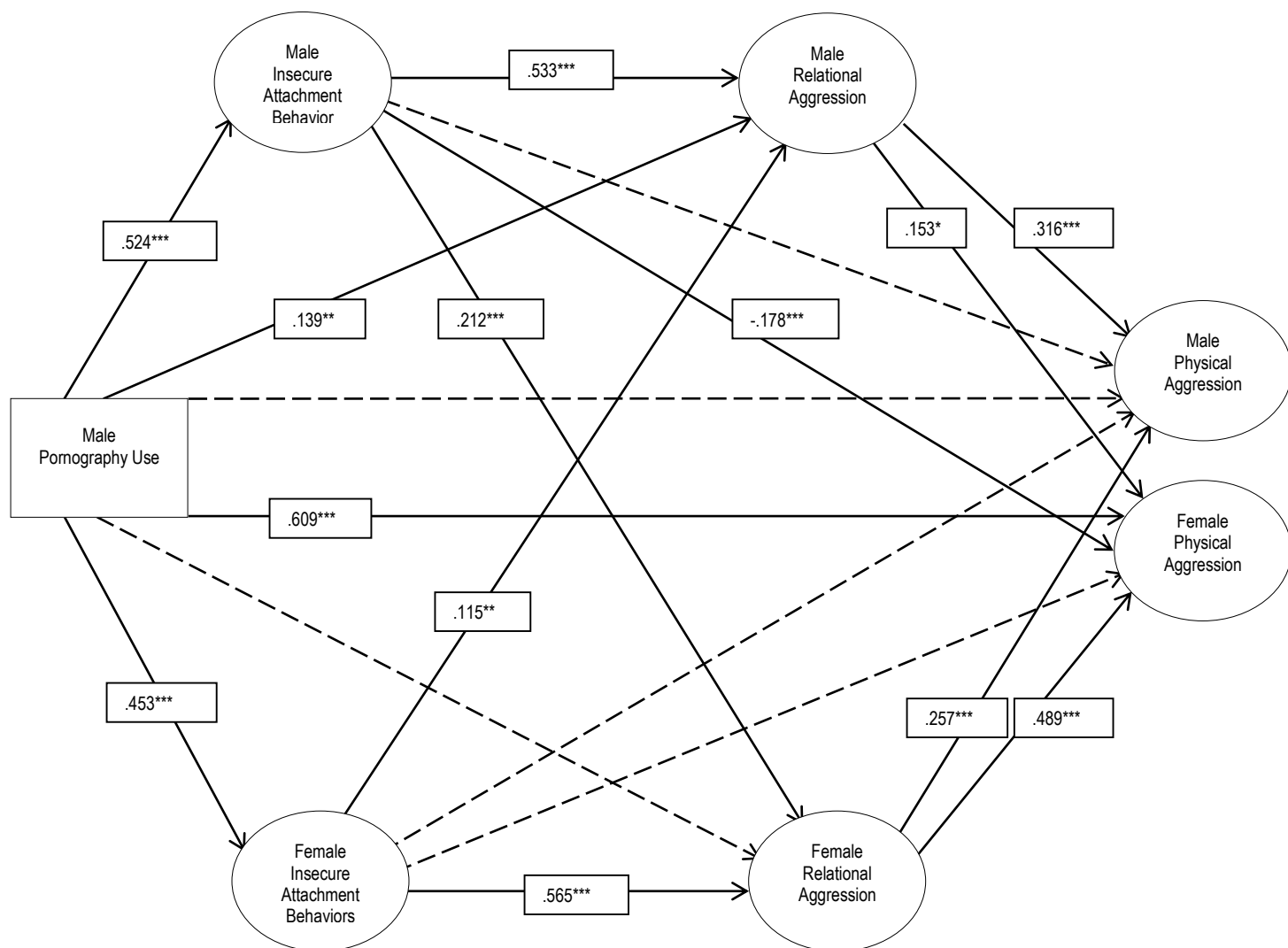


Figure 2. Final Structural Equation Model. Standardized Coefficients. *** $p < .001$, ** $p < .02$, * $p < .05$. Dashed arrows = non-significant paths.

Table 1

Bivariate Correlations of Latent Variables

	1	2	3	4	5
1. Female Physical Aggression	1.000				
2. Male Physical Aggression	0.454	1.000			
3. Female Relational Aggression	0.403	0.327	1.000		
4. Male Relational Aggression	0.315	0.364	0.536	1.000	
5. Female Attachment behaviors	0.259	0.233	0.572	0.411	1.000
6. Male Attachment Behaviors	0.215	0.257	0.467	0.570	0.511

p<.001

Table 2

Frequencies of Categorical Latent Variable Indicators

Attachment behaviors ^a	n	1	2	3	4	5											
Male' perspective of his Female partner																	
My partner is rarely available to me.	1626	723	44%	697	43%	153	9%	42	3%	11	1%						
It is hard for me to get my partner's attention.	1627	647	40%	700	43%	241	15%	34	2%	5	0%						
My partner listens when I share my deepest feelings. (reverse coded)	1629	933	57%	555	34%	112	7%	21	1%	8	0%						
I am confident my partner reaches out to me. (reverse coded)	1627	574	35%	785	48%	199	12%	42	3%	27	2%						
It is hard for my partner to confide in me.	1628	559	34%	707	43%	295	18%	46	3%	21	1%						
My partner struggles to feel close and engaged in our relationship.	1628	574	35%	626	38%	302	19%	94	6%	32	2%						
Female's perspective of her Male partner																	
My partner is rarely available to me.	1620	723	45%	640	40%	188	12%	51	3%	18	1%						
It is hard for me to get my partner's attention.	1618	578	36%	627	39%	324	20%	74	5%	15	1%						
My partner listens when I share my deepest feelings. (reverse coded)	1620	879	54%	526	32%	161	10%	45	3%	9	1%						
I am confident my partner reaches out to me. (reverse coded)	1620	586	36%	666	41%	250	15%	97	6%	21	1%						
It is hard for my partner to confide in me.	1619	542	33%	645	40%	301	19%	94	6%	37	2%						
My partner struggles to feel close and engaged in our relationship.	1624	673	41%	579	36%	242	15%	93	6%	37	2%						
Relational Aggression ^b	n	1	2	3	4	5											
Male' perspective of his Female partner																	
My partner has threatened to end our relationship in order to get me to do what he/she wanted.	1625	1143	70%	259	16%	148	9%	48	3%	27	2%						
My partner has gone "behind my back" and shared private information about me with other people.	1625	1191	73%	261	16%	129	8%	29	2%	15	1%						
My partner has given me the silent treatment or "cold shoulder" when I have hurt his/her feelings or made him/her angry in some way.	1623	477	29%	547	34%	417	26%	138	9%	44	3%						
When my partner has been mad at me, he/she has recruited other people to "take sides" with him/her and get them upset with me too	1625	1280	79%	199	12%	98	6%	34	2%	14	1%						
My partner has intentionally ignored me until I give in to his/her way about something	1625	1006	62%	379	23%	171	11%	55	3%	14	1%						
My partner has withheld physical affection from me when he/she was angry with me	1623	650	40%	452	28%	353	22%	109	7%	59	4%						
My partner has spread rumors or negative information about me to be mean	1624	1494	92%	89	5%	23	1%	11	1%	7	0%						
Female's perspective of her Male partner																	
My partner has threatened to end our relationship in order to get me to do what he/she wanted.	1624	1293	80%	200	12%	75	5%	37	2%	19	1%						
My partner has gone "behind my back" and shared private information about me with other people.	1621	1266	78%	222	14%	84	5%	32	2%	17	1%						
My partner has given me the silent treatment or "cold shoulder" when I have hurt his/her feelings or made him/her angry in some way.	1627	685	42%	495	30%	290	18%	100	6%	57	4%						
When my partner has been mad at me, he/she has recruited other people to "take sides" with him/her and get them upset with me too	1623	1404	87%	136	8%	57	4%	18	1%	8	0%						
My partner has intentionally ignored me until I give in to his/her way about something	1626	1192	73%	252	15%	134	8%	31	2%	17	1%						
My partner has withheld physical affection from me when he/she was angry with me	1624	904	56%	362	22%	226	14%	88	5%	44	3%						
My partner has spread rumors or negative information about me to be mean	1623	1544	95%	46	3%	24	1%	5	0%	4	0%						
Physical Aggression ^c	n	0	1	2	3	4	5	6	7								
Male - My partner...																	
threw something at me that could hurt	1618	1462	90%	56	3%	60	4%	24	1%	16	1%	5	0%	2	0%	2	0%
pushed or shoved me.	1599	1346	84%	78	5%	98	6%	38	2%	39	2%	21	1%	3	0%	4	0%
punched or hit me with something that could hurt.	1607	1437	89%	56	3%	61	4%	30	2%	23	1%	9	1%	4	0%	7	0%
Female - My partner...																	
threw something at me that could hurt	1624	1551	96%	30	2%	23	1%	13	1%	7	0%	2	0%	2	0%	0	0%
pushed or shoved me.	1615	1447	90%	63	4%	59	4%	28	2%	18	1%	10	1%	1	0%	2	0%
punched or hit me with something that could hurt.	1625	1577	97%	18	1%	21	1%	5	0%	4	0%	1	0%	0	0%	0	0%

Note: ^a1=Never True, 2=Rarely True, 3=Sometimes true, 4=Usually True, 5=Always True ^b1=Never, 2=Rarely, 3=Sometimes, 4 = Often, 5= Very Often. ^c0= never happened, 1= happened but not in the past year, 2=Once in the past year, 3=Twice in the past year, 4=3-5 times in the past year, 5=6-10 times in the past year 6=11-20 times in the past year, 7=More than 20 times in the past year. †Mode

Table 3

Factor Loadings for Latent Constructs

Attachment Behaviors	Female	Male
My partner is rarely available to me.	.750 (.015)***	.774 (.013)***
It is hard for me to get my partner's attention.	.802 (.012)***	.797 (.011)***
My partner listens when I share my deepest feelings. (reverse coded)	.787 (.016)***	.837 (.013)***
I am confident my partner reaches out to me. (reverse coded)	.721 (.014)***	.815 (.011)***
It is hard for my partner to confide in me.	.783 (.013)***	.759 (.013)***
My partner struggles to feel close and engaged in our relationship.	.750 (.014)***	.835 (.012)***
Relational Aggression		
I have threatened to end my relationship with my romantic partner in order to get him/her to do what I wanted	.841 (.015)***	.852 (.019)***
I have gone "behind my partner's back" and shared private information about him/her with other people.	.766 (.019)***	.716 (.023)***
I have given my partner the silent treatment or "cold shoulder" when he/she has hurt my feelings or made me angry in some way.	.719 (.016)***	.816 (.013)***
When I have been mad at my partner, I have recruited other people to "take sides" with me and get them upset with him/her too.	.787 (.019)***	.818 (.022)***
I have intentionally ignored my partner until he/she gives in to my way about something	.817 (.014)***	.837 (.017)***
I have withheld physical affection from my partner when I was angry with him/her	.766 (.016)***	.802 (.016)***
I have spread rumors or negative information about my partner to be mean	.886 (.027)***	.884 (.030)***
Physical Aggression		
My partner threw something at me that could hurt	.892 (.023)***	.826 (.030)***
My partner pushed or shoved me.	.911 (.018)***	.962 (.027)***
My partner punched or hit me with something that could hurt.	.906 (.018)***	.818 (.039)***

*** p<.001.

Table 4

Indirect Effects of Male Pornography Use on Male Physical Aggression

Specific indirect	Estimate	S.E.
<u>Hypothesis 2</u>		
Male Pornography Use => Male Insecure Attachment Behaviors => Male Relational Aggression => Male Physical Aggression	0.088***	0.021
Male Pornography Use => Female Insecure Attachment Behaviors => Male Relational Aggression => Male Physical Aggression	0.016**	0.006
Male Pornography Use => Female Insecure Attachment Behaviors => Female Relational Aggression => Male Physical Aggression	0.066**	0.02
Male Pornography Use => Male Insecure Attachment Behaviors => Female Relational Aggression => Male Physical Aggression	0.029**	0.010
<u>Hypothesis 3</u>		
Male Pornography Use => Male Relational Aggression => Male Physical Aggression	0.044**	0.017
Male Pornography Use => Female Relational Aggression => Male Physical Aggression	-0.004	0.012
<u>Hypothesis 4</u>		
Male Pornography Use => Male Insecure Attachment Behaviors => Male Physical Aggression	0.039	0.035
Male Pornography Use => Female Insecure Attachment Behaviors => Male Physical Aggression	-0.002	0.03
Sum of Indirect Effects	0.275***	0.039

p<.02, *p<.001

Table 5

Indirect Effects of Male Pornography Use on Female Physical Aggression

Specific indirect	Estimate	S.E.
<u>Hypothesis 2</u>		
Male Pornography Use => Female Insecure Attachment Behaviors => Female Relational Aggression => Female Physical Aggression	0.125***	0.025
Male Pornography Use => Male Insecure Attachment Behaviors => Female Relational Aggression => Female Physical Aggression	0.054***	0.015
Male Pornography Use => Male Insecure Attachment Behaviors => Male Relational Aggression => Female Physical Aggression	0.043*	0.019
Male Pornography Use => Female Insecure Attachment Behaviors => Male Relational Aggression => Female Physical Aggression	0.008	0.004
<u>Hypothesis 3</u>		
Male Pornography Use => Female Relational Aggression => Female Physical Aggression	-0.008	0.023
Male Pornography Use => Male Relational Aggression => Female Physical Aggression	0.021**	0.009
<u>Hypothesis 4</u>		
Male Pornography Use => Female Insecure Attachment Behaviors => Female Physical Aggression	-0.032	0.036
Male Pornography Use => Male Insecure Attachment Behaviors => Female Physical Aggression	-0.094*	0.043
Sum of indirect	0.119*	0.054

*p<.05, **p<.02, ***p<.001