THE IMPACT OF EXTERNALIZATION ON THE SEXUAL SATISFACTION OF

PORNOGRAPHY USERS: A MODERATED MEDIATION ANALYSIS

by

Kristin L. Hauswirth

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University

March, 2020

THE IMPACT OF EXTERNALIZATION ON THE SEXUAL SATISFACTION OF

PORNOGRAPHY USERS: A MODERATED MEDIATION ANALYSIS

by Kristin L. Hauswirth


A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Liberty University, Lynchburg, VA

2020


APPROVED BY:

_____

Fred Volk, Ph.D., Committee Chair

_____

Nicole DiLella, Ph.D., Committee Member

_____

John C. Thomas, Ph.D., Ph.D., Committee Member

ABSTRACT

In committed relationships, pornography use has been associated with a contradictory influence on relationship and sexual satisfaction, particularly for women. Previous research indicates that sexual shame and moral disapproval may be related to pornography use, especially for religiously-affiliated individuals. Research also suggests that individuals may use defense mechanisms such as externalization to avoid negative emotions. This study explored the correlations between women's mutual pornography use and sexual satisfaction and used ordinary least squares regression to examine the moderating influence of externalization on the effect of moral disapproval on the relationships between mutual pornography use and sexual shame and mutual pornography use and sexual satisfaction. Exploratory research was also conducted using the data from male participants. The results indicated that, as hypothesized, for women, mutual use was positively correlated with sexual satisfaction, both overall and partner-focused. Contrary to the hypothesis, women's mutual use was also positively correlated with self-focused sexual satisfaction. The results also found that mutual pornography use, sexual shame, moral disapproval, and externalization were statistically significant predictors of sexual satisfaction for women. There was a statistically significant interaction between mutual use, moral disapproval, externalization, and sexual satisfaction for women, as externalization attenuated the effect of moral disapproval on the relationship between mutual pornography use and sexual satisfaction. The exploratory correlations between men's mutual use and sexual satisfaction were unanticipated, as all were positively correlated and overall were stronger than the correlations seen in women. However, the moderated mediation analysis was not significant for men.

*Keywords:* blaming others, externalization, moral disapproval, pornography use, sexual satisfaction, sexual shame

**Acknowledgments**

I would first like to thank my dissertation chair, Dr. Fred Volk, for his support, knowledge, and encouragement not only throughout the dissertation process, but also throughout my entire time in the doctoral program. His belief in me, especially when I did not believe in myself, has been invaluable along my doctoral journey, and I am not sure I would be here without it. I would also like to thank my committee, Dr. Nicole DiLella and Dr. John Thomas, for their important insights, feedback, and support throughout this process.

I would also like to thank my mentors, cohorts, and fellow students who have provided absolutely crucial encouragement, support, and validation in all aspects of the doctoral journey: Matthew Appleby, Dr. Henry Bruns, Dr. Zori Davila, Ann Gregory, Dr. John Harrichand, Dr. Patricia Kimball, Dr. Krista Kirk, Dr. Anita Knight-Kuhnley, Dr. Brittany Lashua, Dr. Suzanne Mikkelson, Dr. Elias Moitinho, Sandra Noble, Dr. Lucy Phillips, Dr. Justin Silvey, Dr. Lisa Sosin, Dr. Mike Takacs, and the "Fantastic 6." A huge thank you to Chris Floyd for your assistance with creating graphs in SPSS! I also need to thank my incredible friends for their support, listening ears, hugs, and understanding when I struggled to maintain balance between my personal and academic life: Felicia, Marla, Sarah, Luis, Katie, Candice, and Kala.

I would not have been able to remain committed to the doctoral journey if it had not been for the support of my various employers and co-workers throughout the years: the Residential Treatment Unit at Greensville Correctional Center, District 25 Probation and Parole, the Center for Clinical and Forensic Services, the mental health team at the Loudoun County Adult Detention Center, and the adult psychiatry unit at Virginia Baptist Hospital. I am truly grateful for my employment at these sites, which provided both the financial stability and clinical experience that I needed.

Finally, I would like thank my family.  To my amazing parents, Dale and Julie: Thank you for providing me with love, support, and encouragement; words cannot express how grateful I am!  To my brothers, Kyle and Kurt, sister-in-law, Abbey, and nephew, Graeme: Thank you for your love, encouragement, and especially for understanding when I could not travel home to Michigan for holidays—I'm grateful we can FaceTime!  Finally, to my partner, Juan: Thank you for your love, support, encouragement, and sacrifice, especially over the past two years.  Thank you for believing in me, in us, and that the sacrifices we make now will provide for our wonderful future later!

TABLE OF CONTENTS

**List of Tables**

**List of Figures**

**List of Abbreviations**

Amazon's Mechanical Turk (MTurk)

Bondage/Discipline, Dominant/Submissive, Sadism/Masochism (BDSM)

Kyle Inventory of Sexual Shame (KISS)

Male Sexual Shame Scale (MSSS)

New Sexual Satisfaction Scale (NSSS)

Test of Self-Conscious Affect-3 (TOSCA-3)

**CHAPTER ONE: INTRODUCTION**

Pornography is a common, global phenomenon, as it is a 97-billion-dollar industry worldwide with approximately 10 to 12 billion dollars coming from the United States alone (Morris, 2015). Statistics indicate that 46% of men and 16% of women under 40 use pornography (Regnerus, Gordon, & Price, 2016), and use by couples is estimated at 15% (Daneback, Træen, & Månsson, 2009). Moreover, Grov and colleagues found that 14.9% of men and 17.1% of women viewed pornography with their partner (Grov, Gillespie, Royce, & Lever, 2011). Pornography use may be increasing due to the accessibility, affordability, and anonymity of the Internet (Cooper, 1998), which allows individuals who may not otherwise seek sexually explicit material to view pornography online. Cooper (2004) further states that the Internet may have a disinhibiting effect, in that individuals may engage in activities they would not normally do.

Several studies have found that there is an association between pornography use and sexual/relationship satisfaction (Bridges & Morokoff, 2011; Grov et al., 2011; Kohut, Fisher, & Campbell, 2017; Maddox, Rhoades, & Markman, 2011; Minarcik, Wetterneck, & Short, 2016). Research indicates that positive effects of pornography use in committed relationships may include increased communication regarding sexual desires and fantasies; fewer occurrences of sexual dysfunction; enhanced intimacy; increases in honesty, openness, sexual exploration, and quality and frequency of sex; and increased relationship satisfaction (Daneback et al., 2009; Grov et al., 2011; Minarcik et al., 2016). Many pornography consumers report experiencing more benefits than harmful outcomes; in fact, participants in one qualitative study even tended to reject the perspective that pornography contributes to negative outcomes (Kohut et al., 2017).

Nevertheless, other studies suggest that pornography use does result in harm to relationships. Pornography use by individuals in committed relationships may weaken commitment to one's partner, increase infidelity and openness to extramarital sex, compromise trust and attachment security, decrease relationship satisfaction, and decrease women's self-esteem (Lambert, Negash, Stillman, Olmstead, & Fincham, 2012; Newstrom & Harris, 2016; Resch & Alderson, 2014; Wright, Tokunaga, & Bae, 2014). Factors that may further be related to the harmful consequences of pornography use include whether each partner is aware of the other's solitary use and if both partners share the same moral perspective regarding use. For instance, a decrease in relationship satisfaction may be a result of not only the pornography use in itself, but also from dishonesty regarding its use (Resch & Alderson, 2014).

Despite the debate surrounding the outcomes of pornography use, some counselors, particularly marriage and family therapists, recommend or "prescribe" that couples use pornography together. This recommendation is typically provided as a potential antidote to sexual dysfunction (Zitzman & Butler, 2009) or to enhance relationship/sexual satisfaction and intimacy (Maddox et al., 2011; Manning, 2006; Striar & Bartlik, 1999). Further, the association between pornography use and relationship satisfaction may be modified by gender, as pornography use by women has been shown to both positively and negatively impact sexual satisfaction when sexual satisfaction was assessed as both a unique and a shared measure (measure of both partners; Brown et al., 2017). The shared measure indicated a positive association, while the unique measure indicated a negative association. This finding suggests that women may use pornography with the intention of improving the relationship, yet their use does not benefit them personally. Conversely, Bridges and Morokoff (2011) specifically stated that they would not suggest that couples view pornography together until other mediators and

moderators are studied.  Although their reasoning for this was not explicitly stated, their findings

suggested that men's sexual media use was negatively associated with both men's and women's

relationship and sexual  satisfaction (Bridges & Morokoff, 2011), which may have contributed to

their hesitancy to support mutual pornography use by couples.  Research examining potential

factors that may mediate the relationship between pornography use and relationship satisfaction

may be beneficial for both couples who are seeking methods of relationship enhancement and the

therapists who counsel them.

Moral disapproval is a construct that is important to consider in the study of pornography

use.  While the members of the current generation of Americans are more likely to view

pornography than those of previous generations, research indicates that Americans are not

becoming more accepting of pornography use (Perry, 2018b).  The finding suggests that some

individuals engage in pornography use even though they disapprove of this activity, possibly for

moral and/or religious reasons.  This behavior is identified in the literature as moral

incongruence (Fisher, Montgomery-Graham, & Kohut, 2019; Grubbs & Perry, 2019; Perry,

2018a).  Religious individuals who engage in pornography use are more likely to experience

moral incongruence than non-religious individuals (Grubbs, Wilt, Exline, Pargament, & Kraus,

2018; Nelson, Padilla-Walker, & Carroll, 2010; Perry, 2018b).  As religious communities

strongly discourage pornography use (Whitehead & Perry, 2018), it is reasonable to expect that

religious individuals who view pornography will experience greater levels of moral

incongruence.  Moral incongruence regarding pornography use has been associated with

psychological distress such as depression and interpersonal/relational problems (Grubbs, Exline,

Pargament, Hook, & Carlisle, 2015; Grubbs & Perry, 2019) and decreased marital quality (i.e.,

relationship satisfaction; Perry, 2018b), while moral disapproval has been found to have a direct effect on sexual shame (Volk, Thomas, Sosin, Jacob, & Moen, 2016).

The concept of externalization (i.e., blaming others or external factors) is a recent addition to the literature regarding pornography use, specifically in the context of perceived pornography addiction. Volk and colleagues (2019) theorized that pornography users may attempt to reduce their negative feelings about using by decreasing distress through externalization, as opposed to recognizing their own responsibility regarding their behaviors. Findings from this study indicated that externalization moderated three of the six paths in the serial mediation with moderation model: moral disapproval to sexual shame, perceived addiction to sexual shame, and perceived addiction to depression (Volk et al., 2019). Interestingly, externalization had a contradictory impact on sexual shame: As externalization increased, the relationship between moral disapproval and sexual shame was attenuated, while the relationship between perceived addiction and sexual shame was exacerbated (Volk et al., 2019). These findings suggest that pornography users who believe their use is addictive may use externalization to decrease distress; this concept was applied in the current study as a potential variable related to the avoidance of shame of engaging in pornography by one who morally disapproves of it who may "blame" the partner for their use.

### Background of the Problem

Pornography consumption has been widely studied in terms of its positive and negative influences on biology (i.e., neuroscience), psychology (i.e., thoughts and emotions), and relationships. Non-empirical trade books ranging from *Your Brain on Porn* (Wilson, 2015), which combines informal, first-person accounts of perceived addiction to pornography with research on neuroscience, to *Monogamy with Benefits: How Porn Enriches Our Relationship*

(Hart & Hart, 2017), which describes one couple's story of incorporating various forms of pornography and other sexual exploration into their marriage, are readily available for purchase on Amazon. The volume of inconsistent information available may contribute to the discrepancies in empirical research on pornography use in couples.

Neuroscience research from 2011 initially suggested that the use of pornography could become an addictive behavior and compared using pornography to eating—both could be considered an abuse of a biological behavior (Hilton & Watts, 2011). In the same journal within the same year, however, a letter to the editor was published to contradict Hilton and Watts's findings (Reid, Carpenter, & Fong, 2011). This letter claimed that Hilton and Watts provided misleading interpretations and took excessive liberties in their research. Reid and colleagues (2011) argued that for many people, viewing playoff games in a professional sport is likely to lead to similar neurochemical processes as viewing pornography. However, it appears that the research has moved back onto the side of addiction. In 2017, research using fMRI studies in a group of men who have problematic pornography use and a group who did not indicated that the ventral striatum (brain area which houses decision making, motivation, reinforcement, and reward perception) was stimulated when an erotic reward was present but not when a financial reward was present (Gola et al., 2017). The findings of this study suggest that the neurological and behavioral mechanisms that occur with problematic pornography use are similar to those found in substance and gambling addictions (Gola et al., 2017). Yet the debate continues, as pornography addiction is not included as a disorder in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013).

Considering the high frequency of pornography use and widespread accessibility, pornography may be described as socially accepted. Research suggests that even geographic

areas such as the Bible Belt, which might be expected to have little to no pornography use, have at least equivalent, if not higher, numbers of pornography users or online searches for sexually explicit content (Edelman, 2009; MacInnis & Hodson, 2015, 2016). Furthermore, adolescents have described pornography as being "everywhere" (Mattebo, Larsson, Tydén, Olsson, & Häggström-Nordin, 2012), and some estimate that as many as 98% of people are exposed to pornography during adolescence (Kohut & Štulhofer, 2018), it seems nearly impossible to move through this developmental stage without some exposure to sexually explicit materials. While many studies have found that on average, the age of first exposure to pornography is 11 years old (Cranney, Koletić, & Štulhofer, 2018; Mitchell, Finkelhor, & Wolak, 2003), other research has indicated that some adolescents have been exposed to pornography as early as nine years old (Burton, Leibowitz, & Howard, 2010). This finding implies that for some teenagers and young adults, pornography is one, if not the only, form of sex education that they receive (Häggström-Nordin, Tydén, Hanson, & Larsson, 2009; Sun, Bridges, Johnson, & Ezzell, 2016). Consequently, in a longitudinal study, exposure to pornography has been associated with lower sexual satisfaction in adolescents (Peter & Valkenburg, 2009). Future research, such as a long-term longitudinal study, may be beneficial to assess if sexual satisfaction remains low into adulthood.

The association between religiosity, pornography use, and moral disapproval is well established in the literature (Bradley, Grubbs, Uzdavines, Exline, & Pargament, 2016; Fisher et al., 2019; Grubbs & Perry, 2019; Grubbs, Perry, Wilt, & Reid, 2019; Maddock, Steele, Esplin, Hatch, & Braithwaite, 2019). Further, religious individuals are more likely to perceive their pornography use as addictive, even when their frequency of use is, on average, similar or less than that of nonreligious consumers (Bradley et al., 2016; Grubbs, Exline, Pargament, Volk, &

Lindberg, 2017; Leonhardt, Willoughby, & Young-Petersen, 2018).  As such, a religious

pornography consumer may perceive *any* amount of use as addictive.

Previous literature has provided multiple perspectives of the complex argument

surrounding pornography and religion.  Weaver (1989) suggested that the work of

antipornography feminists such as Andrea Dworkin sought to move the argument from

pornography being an issue of purity (i.e., morality) to an issue of power (i.e., political).  This

suggested that the parties on both sides of the debate did not agree on the definition of

pornography: While conservatives perceived pornography as obscene films, antipornography

feminists perceived pornography as a portrayal of sexually violent attacks on women by men

(Weaver, 1989).  Interestingly, within these arguments, some antipornography feminists view

Christianity as providing religious justification for the pornographic imagination through

teachings about "the inferiority of the body and the identification of the body with the female"

which "support the humiliation and degradation of women that is the emotional and theoretical

foundation" of pornography (Weaver, 1989, p. 70).  Further, Weaver (1989) proposed that the

conservative definition of religion with its dominating masculine views is not antithetical to

pornography, but rather in support of it.

The relationship between sexuality and shame has been well established in literature

(Lichtenberg, 2008; Mollon, 2005; Shadbolt, 2013).  Lichtenberg (2008) provided a thorough

examination of the cross-section of sexuality, sensuality, and shame, beginning in infancy

through the natural, biological process of breastfeeding.  He discussed how sensations that occur

during breastfeeding that were once considered appropriate and sensual turned seemingly

inappropriate and sexual, thus pairing shame with the sensation, and this confusion follows an

individual throughout life.  Beginning in childhood, humans have a natural curiosity regarding

sexuality; however, a child's normal sexual exploration is typically met with disapproval by parents or other caregivers, which activates shame (Kyle, 2013). In adolescence and adulthood, the association between sexuality and shame appears to be even stronger when an individual perceives themselves as addicted to sex or some type of sexual behavior (Adams & Robinson, 2001; Gilliland, South, Carpenter, & Hardy, 2011; Grubbs et al., 2019; Kwee, Dominguez, & Ferrell, 2007; Schneider & Schneider, 1996). Further, as religious individuals are more likely to experience shame along with sexual expression, the impact of shame may pathologize sexual behaviors which are developmentally normal (Grubbs et al., 2015).

Gender differences, shame, and stereotyping begin early in life. Ferguson, Eyre, and Ashbaker (2000) reported that in Western society, the expectation is that women both *experience* and *express* shame more than men, for multiple reasons. Women have greater access to and less denial of painful emotions and are stereotyped as more deferential, dependent, meek, and passive than men (Ferguson et al., 2000). Unfortunately, as youth, girls tend to be trained to react or respond with shame, as adults support girls' beliefs that they are passive and powerless to control undesirable consequences, that failure is part of the feminine identity, and yet that failure is an unacceptable outcome (Ferguson et al., 2000)—an example of a double bind. Brene Brown's (2013) findings further support women's experiences of shame.

The concept of sexual agency has been explored in other (arguably more extreme) sexuality literature, such as the BDSM (bondage/discipline, dominant/submissive, sadism/masochism) community (Jozifkova, 2013). Although the focus of this paper is not BDSM relationships, some of the concepts may be relevant, particularly related to willingness, free will, and hierarchy in relationships. In this context, the terms "dominance" and "submission" refer to an individual's disposition, or tendency to act in a certain way (Buss &

Craik, 1980). This disposition is both a hypothetical statement of an individual's future behavior and a summary statement reflective of the general trends in the individual's conduct. As people are more likely to follow a decision from a higher-ranking individual in the hierarchy, a lower-ranking individual may make concessions instead of asserting opinions (i.e., the more "submissive" partner in a committed relationship may go along with decisions or be more easily influenced by the "dominant" partner; Jozifkova, 2013). The hierarchy in many heterosexual relationships typically consists of the male partner in the "dominant" role, a designation that may begin as soon as early adolescence (Pellegrini & Bartini, 2001). As previously discussed, socialization and gender roles tend to reinforce this hierarchy.

## Statement of the Problem

While pornography use seems to be related to relationship satisfaction, the directionality of this association remains unclear as some evidence exists for both a positive and a negative relationship. Therapists may suggest that couples who are struggling with intimacy or relationship satisfaction should engage in mutual pornography use; however, there is a gap in the research as to which factors may contribute to a couple benefitting from mutual use and which factors may result in the couple experiencing negative outcomes or harm from mutual use. This research sought to further explore Worthington et al.'s (2013) questions about the impact of religion on mental health by answering the questions "Under what conditions might couples benefit from mutual pornography use?" and "Under what conditions might couples experience harm from mutual pornography use?" Minarcik et al. (2016) suggested that the relationship between pornography use and romantic relationships is potentially mediated or moderated by factors which have yet to be explored.

**Purpose of the Study**

The purpose of this study was to explore the influences of moral disapproval, sexual shame, and externalization on the association between women's mutual pornography use and sexual satisfaction. The final two research questions explored the effect of the hypothesized models for men. This paper contributes to the existing literature regarding couples who use pornography and helps to bridge the gap in research between pornography use and factors that lead to either positive or negative associations with sexual satisfaction. Additionally, this research provides further exploration of several constructs related to pornography use, including religiosity, type and frequency of pornography viewed, intimacy, and relationship satisfaction.

**Research Questions**

The first research question was: What is the correlation between women's mutual pornography use and sexual satisfaction? Previous research has suggested that a correlation between mutual pornography use and sexual satisfaction is more likely to exist for women than for men (Bridges & Morokoff, 2011) and that a positive correlation is more likely to occur between mutual use and sexual satisfaction than between solitary use and sexual satisfaction (Brown et al., 2017). The hypothesis was that for women, scores on the New Sexual Satisfaction Scale (NSSS; Štulhofer, Buško, & Brouillard, 2010) Subscale A (Ego-Focused) would be negatively correlated when the participant endorses mutual pornography use, while scores on the NSSS Subscale B (Partner- and Sexual Activity-Centered) would be positively correlated with mutual pornography use.

The second research question asked whether the relationship between women's mutual pornography use and sexual satisfaction would be mediated by sexual shame (SS). Figure 1.1 provides an example of the theoretical model. This relationship is important to consider because

SS may be a factor in the discrepancy in women's experiences with pornography use and sexual satisfaction. The hypothesis was that SS is a stronger mediator in the relationship between women's solo use and sexual satisfaction, and a weaker mediator (or would have no effect) in the relationship between women's mutual use and sexual satisfaction.
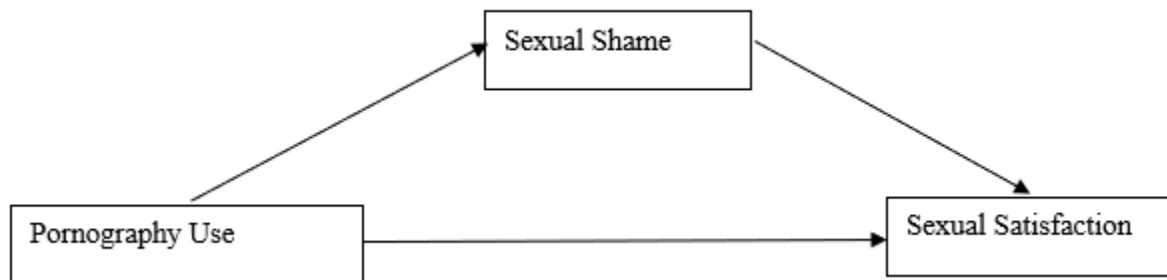


*Figure 1.1*. Proposed theoretical model of research question two.

The third research question asked if moral disapproval in women moderates the relationship between their pornography use and sexual shame. It was hypothesized that high moral disapproval would increase sexual shame, which would decrease sexual satisfaction. Low or no moral disapproval was not expected to impact sexual shame and therefore not influence sexual satisfaction. Similarly, the fourth research question asked if moral disapproval in women also moderates the relationship between pornography use and sexual satisfaction. It was hypothesized that high levels of moral disapproval would be correlated with decreased sexual satisfaction, and that this relationship would be moderated by gender, based on the previous findings of Perry and Whitehead (2018). It was expected that this relationship would be less likely to occur in women compared to men. See Figure 1.2 for a visual representation of the model.
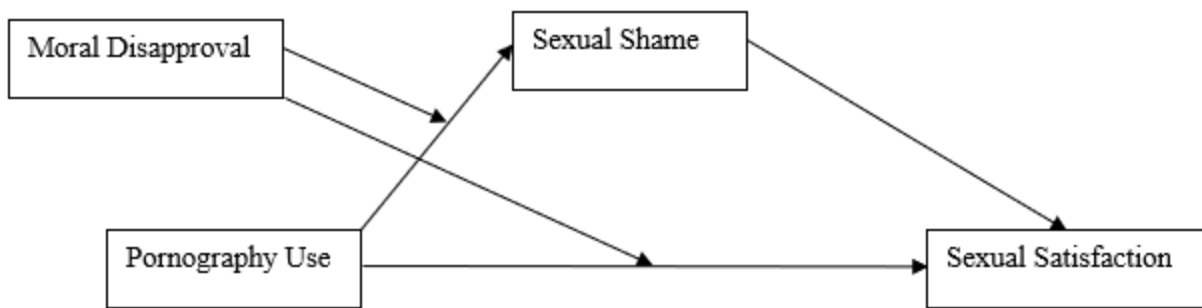
*Figure 1.2*. Proposed theoretical model of research questions three and four.

The fifth research question asked if externalization (e.g., blaming others) in women would moderate the interaction of moral disapproval on the relationship between mutual use and sexual shame, based on previous research by Volk and colleagues (2019) that found that externalization attenuated the relationship between moral disapproval and sexual shame. It was hypothesized that the present study would replicate those findings, with differences by gender— that externalization would have a greater impact on sexual shame for women than men. Further, the sixth research question asked if externalization in women would moderate the interaction of moral disapproval on the relationship between mutual use and sexual satisfaction. It was expected that externalization would attenuate the effect of moral disapproval on the relationship between mutual use and sexual satisfaction. Figure 1.3 provides a diagram of the proposed theoretical model.

The seventh and eighth research questions assessed the effect of this model on men in an exploratory manner, as the literature indicates a need for further research regarding gender differences. Although externalization was not anticipated to have the same effect for men, the shifting nature of masculinity and sexuality suggests that additional research in this area is of value.
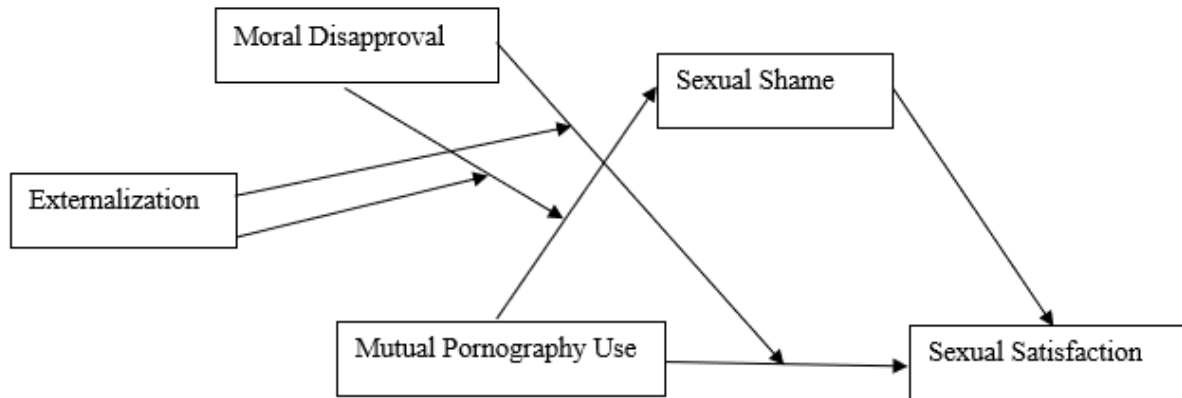
*Figure 1.3.* Proposed theoretical model of research questions five and six.

These questions are hypothesized to assist clinicians by providing support for the reasons that individuals engage in mutual and solo pornography use in the form of potential motivations or factors which contribute to use.

**Assumptions and Limitations**

An assumption of this research was that the use of online surveys through Amazon's Mechanical Turk (MTurk; Paolacci & Chandler, 2014) would capture a broad sample of the population, especially when compared to convenience samples from undergraduate institutions. This study assumed that the participants recruited via MTurk were representative of pornography users from various religious backgrounds in North America.

This study included some limitations. One limitation was the use of self-report measures, as this type of data is subject to impression management/social desirability, particularly for participants who identify as religious and admit to viewing pornography (Hill & Hood, 1999; MacInnis & Hodson, 2016). Since this research asked participants to reveal sensitive, personal information (i.e., use of pornography), some participants may have underreported their level of use. Another limitation of this research is the focus on heterosexual relationships. Although it is possible that the variables in question are present in varying types of relationships, the current

study provides the first step in researching the impact of externalization in couples who use pornography. Based on the results of this study, additional research with other types of couples in committed relationships may be warranted. Further, there is a possibility that participants who volunteered for the study differ from individuals who did not participate in the study ("nonvolunteers") in significant ways. Prior research regarding undergraduate populations suggests that volunteers are more sexually liberal and more sexually experienced when differences are found between volunteers and nonvolunteers (Catania, Binson, Van der Straten, & Stone, 1995). Wiederman (1999) additionally found that, compared to nonvolunteers, volunteers were more likely to have had sexual intercourse, have performed oral sex, indicate greater sexual esteem and sexual sensation-seeking, and report less traditional sexual attitudes. It is hoped that the use of MTurk mitigated this possibility. Finally, this study used a correlational/cross-sectional design, which means that a causal conclusion cannot be established.

**Definition of Terms**

Various definitions of pornography have been presented in the research, which results in difficulty when comparing studies. Pornography was defined by Kohut et al. (2017) as "intentionally looking at or listening to: (a) pictures or videos of nude individuals, (b) pictures or videos in which people are having sex, or (c) written or audio material that describe people having sex" (p. 587). This study also specified that real-time, interactive sexual experiences such as with other individuals via webcam or online chat rooms were not considered pornography for the purposes of their research; although these examples may be considered "online sexual activity," they were not considered pornography. Other descriptions specifically detail the idea of consent, such Popović's (2011) statement that pornography includes any "sexual materials aiming to produce sexual excitement, involving informed and consenting

adults" (p. 450). Emmers-Sommer (2018) defined sexually explicit materials as present in many forms, including erotica and hard-core pornography, and offered in "myriad mediated fashions (e.g. online pornography, print, audio, peep shows, webcams, etc.)" (p. 48). For the purposes of this research, *pornography* is defined as any audio, visual, or written material of nudity or sexual activity of age-appropriate adults which is intended to arouse the consumer. Additionally, *mutual pornography use* is defined as occurring when two partners in a heterosexual romantic relationship view pornography together.

*Moral incongruence* is defined as "the experience of violating one's deeply held or sacred values" (Grubbs & Perry, 2019, p. 30), essentially, the result of engaging in behaviors that an individual *morally disapproves* of. In this study, mutual pornography use is the experience that violates an individual's deeply held values.

Sexual shame has recently been defined in the literature as distinct from shame. According to Clark (2017), *sexual shame* is

> a visceral feeling of humiliation and disgust toward one's own body and identity as a sexual being and a belief of being abnormal and inferior; this feeling can be internalized but also manifests in interpersonal relationships having a negative impact on trust, communication, and physical and emotional intimacy. (p. 87)

For the purposes of this study, *sexual satisfaction* is defined as a combination of two factors: personal experiences/sensations and partner behaviors and general sexual activity (as measured by the NSSS). Furthermore, *relationship satisfaction* is defined as an individual's perspective of their overall relationship functioning. Although these two constructs overlap in the literature, sexual satisfaction and relationship satisfaction were assessed separately.

*Externalization* refers to the defense mechanism in which an individual has a tendency to externalize their transgressions onto another person or external factor (Volk et al., 2019). Tangney and Dearing (2002) found that while externalization was strongly and positively correlated with shame, it was negatively correlated with guilt, and the researchers suggested that externalization may be used to decrease the painful self-awareness associated with shame.

## Significance of the Study

This study helps fill the gap in the research by exploring constructs which may mediate and moderate the association between pornography use and relationship satisfaction. As the results of previous research have been inconsistent, this study sought to provide further clarification regarding the directionality of the association between pornography use and relationship satisfaction. This research attempted to answer the questions "Which couples does pornography affect positively and under what conditions?" and "Which couples does pornography affect negatively and under what conditions?" The expectation was that if an individual is highly religious, they likely morally disapprove of pornography because pornography is in opposition with their values. Therefore, if they consume pornography anyway, they would likely experience moral incongruence, which influences sexual shame, which would lead to decreased sexual satisfaction. However, if the disapproving partner blames the other partner, the negative impact of moral disapproval may not be as strong. In contrast, if an individual is nonreligious or low in religiosity and uses pornography, the individual is less likely to experience moral incongruence/sexual shame and relationship satisfaction would not be impacted or may be positively impacted. Partners who are highly religious and engage in pornography use may use externalization to minimize the level of sexual shame that they experience; if sexual shame decreases, sexual satisfaction was expected to increase.

This study has clinical applications for counselors, sex therapists, and marriage and family therapists who work with couples. Additionally, this research may inform counselor educators and supervisors who supervise emerging counselors or teach human sexuality and couples' therapy courses. The outcomes of this research provide further information regarding whether pornography use is beneficial for couples, such as prescribed as "homework" in couples counseling. Ideally, this research can provide further evidence for the need for counselors to assess couples' religiosity, as the expectation of this research was that couples' level of religiosity would impact whether mutual pornography use resulted in increased sexual/relationship satisfaction or cause harm in the relationship (decreased satisfaction).

## Theoretical/Conceptual Framework

The double-bind communication theory was developed from family theory regarding patients with thought disorders such as schizophrenia (Bateson, Jackson, Haley, & Weakland, 1956). The premise behind this theory is that when communication between two (or more) individuals consists of contradictory messages, then the individual who is on the receiving end of the communication is in a bind: If the individual follows the "rule" of one message, then they are violating the other message (Bateson et al., 1956; Gibney, 2006).

The current study hypothesized that an individual may receive these messages on both a personal level (e.g., from a spouse/intimate partner) and a societal level (e.g., religious organization, social media, etc.). For instance, if an individual is highly religious and morally opposed to viewing pornography (i.e., the first message is that the individual should not view pornography due to religious beliefs) but is asked to view pornography with their spouse (i.e., the second message is that the individual should view pornography to satisfy the partner's relationship expectations), the individual is placed in a double bind. If the individual decides not

to view pornography, they risk upsetting their partner, resulting in decreased relationship satisfaction; however, if the individual views pornography, they may experience a "benefit" of maintaining peace in the relationship or increasing relationship satisfaction but will also experience moral disapproval, having engaged in a behavior contrary to their own moral/religious beliefs.

## Organization of Remaining Chapters

The second chapter is a detailed review of the extant literature regarding these topic areas. This chapter will focus on pornography use, reasons for use, positive and negative outcomes of using, and differences between using alone and with a romantic partner. Next, the chapter will discuss religiosity and its association with pornography use before moving to a discussion of sexual satisfaction. This section will also explore intimacy and relationship satisfaction. Following that section, the chapter will discuss moral disapproval/incongruence and then explore shame and sexual shame. Finally, the chapter will conclude with a discussion of externalization. The third chapter will provide an overview of the methodology used in the current study. This discussion will include the methods used for data collection, measures that were used, and data analysis procedures. The fourth chapter will provide the results of the study. This will include a discussion of how each hypothesis was tested using a statistical analysis. Finally, the fifth chapter will explore the findings of the study, to include a summary of the results, interpretation of the results, how these findings relate to previous research, and the implications of the findings. In addition, limitations of this research and areas for future research will be discussed.

**Chapter Summary**

A review of the literature indicates that the association between pornography use and sexual/relationship satisfaction has been broadly researched; however, there is conflicting evidence as to whether the direction of the relationship is positive or negative. One factor that may play a role in this conflict is the inconsistencies in the type of measures used for both pornography use and sexual/relationship satisfaction. Studies have suggested that further research is needed to explore both mutual pornography use by couples and details regarding pornography use (e.g., frequency, media/format, and type) in order to clarify differences between couples who mutually use and those who do not (Maddox et al., 2011; Manning, 2006; Sun et al., 2016; Szymanski, Feltman, & Dunn, 2015). Additionally, research has indicated a need for comprehensive measures of both pornography and religiosity, due to the use of items that likely did not fully account for these constructs in prior studies (Leonhardt et al., 2018).

Since the research presently indicates that there are both positive and negative associations between mutual pornography use and sexual/relationship satisfaction, positive associations between pornography use and moral incongruence, and positive associations between moral incongruence (i.e., perceived pornography addiction) and sexual shame, this research proposed that the association between mutual pornography use and sexual/relationship satisfaction is mediated by sexual shame and moderated by moral disapproval. Furthermore, this study proposed that externalization moderates the effect of moral disapproval. As such, the purpose of this quantitative study of couples in committed relationships was to investigate the link between mutual use of pornography and sexual satisfaction and the extent to which this link is mediated by sexual shame and moderated by moral disapproval and externalization, which to date no study has examined.

**CHAPTER TWO: REVIEW OF THE LITERATURE**

The purpose of this study was to assess the relationship between pornography use and relationship/sexual satisfaction. The first research question examined the relationship between women's mutual pornography use and sexual satisfaction. The second research question asked if sexual shame mediates the relationship between women's mutual pornography use and sexual satisfaction. The third research question asked if moral disapproval moderates the relationship between women's mutual pornography use and sexual shame, while the fourth research question asked if moral disapproval moderates the relationship between women's mutual pornography use and sexual satisfaction. The fifth research question asked if externalization moderates the interaction of moral disapproval on the relationship between women's mutual use and sexual shame. The sixth research question asked if externalization moderates the interaction of moral disapproval on the relationship between women's mutual use and sexual satisfaction, that is, if blaming others would attenuate the impact of moral disapproval on the relationship between mutual use and sexual satisfaction. The seventh and eighth exploratory research questions assessed the fit of the models for male participants. Based on the research of Clark (2017), Gordon (2018, 2019), Grubbs et al. (2019), and Volk et al. (2016), moral disapproval, sexual shame, and externalization were hypothesized to be important influences on the relationship between mutual pornography use and relationship satisfaction.

This chapter will begin with an overview of pornography use, including reasons for use, positive and negative outcomes, and using alone (solitary) or with a partner (mutual). After reviewing the concept of pornography use, religiosity will be discussed. Following the discourse of pornography and religiosity, the construct of relationship satisfaction will be examined. Intimacy and sexual satisfaction will be included in this discussion. Next, the chapter will focus

on the extant literature regarding moral disapproval, sexual shame, and externalization. Lastly, the research questions, hypotheses, and theoretical models will be reviewed.

## Pornography Use

Researchers have indicated that the use of pornography is an important area of study due to its accessibility, affordability, and anonymity (Cooper, 1998) and the ensuing impact on human sexual behavior (Regnerus et al., 2016). In addition, the advent of Internet pornography and its disinhibiting effect allows individuals who may not have otherwise sought out sexually explicit materials to seek out pornography (Cooper, 2004). However, although some statistics regarding pornography use are available, Regnerus et al. (2016) identified three reasons it is difficult to accurately measure pornography consumption: pornography use is challenging to document, the language surrounding pornography use has changed over time, and there is no "gold standard" approach to measure pornography use on social surveys (p. 874).

### Reasons for Use

Research has identified numerous reasons people engage in viewing pornography. Using pornography is common for sexual stimulation/masturbation purposes (Emmers-Sommer, 2018; Kwee et al., 2007; Sun et al., 2016). Other research that investigated motives for pornography use indicated reasons that included a desire to avoid negative emotions, such as shame, depression, sorrow, anger, boredom, or loneliness (Baltazar, Helm, McBride, Hopkins, & Stevens, 2010; Borgogna, Lathan, & Mitchell, 2018); sensation-seeking (Kohut & Štulhofer, 2018); curiosity, education about sex, pressure by another individual (Romito & Beltramini, 2011); excitement, and a desire to improve partnered sex (Emmers-Sommer, 2018). Specifically, Romito and Beltramini (2011) found that female adolescents were more likely to be pressured to view pornography by another individual and were significantly more likely than male

adolescents to have been asked to view pornography by a romantic partner. In intimate relationships, the decision to view pornography may be a mutually agreed-upon alternative to sexual intercourse if one partner is unavailable; for example, the couple has a long-distance relationship or one partner is traveling for work, or if sexual activity is restricted for other reasons (i.e., medical; Bridges & Morokoff, 2011).

In addition, the reasons for engaging in pornography use appear to vary by gender. Emmers-Sommer (2018) noted that typically the assumption is that if a woman views pornography, it is at the request of her partner (i.e., a man), yet studies have indicated that women also view pornography alone for reasons such as curiosity and masturbation (Bridges, Sun, Ezzell, & Johnson, 2016; Romito & Beltramini, 2011). A study by Bridges and Morokoff (2011) found that the most common reason for women to view pornography was as part of the act of lovemaking with their partners, while men most commonly reported using pornography for private/solo sexual stimulation. Further research is needed regarding reasons and motivations for using pornography and whether the reasons stem from self (e.g., learning for their own benefit) or others (e.g., pressure from their partner or curiosity about what kind of pornography their partner is watching).

**Positive Outcomes Associated With Use**

Research regarding pornography use suggests that for some couples, viewing pornography is a positive experience. In a study of Norwegian heterosexual couples, Daneback et al. (2009) found that the couples who had used pornography (either mutually or individually) reported benefits including increased communication regarding sexual desires and fantasies and decreased sexual dysfunction. However, this "permissive erotic climate" was found to be of greater benefit when both members of the couple used pornography, as opposed to one partner

using and the other abstaining (Daneback et al., 2009).  Furthermore, Grov et al. (2011) examined archival data from a "cybersex and romance" survey conducted by ELLE magazine and MSNBC.com.  Grov et al. (2011) found that couples who were light to moderate pornography users reported increases in both the quality and frequency of sex, while individual use of pornography was found to improve relationships by enhancing intimacy.

A study conducted by Minarcik et al. (2016) added to the research that the outcomes of pornography use vary whether a couple views pornography together or individually.  Minarcik et al.'s (2016) research indicated that when both partners used pornography or neither partner used pornography, their levels of intimacy, relationship satisfaction, and commitment were similar; while if one partner used and the other one did not, the user reported lower levels of intimacy and commitment.  Moreover, research by Maddox et al. (2011) indicated similar findings: Couples who only viewed pornography together reported more dedication and higher sexual satisfaction than couples who viewed pornography alone or only occasionally together.

Some adolescents and young adults also reported benefits from viewing pornography.  In a qualitative study of Swedish adolescents, the findings indicated that pornography could provide inspiration in a sexual relationship, either to try new sexual techniques or perhaps as an aid for individuals who are unable to achieve sexual satisfaction using other methods (Mattebo et al., 2012).  For women, one theme that arose was empathy.  This group of participants believed that everyone has a right to sexual satisfaction, even those individuals who struggle with sexual problems, and pornography may be a method of achieving satisfaction for individuals with various sexual difficulties or dysfunctions (Mattebo et al., 2012).

In addition to the previous studies, Kohut et al. (2017) conducted a qualitative, "bottom-up" study in which participants shared their perceptions of the effects of pornography use on

relationships. A total of 430 men and women in heterosexual relationships participated in the study, and 66 themes were identified. The following are the positive themes that received 100 or more responses: source of information, sexual experimentation, sexual communication, alternative outlet, positive affect, and sexual comfort (Kohut et al., 2017). Although some negative themes (e.g., unrealistic expectations, decreased interest in sex, and personal insecurity) were reported, the most common theme was that pornography had no negative impacts on the user(s), their partners, or their relationships.

Finally, some researchers hypothesized that pornography use would alter the viewer's attitudes, thereby contributing to nonegalitarian views of women, i.e., considering women as "less than" or "unequal" to men. Based on radical feminist theory, some studies suggested that pornography's tendency to portray women as sex objects would lead to viewers holding attitudes that support nonegalitarian perspectives. However, two studies have supported the opposite effect (Kohut, Baer, & Watts, 2016; Rasmussen & Kohut, 2019), suggesting the possibility that pornography may "liberalize" attitudes toward women (Rasmussen & Kohut, 2019, p. 38).

**Negative Outcomes Associated With Use**

Some research found contradictory (both positive and negative) outcomes within the same study. In addition to the positive outcomes previously mentioned, Daneback et al. (2009) found that couples in which one member used pornography and the other did not report greater dysfunction. Men reported greater difficulty with sexual arousal, while women reported experiencing negative self-perception—frequently thinking negatively about themselves (Daneback et al., 2009). Furthermore, in the Mattebo et al. (2012) study, participants identified that pornography resulted in the following: idealized unattainable body types; distorted reality about body image, safe sex practices, and accessibility of sex (particularly for women); pressured

sexual messages; and ambivalence/contradictory feelings. For example, participants expressed concerns that since pornography rarely depicts condom use, those who view pornography may receive the message that condoms are not necessary. Participants also expressed ambivalence related to genre and subtypes, such as that "rapists" might gain inspiration from what they view and then desire to act on this inspiration (Mattebo et al., 2012).

Additional research on pornography use and couples suggested that the outcomes were primarily negative, including decreased relationship commitment and increased infidelity or openness to extramarital sex (Lambert et al., 2012; Maddox et al., 2011; Wright et al., 2014), decreased relationship satisfaction/quality (Newstrom & Harris, 2016; Resch & Alderson, 2014; Szymanski & Stewart-Richardson, 2014), decreased sexual activity and intimacy (Manning, 2006; Popović, 2011), distorted views and devaluation of relationships and marriage (Manning, 2006), a contributing factor in divorce (Perry & Schleifer, 2017), greater insecure attachment (Szymanski & Stewart-Richardson, 2014; Zitzman & Butler, 2009), greater gender role conflict, and decreased sexual satisfaction (Szymanski & Stewart-Richardson, 2014). Moreover, men who viewed pornography at high frequencies were more likely to rely on pornography to both become and remain sexually excited and more likely to use pornography during partnered sexual activities (Sun et al., 2016).

Pornography use appears to affect the individual differently than the couple as a unit. Research suggests that men may experience the following outcomes: increased risk of engaging in sexual coercion (Baer, Kohut, & Fisher, 2015), decreased pleasure from physical intimacy/real-life experiences (Doran & Price, 2014; Sun et al., 2016), increased shame (Gilliland et al., 2011; Kohut & Štulhofer, 2018; Kwee et al., 2007), increased belief that one is

addicted to pornography (Grubbs et al., 2015, 2018), and negative effects both in life generally and on one's sex life (Hald & Malamuth, 2008).

For women, some of the outcomes of pornography use include decreased frequency of sex, pressure to perform sexually, the belief that their partner is critical of them (Albright, 2008), along with positive attitudes toward extramarital sex, adult premarital sex, and teenage sex; a higher number of sexual partners within the past year/five years; and an increased likelihood to engage in extramarital sex (Wright, Bae, & Funk, 2013).

**Solitary Versus Mutual Pornography Use**

Research indicates the effects of pornography vary according to whether an individual uses pornography alone (solitary use) or with a romantic partner (mutual use). Some prior studies have dissected use by couples who use pornography, couples who do not use pornography, and couples in which only one partner uses pornography. Overall, the findings appear to suggest that both partners should make the same decision about whether or not to view pornography (i.e., either both use or neither use) to have more positive outcomes (Daneback et al., 2009; Grov et al., 2011; Maddox et al., 2011; Minarcik et al., 2016; Willoughby, Carroll, Busby, & Brown, 2016). For example, couples who both used pornography had a more "permissive erotic climate" (i.e., feeling comfortable expressing one's personal sexual desire) and fewer dysfunctions than nonusers (Daneback et al., 2009). Couples who used pornography together also reported significantly higher levels of dedication (Maddox et al., 2011), intimacy, commitment (Minarcik et al., 2016), quality/frequency of sex, honesty, openness, and sexual communication (Grov et al., 2011).

Studies that provide information regarding gender differences in regard to the effect of mutual pornography use on one partner are sparse, as many researchers discussed the outcome

variables without analyzing them by gender. Some studies, such as those that categorized participants by "users" and "nonusers," may not have assessed differences by gender and therefore were unable to report on these statistics. However, in the Grov et al. (2011) study, men reported that mutual use benefitted them by enhancing arousal and providing education, while women indicated that mutual use normalized sexual desire, improved their relationship, increased self-esteem, and improved their body image. Similarly, Bridges and Morokoff (2011) found that for women, mutual use resulted in increased relationship and sexual satisfaction.

When a discrepancy in partner use was present (e.g., one partner viewed pornography and the other partner abstained), positive outcomes tended to decrease while negative outcomes increased. For example, Willoughby et al. (2016) found that greater discrepancy between partners' level of pornography use was related to decreased relationship satisfaction, decreased relationship stability, decreased positive communication, and increased relational aggression. For females whose male partners viewed pornography alone, both relationship and sexual satisfaction decreased (Bridges & Morokoff, 2011).

Grov et al.'s (2011) study also provided evidence of gender differences in how couples perceive the effects of pornography use on a relationship. Female users and nonusers believed that their male partner's use resulted in the couple engaging in less frequent or poorer quality sex and that their partner acquired desires for activities that the women did not want to engage in. Women additionally expressed fear that their partners' pornography use could lead to actual infidelity. Women reported believing that men's reliance on pornography contributed to their decreased self-esteem, body image, and confidence. Men admitted that pornography use led to decreased regard for their partner's sexual and emotional needs and decreased sexual energy. Furthermore, men reported that when they used pornography, their own needs were not

compromised by having to respect or respond to their partners' needs, and they admitted that their use made their partner feel hurt, threatened, or upset or led to the termination of a relationship. For men, the only concern about their partner using pornography was that it might lead to infidelity.

This concludes the section regarding pornography use. The section began with an overview of reasons why people engage in pornography use, and then discussed both positive and negative outcomes associated with use. The literature provides evidence on both sides of the argument regarding the impact of pornography use on committed relationships, as several studies have found both benefits and drawbacks associated with use. This section also discussed the effects of solitary and mutual pornography use. Overall, it appears that a couple is more likely to experience benefits if they both use pornography, as opposed to only one partner using. Next, the following section will discuss the research regarding religiosity and its association with pornography use.

**Religiosity**

Religion is considered an "organized social entity" with a focus on prescribed beliefs, rituals, and practices (Miller & Thoresen, 1999, p. 6). Religiosity may be a protective factor in an individual's life and motivate the individual to engage in prosocial behavior (Baltazar et al., 2010; Foubert & Rizzo, 2018). Furthermore, religious coping methods have been shown to be effective in working through stressors and crises (Murray & Ciarrocchi, 2007). Religious beliefs may be "translated" into positive coping mechanisms, such as feeling secure in a relationship with God and feeling connected to a congregation, which have a direct impact on an individual's physical and mental health (Murray & Ciarrocchi, 2007, p. 25). However, negative religious

coping also exists in the forms of a less secure relationship with God, increased spiritual struggles, and a threatening view of the world (Pargament, Smith, Koenig, & Perez, 1998).

In previous research, religion has been measured using definitions of affiliation, participation in services, and dimensions such as intrinsic vs. extrinsic (Farmer, Trapnell, & Meston, 2009). Many studies categorized participants by varying affiliations, while some have more specifically grouped participants by different factions levels of Protestantism (Grubbs et al., 2019; Perry & Whitehead, 2018). However, in the research regarding religion and sexuality, the measure of religious affiliation has provided inconsistent information about differences in religion and sexual behaviors (Farmer et al., 2009), possibly due to the ideological variations within religious affiliations (e.g., the liberal-conservative spectrum; Robbins & Anthony, 2017). Religious participation is a common measure used to assess the relationship between religion and sexual behavior, in particular, religiosity and pornography use (Grubbs et al., 2015, 2018; Nelson et al., 2010). Yet this measure also provides some inconsistency, as religious affiliations have different expectations regarding levels of participation and attendance (Farmer et al., 2009). Furthermore, information regarding both affiliation and participation does not provide information regarding religious beliefs.

To solve some of the issues with inconsistency, research on religiosity has also recorded data regarding dimensional subtypes, such as intrinsic vs. extrinsic religiosity and fundamentalism (Farmer et al., 2009). Intrinsic religiosity involves engaging in religious practices for personal reasons such fulfillment or enjoyment, while extrinsic religiosity involves engaging in religious practices for external reasons such as social status or reputation (MacInnis & Hodson, 2016). Intrinsic religiosity appears to have a greater impact than extrinsic religiosity on an individual's premarital sexual behavior, as intrinsic religiosity was found to be inversely

related to various premarital sexual behaviors (Farmer et al., 2009).  Donahue (1985) further

stated that intrinsic religiosity is also considered a measure of religious commitment, separate

from religious beliefs, membership, and theological orientation.  Another dimensional subtype,

religious fundamentalism, was defined by Altemeyer and Hunsberger (1992) as the belief that

there is one set of religious teachings that includes the inerrant truth about humanity and deity,

and that this essential truth is opposed by forces of evil.  In regard to sexuality, a study by Olson,

Player, Manning, Likos, and Anderson (2014) indicated that religious fundamentalism was

significantly correlated with sexual guilt, viewing pornography, use of sexual paraphernalia (e.g.,

sex toys), and negative/prejudicial attitudes toward lesbians and gay persons.  The rigidity of

fundamental beliefs may provide a method to control unmanageable behaviors (e.g., viewing

pornography; Levert, 2007) or allow for an individual to dictate how others should behave by

extending the individual's own beliefs and social expectations (Olson et al., 2014).

     Identification with a religious affiliation or religious participation does not necessarily

result in an individual's beliefs and behaviors aligning with the beliefs of that religion.  When an

individual acts in a manner contrary to their religion's beliefs (i.e., falling short of the religious

norms) the individual is likely to experience cognitive dissonance (Festinger, 1957; Mannheimer

& Hill, 2015).  For example, Veer and Shankar (2011) investigated how high religiosity

consumers justified highly materialistic wealth.  Veer and Shankar (2011) hypothesized that if

the stigma associated with materialism was suppressed, highly religious individuals would be

more likely to intend to purchase a materialistic product.  Their study supported this hypothesis

and found that high religiosity consumers were more likely to purchase a luxury item if the

materialistic claims associated with the item were suppressed (Veer & Shankar, 2011).

Although most religious organizations generally discourage any use of pornography (Whitehead & Perry, 2018), numerous studies have shown that some religious individuals identify as pornography users (Grubbs et al., 2015, 2019; Nelson et al., 2010). Therefore, religious populations may be especially susceptible to experiencing various types of psychological distress related to their pornography use. Nelson et al. (2010) found that religious young men (ages 18–27) who used pornography reported higher levels of depression than the men who did not view pornography. Furthermore, the findings indicated that men who used pornography reported lower levels of self-worth and identity development (Nelson et al., 2010). Leonhardt et al. (2018) studied 686 unmarried adults (men and women) who viewed pornography and found that higher pornography use and religiosity were associated with increased relationship anxiety surrounding pornography use. Additionally, Perry (2018a) found that individuals who were conflicted about viewing pornography (because using pornography went against their moral beliefs) experienced higher rates of depression than individuals who viewed it but were not morally opposed to pornography. The distress experienced by religious individuals who view pornography appears to take many forms.

The invention of the Internet likely contributed to the ease with which religious individuals can engage in pornography use. Hypothetically, religious individuals can view pornography in their own homes privately while publicly keeping up the appearance of purity (Levert, 2007). However, religious individuals who view pornography report higher levels of guilt and shame regarding their pornography use (Perry, 2018b), suggesting that perhaps the perceived benefits of the Internet (e.g., accessibility, affordability, and anonymity; Cooper, 1998) contribute to distress.

This section has provided a brief overview of religiosity and its relationship to pornography use. While the protective factors of religion may be expected to deter individuals from using pornography, the literature indicates that some religious individuals engage in pornography use. The act of engaging in a behavior that goes against one's values tends to result in cognitive dissonance, which can then lead to distress. For religious individuals who use pornography, this distress typically includes guilt, shame, decreased self-worth, and increased depression and relationship anxiety. The next section will explore the literature regarding relationship satisfaction.

## Relationship Satisfaction and Pornography Use

The extant literature regarding relationship satisfaction indicates that it has been measured using various constructs, meaning that most studies have used their own definition of what relationship satisfaction entails (e.g., "relationship quality," intimacy, sexual satisfaction, etc.). Original measures of relationship satisfaction were designed to operationally distinguish married couples from divorced couples, then distinguish well-adjusted from distressed couples, and finally assess global relationship functioning (Funk & Rogge, 2007). The current study defines relationship satisfaction as an individual's perspective of their overall relationship functioning, including areas such as connectedness, happiness, and frequency of disagreements (as measured by the Couples Satisfaction Index; Funk & Rogge, 2007). However, as previous studies regarding pornography use and relationship satisfaction have included additional related constructs such as sexual satisfaction and intimacy (Bridges & Morokoff, 2011; Brown et al., 2017; Emmers-Sommer, 2018; Grov et al., 2011; Minarcik et al., 2016), which are vital to a relationship, the present study measured these constructs separately.

**Intimacy**

Rubenstein and Shaver (1982) defined intimacy as a multifaceted construct including the following features: openness, honesty, care, warmth, mutual self-disclosure, protection, devotion, helpfulness, mutual attentiveness and commitment, a surrender of control, removal of defenses, emotional attachment, and distress during separation. Intimacy was later conceptualized as one of three components, along with passion and commitment, in Sternberg's (1986) triangular theory of love. Previous studies regarding pornography use and intimacy varied in which features of intimacy were measured, again presenting some challenges when comparing research. Perhaps unsurprisingly, then, the research regarding the impact of pornography use on couples' intimacy is conflicting. Maddox et al. (2011) hypothesized that couples who engage in mutual pornography use need to have higher levels of intimacy and trust in order to communicate and make decisions regarding mutual use, though this suggests that intimacy is present before the use, as opposed to a result of pornography use.

**Negative outcomes.** The research conducted by Minarcik et al. (2016) indicated that when compared to mutual pornography users, individual pornography users reported significantly lower intimacy and commitment. Furthermore, participants who engaged in high-frequency pornography use reported lower intimacy and relationship satisfaction. Similar findings were reported by Doran and Price (2014) in their study of pornography use, happiness, and frequency of sex, with some gender differences. For men, happiness was correlated with the frequency of sex, and pornography use had a negative effect on this association. Doran and Price (2014) suggested that the use of pornography might reduce the happiness that men experience from physical intimacy.

Further research regarding differences by gender includes Popović's (2011) study of pornography use and closeness (i.e., intimacy) in men. In a sample of 164 males, participants responded to questions regarding actual and ideal interpersonal closeness with significant others in addition to completing a demographic questionnaire that included an item on pornography use. Contrary to the hypothesis, the results indicated that pornography users scored higher than nonusers on all scales of perceived closeness (Popović, 2011). Some participants indicated their ideal level of closeness was lower than their actual level; this may be problematic for their significant others if the participant perceives the partner as being "too close." Overall, the study found no definitive link between pornography use and perceived interpersonal closeness. Interestingly, the results indicated that differences between users and nonusers suggested that users craved closeness/intimacy more than nonusers. However, as pornography use does not provide real contact with other individuals, these participants may have been seeking something other than closeness, such as fantasy or privacy. Popović (2011) described the use of pornography as both a method of escaping from intimacy and an expression of the search for intimacy.

**Consent.** A further difference by gender may be the perception of consent in an intimate relationship. Marino's (2008) discussion of ethics and sexual objectification states that relationships place complex demands on the participants, some welcome and some not. Furthermore, Marino questions whether an individual can truly give genuine consent when in a relationship, as an individual may feel coerced to give consent due to the intimacy of the relationship. The intricacies of intimate relationships, as opposed to relationships with strangers, ensure that the participants are involved in a "web of interwoven requests, demands, and favors" (Marino, 2008, pp. 350–351), which lead to an expectation of reciprocity. To maintain the level

of intimacy, one partner may believe they have to submit to a request or provide a favor that they do not really wish to. For instance, do both partners who mutually use pornography want to view pornography, or is one partner viewing for the purpose of "doing a favor" for the other partner with the expectation that they will get a favor or benefit in return?

Another aspect of consent in intimate relationships is the reason consent is given, and this is potentially problematic if consent is given in the spirit of a contract (Marino, 2008). Consent that is freely given, such as out of generosity, typically does not result in negative outcomes, while consent in the form of exchange (i.e., a *quid pro quo*) implies that the activity or behavior is a commodity. The present study questioned whether intimacy contributes to one partner feeling obligated to view pornography (against their own moral beliefs) when/because their spouse wants to; for example, one may think, "If I watch porn [consenting to unwanted activity] with him now, he will engage in X activity [consenting to unwanted activity] with me later." However, to some extent, sexual activities and behaviors are likely considered commodities to be exchanged under certain agreed-upon conditions (Marino, 2008). For example, couples may have expectations about engaging in certain sexual activities or positions, such as if an individual gives oral sex to their partner, then they are entitled to receive oral sex from their partner. A certain amount of reciprocity may be appropriate when both partners agree on the expectations (Marino, 2008).

**Sexual Satisfaction**

Interestingly, the effects of pornography use on sexual satisfaction were mixed, in some cases within the same study. A study by Brown et al. (2017) used a common-fate analysis to investigate the relationship between pornography acceptance, pornography use, and sexual satisfaction in heterosexual married couples. While this study did not specifically measure

mutual pornography use, the common-fate method of using matched couple data allowed researchers to measure both unique and shared sexual satisfaction (i.e., a measure of only the male or female partner's sexual satisfaction and a combined measure of both partners' sexual satisfaction). This analytic approach allowed the authors to measure the phenomenon of how pornography use impacts a relationship, as opposed to measuring only one individual's behavior. Brown et al. (2017) found that both wives' and husbands' pornography use was strongly positively associated with shared pornography acceptance. Husbands' unique sexual satisfaction was negatively related to their pornography use. However, for the wives, while their unique sexual satisfaction was also negatively related to their pornography use, their shared sexual satisfaction was positively related to their use. These contradictory findings led the researchers to speculate as to what other factors may have contributed to the discrepancy, including the wife's openness to new sexual behaviors, fostering a more erotic climate; the wife using pornography for the purpose of enhancing the couple's sexual relationship (as opposed to self-satisfaction); or the wife experiencing pressure or unrealistic expectations after viewing pornography (Brown et al., 2017). The current study explored if pressure is experienced in the form of moral disapproval, i.e., engaging in unwanted behavior due to pressure from their spouse.

Furthermore, a study by Poulsen, Busby, and Galovan (2013) investigated the influence of pornography use by individuals in committed relationships on relationship satisfaction as measured by five items: conflict resolution, love, relationship quality, communication, and overall relationship. Poulsen et al. (2013) found there was no direct actor/partner effect of both male and female pornography use on relationship satisfaction; however, higher female pornography use was indirectly associated with greater male relationship satisfaction through

sexual quality. In addition, mutual pornography use was not associated with relationship satisfaction. The Poulsen et al. study used two items to measure sexual quality and a single item to measure sexual desire; however, the items inquired about satisfaction with physical intimacy and frequency of sexuality as problematic ("sexual quality"), and frequency of sexual desire. In contrast, a study by Yucel and Gassanov (2010) found that wives' pornography use was not significantly correlated with husbands' sexual satisfaction and was not associated with the wives' own sexual satisfaction. Participants in Yucel and Gassanov's study were asked to what extent they experience problems related to lack of interest in sex, a belief that sex contributes to the relationship, satisfaction with their sexual relationship, satisfaction with their sexual frequency, and arguments about sex. In these examples, the items used to measure sexual satisfaction are not capturing the same participant information, making comparisons a challenge.

One other item to mention from previous research is the difference between actual experience and anticipatory beliefs related to the construct. For example, a study by Emmers-Sommer (2018) measured men's and women's beliefs about the benefits of pornography consumption in terms of sexual satisfaction. Her findings indicated that both genders believed pornography consumption has physical benefits but not emotional or psychological benefits. However, since the study only measured beliefs, the possibility exists that individuals may experience emotional and/or psychological benefits from pornography consumption. Due to the discrepancies in how this construct has been measured historically, the present study separately assessed relationship satisfaction and sexual satisfaction.

**Association with Religiosity**

Research conducted over approximately the past 40 years has found that relationship satisfaction is positively correlated with religiosity (Call & Heaton, 1997; Glenn & Supancic,

1984; Goddard, Marshall, Olson, & Dennis, 2012; Mahoney, Pargament, Tarakeshwar, & Swank, 2001; Orathinkal & Vansteenwegen, 2006). Measures of religiosity have varied from frequency of church attendance to religious affiliation to the personal relevance of religion, with the frequency of attendance being one of the best consistent predictors of relationship satisfaction (Call & Heaton, 1997; Goddard et al., 2012). The extant literature suggests that the reasons for this positive correlation include the indoctrination one receives from attending church (which impacts an individual's views on areas of marriage or relationships that influence satisfaction), the development of shared values and purpose from attending services together as a couple (Call & Heaton, 1997), and the encouragement that an individual receives from belonging to a larger group whose shared beliefs and values support the factors that enhance relationship satisfaction (ten Kate, de Koster, & van der Waal, 2017).

This concludes the section on relationship satisfaction. As some methodological problems have been noted in the extant literature, such as varying definitions of relationship satisfaction across studies, further research is indicated. Furthermore, current literature regarding the effect of pornography use on relationship satisfaction is inconsistent, with some couples experiencing increased satisfaction while others experience a decrease. The effect of pornography use on intimacy and sexual satisfaction has similarly mixed results. The following section will discuss moral disapproval and moral incongruence.

## Moral Disapproval/Incongruence

Every individual has a personal set of morals and values, or *moral compass*. The moral compass defines which behaviors an individual approves of or finds acceptable, while behaviors that are in opposition to the moral compass would be disapproved. However, an individual may still choose to engage in a behavior or activity of which they morally disapprove; when this

occurs, the individual experiences moral incongruence (Perry, 2018a). In the present study, moral incongruence was present as a result of pornography consumption.

**Moral Disapproval/Incongruence, Pornography Use, and Distress**

While Americans are more likely to view pornography today than in years past, the research also indicates that Americans are not becoming more accepting of pornography use, which suggests that those individuals who are using pornography may be experiencing moral incongruence as a result of engaging in a behavior of which they morally disapprove (Perry, 2018a). Several researchers have examined the relationship between pornography use and moral incongruence (Fisher et al., 2019; Grubbs & Perry, 2019; Grubbs et al., 2018, 2019; Nelson et al., 2010; Perry & Whitehead, 2018). Moral incongruence regarding pornography use is associated with psychological distress, such as depression and interpersonal/relational problems (Grubbs et al., 2015; Grubbs & Perry, 2019). While moral incongruence can occur in nonreligious pornography users, it is frequently experienced by individuals who both identify as religious and use pornography. Religious pornography users reported experiencing greater psychological distress, both in general and due to problems related to pornography use, than nonreligious users (Grubbs & Perry, 2019; Leonhardt et al., 2018; Nelson et al., 2010; Perry & Whitehead, 2018).

In most of the studies mentioned previously, the research design was cross-sectional, indicating that there was a correlation between pornography use and distress, but directionality could not be established (Leonhardt et al., 2018; Nelson et al., 2010; Perry & Whitehead, 2018). However, one of the studies mentioned in Grubbs and Perry's (2019) meta-analysis included a longitudinal design. Perry (2018a) conducted a review of data from the 2006 and 2006–2012 Portraits of American Life Studies (participants from the 2006 study were interviewed six years

later).  Perry's (2018a) longitudinal analysis indicated that men who believed pornography use was always wrong but viewed it anyway were more likely to experience depressive symptoms six years later.  A paradoxical finding was also present: for men who morally disapproved of pornography, viewing it at low frequencies predicted depressive symptoms, while for men who approved of pornography use, only a high frequency of use predicted depressive symptoms (Perry 2018a).  These results were only found for the male participants, leading to questions about what made women's experiences different.  One hypothesis suggested that women may rationalize mutual pornography use as a method of increasing intimacy in their relationships, even for those women who do not approve of viewing pornography.  This hypothesis assumes that intimacy is inversely related to depressive symptoms.

**Moral Incongruence and Perceived Pornography Addiction**

Moral incongruence, which takes place when an individual consumes pornography even though the individual is morally opposed to it, has been linked in the literature to the concept of perceived pornography addiction (Grubbs & Perry, 2019; Volk et al., 2016).  Although pornography "addiction" is not an official, clinical diagnosis, some individuals view their pornography use as pathological and self-identify as addicted (Grubbs et al., 2015).  However, some religious individuals perceive *any* pornography use as addictive, particularly when they have failed to entirely abstain from use (Grubbs et al., 2019).  From a clinical standpoint, this distinction is important to discern, as treatment will vary for pathological use versus perceived addiction.

The literature suggests that when compared to nonreligious men, religious men use less pornography (Grubbs & Perry, 2019), yet they are more likely to view themselves as being addicted.  This may be especially true for evangelical young men, as Biblical messages and

behavioral standards of the religious community have taught them that even developmentally "healthy" or "average" levels of pornography use (typically secondary to masturbation) are shameful (Kwee et al., 2007). Furthermore, there may be a perceived benefit to identifying as "addicted," as researchers have noted that an individual's perception of being "addicted" may contribute to a sense of freedom from the responsibility for their behavior and its outcomes (Fisher et al., 2019). Fisher and colleagues (2019) added that the label of addiction may provide eligibility for treatment programs, like those for substance abuse, and avoidance of more punitive sanctions.

Regarding the interaction between these variables, Grubbs and colleagues' (2015) correlational research found that religiosity predicted more negative moral attitudes toward pornography use, which then predicted higher levels of perceived addiction. Grubbs et al.'s (2018) longitudinal research regarding pornography use, perceived addiction, moral disapproval, and religiousness indicated that baseline levels of moral incongruence regarding pornography use maintained strong, positive relationships with perceived addiction one year later.

Based on the current literature regarding moral disapproval/moral incongruence, further exploration is needed regarding the impact of moral disapproval in pornography users and how this influences the couples' relationship satisfaction. The next section discusses the research regarding shame and its association with pornography use.

### Shame

Previous research regarding shame often used the term interchangeably or synonymously with *guilt*, and while the two emotions share a negative affect, often overlapping or co-occurring, they impact the individual differently (Murray & Ciarrocchi, 2007). Shame is distinguished from guilt in the object of concern (Tangney, Wagner, & Gramzow, 1992). When an individual

experiences guilt, the object of concern is an *action*, or perhaps inaction, which results in the individual experiencing remorse and regret over the "bad thing that was done" (Tangney et al., 1992, p. 469). When an individual experiences shame, the object of concern is the *self*. If the individual committed a "bad action," it is experienced as a reflection of the entire self, therefore causing the self to be "bad" as opposed to only the action. The experience of guilt is due to one facet of the self, while in comparison, shame is a more global, all-encompassing view of the self. While the remorse and regret from guilt may be uncomfortable, the experience of shame is more painful and devastating (Tangney et al., 1992).

The constructs of shame, guilt, and religiosity/spirituality have intersected in both psychological and theological literature (Arel, 2015; Murray & Ciarrocchi, 2007; Picone, 2015). Arel (2015) provided insights into the function of shame within religious (Christian) texts and practices from a perspective of affect theory and trauma studies. Murray and Ciarrocchi (2007) found that increased feelings of disconnection from God or increased spiritual struggles were associated with increased feelings of guilt and shame. Furthermore, increased spiritual struggles were also associated with increased congregational conflict, increased negative affect, and decreased sense of well-being. Finally, Picone (2015) studied the relationships between religiosity, shame, guilt, and pornography use. His findings suggested that pornography use was inversely related to religious support and positively related to shame and negative religious coping.

Shame tends to occur in a cyclical effect: When an individual experiences shame as a response to a shame-producing event, the individual may then experience further shame or even rage due to feeling the initial shame (Arel, 2015). If sexual feelings merge with shame, the sexual feeling becomes a trigger for the cycle, and then the cycle causes further shame and affect

dysregulation (Adams & Robinson, 2001; Gilliland et al., 2011). In an attempt at self-soothing, the individual engages in shame-triggering sexual behavior again, creating another layer of shame and dysregulation (Adams & Robinson, 2001). As shame can result in one seeking out unhealthy ways to relieve the feeling of shame or feeling like "giving up" (Murray & Ciarrocchi, 2007, p. 24), one can see how pornography consumption may easily be the shame-producing event in which the cycle of "shame - use - further shame - use again" becomes difficult to break.

When shame is triggered, it may occur simultaneously with another affective state (guilt, rage, disgust, etc.) or even be concealed by the other affect. Over time, this contributes to the difficulty in distinguishing one affect from another (Arel, 2015). Not only is the individual dysregulated as a result of shame, but the shame may also become further maladaptive or even pathological (Arel, 2015). The individual may experience confusion, not certain what emotion they are feeling, only knowing that the experience feels negative. For example, if a sexual experience triggers shame, the shame may become attached to the physiological stimuli (the sexual behavior), yet the person may find it difficult to distinguish just what they are feeling or experiencing over time (Arel, 2015).

The notion of shame as affect is of importance, as some theories propose that affects are physiologically different experiences from feelings and emotions. Summarizing definitions from other researchers, Arel (2015) explained that affects are preverbal, visceral experiences which are a result of experiences with other persons or objects and are, at least initially, difficult to control (Damasio, 1999; Tomkins, 2008). In contrast, a *feeling* is a conscious awareness that the affect exists and that it has been triggered. An individual may experience shame affectively (biologically/physiologically) but not have the conscious awareness to know what they are experiencing. When the affect connects with a narrative, it then becomes an *emotion* (Arel,

2015) in which the affective experience is combined with memory of previous experiences of that affect. Arel (2015) further described an affect as "seizing" the body in a way that "challenges comprehension" (p. 39). Shame due to sexual behavior may be viscerally experienced in such an immediate way that the negative impact is felt before the individual has cognitively processed what is happening or connected shame to the sexual behavior.

**Consequences of Shame**

Shame takes a toll on the individual in a myriad of ways. Previous studies have found that shame was correlated with aggression, anger, decreased empathy, disregard for others, substance abuse, and depression (Murray & Ciarrocchi, 2007). Additionally, shame has been associated with suicidal ideation and behaviors in both clinical and nonclinical populations, anxiety, and distress in general (Rizvi, 2010). Furthermore, an individual may become preoccupied with perfection in order to not be "found out," that is, to avoid others discovering their shameful behavior (Adams & Robinson, 2001); this may be observed as extreme moralizing or religious preoccupation. When the shame-producing behavior is of a sexual nature, the individual attempts to present the image of oneself as perfect so others do not suspect their hidden shame and perceived "out-of-control" sexual behavior (Adams & Robinson, 2001, p. 27).

For couples, unacknowledged shame may be the origin of miscommunication (Tangney & Dearing, 2002). Couples may further experience difficulty in disclosing their experiences of shame with their partners. In addition, the differences in each partner's needs may contribute to difficulty interpreting the other's needs, as when offering help, women tend to express sympathy and share examples of their own similar experiences, while men tend to provide assistance through problem solving and offering suggestions and solutions (Tangney & Dearing, 2002). The YouTube video *It's Not About the Nail* (Headley, 2013) is a comedic example of gender

differences in problem solving. Upon hearing a man's attempt at problem solving, the woman may perceive the gesture as unsympathetic, belittling, and possibly as carrying the shaming message of incompetence, which then may lead to the man experiencing confusion due to her lack of appreciation (Tangney & Dearing, 2002). The man may experience shame when his help is rejected. For the man, hearing a woman's sympathy and empathetic sharing may cause shame, trivialize his concerns, or take away his uniqueness. On the other hand, the man may not want the woman to problem solve for him, as this may carry a message of incompetency/inability to solve his problems on his own (Tangney & Dearing, 2002). In short, women are more often shamed by relational failures and threats to attachment bonds, while men are most often shamed by failures in instrumental achievement: put-downs, rank issues, and threats to their social status (Morrison, 1989; Tangney & Dearing, 2002).

**Benefits of Shame**

Although the focus on shame is generally negative, some scholars have indicated that shame may serve a positive purpose. Watts (2001) found that shame may be constructive by bringing awareness to personal limitations, which then may serve as motivation to connect with others, develop a deeper sense of reverence, and develop an increased awareness of reality. Similarly, Arel (2015) agreed that shame might be physiologically useful when it fosters attachment. Moreover, in patient-physician relationships, a shame-provoking interaction initiated by the physician was found to provide a prompt for behavioral change in the patient (Harris & Darby, 2009).

**Shame in Women**

Brene Brown's (2013) research on women's experience of shame provided additional insights into how pervasive and debilitating it can be. Her qualitative study resulted in the

following definition of shame: "an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging" (p. 45). Shame was noted to be a universal emotion, even exceeding other emotions such as anger, fear, anxiety, and grief in therapy.

In Brown's (2013) study, the women's main concerns related to shame were composed of three main concepts: feeling trapped, powerless, and isolated. The experience of feeling trapped consisted of two features: expectations and options. Participants stated that they experienced times when expectations seemed unrealistic, and their options for meeting the expectations were limited. The options feature shares a similarity to the double binds experienced by oppressed groups, as discussed by Frye (2001): "situations in which options are reduced to a very few and all of them expose one to penalty, censure, or deprivation" (p. 49). Regarding powerlessness, three features were described: consciousness, choice, and change. Participants admitted that when they experienced shame, they found it difficult to effectively counter the shame, and they believed this was due to not understanding or being aware of what they were feeling and why they were feeling it. The lack of being consciously aware of what they were experiencing led them to difficulty in identifying any choices that would enable change. Finally, the combination of feeling trapped and powerless produced feelings of isolation.

Furthermore, women indicated that sexuality was one of the top areas in which they struggled with shame, along with appearance/body image, family, and speaking out (Brown, 2013). Brown (2013) noted that shame is often experienced concerning issues when one feels the most vulnerable or "open to attack" (p. 48), which is understandable considering the previously mentioned topics such as sexuality, appearance, and defending oneself. Brown (2013) indicated that a factor contributing to women's vulnerability to shame was the "unwanted

identities" (p. 46) that were associated with these areas. The unwanted identity is a characteristic that undermines one's self-ideals and may be attributed by the self or others (Ferguson et al., 2000). For example, participants in Brown's study shared that terms such as "pushy" or "loud-mouth" were associated with speaking out. The intersection between sexuality, shame, and unwanted identities may occur when a woman speaks out regarding not wanting to engage in viewing pornography (or any other sexual activity), and then being told she is "cold," "frigid," or a "prude" (unwanted identities), resulting in experiencing shame.

Additional studies have contributed to the discourse regarding shame and body image, self-esteem, and trust in women related to their partners' pornography use (Stewart & Szymanski, 2012; Szymanski et al., 2015; Tylka & Kroon Van Diest, 2014). Tylka and Kroon Van Diest (2014) reported that in a sample of college women, pornography use by their previous male partners directly predicted interpersonal sexual objectification, internalization of cultural beauty standards, and eating disorder symptomatology, and indirectly predicted body surveillance (i.e., self-objectification) and body shame through internalization. Stewart and Szymanski (2012) found that for women who perceived their partners as engaging in "problematic pornography use" (p. 265), a negative correlation was found between men's use and the women's self-esteem, relationship quality, and sexual satisfaction. Finally, Szymanski et al. (2015) found that when women perceived their partner's pornography use as high, those with low or average levels of relationship investment had less relationship trust. Interestingly, the researchers expected that pornography attitudes would moderate the association between perceptions of partner's use and relationship trust/relationship satisfaction/psychological distress; however, these hypotheses were not confirmed. Szymanski and colleagues (2015) suggested that

further research should be conducted to explore whether and how often couples view pornography together and this variable's association with relational and psychological health .

**Association with Pornography Use**

The extant research regarding shame and pornography use has generally focused on populations whose use might be labeled as "addictive" or "hypersexual" (Gilliland et al., 2011; Grubbs et al., 2015, 2018; Kwee et al., 2007), while other research regarding women's shame has been related to their partners' use, as previously discussed (Stewart & Szymanski, 2012; Szymanski et al., 2015; Tylka & Kroon Van Diest, 2014). Additionally, other researchers have examined more general concepts regarding the impact of pornography use, including participants' experiences of shame (Kohut et al., 2017; Picone, 2015).

Although not one of the most common themes found in their research, Kohut and colleagues' (2017) qualitative findings indicated that pornography use caused shame and guilt. Participants described the sources of shame as stemming from unhealthy/negative portrayals of women or sexuality, partners' lack of approval (or society in general), and personal insecurities. The theme of shame and guilt overlapped with the theme of lying and secretiveness and its subthemes, impact of lying and concern about discovery.

In a sample of male Christian college students, pornography use was positively related to shame and negative religious coping (Picone, 2015). Picone also found that pornography use was inversely related to religious support, suggesting that as an individual's use increased, they experienced a decreased level of support. Surprisingly, Picone found that guilt was not related to pornography use.

This concludes the section regarding shame. While according to the research, there are potentially some benefits associated with shame, such as providing awareness of one's

limitations, the predominant outcomes of shame are negative. Shame is related to anger, aggression, psychopathology, decreased empathy, substance abuse, and suicidal ideations. Regarding pornography, a cycle may occur in which the shame-producing behavior, pornography use, is both a cause and effect of shame. The next section will discuss a more specific subset of shame, sexual shame.

### Sexual Shame

Shame has been discussed in the literature in a sexual context (Hastings, 1998; Mollon, 2005; Shadbolt, 2013), though the term *sexual shame* is a relatively new construct. Sexual shame may occur as a result of numerous childhood experiences, including sexual abuse, sexual secrecy, pornography exposure, religious shaming, and excessive modesty or promiscuity (Hastings, 1998). However, much of the early research on sexual shame took the form of clinician anecdotes and was not empirically validated using formal measures (Hastings, 1998).

Previous definitions of sexual shame were broad, such as "shame related to one's sexual experiences." As the term evolved, definitions of the global experience of shame were adapted to include sexuality. For example, a description of sexual shame was created from Brown's (2013) definition of shame: "an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging" (p. 45), with the addition of *"due to our current or past sexual thoughts, experiences, or behaviors"* (Kyle, 2013, p. 13, italics added). However, sexual shame was recently operationally defined as a distinct construct, yet not wholly separate from the more global emotion of shame (Clark, 2017). In her dissertation, Clark reasoned that sexual shame had not been defined in a way that could be empirically tested. Using a grounded theory approach, Clark interviewed a sample of female clients who had experienced sexual shame and male and female therapists who specialized in sexuality in order

to develop a comprehensive etiology and phenomenology of sexual shame. However, it may be argued that the definition only applies to women, as men's experiences were not included. Clark's (2017) exploration resulted in this definition of sexual shame:

> a visceral feeling of humiliation and disgust toward one's own body and identity as a sexual being and a belief of being abnormal and inferior; this feeling can be internalized but also manifests in interpersonal relationships having a negative impact on trust, communication, and physical and emotional intimacy. (p. 87)

Furthermore, Clark (2017) examined the etiology of sexual shame using an ecosystemic model, a systems framework that provided a new way of conceptualizing sexual shame. The model consisted of four categories: intrapersonal (internalized), microsystemic (partnered), exosystemic (body/biological), and macrosystemic (vulnerability). While much of the prior research on sexual shame focuses on the individual and is primarily an internalized experience, Clark's interviews provided evidence that sexual shame impacts the individual on multiple levels. For example, the microsystemic category included themes of problems or difficulty in the partner relationship as a result of sexual shame (e.g., the pressure to please one's partner, fear about not being able to please one's partner leading to sexual shame). Some participants reported feeling "compelled" to act on a perceived expectation to engage sexually for the partner's benefit. The exosystemic category included the women's concerns regarding their bodies and sexual functioning, particularly revolving around the question, "Am I normal?" For instance, one therapist reported that many of her clients did not know whom to ask about embarrassing bodily functions and ended up turning to pornography for education. Viewing pornography was also expressed as a contributing factor to sexual shame, meaning that some women experienced sexual shame as a result of their perceived bodily abnormality and attempted

to alleviate their sexual shame by education through pornography; however, pornography may instead have further increased their level of sexual shame. Finally, the macrosystemic category included women's experiences of powerlessness and lack of agency, particularly related to prior sexual abuse or coercion. Some participants indicated that they struggled with being able to express what they were thinking in the midst of an unwanted sexual encounter; for example, one participant stated that during an unwanted sexual interaction, she tried "everything else," such as repositioning herself or claiming she needed to use the restroom, instead of saying no (Clark, 2017, p. 78). In the interview, she realized it would have been easier to say she felt uncomfortable and ask her partner to stop, but she said she did not want to make it awkward for her partner, thereby prioritizing her partner's needs and desires more highly than her own.

In women, shame was found to result in overwhelming and painful feelings such as confusion, fear, anger, judgment, and the need to hide (Brown, 2013)—feelings which overlap with one's experience of sexual shame (Clark, 2017). Sexual shame was also found to have a negative influence on romantic relationships in the areas of trust, intimacy, and sexual expression (Clark, 2017). Furthermore, sexual shame had a cyclical effect on women: After an individual experiences sexual shame, future sexual encounters continue to produce shame, which may then be associated with arousal, contributing to a self-defeating cycle.

Clark's study also provided evidence regarding how double-bind messages contribute to women's experiences of sexual shame. Culturally, women's sexuality exists in two dimensions: innocent and sweet (i.e., good) or overly sexualized and powerful (i.e., bad), originally described by Freud as the "Madonna-whore complex" (as cited in Hartmann, 2009, p. 2335). This dichotomy suggests that men are not sexually attracted to a woman who is "innocent," "pure," and "respectable" (i.e., the "Madonna"), but also cannot respect a woman who is sexual (i.e., the

"whore"). To a certain extent, qualities of each side have value, but if a woman is at one extreme or the other, she may be ridiculed by society. At the same time, the message from society is that a woman cannot be both "respectable" and "sexual." Double-bind messages may affect a woman's appearance, behavior, or level of sexual desire. Clark argued that messages from media and society place restrictions on women's understanding of their own sexuality and their decision making related to sexual activity. "No matter how a woman acts sexually, she will always be lacking because of the assumption that she cannot be both sexually fulfilled and respected" (Clark, 2017, p. 51).

Regarding mutual pornography use, a woman may experience sexual shame if she is engaging in pornography consumption but believes she is on the "Madonna" side of the dichotomy. Similarly, a woman with a high libido or sexual desire may also experience sexual shame when engaging in pornography use because, according to society, she is too "sexual" instead of "innocent" and "pure." Moreover, Clark's findings suggested that for many women, pornography consumption contributes to sexual shame. A therapist in Clark's study reported that she has observed how the pornography industry impacts women's perceptions of themselves, as women may compare themselves to the women in the pornographic material and subsequently experience shame if they view themselves as different. The use of pornography also may contribute to the belief that sexual expression is the path to being loved and cared for.

Upon review of the various themes that arose from Clark's qualitative research, a potential link to (decreased) relationship satisfaction begins to appear. In particular, the themes from the microsystemic level included constructs that are likely to impair relationship satisfaction and intimacy: lack of communication, lack of trust, pressure to pleasure one's partner, desire discrepancy, and honesty vs. conflict. Desire discrepancy was found to elicit

sexual shame in both directions; that is, when women had a stronger sexual desire than their partners or when women experienced less desire/wanted to engage in sex less frequently. Women may experience sexual shame when they have to "tone down" their sexual desire because their partner does not want to engage in sex or when they comply with unwanted sexual activity because their own desire is low, but their partner wants to engage in sex. The honesty vs. conflict theme reflected those experiences in which women wanted to be honest about their sexual experiences but did not want to initiate conflict and therefore chose to maintain equilibrium by not being honest. (This theme could result in maintaining or increasing relationship satisfaction for the male partner, but likely not for the woman.)

While Clark's research provided new information regarding sexual shame for women, her research did not address the experience of sexual shame by men. Gordon (2018) addressed this gap through his development and validation of the Male Sexual Shame Scale (MSSS). Gordon suggested that social and cultural shifts in dynamics of both sexuality and gender have forced men to be more sexually restrained and that this message has been conveyed by shaming aspects of men's sexuality. As a result, Gordon proposed that male sexual shame included ten domains: libido, sexual interests, masturbation, abundance of experience, lack of experience, homosexual interests and experience, pornography use, body image, stereotype threat, and sexual disparity in relationships. However, the final version of the scale consisted of six subscales: Sexual Inexperience Distress, Masturbation/Pornography Remorse, Libido Disdain, Body Dissatisfaction, Dystonic Sexual-Actualization, and Sexual Performance Insecurity. Gordon concluded that some factors that were expected to be distinct constructs, such as masturbation and pornography use, converged on the same factor. Three factors that were hypothesized to be a domain of sexual shame were not indicative of sexual shame: perceived high libido, sexual

harassment stereotype threat, and homoerotic guardedness. The reliability of the MSSS was found to be strong to moderate on all subscales, except Dystonic Sexual-Actualization. Gordon (2018) used two samples in this validation study and attempted to improve the reliability of the subscale when the survey was administered to the second sample by removing language that specifically mentioned same-sex experiences; for example, revising "I have had sexual thoughts *about men* [emphasis added] that I would be ashamed to tell anyone about" to "I have had sexual thoughts that I would be ashamed to tell anyone about." Surprisingly, this revision resulted in lower reliability, and Gordon suggested that additional research is needed to define this subscale.

While the extant literature suggests that sexual shame is experienced by both men and women, research regarding the effects of sexual shame on men is lacking (Gordon, 2019). However, scholarly literature has begun to address this topic through discourse regarding men's sexual shame, masculinity, and mental health (Gordon, 2019). Gordon's research discussed predictors of men's sexual shame and associations with traditional masculine ideology, depressive symptoms, and anxiety symptoms. Findings indicated that demographic predictors of sexual shame included being single, growing up in a rural area, and growing up in a more religious/spiritual household (Gordon, 2019). In addition, sexual shame was significantly correlated with all three variables. When the variables were reversed to identify whether the mental health symptoms were predictors of sexual shame, depression was found to be a predictor, but anxiety was not (Gordon, 2019).

Gordon's examination further addressed the relationships between specific subscales of the measurements used and their association with sexual shame. For instance, his results indicated that higher scores on the Heterosexual Self-Presentation and Self-Reliance subscales of the Conformity to Masculine Norms Inventory (Mahalik et al., 2003) were associated with

higher sexual shame (Gordon, 2019). Additionally, some relationships were found in the opposite direction, as higher scores on some subscales from the MSSS (e.g., increased Dystonic Self-Actualization and the independent scales Homoerotic Guardedness, Perceived High Libido, and Sexual Inexperience Distress) were associated with higher scores on traditional masculine ideology. Regarding their relationship with mental health symptoms, some MSSS subscales (e.g., Body Dissatisfaction, Sexual Performance Insecurity, Libido Disdain, and Sexual Harassment Stereotype Threat) were associated with depressive symptoms (Gordon, 2019). Finally, male sexual shame fully mediated the association between traditional masculine ideology and depressive symptoms.

Like the impact of sexual shame on women, some potential links between men's sexual shame and decreased relationship satisfaction exist. If certain constructs related to sexual shame (e.g., body dissatisfaction, insecurity about sexual performance) lead to increased depressive symptoms, and depressive symptoms are related to reduced relationship satisfaction (Heene, Buysse, & Van Oost, 2005; Kouros & Cummings, 2011; Whisman, Uebelacker, & Weinstock, 2004), the association between sexual shame and decreased relationship satisfaction appears to be a logical next step. In addition, the construct of self-reliance from the Conformity to Masculine Norms Inventory was found to be related to emotional disconnection (Mahalik et al., 2003); which may suggest an actor-partner association between a couple's experiences of sexual shame and relationship (dis)satisfaction. For example, as a man's sexual shame increases (i.e., his emotional connection with his partner decreases), the woman's relationship satisfaction decreases because her level of relationship satisfaction is related to the emotional connection in the relationship (Yoo, Bartle-Haring, Day, & Gangamma, 2014).

**Sexual Shame and Perceived Pornography Addiction**

While sexual shame has been studied in the context of pornography use, to date, it appears it has primarily been researched in association with perceived pornography addiction, a concept defined as synonymous with moral incongruence (Grubbs & Perry, 2019; Volk et al., 2016). Individuals who believe they are addicted to pornography likely experience higher sexual shame as a result of their use.

Using a serial mediation model, research by Volk and his colleagues (2016) suggested that the association between pornography use and perceived pornography addiction was mediated by both sexual shame and the developmental context of religiosity. Religiosity was measured by affiliation, belief in God, and two versions (personal and childhood household) of the Religious Commitment Inventory (Worthington et al., 2003). Approximately 80% of the participants in this study identified as either currently believing in God or previously believed in God. The results indicated that there was an indirect effect of religiosity on perceived pornography addiction through moral disapproval (Volk et al., 2016). In their serial mediation model, moral disapproval was predictive of perceived pornography addiction and perceived pornography addiction was predictive of sexual shame. Furthermore, moral disapproval had a direct effect on sexual shame (Volk et al., 2016).

Based on the research by Clark (2017), Gordon (2018, 2019), Grubbs and Perry (2019), and Volk et al. (2016), the current study proposed that sexual shame is a construct worthy of investigation as a factor related to the association between pornography use and decreased relationship satisfaction in both men and women. The next section will discuss the concept of externalization (i.e., blaming others).

**Externalization**

While defense mechanisms were originally observed by Sigmund Freud, these concepts were later operationally defined in the 1930s by Anna Freud (Freud, 2018). Externalization, a transference of blame, was additionally identified by Kaufman (1980) as one of six defenses against shame. Likewise, externalization has been explained as the "attribution of cause to external factors, to aspects of the situation, or to another person" (Tangney & Dearing, 2002, p. 91). Consequently, upsetting emotions such as shame and guilt may trigger these psychological defenses to minimize the anticipated distress (Efthim, Kenny, & Mahalik, 2001). Tangney and Dearing's (2002) research studied the relationships between shame, guilt, and externalization, with one of their original hypotheses suggesting that externalization would be negatively correlated with both shame and guilt. Contrary to their expectations, however, Tangney and Dearing's (2002) research found that while a strong negative correlation existed between externalization and guilt, there was in fact a strong positive correlation between externalization and shame. The use of externalization is likely an attempt to avoid experiencing these self-conscious affects, and therefore is important to consider when researching shame (Efthim et al., 2001).

Regarding shame, Tangney and Dearing (2002) further proposed that the shamed individual has two options for coping: escape and hide or shift blame outward. Yet, the escape and hide method is likely to be ineffective, as the shamed individual cannot hide from themselves. On the other hand, the external shift of blame serves the function of protecting the ego, with additional aspirations of defending and preserving self-esteem. Furthermore, any effort by the shamed individual to change future behavior may not work, as the shamed individual is still stuck with the "hopelessly defective self" (Tangney & Dearing, 2002, p. 92).

Volk and colleagues' (2019) research suggested that pornography users may attempt to decrease negative feelings/distress regarding their use through externalization and rationalization. Their study addressed the constructs of perceived addiction, shame, depression, and externalization in pornography users and hypothesized that the tendency to externalize an individual's transgressions onto others would exacerbate the negative outcomes between moral disapproval and depression (Volk et al., 2019). The findings suggested that three of the six paths of the model were moderated by externalization: the relationship between moral disapproval and sexual shame, the relationship between perceived addiction and sexual shame, and the relationship between perceived addiction and depression. Interestingly, externalization had a contradictory impact on sexual shame: As externalization increased, the relationship between moral disapproval and sexual shame was weakened, while the relationship between perceived addiction and sexual shame was strengthened (Volk et al., 2019).

The findings of Volk and colleagues' (2019) study supported the idea that use of pornography and its associated negative feelings result in a cyclical path. The study found the following cycle: The pornography user considers their values, blames others before participating in pornography consumption, and then either blames others again (to avoid experiencing depression) or continues the cycle of self-awareness of shame to depression (Volk et al., 2019). The outcomes suggest that externalization may be a factor in the association between pornography use and distress, especially for individuals who are high in moral disapproval. Volk and colleagues suggested that future research is needed to study other psychosocial outcomes using these variables. The current study provides additional information regarding the context in which externalization and its associated cycle occurs, along with its impact on other psychosocial outcomes such as sexual shame and sexual satisfaction.

This concludes the literature review for the variables that were researched in this dissertation. The next section describes the hypotheses and research questions that were addressed in this study.

### Research Questions, Hypotheses, and Theoretical Model

Based on the current research, several hypotheses and research questions were developed. The first hypothesis was that women's mutual pornography use is related to sexual satisfaction, based on previous findings (Bridges & Morokoff, 2011; Brown et al., 2017; Daneback et al., 2009; Grov et al., 2011). It was hypothesized that for women, mutual pornography use and sexual satisfaction would be positively correlated, while there would be no correlation for men. It was also hypothesized that a higher frequency of pornography use would be associated with overall lower scores on the NSSS (Štulhofer et al., 2010).

Next, a statistical model was proposed. The second hypothesis was that for women, sexual shame would mediate the relationship between mutual pornography use and sexual satisfaction. Prior research has indicated that some pornography users experience shame as a result of their use (Baltazar et al., 2010; Carvalho, Štulhofer, Vieira, & Jurin, 2015; Kohut et al., 2017; Perry & Whitehead, 2018; Werner, Štulhofer, Waldorp, & Jurin, 2018); as such, this study hypothesized that women who engage in pornography use with a partner may also score more highly on a measure of sexual shame (the Kyle Inventory of Sexual Shame [KISS]; Kyle, 2013). Figure 2.1 provides a diagram of the proposed theoretical model. For female pornography users who experience sexual shame, it was also expected that sexual satisfaction would decrease (as measured by the NSSS; Štulhofer et al., 2010).
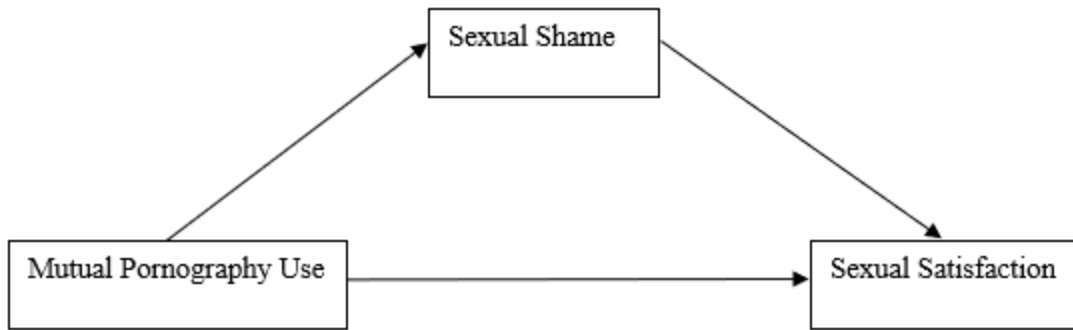
*Figure 2.1.* Proposed theoretical model of hypothesis two.

The third hypothesis (3a) was that moral disapproval in women would moderate the relationship between mutual pornography use and sexual shame, based on the direct effect between moral disapproval and sexual shame found by Volk and colleagues (2016). It was hypothesized that high moral disapproval would increase sexual shame, which would decrease sexual satisfaction. Low or no moral disapproval was not expected to impact sexual shame, therefore not influencing sexual satisfaction. Further, hypothesis 3b was that moral disapproval in women would moderate the relationship between mutual pornography use and sexual satisfaction. It was hypothesized that high levels of moral disapproval would be correlated with decreased sexual satisfaction, and that this relationship would be moderated by gender, based on the previous findings of Perry and Whitehead (2018). It was expected that this relationship would be less likely to occur in women as compared to men. See Figure 2.2 for diagram of proposed theoretical model.
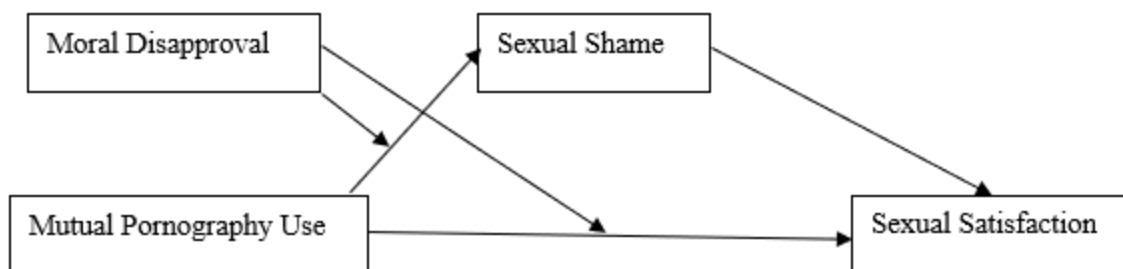
*Figure 2.2.* Proposed theoretical model of hypotheses 3a and 3b.

The fourth hypothesis (4a) was that externalization (i.e., blaming others) in women would moderate the interaction of moral disapproval on the relationship between mutual use and sexual shame. This model extends the research of Volk and colleagues (2019), which found that externalization attenuated the relationship between moral disapproval and sexual shame. In addition, hypothesis 4b was that externalization in women would also moderate the interaction of moral disapproval on the relationship between mutual use and sexual satisfaction; that is, that blaming others would attenuate the impact of moral disapproval on the relationship between mutual use and sexual satisfaction. Figure 2.3 provides a diagram of the proposed theoretical model.
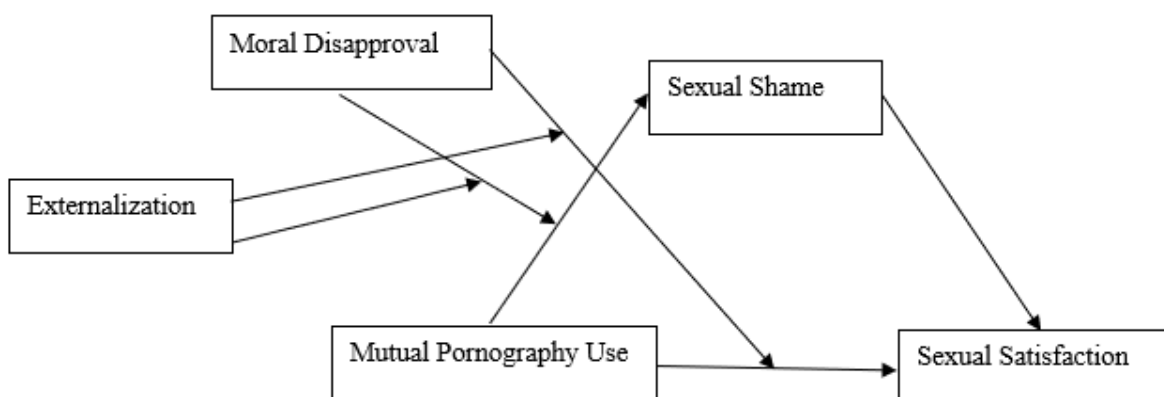


*Figure 2.3*. Proposed theoretical model of hypotheses 4a and 4b.

As differences were expected by gender, seventh and eighth research questions explored the accuracy of the proposed model for male participants. Prior research regarding the relationship between pornography use and sexual satisfaction for males is conflicting, with some studies suggesting that mutual use is not likely to influence sexual satisfaction (Bridges & Morokoff, 2011) and other research reporting that mutual pornography use resulted in increased honesty, openness, and sexual communication, therefore resulting in increased sexual satisfaction (Grov et al., 2011). Further, the impact of externalization was hypothesized to be greater for females than for males; as females are more likely to use pornography to benefit the relationship (Bridges & Morokoff, 2011; Brown et al., 2017; Grov et al., 2011), it may be that the female partner "blames" the male partner for her use of pornography. The extant literature has called for further examination of gender differences regarding pornography use (Volk et al., 2019).

**Chapter Summary**

Based on a review of the literature, the use of pornography appears to be widespread globally, even in religious populations who may not be expected to consume pornography. Numerous studies have researched the association between pornography use and relationship satisfaction in couples, although methodologies and definitions of the variables tend to vary across studies, making comparisons across studies challenging. Some of the factors associated with pornography use that are likely to negatively impact relationship satisfaction include decreased commitment, increased infidelity or openness to extramarital sex, impaired trust and attachment, and decreased self-esteem. Additionally, when an individual uses pornography but is morally opposed to it due to a conflict with either religious or personal values, the cognitive

dissonance experienced by the individual due to moral disapproval is expected to negatively impact sexual/relationship satisfaction.

While it is a relatively new construct in the literature, the impact of sexual shame appears to be detrimental for both men and women, although research on men's sexual shame is still scarce. The extant research indicates potential associations between sexual shame and decreased relationship satisfaction. In women, sexual shame may negatively impact relationship satisfaction due to factors such as humiliation and disgust toward the body and sexual identity, beliefs about being abnormal or inferior, fears about not pleasing a partner or pressure to please a partner, lack of communication, and decreased intimacy. Moreover, double-bind messages, particularly those experienced by women, may result in sexual shame and decreased sexual/relationship satisfaction. For men, sexual shame may result in increased depressive symptoms and decreased emotional connection (i.e., intimacy).

This research can provide therapists, especially those who work with couples, with better information related to the outcomes of mutual pornography use for couples in committed romantic relationships. In addition, counselor educators and supervisors can benefit from increased knowledge to inform the teaching and supervision of new counselors. To date, the research regarding the relationship between pornography use and sexual/relationship satisfaction has not assessed the impact of moral disapproval, sexual shame, and externalization. This study intended to bridge this gap in the literature and suggested several hypotheses. The following chapter will focus on the methods used in this study.

## CHAPTER THREE: METHODS

This chapter focuses on the methods used to assess the relationship between mutual pornography use and sexual satisfaction in women, as well as whether sexual shame has a mediating influence. In addition, the study investigated whether moral disapproval and externalization had a moderating effect on these relationships. This study also explored the accuracy of the proposed model for male participants. This chapter briefly reviews the purpose of the study, the research questions, and hypotheses. Next, the chapter discusses the selection of participants and provides an explanation of the measures and research procedures used. The statistical tests used to analyze the data and test the hypotheses are described. Finally, the chapter concludes with a discussion of ethical considerations.

### Research Purpose

The purpose of this research was to better understand couples' pornography use and its influence on sexual satisfaction. Also, various mediating and moderating variables, including sexual shame, moral disapproval, and externalization, were studied to assess their potential influence on sexual satisfaction. The intention of this study was to contribute to the literature regarding how pornography use impacts couples. The author hopes that this research provides further insight into which couples might benefit from mutual pornography use and which couples might experience harm from mutual use. For example, if one partner or the couple decides to engage in mutual pornography use, is the intention to enhance the relationship, or is it the result of "coercion" when one partner does not morally agree with it, possibly then leading to sexual shame? Furthermore, if one partner does not agree with viewing pornography, does blaming the other partner (externalization) alleviate sexual shame in the first partner, potentially enhancing the relationship? In addition, a better understanding of this experience might assist clinicians and

mental health providers who work with couples struggling with sexual/relationship satisfaction or intimacy in making informed decisions regarding the use of pornography to enhance the relationship.

### Research Questions and Hypotheses

**Research Question One:** What is the correlation between women's mutual pornography use and sexual satisfaction?

**Hypothesis 1:** For women, there will be a positive correlation between mutual pornography use and sexual satisfaction (both NSSS Total and Subscale B, Partner- and Sexual Activity-Centered).

*Null Hypothesis 1:* For women, there will be no relationship between mutual pornography use and sexual satisfaction.

**Research Question Two:** Is the relationship between women's mutual pornography use and sexual satisfaction mediated by sexual shame?

**Hypothesis 2:** For women, the relationship between mutual pornography use and sexual satisfaction will be attenuated by sexual shame.

*Null Hypothesis 2:* For women, sexual shame will have no effect on the relationship between mutual pornography use and sexual satisfaction.

**Research Question Three:** Is the relationship between women's mutual pornography use and sexual shame moderated by moral disapproval?

**Hypothesis 3:** For women, the relationship between mutual pornography use and sexual shame will be exacerbated by moral disapproval.

*Null Hypothesis 3:* For women, moral disapproval will have no effect on the relationship between mutual pornography use and sexual shame.

**Research Question Four:** Is the relationship between women's mutual pornography use and sexual satisfaction moderated by moral disapproval?

**Hypothesis 4:** For women, the relationship between mutual pornography use and sexual satisfaction will be exacerbated by moral disapproval.

*Null Hypothesis 4:* For women, moral disapproval will have no effect on the relationship between mutual pornography use and sexual satisfaction.

**Research Question Five:** Is the effect of moral disapproval in women on the relationship between mutual pornography use and sexual shame moderated by externalization?

**Hypothesis 5:** For women, the effect of moral disapproval on the relationship between mutual pornography use and sexual shame will be attenuated by externalization.

*Null Hypothesis 5:* For women, externalization will have no influence on the effect of moral disapproval on the relationship between mutual pornography use and sexual shame.

**Research Question Six:** Is the effect of moral disapproval in women on the relationship between mutual pornography use and sexual satisfaction moderated by externalization?

**Hypothesis 6:** For women, the effect of moral disapproval on the relationship between mutual pornography use and sexual satisfaction will be attenuated by externalization.

*Null Hypothesis 6:* For women, externalization will have no influence on the effect of moral disapproval on the relationship between mutual pornography use and sexual shame.

**Research Question Seven:** What is the influence of externalization on the effect of moral disapproval on the relationship between mutual pornography use and sexual shame in men?

**Research Question Eight:** What is the influence of externalization on the effect of moral disapproval on the relationship between mutual pornography use and sexual satisfaction in men?

**Research Design**

This study used a nonexperimental, cross-sectional ordinary least squares regression research design, which was chosen because no treatments or interventions were used. Because this study did not include a longitudinal design, any correlations between relationships should be interpreted with caution.

Participant recruitment was conducted via MTurk, a crowdsourcing marketplace. The benefits of using MTurk include rapid data collection due to the large number of participants and the relatively inexpensive cost of data collection compared to other methods (Johnson & Borden, 2012). Furthermore, research indicates that MTurk samples provide greater ethnic and socioeconomic diversity compared to other samples such as undergraduates (Casler, Bickel, & Hackett, 2013), as well as greater diversity in age (Mason & Suri, 2012). As MTurk samples represent a greater geographical area than other sampling methods (Buhrmester, Kwang, & Gosling, 2011), they are believed to increase the generalizability of the results. In addition, the psychometric properties, such as test-retest reliability, of using MTurk appear to be consistent with other sampling methods (Buhrmester et al., 2011).

After being recruited, the participants were asked to provide informed consent for study participation. Appendix A includes the informed consent statement that participants read. Those who indicated their consent were then given several measures, which included demographic items, items measuring frequency of pornography use, the NSSS (Štulhofer et al., 2010), the KISS (Kyle, 2013), the MSSS (Gordon, 2018), items measuring moral disapproval (Grubbs et al., 2015), and the Test of Self-Conscious Affect-3 ([TOSCA-3], Tangney, Dearing, Wagner, & Gramzow, 2000). Other measures that were not used in this particular study were included in the Mturk survey. In between these measures, catch trial items were included. At the end of the

survey, participants were asked if they paid attention to the questions and provided honest answers. After participants completed the surveys, the data were downloaded into IBM SPSS Statistics Version 26. Data analysis procedures are described in further detail below.

**Selection of Participants**

An online crowdsourcing platform, MTurk, was used to recruit participants. Adult participants, age 18 and older, were recruited. Additional criteria included sexual orientation and relationship status: Participants who identified as cisgender and who have been in a committed heterosexual romantic relationship for at least three months were included in the study. Exclusion criteria included minors under the age of 18, not using pornography during the previous six months, and declining to provide consent to participate in the study. To obtain sufficient variability of participants' pornography use and to account for some participants not completing the survey, the target sample size for this study was 500 individuals.

**Research Instruments**

**Demographic information.** Participants were asked questions regarding their gender, age, race, sexual orientation, highest level of education, employment status, annual income, marital/relationship status, sexual activity within the past six months, history of sexual partners, religious affiliation, and church attendance.

**Pornography use.** Participants were asked several questions regarding frequency of pornography use and solitary/mutual use. Participants were asked to assign a percentage to the amount of time spent viewing pornography alone, with their partner, or with another person (not their partner).

**Sexual satisfaction.** Sexual satisfaction was measured using the NSSS (Štulhofer et al., 2010). The NSSS is a 20-item inventory using a five-point Likert scale with scores ranging

between 1 ("not at all satisfied") and 5 ("extremely satisfied"). Higher scores indicate higher levels of satisfaction. The NSSS is comprised of two subscales: Ego Focused and Partner- and Sexual Activity-Centered, both consisting of 10 items. Initial psychometric properties indicated high internal consistency, satisfactory test-retest reliability, and moderately high convergent validity (Štulhofer et al., 2010).

**Sexual shame.** For both male and female participants, sexual shame was measured using the KISS (Kyle, 2013). The KISS is a 20-item measure that assesses levels of shame related to past sexual experiences on a six-point Likert scale; it also includes demographic questions to capture the participants' experience of factors such as childhood sexual abuse, viewing pornography, and growing up in a religious household (Kyle, 2013). Examples of items include "I think people would look down on me if they knew about my sexual experiences" and "I scold myself and put myself down when I think of myself in past sexual situations." Pilot testing during the initial research on the KISS indicated that it showed evidence of excellent internal consistency (Kyle, 2013).

For male participants only, sexual shame was also measured by the MSSS (Gordon, 2018). The MSSS consists of 30 items over six subscales that assesses the degree to which participants agree or disagree with statements regarding sexuality and sexual experiences. Scores are on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Initial research indicated that the full scale demonstrated good internal consistency (Gordon, 2018). The MSSS subscales include Sexual Inexperience Distress, Masturbation/Pornography Remorse, Libido Disdain, Body Dissatisfaction, Dystonic Sexual Actualization, and Sexual Performance Insecurity.

**Moral disapproval.** Moral disapproval was measured using four questions created by Grubbs and colleagues (2015). As the data sample is not necessarily a religious population and two of the original questions referenced sin, those questions were modified to allow for applicability to nonreligious participants who may not place the same weight on a religious concept such as sin. This version was also used in previous studies (Carboneau, 2018; Volk et al., 2016). The modified scale consists of four religiously neutral statements ("viewing pornography violates my personal values"; "viewing pornography is morally wrong"; "viewing pornography troubles my conscience"; "viewing pornography is inappropriate"). Scores are on a seven-point Likert scale ranging from 1 ("not at all") to 7 ("extremely"). Initial research indicated that the scale demonstrated high internal consistency (.93; Volk et al., 2016).

**Externalization.** Externalization was measured using TOSCA-3 (Tangney et al., 2000). The TOSCA-3 is the third version of a scenario-based self-report instrument which measures guilt, shame, and externalizing (i.e., blaming others). The scale consists of 11 negative scenarios, five positive scenarios, and three responses for each scenario. A sample item includes the scenario "While playing around, you throw a ball, and it hits your friend in the face." Responses include a shame reaction ("You would feel inadequate that you can't even throw a ball"), guilt reaction ("You would apologize and make sure your friend feels better"), and externalizing/blame reaction ("You would think maybe your friend needs more practice at catching"). Scores for each response are on a five-point Likert scale ranging from 1 ("not likely") to 5 ("very likely").

**Additional items.** Catch trial items (items with verifiable responses that identify workers who agree with unlikely or impossible statements) were included in the survey (Chandler, Mueller, & Paolacci, 2014). The intention of including these items was to increase the data

quality by identifying participants who may have been responding randomly. The survey concluded with the following statement:

> Realistically, I know some MTurk respondents do not pay close attention to the questions they are answering. This affects the quality of my data. Please select one of the following honestly. Your answer is confidential. It will not affect whether or not you receive payment and will not affect any rating given to you for your work. Did you pay attention and answer honestly? (Rouse, 2015, p. 306)

In previous studies, the inclusion of the above statement was related to increased reliability (Rouse, 2015).

## Research Procedures

Approval was obtained from the Institutional Review Board (IRB) prior to data collection. Once the study was approved, the survey was created on MTurk and then pilot tested. Subsequently, a request for participants was submitted. Participants were asked to read the informed consent document that explained the research study. Participants were also told that the survey was assessing attitudes regarding pornography use, sexual behaviors, sexual attitudes, relationships, religiosity, sexual shame, and externalizing. Further, the participants were informed that the data would remain anonymous and private, securely stored, and only available to the researchers. Participants were informed that they would not experience any direct benefits of completing the survey and that the risk was limited to the consequences of the data being shared, which is the reason that participants were not asked for identifying information. Participants were additionally notified that their participation was voluntary and that they could withdraw their participation at any time. In the informed consent document, the participants were asked whether they read the informed consent and if they consented to participate, with

response options including yes and no. Participants who selected yes on the informed consent were then directed to the survey. After they completed the survey, participants were paid $1.25. Data collection occurred in December 2019.

**Data Processing and Analysis**

The researcher downloaded the data into IBM SPSS Version 26 with the PROCESS macro for SPSS (Hayes, 2017). The data were screened, and missing data were excluded from the final analysis. Furthermore, participants who responded to specific items incorrectly were excluded from the study to eliminate those participants who provided random responses. Preliminary data screening determined if the scores were normally distributed, and the data were screened for outliers.

Pearson's correlation coefficients were used to test the first hypothesis. To assess the remaining research questions, mediation and moderation models were tested using PROCESS (Hayes, 2017), which is a macro for SPSS that allows testing of conditional process models. Bootstrapping was also used as a method of resampling (Hayes, 2017). A mediation analysis (model four by Hayes, 2017) was conducted for the second research question. Moderation analyses were conducted for the third, fourth, fifth, and sixth research questions (models eight and twelve, respectively; Hayes, 2017).

## Ethical Considerations

While the study was designed to maintain participants' anonymity, the regulations and guidelines provided by the IRB and the American Counseling Association (2014) were followed throughout the duration of the study. Due to the sensitive nature of this research (e.g., questions regarding pornography use and sexual shame), attention to the participants' privacy was of utmost importance throughout the study. The researcher paid participants for completing the

survey; however, payments were made via MTurk, and as such, the participants' identities were not provided to researchers. Neither the demographic items nor the data received from this study included any identifying information of the participants.

Although it was not anticipated that any participants would experience adverse risks or harm from completing the survey, some of the survey questions contained personal or sensitive questions with the potential to result in embarrassment or shame. Therefore, participants were provided with an online counseling resource in the informed consent in the event that they experienced any distress due to completing the survey.

## Chapter Summary

This chapter reviewed the research questions and hypotheses. The cross-sectional design used in this research was described in detail. Next, the method of participant selection was discussed. The measures that were used in this study were discussed and appraised. Lastly, the data analysis and screening were discussed.

**CHAPTER FOUR: RESULTS**

The purpose of this study was to examine the relationships between female participants' pornography use and sexual satisfaction, as well as to assess the mediating and moderating factors of sexual shame, moral disapproval, and externalization. First, the study examined the relationship between mutual pornography use and sexual satisfaction. The study also proposed one mediation model and two moderation models. Model one proposed that sexual shame mediates the relationship between mutual pornography use and sexual satisfaction. Model two suggested that moral disapproval moderates two relationships: (a) the relationship between mutual pornography use and sexual satisfaction and (b) the relationship between mutual pornography use and sexual shame. Model three suggested that externalization moderates the effect of moral disapproval on two relationships: (a) the relationship between mutual pornography use and sexual satisfaction and (b) the relationship between mutual pornography use and sexual shame.

This study used a sample of 330 adults who endorsed using pornography at least once in the past six months. Participants responded to demographic questions as well as questions surrounding the frequency of their pornography use and whether use was solitary, mutual, with another person besides their partner, or with a group of people. Participants also completed measures that assessed their sexual shame, moral disapproval, and tendency to externalize. This chapter describes the data analysis used to examine whether the hypotheses were supported by the data. A summary of the findings is presented.

**Data Screening**

A sample of 1,055 participants was obtained during data collection in December of 2019. Several methods were employed to screen data. First, attempts were made to remove cases in

which participants were responding carelessly. This phase involved removing data from participants who selected the same response 20 or more times in a row and participants whose average response time was 1.5 seconds or less per question. The average length of time in which participants completed the survey was 33 minutes and 22 seconds ($SD = 24$ minutes and 10 seconds). Participants who completed the survey in less than five minutes were eliminated. After the initial phase of data screening, a total of 898 cases were retained.

A criterion for people to participate in the study was that they must have used pornography within the past six months. The data were reviewed, and there were 372 cases in which participants indicated they had used pornography over the past six months.

To detect careless responding from participants, the variance on some of the measures was examined. Variance on the sexual shame measure was calculated. The data were visually inspected, and cases in which there was no variance (i.e., participants selected the same response or failed to respond on 10 or more consecutive items) were deleted. After this phase, a total of 348 cases were retained.

The data were then examined for outliers. Histograms were created on several items that measured how many hours per week participants reported using pornography and how many times per week they engaged in masturbation. For the item that queried the number of hours of pornography viewing per week, outliers were observed. One participant reported 80, indicating that the participant viewed 80 hours of pornography per week. Because this is physically possible and anecdotal evidence suggests this occurs in clinical populations in which individuals are experiencing considerable problems with pornography use, this response was retained. For the item assessing the number of times participants engage in masturbation weekly, one participant reported 30 times per week. Because individuals in clinical settings have reported

high-frequency masturbation like this response, this participant's data were retained. Sample means and standard deviations were calculated for the NSSS, KISS, and MSSS. Osborne (2012) recommended that respondents who score outside +/- 3.0 standard deviations be removed. No participants scored outside +/- 3.0 standard deviations on the NSSS total score, KISS, or MSSS total score.

The items that asked participants to type in their responses (i.e., string variables) were examined to ensure that responses were correctly entered. Responses that were not in the correct format were corrected or deleted if correction could not be estimated. For example, data correction was completed for three participants who responded with the year they were married instead of the total number of years they had been married. Similarly, a 24-year-old participant indicated "23" for their length of relationship; this was corrected to indicate the participant has been in the relationship for one year. Regarding church attendance during the past year, five participants reported the most recent year they attended church; as such, their responses were changed to 0. Similarly, for the item asking about hours of social media usage per day, two participants' data were incorrect (i.e., greater than 24) and were changed to missing data. Seven participants indicated their age as a number less than their age of first pornography exposure and were eliminated during this phase. This resulted in a total of 341 participants who were retained at this step.

Because this study assessed total pornography use across four types (solitary use, mutual use, use with a different individual from their partner, and use with multiple people), it was necessary to remove cases in which participants' total percentage of pornography use did not equal 100. The cases were sorted, and cases in which participants' total pornography use

percentage did not equal 100 were eliminated. This resulted in a total of 330 participants who were retained.

To explore whether the data were normally distributed, skew and kurtosis were calculated. On the variable number of hours of pornography viewed in the past week, the data were not normally distributed; however, this was expected. Since participants were sampled from a population that was expected to be similar to the general population regarding pornography use and because the general population has an average of 2% of individuals with problematic pornography use (Albright, 2008), it was anticipated that the data would be positively skewed. The NSSS total, NSSS subscales, KISS total, MSSS total, and five of the MSSS subscales demonstrated relatively normal distribution with little skew or kurtosis. The MSSS Masturbation/Pornography Remorse subscale showed a bimodal distribution, yet numeric values of skew and kurtosis were within normal range. Although the data on hours of pornography viewed per week appear to violate the assumptions of use of correlation and regression (Warner, 2013), Hayes (2017) suggested that having a normal distribution is not necessary for using regression including moderation analyses. Because most data are not normally distributed, and because Likert scales do not produce continuous distributions, it is appropriate to use ordinary least squares regression (Hayes, 2017).

## Participant Demographics

Participants' ages ranged from 18 to 70 years of age ($M = 34.4$, $SD = 9.5$). Most of the sample identified as Caucasian (79.4%), had achieved at least a bachelor's degree (52.1%), and selected "employed for wages" (81.5%). The largest religious affiliation was Catholic at 38.2%. See Table 4.1 for detailed demographic information.

As previously noted, participants were included in the final sample if they endorsed using pornography within the past six months. The average number of hours that participants endorsed using pornography per week was 2.9 ($SD = 6.22$). The range of hours of pornography use per week was no use on the low end to 80 hours of use per week. An independent samples $t$ test was calculated to explore whether there were differences between men and women in the number of hours of pornography use per week. The average number of hours of pornography use per week for men ($N = 178$) was 3.25 ($SD = 4.95$), while women ($N = 150$) averaged 2.37 hours per week ($SD = 7.44$). There was no significant difference in the mean weekly hours of pornography use between men and women, $t(326) = 1.28$, $p = .20$, two-tailed. See Table 4.2 for pornography use statistics.

Table 4.1

*Participant Demographics*

| Demographic | $n$ | % |
|---|---|---|
| Gender | | |
|     Male | 180 | 54.5 |
|     Female | 150 | 45.5 |
| Racial identity | | |
|     Caucasian/White | 262 | 79.4 |
|     African American | 21 | 6.4 |
|     Asian | 14 | 4.2 |
|     Hispanic | 24 | 7.3 |
|     American Indian or Alaska Native | 5 | 1.5 |
|     Native Hawaiian or Pacific Islander | 2 | 0.6 |
|     Other | 2 | 0.6 |
| Educational background | | |
|     Less than high school | 1 | 0.3 |
|     High school diploma or equivalent (e.g., GED) | 25 | 7.6 |
|     College freshman | 17 | 5.2 |
|     College sophomore | 10 | 3.0 |
|     College junior | 5 | 1.5 |
|     College senior | 8 | 2.4 |
|     Trade, technical, or vocational training | 18 | 5.5 |
|     Bachelor's degree | 172 | 52.1 |
|     Master's degree | 62 | 18.8 |

| | | |
|---|---|---|
| Professional degree | 9 | 2.7 |
| Doctorate | 3 | 0.9 |
| Employment Status | | |
| Employed for wages | 269 | 81.5 |
| Self-employed | 42 | 12.7 |
| Unemployed | 4 | 1.2 |
| Homemaker | 5 | 1.5 |
| Student | 3 | 0.9 |
| Military | 3 | 0.9 |
| Retired | 2 | 0.6 |
| Unable to work | 2 | 0.6 |
| Current relationship status | | |
| Monogamous dating | 65 | 19.7 |
| Married/life partner | 265 | 80.3 |
| Religion | | |
| Protestant (e.g., Methodist, Baptist, or other non-Catholic Christian denomination) | 56 | 17.0 |
| Catholic | 126 | 38.2 |
| Christian (nondenominational) | 44 | 13.3 |
| Mormon | 1 | 0.3 |
| Jehovah's Witness | 1 | 0.3 |
| Muslim | 6 | 1.8 |
| Hindu | 8 | 2.4 |
| Jewish | 4 | 1.2 |
| Buddhist | 1 | 0.3 |
| New Age or Wiccan | 2 | 0.6 |
| None | 68 | 20.6 |
| Other | 13 | 3.9 |

As previously noted, participants were included in the final sample if they endorsed using pornography within the past six months. The average number of hours that participants endorsed using pornography per week was 2.9 ($SD = 6.22$). The range of hours of pornography use per week was no use on the low end to 80 hours of use per week. An independent samples $t$ test was calculated to explore whether there were differences between men and women in the number of hours of pornography use per week. The average number of hours of pornography use per week for men ($N = 178$) was 3.25 ($SD = 4.95$), while women ($n = 150$) averaged 2.37 hours per week ($SD = 7.44$). There was no significant difference in the mean weekly hours of pornography use

between men and women, $t(326) = 1.28$, $p = .20$, two-tailed. See Table 4.2 for pornography use statistics.

Table 4.2

*Pornography Use Statistics*

| Pornography use | $n$ | % |
|---|---|---|
| In past week | | |
| 0 times | 115 | 34.8 |
| 1-3 times | 126 | 38.2 |
| 4-6 times | 43 | 13.0 |
| 7-9 times | 30 | 9.1 |
| 10 or more times | 15 | 4.5 |
| In past month | | |
| 0 times | 45 | 13.6 |
| 1-3 times | 97 | 29.4 |
| 4-6 times | 93 | 28.2 |
| 7-9 times | 43 | 13.0 |
| 10 or more times | 52 | 15.8 |

**Sample Means**

The minimum score, maximum score, mean, and standard deviation were calculated for all the measures used. These results are displayed in Table 4.3.

Table 4.3

*Descriptive Statistics of All Measures Used in This Study*

| Measure | Female | | | | Male | | | |
|---|---|---|---|---|---|---|---|---|
| | Min. score | Max. score | *M* | *SD* | Min. score | Max. score | *M* | *SD* |
| NSSS | | | | | | | | |
|   Ego Focused | 1.40 | 5.00 | 3.57 | 0.85 | 1.70 | 5.00 | 3.69 | 0.72 |
|   Partner and Sexual Activity Centered | 1.10 | 5.00 | 3.62 | 0.88 | 1.00 | 5.00 | 3.54 | 0.88 |
|   Total | 1.45 | 5.00 | 3.60 | 0.80 | 1.65 | 5.00 | 3.61 | 0.72 |
| Moral Disapproval | 1.00 | 7.00 | 3.34 | 2.05 | 1.00 | 7.00 | 3.92 | 1.95 |
| TOSCA | | | | | | | | |
|   Blaming Others | 11.00 | 53.00 | 30.85 | 10.56 | 13.00 | 54.00 | 33.63 | 9.85 |
|   Shame | 11.00 | 54.00 | 39.99 | 8.40 | 16.00 | 53.00 | 37.39 | 7.18 |
|   Guilt | 21.00 | 56.00 | 45.76 | 6.48 | 21.00 | 56.00 | 43.86 | 7.21 |
| KISS | 1.15 | 6.00 | 3.77 | 1.35 | 1.00 | 6.00 | 3.73 | 1.37 |
| MSSS[a] | | | | | | | | |
|   Sexual Inexperience Distress | | | | | 5.00 | 25.00 | 15.37 | 5.85 |
|   Masturbation/ Pornography Remorse | | | | | 5.00 | 25.00 | 15.76 | 6.46 |
|   Libido Disdain | | | | | 5.00 | 24.00 | 15.34 | 5.25 |
|   Body Dissatisfaction | | | | | 7.00 | 24.00 | 16.65 | 4.92 |
|   Dystonic Sexual-Actualization | | | | | 5.00 | 25.00 | 16.15 | 5.43 |
|   Sexual Performance Insecurity | | | | | 8.00 | 23.00 | 17.43 | 3.97 |
|   Total | | | | | 37.00 | 142.00 | 95.48 | 29.91 |

*Note.* NSSS = New Sexual Satisfaction Scale; TOSCA = Test of Self-Conscious Affect; KISS = Kyle Inventory of Sexual Shame; MSSS = Male Sexual Shame Scale.
[a]To increase the overall quality of responses, the MSSS was removed from the survey after Wave 1.

## Data Analysis

Data analysis was performed using IBM SPSS Statistics Version 26 with the PROCESS macro for SPSS (Hayes, 2017). Participants who did not complete all the items for any measure were excluded from the analysis. Bivariate correlations were calculated between mutual pornography use and sexual satisfaction (the NSSS and its subscales). In addition, bivariate correlations were calculated between mutual pornography use and sexual shame (the KISS and

the MSSS and its subscales). One mediation model (PROCESS Model 4; Hayes, 2017) and two moderated mediation models (PROCESS Models 8 and 12; Hayes, 2017) were tested, using the data from female participants. For exploratory purposes, the models were also analyzed using the data from male participants. In the remainder of this chapter, results from these analyses are explored.

**Correlations**

**Mutual pornography use and sexual satisfaction by gender.** Pearson correlations were calculated to examine the relationship between mutual pornography use and sexual satisfaction, including the two subscales on the NSSS. See Table 4.4 for Pearson correlations and significance levels. In women, the analysis indicated a positive correlation between NSSS total and mutual pornography use. Furthermore, mutual pornography use and Subscale B of the NSSS (Partner- and Sexual Activity-Centered) were moderately positively correlated, providing partial support for the first hypothesis. However, mutual pornography use and NSSS Subscale A (Ego Focused) were also positively correlated, contrary to the first hypothesis. Overall, this suggests that female participants who engaged in viewing pornography with their partner tended to have moderately higher levels of overall sexual satisfaction. Participants who engaged in mutual pornography use tended to have moderately higher levels of sexual satisfaction with respect to their partner and/or the sexual activities in which they engaged. These significant correlations suggest that other variables are important to consider in understanding the relationship between women's mutual pornography use and sexual satisfaction.

Table 4.4

*Correlations Between Mutual Pornography Use and Sexual Satisfaction, by Gender*

| New Sexual Satisfaction Scale | Mutual pornography use Pearson correlation coefficient $(r)$** | |
|---|---|---|
| | Female | Male |
| NSSS Total | .287 | .390 |
| NSSS Ego Focused | .229 | .260 |
| NSSS Partner- and Sexual Activity-Centered | .303 | .420 |

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

Correlations were also calculated with the average number of hours participants reported using pornography per week and overall sexual satisfaction. The results were statistically significant ($r = .170$, $p = .002$), suggesting a small, positive correlation.

**Testing Model One**

The second research question asked whether sexual shame mediates the relationship between mutual pornography use and sexual satisfaction in women. To test the mediation model, Model 4 of Hayes's (2017) conditional process analysis PROCESS macro for SPSS was used. This model used mutual pornography use as the predictor variable and sexual satisfaction (full-scale score on the NSSS; Štulhofer et al., 2010) as the outcome variable. Solitary pornography use was controlled for as a covariate. The proposed mediator for this model was sexual shame, indicated by the full scale score on KISS. A pictorial representation of this theoretical model is presented in Figure 4.1, and the statistical model is presented in Figure 4.2.
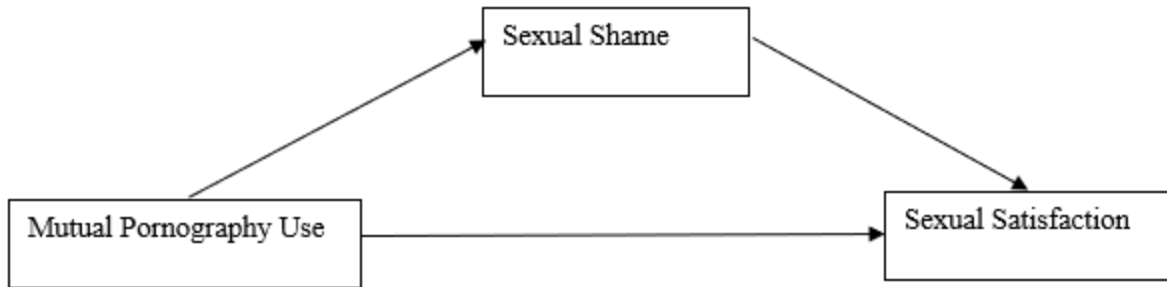
*Figure 4.1.* Hypothesized theoretical model one.
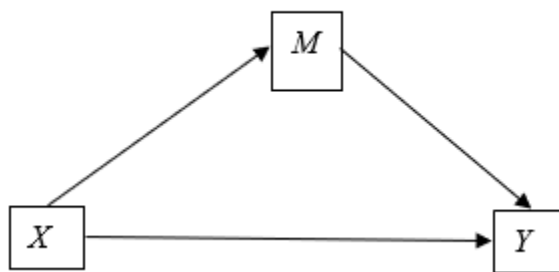


*Figure 4.2.* Hypothesized statistical model one.

Overall, the first model was statistically significant, $F(3, 146) = 13.99, p < .001, R^2 =$ 0.22; 5000 bootstrapping was specified. This suggests that the predictors account for 22% of the variance in sexual satisfaction. Mutual pornography use was a statistically significant predictor of sexual satisfaction. Sexual shame total score was also a statistically significant predictor of sexual satisfaction. The hypothesis of an indirect effect of mutual pornography use on sexual satisfaction through sexual shame while controlling for solitary pornography use was supported, as indicated by the 95% bias-corrected bootstrap confidence interval [0.003, 0.011]. See Tables 4.5, 4.6, and 4.7.

Table 4.5

*Process Model Results for Model One with Sexual Shame as the Mediator*
*Outcome Variable: Sexual Shame*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 6.69 | 0.435 | 15.383** | 5.833 | 7.552 |
| Mutual use | -0.033 | 0.006 | -5.785** | -0.044 | -0.021 |
| Solo use (covariate) | -0.033 | 0.005 | -7.05** | -0.042 | -0.024 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.6

*Process Model Results for Model One with Sexual Shame as the Mediator*
*Outcome Variable: Sexual Satisfaction*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 5.565 | 0.428 | 13.003** | 4.719 | 6.411 |
| Mutual use | -0.008 | 0.004 | -2.200* | -0.016 | -0.001 |
| Sexual shame | -0.202 | 0.050 | -4.021** | -0.301 | -0.103 |
| Solo use (covariate) | -0.016 | 0.003 | -4.800** | -0.022 | -0.009 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.7

*Process Model Results for Model One with Sexual Shame as the Mediator: Total Effect Model*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 4.213 | 0.278 | 15.142** | 3.663 | 4.763 |
| Mutual use | -0.002 | 0.004 | -0.494 | -0.009 | 0.005 |
| Solo use (covariate) | -0.009 | 0.003 | -3.061* | -0.015 | -0.003 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

**Testing Model Two**

The second model added to the first model by introducing a moderating variable. The

predictor variable was mutual pornography use, and the outcome variable was sexual satisfaction

(the total score of the NSSS). The mediator was sexual shame, as measured by the total score on the KISS. The moderator was moral disapproval, as measured by the four questions created by Grubbs and colleagues (2015). This theoretical model is provided in Figure 4.3, while the statistical model is provided in Figure 4.4.



*Figure 4.3*. Hypothesized theoretical model two.



*Figure 4.4*. Hypothesized statistical model two.

The first moderated mediation analysis examined whether moral disapproval strengthened the relationship between mutual pornography use and sexual shame and whether higher levels of moral disapproval strengthened the relationship between mutual pornography use and sexual satisfaction. Overall, the index of moderated mediation indicated that the moderated indirect effect was significant, CI [-0.0023, -0.0003]. For the outcome variable sexual shame, all the predictor variables were significant, indicating the indirect effect was significant.

This interaction is displayed in Figure 4.5, where *low frequency* refers to participants whose level of moral disapproval was at the 16th percentile, and *high frequency* refers to participants whose moral disapproval was at the 84th percentile. This interaction was probed using the pick-a-point approach. As mutual pornography use increased, low and medium levels of moral disapproval attenuated levels of sexual shame, while high levels of moral disapproval did not have a significant attenuating effect on sexual shame. Regarding the outcome variable sexual satisfaction, two of the predictor variables were significant (sexual shame and moral disapproval); however, there was no direct effect. See Tables 4.8 and 4.9.
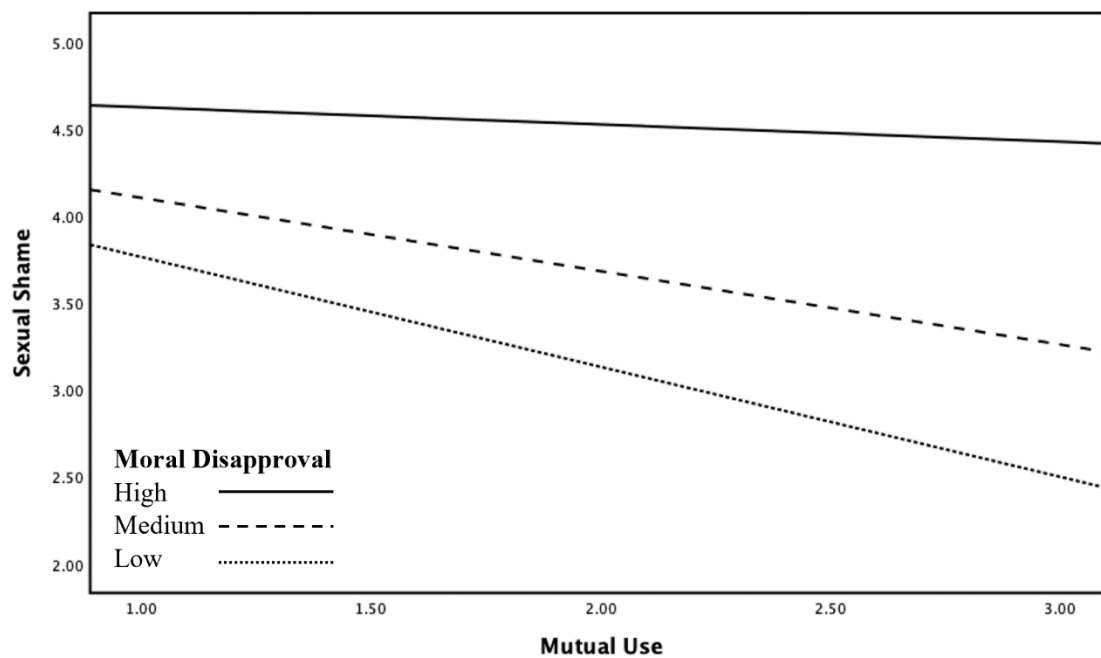


*Figure 4.5*. Main effects of mutual pornography use and moral disapproval on sexual shame (females).

Table 4.8

*Process Model Results for Model Two with Moral Disapproval as the Moderator Outcome Variable: Sexual Shame*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 4.765 | 0.320 | 14.878** | 4.132 | 5.398 |
| Mutual use | -0.015 | 0.006 | -2.635* | -0.026 | -0.004 |
| Moral disapproval | 0.312 | 0.050 | 6.265** | 0.214 | 0.411 |
| Mutual Use x moral disapproval | 0.005 | 0.002 | 2.982* | 0.002 | 0.008 |
| Solo use (covariate) | -0.016 | 0.005 | -3.263* | -0.026 | -0.006 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.9

*Process Model Results for Model Two with Moral Disapproval as the Moderator Outcome Variable: Sexual Satisfaction*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 5.311 | 0.348 | 15.260** | 4.623 | 5.999 |
| Mutual use | -0.006 | 0.004 | -1.396 | -0.013 | 0.002 |
| Sexual shame | -0.253 | 0.057 | -4.448** | -0.365 | -0.140 |
| Moral disapproval | 0.090 | 0.038 | 2.354* | 0.015 | 0.166 |
| Mutual use x moral disapproval | -0.001 | 0.001 | -0.766 | -0.003 | 0.001 |
| Solo use (covariate) | -0.012 | 0.004 | -3.463** | -0.019 | -0.005 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

**Testing Model Three**

The third model added to the second model by introducing a second moderating variable. The predictor variable was mutual pornography use, and the outcome variable was sexual satisfaction. The mediator was sexual shame, and the first moderator was moral disapproval. The second moderator was externalization, as measured by the TOSCA-3 Blaming Others subscale (Tangney et al., 2000). The theoretical model is presented in Figure 4.6, while the statistical model is presented in Figure 4.7.
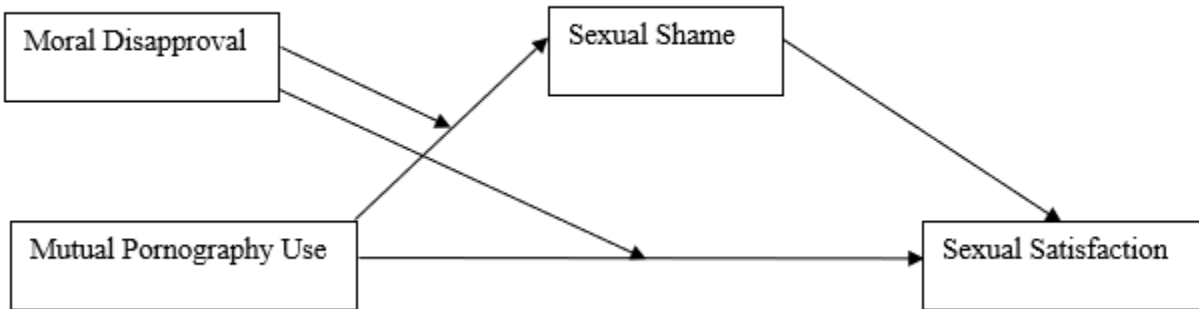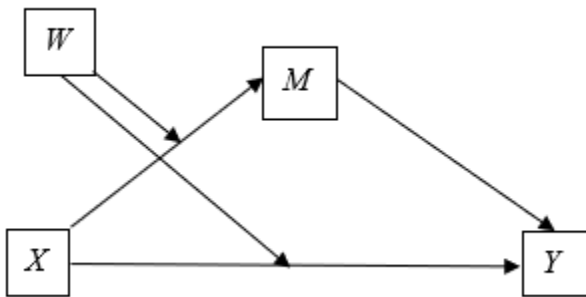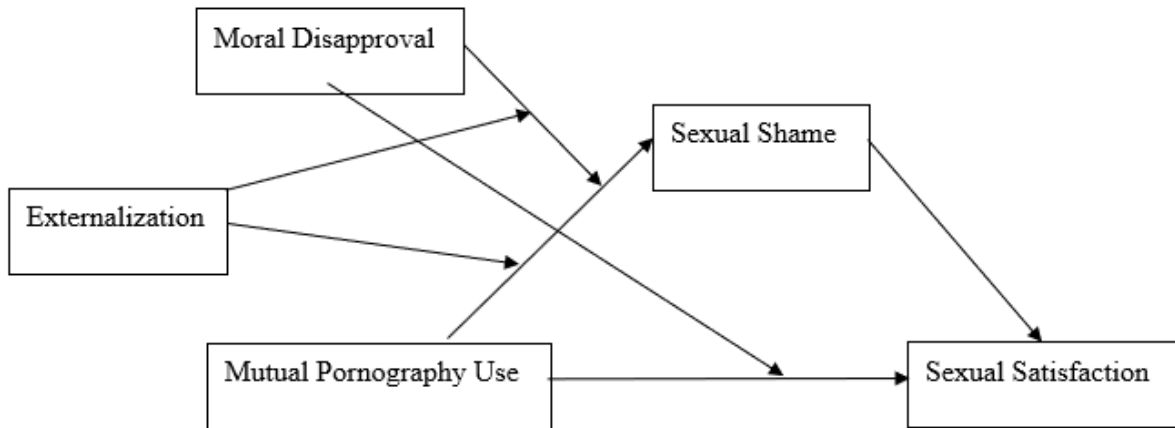
*Figure 4.6.* Hypothesized theoretical model three.
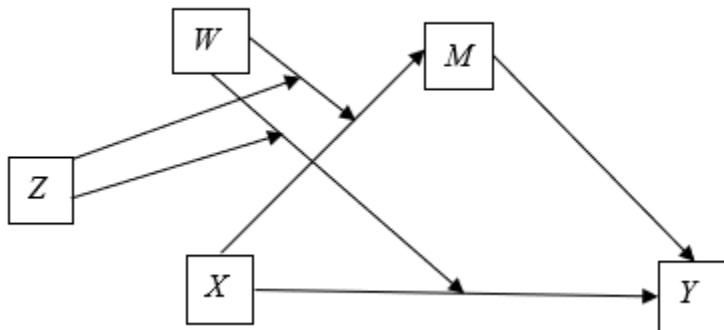


*Figure 4.7.* Hypothesized statistical model three.

This moderated mediation analysis examined whether externalization influenced the effect of moral disapproval on the relationships between mutual pornography use and sexual shame and mutual pornography use and sexual satisfaction. Overall, the index of moderated mediation indicated that the effect was not significant, CI [-0.00009, 0.00016]. With respect to the indirect path through sexual shame, two of the predictor variables (moral disapproval and externalization) were significant. See Table 4.10 for results. With respect to the direct path, the model was statistically significant, $F(9, 140) = 9.01, p < .001, R^2 = 0.37$. This model accounted

for 37% of the variance in sexual satisfaction. In this model, sexual shame and externalization were significant predictors of sexual satisfaction. The first interaction, mutual use times moral disapproval, was not statistically significant ($p = .23$). The second interaction, mutual use times externalization, was not statistically significant ($p = .57$). The third interaction, moral disapproval times externalization, was not statistically significant ($p = .10$). The fourth interaction, however, mutual use times moral disapproval times externalization, was statistically significant. Results are displayed in Table 4.11. The three-way interaction (mutual use, moral disapproval, and externalization) is depicted in Figures 4.8, 4.9, and 4.10.
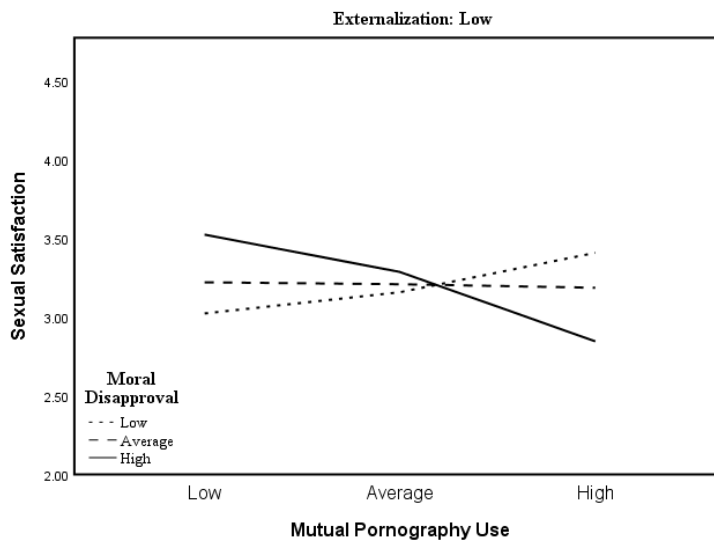


*Figure 4.8.* Interaction of mutual use and moral disapproval at low level of externalization on sexual satisfaction.
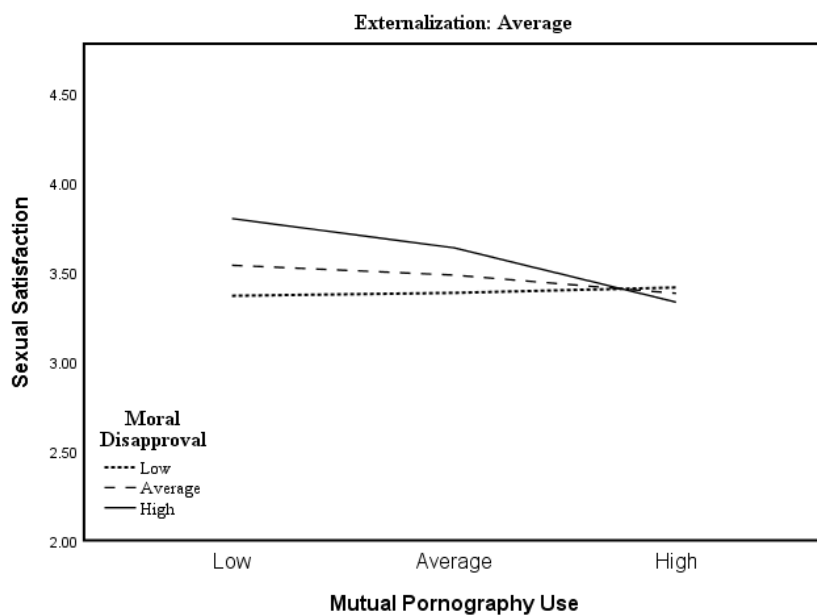
*Figure 4.9*. Interaction of mutual use and moral disapproval at average level of externalization on sexual satisfaction.
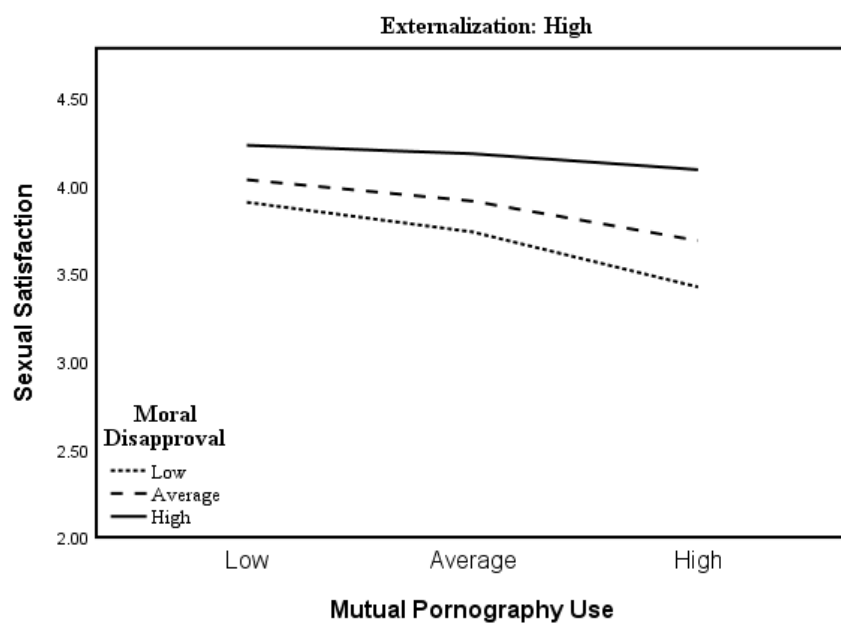


*Figure 4.10*. Interaction of mutual use and moral disapproval at high level of externalization on sexual satisfaction.

Table 4.10

*Process Model Results for Model Three with Moral Disapproval as Moderator and*
*Externalization as a Second Moderator*
*Outcome Variable: Sexual Shame*

| Source | b | SE | t | 95% CI LL | 95% CI UL |
|---|---|---|---|---|---|
| Constant | 4.122 | 0.408 | 10.100** | 3.315 | 4.929 |
| Mutual use | -0.006 | 0.007 | -0.891 | -0.020 | 0.008 |
| Moral disapproval | 0.241 | 0.061 | 3.968** | 0.121 | 0.361 |
| Mutual use x moral disapproval | 0.002 | 0.002 | 0.987 | -0.002 | 0.006 |
| Externalization | 0.041 | 0.011 | 3.539** | 0.018 | 0.063 |
| Mutual use x externalization | < 0.001 | < 0.001 | 0.380 | < -0.001 | < 0.001 |
| Moral disapproval x externalization | 0.002 | 0.005 | 0.366 | -0.008 | 0.011 |
| Mutual use x moral disapproval x externalization | < -0.001 | < 0.001 | -0.633 | < -0.001 | < 0.001 |
| Solo use (covariate) | -0.006 | 0.006 | -0.992 | -0.018 | 0.006 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.11

*Process Model Results for Model Three with Moral Disapproval as Moderator and*
*Externalization as a Second Moderator*
*Outcome Variable: Sexual Satisfaction*

| Source | b | SE | t | 95% CI LL | 95% CI UL |
|---|---|---|---|---|---|
| Constant | 5.058 | 0.355 | 14.262** | 4.357 | 5.759 |
| Mutual use | -0.004 | 0.005 | -0.934 | -0.014 | 0.005 |
| Sexual shame | -0.314 | 0.056 | -5.639** | -0.425 | -0.204 |
| Moral disapproval | 0.043 | 0.042 | 1.010 | -0.041 | 0.127 |
| Mutual use x moral disapproval | -0.002 | 0.001 | -1.199 | -0.004 | 0.001 |
| Externalization | 0.030 | 0.008 | 3.826** | 0.015 | 0.046 |
| Mutual use x externalization | < -0.001 | < 0.001 | -0.575 | < -0.001 | < 0.001 |
| Moral disapproval x externalization | 0.005 | 0.003 | 1.648 | -0.001 | 0.012 |
| Mutual use x moral disapproval x externalization | < 0.001 | < 0.001 | 2.084* | < 0.001 | 0.001 |
| Solo use (covariate) | -0.006 | 0.004 | -1.361 | -0.014 | 0.003 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

**Exploration of Data Analysis for Male Gender**

       **Correlations.** For men, the analysis indicated a moderate, positive correlation between NSSS total and mutual pornography use. In addition, mutual pornography use and NSSS Subscale B (Partner- and Sexual Activity-Centered) were moderately positively correlated—a slightly stronger correlation for men than for women. This result is contrary to what is typically reported in the extant literature. Lastly, mutual pornography use and NSSS Subscale A (Ego Focused) were weakly but positively correlated. This suggests that male participants who engaged in viewing pornography with their partner tended to have moderately higher levels of overall sexual satisfaction (see Table 4.4). Regarding the subscales, participants who engaged in mutual pornography use tended to have moderately higher levels of sexual satisfaction with respect to their partner and/or the sexual activities in which they engage. Regarding ego-focused sexual satisfaction (Subscale A), there was a weak, positive correlation for male participants. Like the results for women, these small but significant correlations suggest that other variables are important to consider in understanding the relationship between mutual pornography use and sexual satisfaction. Interestingly, for both men and women, solitary pornography use was negatively correlated with the both the total NSSS scale and its subscales (see Table 4.12).

Table 4.12

*Correlations Between Solitary Pornography Use and Sexual Satisfaction, by Gender*

| New Sexual Satisfaction Scale | Solitary Pornography Use Pearson Correlation Coefficient (*r*)** | |
|---|---|---|
| | Female | Male |
| NSSS Total | -.369 | -.407 |
| NSSS Ego Focused | -.316 | -.248 |
| NSSS Partner- and Sexual Activity-Centered | -.368 | -.457 |

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

**Exploratory model one.** The mediation model was not statistically significant for men $(F(3, 176) = 13.70, p < .001, R^2 = .19$; 5000 bootstrapping was specified). Mutual pornography use was a statistically significant predictor of sexual shame. However, overall, the hypothesis of an indirect effect of men's mutual pornography use on sexual satisfaction through sexual shame while controlling for solitary pornography use was not supported (indirect $= 0.002, SE = 0.001$, 95% CI [< -0.001, 0.004]). See Tables 4.13, 4.14, and 4.15.

Table 4.13

*Exploratory Process Model Results for Model One with Sexual Shame as the Mediator Outcome Variable: Sexual Shame*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 6.233 | 0.330 | 18.880** | 5.581 | 6.884 |
| Mutual use | -0.022 | 0.005 | -4.343** | -0.032 | -0.012 |
| Solo use (covariate) | -0.033 | 0.004 | -9.116** | -0.040 | -0.026 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

Table 4.14

*Exploratory Process Model Results for Model One with Sexual Shame as the Mediator Outcome Variable: Sexual Satisfaction*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 4.279 | 0.343 | 12.469** | 3.602 | 4.956 |
| Mutual use | 0.003 | 0.003 | 0.960 | -0.003 | 0.009 |
| Sexual shame | -0.075 | 0.045 | -1.672 | -0.164 | 0.014 |
| Solo use (covariate) | -0.008 | 0.003 | -2.848* | -0.013 | -0.002 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

Table 4.15

*Exploratory Process Model Results for Model One with Sexual Shame as the Mediator Total Effect Model*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 3.810 | 0.199 | 19.177** | 3.418 | 4.202 |
| Mutual use | 0.005 | 0.003 | 1.548 | -0.001 | 0.011 |
| Solo use (covariate) | -0.005 | 0.002 | -2.295* | -0.009 | -0.001 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

**Exploratory model two.** This exploratory moderated mediation analysis examined whether moral disapproval strengthened the relationship between mutual pornography use and sexual shame and whether higher levels of moral disapproval strengthened the relationship between mutual pornography use and sexual satisfaction. Overall, the index of moderated mediation indicated that the model was significant, 95% CI [-0.0015, -0.0002]. For the outcome variable sexual shame, all the predictor variables were significant, indicating the indirect effect was significant. Figure 4.11 depicts this interaction, where *low frequency* refers to participants whose level of moral disapproval was at the 16th percentile and *high frequency* refers to participants whose moral disapproval was at the 84th percentile. This interaction was probed using the pick-a-point approach. As mutual pornography use increased, low and medium levels of moral disapproval attenuated levels of sexual shame, while high levels of moral disapproval did not have a significant impact on sexual shame. Regarding the outcome variable sexual satisfaction, two of the predictor variables were significant (sexual shame and moral disapproval); however, there was no direct effect. See Tables 4.16 and 4.17.
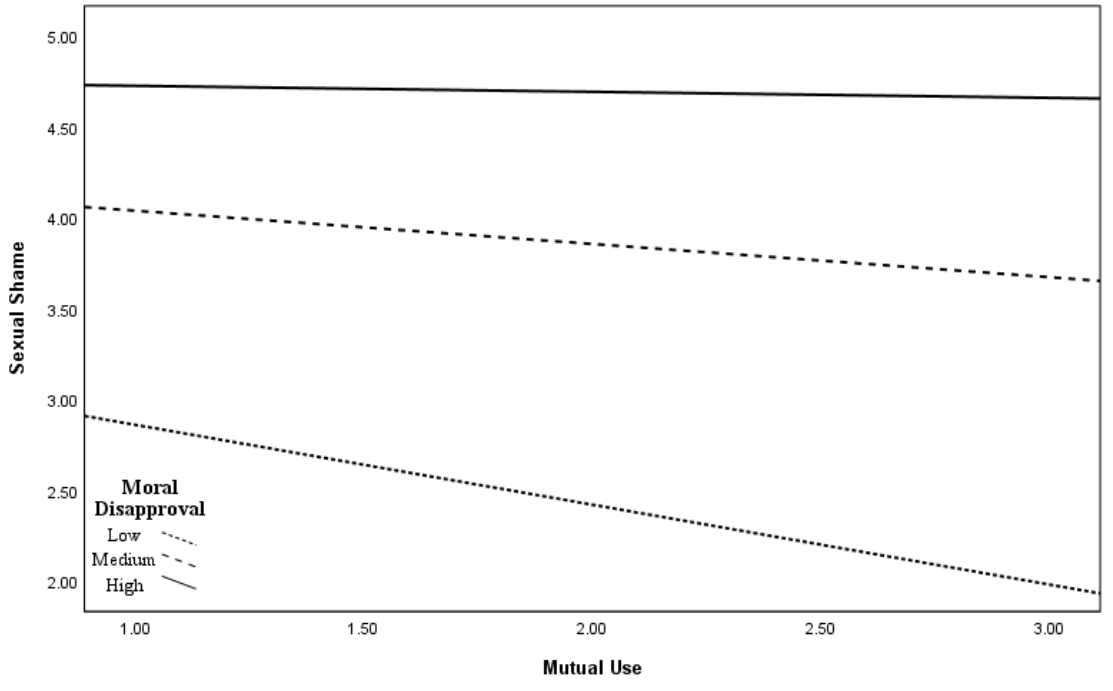
*Figure 4.11*. Main effects of mutual pornography use and moral disapproval on sexual shame (males).

Table 4.16

*Exploratory Process Model Results for Model Two with Moral Disapproval as the Moderator Outcome Variable: Sexual Shame*

| Source | b | SE | t | 95% CI LL | 95% CI UL |
|---|---|---|---|---|---|
| Constant | 4.516 | 0.181 | 24.974** | 4.159 | 4.872 |
| Mutual use | -0.008 | 0.004 | -2.380* | -0.016 | -0.001 |
| Moral disapproval | 0.485 | 0.034 | 14.313** | 0.418 | 0.552 |
| Mutual use x moral disapproval | 0.003 | 0.001 | 2.996* | 0.001 | 0.006 |
| Solo use (covariate) | -0.014 | 0.003 | -4.854** | -0.019 | -0.008 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

Table 4.17

*Exploratory Process Model Results for Model Two with Moral Disapproval as the Moderator Outcome Variable: Sexual Satisfaction*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 4.859 | 0.332 | 14.624** | 4.203 | 5.515 |
| Mutual use | 0.004 | 0.003 | 1.112 | -0.003 | 0.010 |
| Sexual shame | -0.222 | 0.065 | -3.410** | -0.350 | -0.093 |
| Moral disapproval | 0.131 | 0.043 | 3.057* | 0.047 | 0.216 |
| Mutual use x moral disapproval | 0.001 | 0.001 | 1.032 | -0.001 | 0.003 |
| Solo use (covariate) | -0.007 | 0.003 | -2.749* | -0.012 | -0.002 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

**Exploratory model three.** The final exploratory moderated mediation analysis examined whether externalization influenced the effect of moral disapproval on the relationships between mutual pornography use and sexual shame, and mutual pornography use and sexual satisfaction. With respect to the indirect path through sexual shame, two of the predictor variables were significant (moral disapproval and externalization). Results are displayed in Table 4.18. With respect to the direct path, the model was statistically significant ($F(9, 170) = 8.84, p < .001, R^2 = .32$). This model accounted for 32% of the variance. In this model, sexual shame, moral disapproval, and externalization were significant. The first interaction, mutual pornography use times moral disapproval, was not statistically significant ($p = .79$) and the confidence interval included zero. The second interaction, mutual pornography use times externalization, was not statistically significant ($p = .11$), and the confidence interval included zero. The third interaction, moral disapproval times externalization, was statistically significant. The fourth interaction, mutual use times moral disapproval times externalization, was not significant ($p = .41$) and the confidence interval included zero. Results are displayed in Table 4.19.

Table 4.18

*Exploratory Process Model Results for Model Three with Moral Disapproval as Moderator and*
*Externalization as a Second Moderator*
*Outcome Variable: Sexual Shame*

| Source | $b$ | $SE$ | $t$ | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| | | | | $LL$ | $UL$ |
| Constant | 3.911 | 0.198 | 19.574** | 3.517 | 4.305 |
| Mutual use | -0.002 | 0.004 | -0.531 | -0.009 | 0.005 |
| Moral disapproval | 0.457 | 0.034 | 12.164** | 0.383 | 0.531 |
| Mutual use x moral disapproval | 0.002 | 0.001 | 1.312 | -0.001 | 0.004 |
| Externalization | 0.040 | 0.008 | 5.301** | 0.025 | 0.055 |
| Mutual use x externalization | < -0.001 | < 0.001 | -1.346 | -0.001 | < 0.001 |
| Moral disapproval x externalization | 0.005 | 0.003 | 1.767 | -0.001 | 0.011 |
| Mutual use x moral disapproval x externalization | < -0.001 | < 0.001 | -0.338 | < -0.001 | < 0.001 |
| Solo use (covariate) | -0.004 | 0.003 | -1.201 | -0.010 | 0.002 |

*Note.* CI = confidence interval; $LL$ = lower limit; $UL$ = upper limit.
*$p < .05$.
**$p < .001$.

Table 4.19

*Exploratory Process Model Results for Model Three with Moral Disapproval as Moderator and Externalization as a Second Moderator*
*Outcome Variable: Sexual Satisfaction*

| | | | | 95% CI | |
|---|---|---|---|---|---|
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 4.940 | 0.321 | 15.404** | 4.307 | 5.574 |
| Mutual use | 0.005 | 0.003 | 1.632 | -0.001 | 0.012 |
| Sexual shame | -0.339 | 0.068 | -4.969** | -0.473 | -0.204 |
| Moral disapproval | 0.185 | 0.046 | 4.049** | 0.095 | 0.275 |
| Mutual use x moral disapproval | < 0.001 | 0.001 | 0.262 | -0.002 | 0.003 |
| Externalization | 0.020 | 0.007 | 2.789* | 0.006 | 0.035 |
| Mutual use x externalization | < -0.001 | < 0.001 | -1.614 | < -0.001 | < 0.001 |
| Moral disapproval x externalization | 0.009 | 0.003 | 3.330* | 0.004 | 0.014 |
| Mutual use x moral disapproval x externalization | < 0.001 | < 0.001 | 0.832 | < -0.001 | < 0.001 |
| Solo use (covariate) | -0.002 | 0.003 | -0.782 | -0.008 | 0.003 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*$p < .05$.
**$p < .001$.

**Exploratory models using MSSS to measure sexual shame.** To measure sexual shame in men, the regression models were assessed using the MSSS instead of the KISS. As the MSSS was designed specifically to measure sexual shame in males, these models were explored to identify if the MSSS was more accurate in understanding the relationships between these constructs.

*Model 4 using MSSS.* The mediation model was not statistically significant using the MSSS ($F(3, 42) = 1.49$, $p = .231$, $R^2 = 0.10$; 5000 bootstrapping was specified). Solitary pornography use, the covariate, was the only statistically significant predictor of sexual shame. Results are displayed in Tables 4.20, 4.21, and 4.22.

Table 4.20

*Exploratory Process Model Results for Model One using MSSS, with Sexual Shame as the Mediator*
*Outcome Variable: Sexual Shame*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 121.905 | 11.721 | 10.401** | 98.268 | 145.542 |
| Mutual use | 0.184 | 0.205 | 0.897 | -0.229 | 0.597 |
| Solo use (covariate) | -0.562 | 0.128 | -4.405** | -0.819 | -0.305 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*\*p* < .05.
*\*\*p* < .001.

Table 4.21

*Exploratory Process Model Results for Model One using MSSS, with Sexual Shame as the Mediator*
*Outcome Variable: Sexual Satisfaction*

| Source | b | SE | t | 95% CI | |
|---|---|---|---|---|---|
| | | | | LL | UL |
| Constant | 2.797 | 0.741 | 3.774** | 1.301 | 4.293 |
| Mutual use | -0.001 | 0.007 | -0.195 | -0.015 | 0.013 |
| Sexual shame | 0.009 | 0.005 | 1.724 | -0.002 | 0.019 |
| Solo use (covariate) | 0.002 | 0.005 | 0.391 | -0.008 | 0.013 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*\*p* < .05.
*\*\*p* < .001.

Table 4.22

*Exploratory Process Model Results for Model One using MSSS, with Sexual Shame as the Mediator*
*Total Effect Model*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | b | SE | t | LL | UL |
| Constant | 3.878 | 0.404 | 9.593** | 3.063 | 4.693 |
| Mutual use | < 0.001 | 0.007 | 0.039 | -0.014 | 0.015 |
| Solo use (covariate) | -0.003 | 0.004 | -0.672 | -0.012 | 0.006 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

**Model 8 using MSSS.** The index of moderated mediation indicated that this model was not significant. Moral disapproval was a significant positive predictor of sexual shame. With respect to the outcome variable sexual satisfaction, none of the predictors were significantly related. Results are displayed in Tables 4.23 and 4.24.

Table 4.23

*Exploratory Process Model Results for Model Two using MSSS, with Moral Disapproval as the Moderator*
*Outcome Variable: Sexual Shame*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | b | SE | t | LL | UL |
| Constant | 101.447 | 5.763 | 17.603** | 89.808 | 113.087 |
| Mutual use | 0.230 | 0.134 | 1.659 | -0.050 | 0.510 |
| Moral disapproval | 11.185 | 1.603 | 6.978** | 7.948 | 14.422 |
| Mutual use x moral disapproval | 0.121 | 0.070 | 1.735 | -0.020 | 0.261 |
| Solo use (covariate) | -0.156 | 0.096 | -1.632 | -0.349 | 0.037 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.24

*Exploratory Process Model Results for Model Two using MSSS, with Moral Disapproval as the Moderator*
*Outcome Variable: Sexual Satisfaction*

|  |  |  |  | 95% CI | |
| --- | --- | --- | --- | --- | --- |
| Source | *b* | *SE* | *t* | *LL* | *UL* |
| Constant | 3.241 | 0.905 | 3.581 | 1.412 | 5.071 |
| Mutual use | -0.001 | 0.008 | -0.159 | -0.017 | 0.014 |
| Sexual shame | 0.003 | 0.008 | 0.354 | -0.014 | 0.020 |
| Moral disapproval | 0.131 | 0.127 | 1.030 | -0.126 | 0.388 |
| Mutual use x moral disapproval | 0.003 | 0.004 | 0.814 | -0.005 | 0.011 |
| Solo use (covariate) | 0.002 | 0.005 | 0.445 | -0.008 | 0.013 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*\*p* < .05.
*\*\*p* < .001.

**Model 12 using MSSS.** The index of moderated mediation indicated that the second moderated mediation model using MSSS was not significant. With respect to the indirect path through sexual shame, three of the variables (mutual use, moral disapproval, and externalization) were significant predictors. None of the interactions were significant. Regarding the direct path, only the third interaction (moral disapproval times externalization) was significant. Results are displayed in Tables 4.25 and 4.26.

Table 4.25

*Exploratory Process Model Results for Model Three using MSSS, with Moral Disapproval as Moderator and Externalization as a Second Moderator*
*Outcome Variable: Sexual Shame*

| | | | | 95% CI | |
|---|---|---|---|---|---|
| Source | b | SE | t | LL | UL |
| Constant | 89.991 | 5.791 | 15.541** | 78.258 | 101.723 |
| Mutual use | 0.468 | 0.134 | 3.487* | 0.196 | 0.741 |
| Moral disapproval | 8.086 | 1.892 | 4.273** | 4.252 | 11.920 |
| Mutual use x moral disapproval | -0.088 | 0.086 | -1.032 | -0.262 | 0.085 |
| Externalization | 1.547 | 0.422 | 3.666** | 0.692 | 2.403 |
| Mutual use x externalization | 0.016 | 0.015 | 1.045 | -0.015 | 0.047 |
| Moral disapproval x externalization | 0.013 | 0.181 | 0.072 | -0.353 | 0.379 |
| Mutual use x moral disapproval x externalization | -0.013 | 0.009 | -1.559 | -0.031 | 0.004 |
| Solo use (covariate) | 0.087 | 0.103 | 0.842 | -0.122 | 0.296 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

Table 4.26

*Exploratory Process Model Results for Model Three using MSSS, with Moral Disapproval as Moderator and Externalization as a Second Moderator*
*Outcome Variable: Sexual Satisfaction*

| | | | | 95% CI | |
|---|---|---|---|---|---|
| Source | b | SE | t | LL | UL |
| Constant | 3.901 | 0.902 | 4.324 | 2.071 | 5.730 |
| Mutual use | 0.010 | 0.009 | 1.081 | -0.008 | 0.027 |
| Sexual shame | -0.008 | 0.009 | -0.855 | -0.027 | 0.011 |
| Moral disapproval | 0.131 | 0.131 | 0.998 | -0.135 | 0.397 |
| Mutual use x moral disapproval | -0.004 | 0.005 | -0.759 | -0.014 | 0.006 |
| Externalization | 0.009 | 0.028 | 0.323 | -0.048 | 0.066 |
| Mutual use x externalization | -0.001 | < 0.001 | -1.545 | -0.003 | < 0.001 |
| Moral disapproval x externalization | 0.031 | 0.010 | 3.042* | 0.010 | 0.052 |
| Mutual use x moral disapproval x externalization | < 0.001 | < 0.001 | 1.642 | < 0.001 | 0.002 |
| Solo use (covariate) | 0.009 | 0.006 | 1.485 | -0.003 | 0.021 |

*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*p < .05.
**p < .001.

**Chapter Summary**

A sample of 150 women who reported using pornography within the past six months was used in this study. Bivariate correlations were conducted to answer the first research question: What is the relationship between mutual pornography use and sexual satisfaction? The hypothesis regarding women's mutual use and sexual satisfaction was supported, as positive correlations were found between women's mutual pornography use and each of the sexual satisfaction subscales/total scale. The mediation model was supported, as the indirect path through sexual shame resulted in decreased sexual satisfaction.

The first moderated mediation model, which added the variable moral disapproval, was partially supported. High levels of moral disapproval had little to no effect on sexual shame, while low and medium levels of moral disapproval had an attenuating impact on sexual shame as mutual pornography use increased. Although two of the predictor variables (sexual shame and moral disapproval) were significant for the outcome variable sexual satisfaction, there was no direct effect. The second moderated mediation model, which added externalization to the previous model, was not significant for the indirect path through sexual shame; however, the direct path was significant with sexual shame and externalization as significant predictors of sexual satisfaction.

A sample of 180 male participants was used to conduct the exploratory research in this study. For male participants, correlations between mutual pornography use and each subscale of the NSSS were positively correlated. The first moderated mediation model was statistically significant. Low and medium levels of moral disapproval attenuated levels of sexual shame as mutual pornography use increased, while high levels of moral disapproval did not influence sexual shame. For second moderated mediation model, the indirect path was not significant,

while the direct path was significant, with sexual shame, moral disapproval, and externalization being significant predictors of sexual satisfaction. The data were additionally explored using the MSSS instead of the KISS. While some predictor variables were significantly related to the MSSS, overall, the models were not supported. These results will be discussed in further detail in Chapter Five.

**CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

This study is based on several premises that are supported in the current literature. First, research suggests that pornography use is associated with relationship and sexual satisfaction (Bridges & Morokoff, 2011; Grov et al., 2011; Kohut et al., 2017; Maddox et al., 2011; Minarcik et al., 2016). Second, research indicates that some pornography users experience shame as a result of their use (Baltazar et al., 2010; Carvalho et al., 2015; Kohut et al., 2017; Perry & Whitehead, 2018; Werner et al., 2018), and sexual shame is expected to negatively impact sexual satisfaction. Third, research indicates that sexual shame is also directly related to moral disapproval (Volk et al., 2016). Finally, recent research suggests that externalization attenuates the relationship between moral disapproval and sexual shame (Volk et al., 2019). This study was conducted to explore the relationship between pornography use and sexual satisfaction in women. Specifically, the first research question explored the correlation between mutual pornography use and sexual satisfaction. The second research question hypothesized that sexual shame would mediate the relationship between mutual pornography use and sexual satisfaction. The third and fourth research questions hypothesized that moral disapproval would moderate the relationships between (a) mutual use and sexual shame and (b) mutual use and sexual satisfaction. The fifth and sixth research questions added a second mediator, externalization, to the same model.

The previous chapter described the data analysis and results; this chapter will discuss the significance of the results. Six research questions will be discussed, including the predictor variable mutual pornography use, the mediator sexual shame, the moderators moral disapproval and externalization, and the outcome variable sexual satisfaction. Exploratory research questions will also be discussed related to data from male participants. This chapter discusses implications

for clinical practice and counselor education, the limitations of the study, and suggestions for future research.

## Summary of Findings and Implications

The participants in this study were recruited through Amazon's MTurk as part of a larger study. A total of 1,055 participants completed demographic questions relating to who they use pornography with, questions pertaining to moral disapproval, the NSSS, the KISS, the MSSS, and the TOSCA-3. After data screening, 330 participants remained and were included in the final data analysis. The participants were between ages 18 and 70 ($M = 34.4$ years) and were mostly male (54.5%), Caucasian (79.4%), and employed (81.5%); a majority had a bachelor's degree (52.1%) and identified as Catholic (38.2%). Inclusionary criteria required that all participants were in a committed relationship; as such, participants identified as either married/with life partner (80.3%) or in a monogamous dating relationship (19.7%). The greatest number of participants (38.2%) reported that they viewed pornography between one and three times per week, and the average duration of pornography use per week was 2.9 hours.

### Research Question One

The first research question inquired about the correlation between women's mutual pornography use and sexual satisfaction. The hypotheses associated with this question addressed the NSSS subscales as well as the total score (overall sexual satisfaction). Based on the contradictory findings within Brown and colleagues' (2017) research, it was hypothesized that a positive correlation would exist between mutual pornography use and scores on both the NSSS Total Scale and Partner- and Sexual Activity-Centered subscale, while a negative correlation would exist between mutual use and scores on the NSSS Ego Focused subscale.

Two of the three hypotheses were supported. There were statistically significant, positive relationships between mutual pornography use and NSSS Total, as well as mutual pornography use and NSSS Subscale B. This indicates that women who viewed pornography with their partner tended to have higher overall sexual satisfaction and sexual satisfaction in relation to their partner and/or the sexual activity in which they engage. Contrary to what was expected, there was also a statistically significant positive relationship between mutual pornography use and NSSS Subscale A. This indicates that women who viewed pornography with their partner tended to have higher sexual satisfaction in relation to their personal perception and experience of sex, compared to participants who viewed pornography alone or with other individuals.

It is important to note that as correlation does not imply causation, the conclusion cannot be made that one construct caused changes in the other construct. For example, the correlation between mutual pornography use and overall sexual satisfaction does not indicate that mutual pornography use caused changes in sexual satisfaction; instead, these values demonstrate the strength of the linear relationship. Furthermore, these data were collected at a single point in time using a nonexperimental research design. Some correlations were small; therefore, it seems probable that other variables are important to consider.

**Correlation between mutual pornography use and overall sexual satisfaction.** Overall sexual satisfaction was measured by the total score on the NSSS. It was hypothesized that mutual pornography use would be positively correlated with overall sexual satisfaction. This hypothesis was supported by a moderate, positive correlation ($r = .287, p = .01$). This positive correlation indicates that as levels of mutual pornography use increased, overall sexual satisfaction increased as well. This result is consistent with prior research that indicates that individuals who engage in mutual pornography use experience higher sexual and relationship

satisfaction (Grov et al., 2011; Maddox et al., 2011; Minarcik et al., 2016). These results provide further support for the positive association between mutual pornography use and sexual satisfaction in women.

**Correlation between mutual pornography use and NSSS Subscale A.** Subscale A, Ego Focused, assesses the participant's personal experience of sexual satisfaction such as intensity of sexual arousal, quality of orgasms, and surrender to sexual pleasure during sex. Based on previous research by Brown and colleagues (2017), it was hypothesized that mutual pornography use and the NSSS Subscale A would be negatively correlated. Contrary to this hypothesis, there was a small but positive correlation ($r = .229$, $p = .01$). This indicates that as mutual pornography use increased, personal sexual satisfaction also increased. It is possible that the shared experience of viewing pornography with one's partner contributed to increased personal sexual satisfaction for women, perhaps due to the women experiencing a more permissive erotic climate, as found by Daneback et al. (2009) or open communication regarding sexual desires and preferences (Grov et al., 2011).

**Correlation between mutual pornography use and NSSS Subscale B.** Subscale B, Partner- and Sexual Activity-Centered, assesses participants' satisfaction with aspects of sexuality related to their partner, such as the partner's initiation of sexual activity, ability to orgasm, and frequency of sexual activity. Based on Brown and colleagues' (2017) contradictory findings, it was hypothesized that mutual pornography use and the NSSS Subscale B would be positively correlated. This hypothesis was supported by a moderate, positive correlation ($r = .303$, $p = .01$) and was the strongest of the three correlations between sexual satisfaction and mutual pornography use for females. This indicates that as mutual pornography use increased, sexual satisfaction with the partner and/or sexual activity also increased. This finding is

consistent with previous research findings that suggested women experienced positive benefits from mutual pornography use, such as normalized sexual desire, increased self-esteem, improved relationships and body image (Grov et al., 2011) and increased relationship and sexual satisfaction (Bridges & Morokoff, 2011).

**Research Question Two**

The second research question asked whether sexual shame mediates the relationship between women's mutual pornography use and sexual satisfaction, with solitary pornography use controlled for as a covariate. Both mutual use and sexual shame were statistically significant negative predictors of sexual satisfaction, and mutual use was a statistically significant negative predictor of sexual shame. The hypothesis of an indirect effect of mutual pornography use on sexual satisfaction through sexual shame was supported. These findings suggest that mutual pornography use has a dual effect. Mutual use has a positive indirect effect on relationship satisfaction by reducing sexual shame, and as sexual shame decreases, sexual satisfaction increases. As a significant component of shame/sexual shame is the idea that one needs to hide their shame to avoid the shame being discovered by others (Brown, 2013; Tangney & Dearing, 2002), it seems reasonable that mutual use of pornography—a possibly shameful behavior—with one's partner would help to reduce the shame as the experience is shared with a partner. Mutual use also has a negative direct effect on sexual satisfaction. It is possible that since solitary pornography use was controlled for as a covariate, the positive variance had already been removed, leaving a negative direct effect on mutual use and sexual satisfaction.

**Research Questions Three and Four**

In the third research question, moral disapproval was proposed as a moderator of the relationship between mutual pornography use and sexual shame. Similarly, in the fourth

research question, moral disapproval was proposed as a moderator of the relationship between mutual use and sexual satisfaction. Regarding the third research question, the index of moderated mediation indicated that the moderated indirect effect was significant. Mutual use, moral disapproval, and the interaction of mutual use and moral disapproval were significant predictors of sexual shame. Participants with low and moderate levels of moral disapproval seemed to experience an attenuating effect on sexual shame as mutual use increased; however, participants with high levels of moral disapproval did not experience the same effect (reduction of sexual shame). It seems reasonable to speculate that if one has a high level of moral disapproval and a high level of mutual pornography use, the level of sexual shame would likely remain unchanged, while low to moderate moral disapproval would have less influence on sexual shame.

Regarding the fourth research question, whether moral disapproval moderated the relationship between mutual pornography use and sexual satisfaction, the analysis failed to find a significant direct effect. However, despite the lack of a direct effect, it appears that sexual shame and moral disapproval were significant predictors of sexual satisfaction. Sexual shame is associated with negative emotions toward one's body and identity but can also manifest in interpersonal difficulties with trust and intimacy (Clark, 2017). Considering these constructs in relation to sexual satisfaction, the relationship between these variables is significant. Interestingly, moral disapproval was a predictor variable in the opposite direction of what was expected, as it was a positive predictor of sexual satisfaction. This result suggests that as moral disapproval increases, sexual satisfaction also increases. In light of previous research regarding moral disapproval (Perry, 2018a, 2018b), it may be possible that gender differences exist in sexual satisfaction. Many prior studies on the impact of moral disapproval/incongruence

primarily focused on the experiences of male pornography users, likely because men generally use pornography more frequently; however, women tend to be more religious (Frances & Penny, 2014), which suggests that they would be more greatly affected by moral disapproval/incongruence. Additionally, although it seems reasonable that in the context of pornography use, increased moral disapproval would be associated with decreased sexual satisfaction, it is possible that the "benefits" of pornography use may result in increased sexual satisfaction even while the individual considers pornography use to go against their own morals or beliefs.

**Research Questions Five and Six**

In the fifth research question, externalization was proposed as a second moderator of the effect of moral disapproval on the relationship between mutual pornography use and sexual shame. Likewise, in the sixth research question, externalization was proposed as a second moderator of the effect of moral disapproval on the relationship between mutual use and sexual satisfaction. In the mutual pornography use–sexual shame–sexual satisfaction causal sequence, externalization and moral disapproval combined with mutual use to moderate the strength of the direct relationship between use and sexual satisfaction (RQ6) but failed to influence the indirect relationship (i.e., mutual use–sexual shame; RQ5).

Regarding the fifth research question, the index of moderated mediation indicated that the effect was not significant. However, despite the lack of a significant effect, it appears that moral disapproval and externalization were significant predictors of sexual shame. As expected, moral disapproval was positively related to sexual shame, meaning that as moral disapproval increased, sexual shame also increased. Conversely, externalization was expected to have an inverse relationship with sexual shame, yet externalization and sexual shame were positively related. It

was anticipated that female participants who had a higher tendency to blame others would experience reductions in sexual shame. However, the accuracy of that expectation may depend on whether externalization is based in reality or a "negotiated reality" (Snyder & Higgins, 1988, p. 32). The concept of negotiated reality is based on two basic and underlying human motives: maintaining a positive image and a sense of self-control. When an individual is faced with an event that threatens these motives, the individual must resolve the inconsistencies between the "new" and "old" information about the self. Consequently, the negotiated reality is the result of reacting to and possibly accommodating new information about the self; however, it is designed to sustain the underlying motives of positive image and self-control and therefore may include self-serving biases that preserve these motives (Snyder & Higgins, 1988). When an individual operates out of reality and blames another for something that is truly the fault of the other, the tendency to externalize might be described as "valid"—the individual accurately assigns blame to the other, which reduces the individual's own feelings of responsibility or accountability. The behavior might be described as "correctly" externalized. However, if the individual is operating out of "negotiated reality" and blames another for something the first individual is responsible for, seeking to maintain a positive image and avoid responsibility or accountability, this tendency might be described as "invalid"—the person inaccurately assigns blame to the other, and therefore the behavior is incorrectly externalized. In this sense, if a person inaccurately blames another for one's pornography use, externalizing may not be effective in reducing sexual shame, and instead, both externalization and sexual shame increase. As research is just beginning to explore the impact of externalization relative to pornography use, and previous findings have shown externalization to have a dual path/contradictory effect (Volk et al., 2019), it is possible that externalization may have had an unanticipated effect for pornography users in this study.

With respect to the sixth research question, sexual shame, externalization, and the fourth interaction (mutual use, moral disapproval, and externalization) were statistically significant. At low levels of externalization, female participants with high levels of mutual use and high levels of moral disapproval experienced decreased sexual satisfaction. However, participants with high levels of mutual use and high levels of moral disapproval experienced an attenuating effect at high levels of externalization. High levels of externalization attenuated the negative impact of moral disapproval on the level of sexual satisfaction at high levels of mutual use. The hypothesis that externalization would attenuate the impact of moral disapproval on the relationship between mutual use and sexual satisfaction was supported. The current findings support the previous research by Volk and colleagues (2019), which suggested that defense mechanisms (i.e., externalization) may be important to consider in the association between pornography use and distress, particularly high levels of moral disapproval. If using pornography results in an individual feeling negative emotions, especially when pornography is contrary to one's values, the defense mechanism may be triggered in order to avoid or minimize the anticipated distress (Efthim et al., 2001). The use of a defense mechanism may provide some explanation for how sexual satisfaction can remain high even when one engages in a behavior which conflicts with one's own beliefs/values or may even provide a justification for why an individual may choose to engage in a behavior which conflicts with their values, as shifting blame serves as protection for the ego (Tangney & Dearing, 2002). However, while using this defense mechanism appears to improve some psychosocial outcomes, its contradictory effect remains.

**Exploratory Research Questions Seven and Eight**

The exploratory research questions were intended to assess the influence of externalization and moral disapproval on men's mutual pornography use–sexual shame–sexual

satisfaction causal sequence.  In order to discuss these results, this section will first examine the correlations between men's mutual pornography use and sexual satisfaction and then briefly mention the exploratory use of Hayes's (2017) PROCESS Models 4 and 8.

Based on extant literature that suggests women, when compared to men, are more likely to experience positive effects of mutual pornography use (Bridges & Morokoff, 2011), it was anticipated that the correlations of men's mutual pornography use and sexual satisfaction would be less strong than the correlations between women's mutual use and sexual satisfaction. Unexpectedly, all three correlations between sexual satisfaction (the NSSS total and both subscales) and mutual pornography use were higher for men than for women.  For men, mutual pornography use and total sexual satisfaction (NSSS Total) were moderately positively correlated ($r = .390$, $p < .01$).  Mutual pornography use and Subscale A (Ego Focused) were also moderately positively correlated ($r = .260$, $p < .01$).  Surprisingly, the highest correlation was between mutual use and Subscale B (Partner- and Sexual Activity-Centered), with a large positive correlation ($r = .420$, $p < .01$).  These positive correlations indicate that as mutual pornography use increases, sexual satisfaction increases in all areas.  These findings, along with the result that men's solitary pornography use was negatively associated with sexual satisfaction, appear to support previous research that suggested men's pornography use was positively associated with sexual satisfaction, yet negatively associated with their unique sexual satisfaction (Brown et al., 2017).  Brown and colleagues (2017) suggested that men's pornography use may become a "sexual reference point" or a base of comparison for real sexual experiences (p. 581). However, while this may provide an explanation for mutual pornography use's low correlation with sexual satisfaction related to self (Subscale A Ego Focused), this does not explain the correlations between mutual pornography use and Subscale B or NSSS Total.  Although the

benefits of mutual pornography use have largely been associated with women, it may be that men also experience benefits from mutual use that solitary use typically does not have (e.g., acting as a "reward" by bringing the partners closer together; Yucel & Gassanov, 2010, p. 728), therefore increasing sexual satisfaction with respect to the partner and overall sexual satisfaction.

  **Comparison between KISS and MSSS using Model 4.** The mediation model (mutual pornography use–sexual shame–sexual satisfaction causal sequence) was not supported for men when assessed using KISS. However, although the model was not supported, it appears that mutual pornography use was a statistically significant predictor of sexual shame. Mutual pornography use was negatively related to sexual shame, which indicates that as mutual use increased, sexual shame decreased. As previously discussed, it seems reasonable that given the nature of sexual shame, if one engages in a potentially shameful behavior (e.g., pornography use) with another person such as a spouse, the shame is not hidden and is therefore decreased. Since the mediation model was not supported, there may be other variables to be considered in understanding the relationship between mutual pornography use and sexual satisfaction in men. As sexual satisfaction is highly correlated with marital satisfaction (Lawrance & Byers, 1995) and numerous variables contribute to marital/relationship satisfaction (e.g., happiness, frequency of disagreements, and depression; Funk & Rogge, 2007; Kouros & Cummings, 2011), there are multiple other factors that likely need to be considered to understand sexual satisfaction.

  The mediation model was also not supported using the MSSS. The covariate (solitary use) was the only statistically significant predictor when sexual shame was the outcome variable. Considering that mutual use and sexual shame were related when assessed using the KISS, it is surprising that the MSSS did not produce similar results. However, although the KISS and the MSSS are both measures of sexual shame, the questions on each survey do not necessarily

measure the same constructs. For example, the MSSS includes a subscale consisting of five items focused on body dissatisfaction, while the KISS includes only one question related to feeling ashamed of one's body while in a sexual situation. The MSSS also explicitly includes five items regarding one's masturbatory and pornography use habits, whereas the KISS does not specifically address either pornography use or masturbation. Likewise, it is possible that the sample of participants who completed the full survey, including the MSSS, was too small for a significant effect to be detected. Furthermore, gender differences may exist in the relationship between pornography use and sexual shame due to the nature of mutual use itself—for women, mutual use is generally the most common reason for engaging in any use of sexually explicit material; however, the same is not true for men, as men's most commonly reported reason for using pornography is for solo sexual stimulation (Bridges & Morokoff, 2011). As such, mutual use may not occur frequently enough for men to experience problematic levels of sexual shame related to mutual use.

**Comparison between KISS and MSSS using Model 8.** The first moderated mediation model (using KISS) proposed moral disapproval as a mediator of the relationships between mutual pornography use and sexual shame, and mutual pornography use and sexual satisfaction. The index of moderated mediation indicated that the moderated indirect effect was significant. Mutual pornography use, moral disapproval, and their interaction were all statistically significant predictors of sexual shame. Like the results show for women, male participants with low and moderate levels of moral disapproval seemed to experience an attenuating effect on sexual shame as mutual use increased. However, participants with high levels of moral disapproval did not experience a significant effect on sexual shame. Like the results for female participants

indicate, if one has a high level of moral disapproval regarding pornography use, it seems unlikely that the level of sexual shame would change.

While this model failed to find a significant direct effect, two of the predictor variables (sexual shame and moral disapproval) were significant predictors of sexual satisfaction (the same significant predictors as the results for female participants). Sexual shame was negatively related to sexual satisfaction, indicating that as sexual shame increased, sexual satisfaction decreased. While this association seems reasonable to expect, the impact of sexual shame for men may be different from the impact for women, given the social/cultural shifts in sexuality and gender (Gordon, 2018). Characteristics of male sexuality that may have formerly been labeled as "traditional masculinity" may now be perceived as shameful.

Like the results for women, moral disapproval was a significant predictor in the opposite direction of what would be expected, as it was a positive predictor of sexual satisfaction in men. It is possible that impression management is a factor. An individual who believes that viewing pornography is in opposition to their morals and values may believe it is better to "agree" that they morally disapprove of pornography, even if they choose to view it anyway. The advent of Internet pornography may have contributed to this possibility, particularly for religious individuals, as Levert (2007) noted that people can privately view pornography in their own homes while publicly keeping up an appearance of purity. Likewise, an individual may act in a "calculated" manner by expressing themselves in a particular way to give a certain impression to others (Berkowitz, 2006, p. 587); the impression is intended to match the actor's desired goal. In the current study, an individual who has a high level of moral disapproval of mutual pornography use may have desired to give a favorable impression when completing the survey while also experiencing the "benefits" of pornography use that would contribute to sexual satisfaction. In

addition, it is possible that other confounding variables exist in the relationship between moral disapproval and sexual satisfaction.

The moderated mediation model was not supported using the MSSS. This result contrasted with the findings on the moderated mediation using the KISS. However, moral disapproval was a significant positive predictor of sexual shame, which is the same relational direction as when using the MSSS. Like the results of Model 4 using MSSS, it is possible that a significant effect could not be observed due to differences between KISS and MSSS or the small sample size. Additionally, although the model accounted for the covariate solitary use, other confounding variables may be present that were not taken into consideration.

**Comparison between KISS and MSSS using Model 12.** According to the data from the KISS, both moral disapproval and externalization were significant positive predictors on the indirect path through sexual shame. This result suggests that as moral disapproval increased, sexual shame increased, and as externalization increased, sexual shame increased. These findings are similar to the results for female participants. As previously discussed, it was anticipated that moral disapproval would be a positive predictor of sexual shame, while it was unexpected that externalization would be positively related to sexual shame. The idea of "functional" versus "dysfunctional" externalization might also be occurring in men, or it may be that there are other confounding factors that contributed to this unanticipated result.

Regarding the direct path using KISS, sexual shame, moral disapproval, and externalization were significant, in addition to the third interaction (moral disapproval times externalization). Sexual shame was again negatively related to sexual satisfaction, while moral disapproval and externalization were positively related to sexual satisfaction. These findings are somewhat different from the results for women, as moral disapproval was not significantly

related to sexual satisfaction in Model 12 for women. As moral disapproval was again a positive predictor of sexual satisfaction, the discussion on impression management may also be relevant to these findings. Additionally, while for women, only the fourth interaction was significant, for men, only the third interaction (moral disapproval times externalization) was significant.

According to the assessment of Model 12 using the MSSS, moral disapproval and externalization were significant predictors of sexual shame, and the interaction of moral disapproval times externalization was a significant predictor of sexual satisfaction (the same significant interaction as seen from the KISS).

**Overall Findings from Models**

This study is generally consistent with previous literature in terms of population, assessments, research design, and methods used (Brown et al., 2017; Perry, 2016; Volk et al., 2019). This research sought to extend previous models regarding pornography use, sexual shame, moral disapproval, externalization, and sexual satisfaction. The correlations between women's mutual pornography use and overall/partner-centered sexual satisfaction, the direct effect between moral disapproval and sexual shame, and the three-way interaction of mutual use–moral disapproval–externalization are consistent with previous findings (Brown et al., 2017; Volk et al., 2016, 2019).

Pornography use has been consistently related to sexual satisfaction, although the findings have been conflicting regarding the directionality of the relationship, as some studies have found positive associations (Bridges & Morokoff, 2011; Grov et al., 2011; Kohut et al., 2017; Maddox et al., 2011; Minarcik et al., 2016) while others have identified negative outcomes (Lambert et al., 2012; Newstrom & Harris, 2016; Resch & Alderson, 2014; Wright et al., 2014). Overall, the findings from this study supported the positive direction of the relationship, as

women's mutual pornography use and sexual satisfaction were positively correlated. Furthermore, a positive correlation was seen between mutual use and all three scales used (the NSSS total and its subscales).

The motivation for women to engage in mutual pornography use generally is to improve the relationship, increase self-esteem or body image, or normalize sexual desire (Bridges & Morokoff, 2011; Grov et al., 2011). However, engaging in pornography use may go against one's morals, values, or religious beliefs. This research provides possible theories or explanations for seemingly contradictory attitudes and behaviors, i.e., using pornography when one is morally against it. The results suggest that mutual use of pornography may reduce sexual shame—the shared activity of viewing pornography with a partner may allow for the desire to view pornography to be openly disclosed instead of hidden. Furthermore, the concept of externalization (blaming others) may be a defense mechanism that allows an individual to experience the "benefits" of mutual pornography use, even if the individual is morally opposed to it. The results indicated that female participants who reported high levels of both externalization and moral disapproval maintained higher levels of sexual satisfaction than participants who reported high externalization and low or moderate levels of moral disapproval.

The exploratory findings for men were rather unexpected. Since these research questions were exploratory, no formal hypotheses were discussed. Based on the extant literature, it was anticipated that the correlations between mutual use and sexual satisfaction in male participants would be lower than the correlations in female participants or even negative; however, the correlations for men were higher. This result contrasts with what is generally seen in the literature (Bridges & Morokoff, 2011; Maddox et al., 2011), as mutual use typically has a bigger positive impact on women rather than men. These results may provide support for Gordon's

(2018, 2019) research regarding men and sexual shame—that perhaps the cultural and societal shifts in sexuality are resulting in unanticipated outcomes related to pornography use.

## Limitations of the Study

One limitation of this study may be the way the predictor variable, mutual pornography use, was assessed. The item that was in the correlation and predictor models was "What percentage of your pornography viewing is with your spouse/partner (total 0-100)?" The response was a string variable that allowed participants to enter any number between 0 and 100 to represent the percentage of time they spend viewing pornography with their partner. This required participants to "calculate" up to four different numbers related to their use, as three other questions also measured their percentage of pornography viewing (alone or with various partners). This may have decreased the clarity of the data provided by participants.

In addition, it is possible that the participants in this study were dissimilar to the general population of pornography users. MTurk users appear to have lower extraversion, lower emotional stability, and lower self-esteem when compared to other samples (Goodman, Cryder, & Cheema, 2013); these differences and other potential differences may affect the generalizability of the results. Furthermore, as MTurk samples tend to be younger than the average United States population and Internet users in general, as well as better educated yet lower income than the U.S. population (Paolacci, Chandler, & Ipeirotis, 2010), a possibility exists that the data collected are not representative of pornography users in general.

Another limitation of the study is the use of self-report measures. It is possible that participants' responses were not accurate because they were unable to provide an objective report about themselves. Also, the measures may not have accurately assessed the constructs they purported to measure. For example, the KISS is designed to measure sexual shame in

general, not specific to pornography use, and it does not include any questions regarding the use of pornography.

Additionally, because this study addressed sensitive subjects that are potentially embarrassing for many people, it is possible that social desirability influenced some participants' responses (Osborne, 2012). A measure of social desirability was not included in the list of measures, so it was not possible to determine the extent to which this may have occurred in this sample.

Another possible limitation of this study is the assumption that participants were in heterosexual relationships. While the survey contained questions assessing attraction (opposite-sex, same-sex, etc.) and type of relationship (married, monogamous dating, etc.), there was no question specifically asking if participants were in a heterosexual relationship. Participants who indicated a same-sex attraction were included in the study. It was not possible to determine if any participants were in a same-sex relationship or in a relationship with a nonbinary individual. This will be discussed further in the following section, Suggestions for Future Research.

### Suggestions for Future Research

Future research should continue examining externalization in pornography users. Controlling for specific variables may be important in future research to better understand the relationship between pornography use and externalization. This may increase the variance that is accounted for, which could help both scholars and clinicians better understand how externalization relates to the other variables. Other variables that could be included in future studies are assessments of psychopathology, problematic pornography use, personality traits, religiosity, perceived addiction, or other constructs related to sexual/relationship satisfaction.

It may be clinically beneficial for researchers to include both nonusers and frequent users (i.e., individuals whose use is at a problematic use level) in future studies. Comparing externalization scores of users to both nonusers and individuals who have problematic levels of use may be helpful for scholars in understanding externalization in pornography users.

Identifying a different independent variable may be helpful for future studies, as the item regarding the percentage of mutual pornography use may not have accurately reflected the experience of participants who engage in mutual use. Due to the use of percentages, the responses ranged from 1% to 100%; however, it may be that there are significant differences between participants whose shared use is a lower percentage versus a higher percentage (or 100% shared use). Future research may use alternate items to assess for mutual pornography use in both correlational studies and regression analyses. Furthermore, future researchers would also benefit from assessing data from both partners in a couple, perhaps by using the actor-partner interdependence model (Kenny & Cook, 1999) or a common-fate analysis (Kenny & La Voie, 1985).

It may be helpful to conduct a replication study using a population with more frequent pornography use or individuals who report having problematic levels of use. The participants in this study averaged approximately three hours of pornography use per week, which may be less clinically relevant. It may be more relevant for counseling practice to study individuals who identify as having problematic use and have a desire to decrease their use, as these individuals might be more representative of those who may seek therapy.

It may be clinically beneficial for scholars to examine populations who have very high levels of pornography use but do not endorse problematic use or negative consequences. Exploring externalization in these populations may be important because these individuals may

have problematic use without recognizing it as problematic. Likewise, if these individuals are not experiencing any difficulties related to their use, it may be helpful for researchers to understand better the factors that prevent them from experiencing negative outcomes. Studying individuals who use pornography at high-frequency levels compared to individuals who use at low-frequency levels may assist clinicians in better understanding the motivations that drive the behavior of viewing pornography frequently.

Much of the research on pornography examines use by individuals who identify as heterosexual, although some research regarding individuals who identify as having other sexual orientations is becoming more common. Future research may assess differences across factors such as sexual orientation and gender identity. The current study included items regarding sexual attraction but did not assess those factors separately. Future research may determine whether the effects of mutual pornography use are similar across both sexual orientation and gender identity or if differences exist.

Qualitative research may additionally be useful to explore the relationship between externalization and pornography use, particularly in populations who morally disapprove of pornography, such as religious individuals. A study examining pornography use and sexual satisfaction may include qualitative items regarding externalization, which may be useful in determining other related variables. For example, identifying an individual's automatic thoughts or cognitive distortions, in addition to any messages received from their partner, may help clinicians better understand the individuals who present for counseling. Qualitative items would also allow participants to share their perceived reasons for externalizing and provide more insight into their lived experiences. For instance, it may be clinically relevant to know if one partner feels coerced to use pornography by their partner.

Future research appears to be needed regarding moral disapproval, as moral disapproval was unexpectedly positively related to sexual satisfaction. As previously noted, it may be that participants answered in ways that would maintain positive impression management. Or it may be those seemingly opposite ideas can both be true—participants who engage in mutual pornography use experience sexual satisfaction, even if they also highly disapprove of pornography. It may also be helpful to assess other variables related to moral disapproval.

Clinical studies on participants seeking treatment for pornography use are recommended, as relatively few such studies have been conducted. In this study, the use of the defense mechanism externalization was a protective factor in an individual's level of sexual satisfaction when moral disapproval and mutual pornography use were at high levels. However, the tendency to blame others may be worthy of further study in relation to whether the blame is functional or dysfunctional. Because reality therapy (Glasser, 1975) incorporates techniques that work to allow individuals to recognize the use of defenses such as blame and excuse-making and whether these are helping or harming their relationships (Wubbolding, 2017), interventions from this theoretical framework may be appropriate for clinical study. Additionally, since cognitive behavioral therapy offers techniques to help clients identify cognitive distortions such as blaming that can be replaced with more realistic thoughts (Burns, 1999), cognitive behavioral therapy interventions may also be appropriate for future studies.

### Clinical Implications

**For Counselors**

For clinicians, understanding the reasons contributing to clients' pornography use would be beneficial. This may be especially helpful for marriage and family therapists and clinicians who provide couples therapy. In couples, pornography may be used by both partners separately,

both partners together, or by only one partner, and it appears that this distinction may impact the couple's levels of sexual/relationship satisfaction. The current literature appears to suggest that the most beneficial outcome occurs when a couple agrees regarding their use of pornography, as satisfaction is higher when either both partners use or neither partner uses (Daneback et al., 2009; Minarcik et al., 2016).

Clinicians may struggle with understanding why an individual who is morally opposed to pornography, for religious or other reasons, may still engage in viewing pornography. It seems reasonable that a client would present for counseling with a goal of reducing or discontinuing pornography use, particularly if the individual believes that using pornography goes against their morals or values. The current findings provide insight into some factors that may be present that would allow an individual to continue engaging in a behavior that opposes their values. If an individual is blaming others as an excuse for engaging in a behavior that they are morally opposed to, the act of blaming others may help to reduce the negative affect associated with poor outcomes (Snyder & Higgins, 1988). The current findings regarding externalization appear to support this idea, as when an individual reported a high level of externalization along with high moral disapproval and mutual pornography use, their level of sexual satisfaction remained higher than that of participants who reported lower levels of disapproval and mutual use; however, this effect was only observed in female participants. This research may be beneficial for counselors in understanding female clients whose attitudes and behaviors appear contradictory and then helping those clients resolve their cognitive dissonance. Counselors can use their reflection skills to help clients recognize when they are making excuses and use caring confrontation skills to help clients identify how the excuses are affecting their relationships. When excuses are successful, the excuse minimizes the individual's focus on themselves, and when formulating the

excuse, the process is likely to be relatively "automatic and reflexive" rather than "labored and conscious" (Snyder & Higgins, 1988, p. 29). The individual may not be aware that they are making excuses, so counseling may be helpful to increase this awareness.

Incorporating communication skills and assertiveness techniques may also be appropriate for counselors when dealing with issues related to mutual pornography use. For women who are viewing pornography to avoid negative outcomes and want to express their opinion or change this behavior, clinicians may help clients learn interventions from sexual assertiveness training. For example, in the cognitive domain, counselors could impart education and knowledge; in the emotional domain, counselors could help clients identify feelings, values, and attitudes; and in the behavioral domain, counselors could help clients learn both communication and decision-making skills (Sayyadi et al., 2019). Clinicians could discuss one or all these domains with clients depending on their goals for counseling.

**For Counselor Educators and Supervisors**

Many counselors feel unprepared to work with clients who present with issues related to pornography use for a variety of reasons: they may feel uncomfortable addressing concerns related to sex and sexuality, they may not feel they received enough training in graduate school, or their own personal biases may influence their assessment of clients (Bloom, Gutierrez, Lambie, & Ali, 2016; Hecker, Trepper, Wetchler, & Fontaine, 1995). Ayres and Haddock (2009) found that although about three quarters of clinicians had clients who presented with pornography-related issues, almost half of clinicians reported having no graduate-level training regarding pornography use and 79% reported feeling "minimally" or "not at all" prepared to work with pornography use as a presenting problem in therapy. Bloom and colleagues (2016) conducted further research in this area and found that counselors' comfort with sexuality and

attitudes toward pornography were predictive of both assessment and treatment of client issues related to use of pornography. In addition, Bloom and colleagues found that men were more likely than women to assess and treat pornography-related issues and counselors' years of practice was a predictor of treating pornography concerns. The quality of graduate training (or lack thereof) is likely related to counselors' confidence in their ability to assess and treat issues related to pornography and sexuality (Bloom et al., 2016). Currently, not every graduate counselor training program requires a course in human sexuality; it is recommended that counselor education programs work toward making such a course requirement. The Association of Counseling Sexology and Sexual Wellness (2019) is working on creating a list of minimal competencies regarding human sexuality that licensed counselors would be expected to demonstrate.

Furthermore, it appears that counselors are also subject to the views of gender norms and cultural messages that are present in society (Bloom et al., 2016; Petersen & Hyde, 2011). Bloom and colleagues (2016) found that male therapists were more likely than female therapists to assess and treat pornography-related concerns; however, 78.3% of their sample included female therapists. This may be an area of focus for counselor educators in counselor training programs or an area for further research. It may be beneficial to determine what barriers female therapists experience that influence their likelihood of assessing and treating pornography-related issues.

When clinicians feel uncomfortable or unprepared to treat concerns regarding pornography or sexuality, they may be at higher risk of allowing their personal values, their own level of sexual comfort, and their beliefs about client sexual characteristics to overly influence their perceptions of client sexual behaviors (Heiden-Rootes, Brimhall, Jankowski, & Reddick,

2017).  Research suggests that while the American Counseling Association Code of Ethics

(2014) advises clinicians to avoid imposing their values on clients, therapists' conceptualizations

of health, dysfunction, and behavior are influenced by their values, and therapists' values tend to

hold more power in therapy than clients' values (Hecker et al., 1995; Heiden-Rootes et al.,

2017).  This tendency may be of particular importance for clinicians who identify as highly

religious or conservative, as prior research suggests that counselors-in-training with sexually

conservative values had difficulty remaining unbiased and comfortable when sexual issues were

brought up in therapy (Miller & Byers, 2008), and highly religious clinicians were more likely to

rate clients as sexually addicted (Hecker et al., 1995).  Counselor educators may consider

incorporating the concept of differentiation of self into their training curriculum (Heiden-Rootes

et al., 2017).  As *differentiation of self* refers to the degree to which an individual has the

capacity to intentionally regulate anxiety and non-reactively respond to another's behavior, either

intra- or interpersonally (Skowron, Holmes, & Sabatelli, 2003), knowledge about this construct

may be helpful for counselors-in-training to understand how to manage their emotional selves

and boundaries with their clients.  While low levels of differentiation of self indicate a clinician

may be more likely to "fuse" with the client (i.e., be overly close with the client), high levels of

differentiation of self suggest that a clinician may be able to stay connected with the client

despite their differences, while also maintaining their separate self despite their similarities

(Heiden-Rootes et al., 2017).  Counselor educators could use the theory and language of

differentiation of self to discuss the cognitive complexity of how values, comfort, and sexuality

intersect in the client-counselor relationship and the therapeutic process (Heiden-Rootes et al.,

2017).  This type of training may help students' abilities to regulate emotions and thoughts

related to sexuality while also maintaining openness toward similarities and differences between themselves and their clients (Heiden-Rootes et al., 2017).

The American Counseling Association Code of Ethics (2014) also provides guidance regarding counselor competency and scope of practice. Section C.2.a., Boundaries of Competence, states, "Counselors practice only within the boundaries of their competence, based on their education, training, supervised experience, state and national professional credentials, and appropriate professional experience" (American Counseling Association, 2014, p. 8). As previously discussed, research suggests some counselors do not receive any or enough training during their graduate programs to feel competent when treating clients who present with pornography-related issues, and that quality training increases feelings of competence (Bloom et al., 2016). It is recommended that counselor education programs modify their curriculums to include the assessment, diagnosis, and treatment of pornography-related concerns. This means that counselor educators and supervisors will also need to be competent in the area of assessment, diagnosis, and treatment of pornography and related issues. Counselor educators and supervisors may benefit from attending continuing education trainings and conducting peer-reviewed research in this area to increase their knowledge and competency.

**Chapter Summary**

This chapter presented a summary of the findings, clinical implications, limitations of the study, and recommendations for future research. There were five main findings. First, mutual pornography use by women was positively correlated with sexual satisfaction (overall sexual satisfaction and the two subscales). These correlations were statistically significant, and two of the three were in the hypothesized direction (overall sexual satisfaction and partner-centered sexual satisfaction). Controlling for other factors might provide further information regarding

the unexplained variance in these relationships. Second, mutual pornography use, sexual shame, moral disapproval, and externalization were identified as statistically significant predictors of sexual satisfaction in women. Third, the moderated mediation analysis was significant on the direct path for women (mutual use–moral disapproval–externalization–sexual satisfaction), as externalization attenuated the effect of moral disapproval on the relationship between mutual pornography use and sexual satisfaction. Fourth, the exploratory correlations for men's mutual pornography use and sexual satisfaction were unanticipated, as overall, they were higher than the correlations for women. Correlations between men's mutual pornography use and sexual satisfaction were statistically significant in the positive direction. Fifth, the exploratory moderated mediation analysis was significant for men on the indirect path (mutual use–moral disapproval–sexual shame); however, none of the other interactions were significant for men. Future research is recommended, and using additional variables is indicated to potentially increase the amount of explained variance. Replicating this study in high-frequency pornography users, users who identify as having problematic levels of use, and nonusers may provide further information regarding the relationship between pornography use, externalization, and sexual satisfaction. The findings from this study inform clinical work with both individuals and couples who present to counseling with concerns related to pornography and sexual/relationship satisfaction.

## Summary of the Study

Previous research suggests that pornography use and sexual satisfaction are related, although findings have been inconsistent regarding whether these variables are positively (Daneback et al., 2009; Grov et al., 2011; Minarcik et al., 2016) or negatively related (Newstrom & Harris, 2016; Resch & Alderson, 2014; Wright et al., 2014). Some individuals report using

pornography even though they morally disapprove of it (Fisher et al., 2019; Grubbs & Perry, 2019; Perry, 2018a), and moral disapproval has been found to be directly related to sexual shame (Volk et al., 2016). As research on women's pornography use has suggested that it can both positively and negatively impact sexual satisfaction (Brown et al., 2017), it was proposed that externalization might moderate the effect of on moral disapproval on the relationships between (a) women's mutual pornography use and sexual shame and (b) women's mutual pornography use and sexual satisfaction. This model was also used to assess externalization in an exploratory manner for male participants.

This study recruited 1,055 participants through Amazon's MTurk. After multiple stages of data screening, 330 participants (150 women and 180 men) who reported using pornography within the past six months were included. Both women's and men's mutual pornography use were positively correlated with total sexual satisfaction and subscales of ego-centered and partner- and sexual activity-centered sexual satisfaction. For women, mutual pornography use, sexual shame, moral disapproval, and externalization were identified as statistically significant predictors of sexual satisfaction. Female mutual pornography users experienced an attenuating effect of externalization: at low levels of externalization, participants with high mutual use and high moral disapproval reported lower sexual satisfaction than participants at low or average levels of moral disapproval. However, at high levels of externalization, female participants with high mutual use and high moral disapproval reported higher sexual satisfaction than participants at low or average levels of moral disapproval. The exploratory research on male participants indicated that men did not experience the same effect of externalization. Understanding the role of externalization, along with other constructs related to pornography use, is likely important for

clinicians to consider when working with individuals or couples who present for counseling with relationship and pornography-related concerns.

# 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 and Compulsivity*, *8*(1), 23–44. https://doi.org/10.1080/10720160127559

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. https://doi.org/10.1080/00224490801987481

Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *The International Journal for the Psychology of Religion*, *2*(2), 113–133. https://doi.org/10.1207/s15327582ijpr0202_5

American Counseling Association. (2014). *ACA code of ethics*. Alexandria, VA: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

Arel, S. N. (2015). *Interpreting shame: Affect, touch, and the formation of the Christian self* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (UMI No. 3702779)

Association of Counseling Sexology and Sexual Wellness. (2019). ACSSW committees. Retrieved from https://www.counselingsexology.com/committees

Ayres, M. M., & Haddock, S. A. (2009). Therapists' approaches in working with heterosexual couples struggling with male partners' online sexual behavior. *Sexual Addiction and Compulsivity*, *16*(1), 55–78. https://doi.org/10.1080/10720160802711952

Baer, J. L., Kohut, T., & Fisher, W. A. (2015). Is pornography use associated with anti-woman sexual aggression? Re-examining the Confluence Model with third variable considerations. *The Canadian Journal of Human Sexuality*, *24*(2), 160–173. https://doi.org/10.3138/cjhs.242-a6

Baltazar, A., Helm, H. W., McBride, D., Hopkins, G., & Stevens, J. V. (2010). Internet pornography use in the context of external and internal religiosity. *Journal of Psychology and Theology*, *38*(1), 32–40.

Bateson, G., Jackson, D. D., Haley, J., & Weakland, J. (1956). Toward a theory of schizophrenia. *Behavioral Science*, *1*(4), 251–254. https://doi.org/10.1002/bs.3830010402

Berkowitz, D. (2006). Consuming eroticism: Gender performances in pornographic establishments. *Journal of Contemporary Ethnography*, *35*(5), 583–606. https://doi.org/10.1177/0891241605285402

Bloom, Z. D., Gutierrez, D., Lambie, G. W., & Ali, S. (2016). Counselors' comfort with sexuality, attitudes towards pornography, and propensity to assess and treat client issues

related to pornography use. *Journal of Mental Health Counseling*, *38*(4), 327–345. https://doi.org/10.17744/mehc.38.4.04

Borgogna, N. C., Lathan, E. C., & Mitchell, A. (2018). Is women's problematic pornography viewing related to body image or relationship satisfaction? *Sexual Addiction and Compulsivity*, *25*(4), 345–366. https://doi.org/10.1080/10720162.2018.1532360

Bradley, D. F., Grubbs, J. B., Uzdavines, A., Exline, J. J., & Pargament, K. I. (2016). Perceived addiction to Internet pornography among religious believers and nonbelievers. *Sexual Addiction and Compulsivity*, *23*(2–3), 225–243. https://doi.org/10.1080/10720162.2016.1162237

Bridges, A. J., & Morokoff, P. J. (2011). Sexual media use and relational satisfaction in heterosexual couples. *Personal Relationships*, *18*(4), 562–585. https://doi.org/10.1111/j.1475-6811.2010.01328.x

Bridges, A. J., Sun, C. F., Ezzell, M. B., & Johnson, J. (2016). Sexual scripts and the sexual behavior of men and women who use pornography. *Sexualization, Media, & Society*, *2*(4). https://doi.org/10.1177/2374623816668275

Brown, B. (2013). Shame resilience theory: A grounded theory study on women and shame. *Families in Society: The Journal of Contemporary Social Services*, *87*(1), 43–52. https://doi.org/10.1606/1044-3894.3483

Brown, C. C., Carroll, J. S., Yorgason, J. B., Busby, D. M., Willoughby, B. J., & Larson, J. H. (2017). A common-fate analysis of pornography acceptance, use, and sexual satisfaction among heterosexual married couples. *Archives of Sexual Behavior*, *46*(2), 575–584. https://doi.org/10.1007/s10508-016-0732-4

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*(1), 3–5. https://doi.org/10.1177/1745691610393980

Burns, D. D. (1999). *The feeling good handbook*. New York, NY: Plume.

Burton, D. L., Leibowitz, G. S., & Howard, A. (2010). Comparison by crime type of juvenile delinquents on pornography exposure: The absence of relationships between exposure to pornography and sexual offense characteristics. *Journal of Forensic Nursing*, *6*(3), 121–129. https://doi.org/10.1111/j.1939-3938.2010.01077.x

Buss, D. M., & Craik, K. H. (1980). The frequency concept of disposition: Dominance and prototypically dominant acts. *Journal of Personality*, *48*(3), 379–392.

Call, V. R. A., & Heaton, T. B. (1997). Religious influence on marital stability. *Journal for the Scientific Study of Religion*, *36*(3), 382–392. https://doi.org/10.2307/1387856

Carboneau, R. A. (2018). *Religiosity, moral disapproval, shame and pornography use: Assessing the relationship between shame and sexual behaviors* (Doctoral dissertation). Retrieved

from https://digitalcommons.liberty.edu/

Carvalho, J., Štulhofer, A., Vieira, A. L., & Jurin, T. (2015). Hypersexuality and high sexual desire: Exploring the structure of problematic sexuality. *Journal of Sexual Medicine*, *12*(6), 1356–1367. https://doi.org/10.1111/jsm.12865

Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, *29*(6), 2156–2160. https://doi.org/10.1016/j.chb.2013.05.009

Catania, J. A., Binson, D., Van der Straten, A., & Stone, V. (1995). Methodological research on sexual behavior in the AIDS era. *Annual Review of Sex Research*, *6*, 77–125.

Chandler, J., Mueller, P., & Paolacci, G. (2014). Nonnaïveté among Amazon Mechanical Turk workers: Consequences and solutions for behavioral researchers. *Behavior Research Methods*, *46*(1), 112–130. https://doi.org/10.3758/s13428-013-0365-7

Clark, N. (2017). *The etiology and phenomenology of sexual shame: A grounded theory study* (Doctoral dissertation). Retrieved from https://digitalcommons.spu.edu/

Cooper, A. (1998). Sexuality and the Internet: Surfing into the new millennium. *CyberPsychology & Behavior*, *1*(2), 187–193. https://doi.org/10.1016/B978-0-08-097086-8.35037-1

Cooper, A. (2004). Online sexual activity in the new millennium. *Contemporary Sexuality*, *38*(3), i–vii.

Cranney, S., Koletić, G., & Štulhofer, A. (2018). Varieties of religious and pornographic experience: Latent growth in adolescents' religiosity and pornography use. *International Journal for the Psychology of Religion*, *28*(3), 174–186. https://doi.org/10.1080/10508619.2018.1480195

Damasio, A. (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. Orlando, FL: Harcourt.

Daneback, K., Træen, B., & Månsson, S. A. (2009). Use of pornography in a random sample of Norwegian heterosexual couples. *Archives of Sexual Behavior*, *38*(5), 746–753. https://doi.org/10.1007/s10508-008-9314-4

Donahue, M. J. (1985). Intrinsic and extrinsic religiousness: Review and meta-analysis. *Journal of Personality and Social Psychology*, *48*(2), 400–419. https://doi.org/10.1037/0022-3514.48.2.400

Doran, K., & Price, J. (2014). Pornography and marriage. *Journal of Family and Economic Issues*, *35*(4), 489–498. https://doi.org/10.1007/s10834-014-9391-6

Edelman, B. (2009). Red light states: Who buys online adult entertainment? *Journal of Economic*

*Perspectives*, *23*(1), 209–220. https://doi.org/10.1257/jep.23.1.209

Efthim, P. W., Kenny, M. E., & Mahalik, J. R. (2001). Gender role stress in relation to shame, guilt, and externalization. *Journal of Counseling and Development*, *79*(4), 430–438. https://doi.org/10.1002/j.1556-6676.2001.tb01990.x

Emmers-Sommer, T. M. (2018). Reasons for pornography consumption: Associations with gender, psychological and physical sexual satisfaction, and attitudinal impacts. *Sexuality and Culture*, *22*(1), 48–62. https://doi.org/10.1007/s12119-017-9452-8

Farmer, M. A., Trapnell, P. D., & Meston, C. M. (2009). The relation between sexual behavior and religiosity subtypes: A test of the secularization hypothesis. *Archives of Sexual Behavior*, *38*(5), 852–865. https://doi.org/10.1007/s10508-008-9407-0

Ferguson, T. J., Eyre, H. L., & Ashbaker, M. (2000). Unwanted identities: A key variable in shame-anger links and gender differences in shame. *Sex Roles*, *42*(3–4), 133–157. https://doi.org/10.1023/A:1007061505251

Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.

Fisher, W. A., Montgomery-Graham, S., & Kohut, T. (2019). Pornography problems due to moral incongruence. *Archives of Sexual Behavior*, *48*(2), 425–429. https://doi.org/10.1007/s10508-018-1291-7

Foubert, J. D., & Rizzo, A. (2018). Integrating religiosity and pornography use into the prediction of bystander efficacy and willingness to prevent sexual assault. *Journal of Psychology and Theology*, *41*(3), 242–251. https://doi.org/10.1177/009164711304100306

Frances, L. J., & Penny, G. (2014). Gender differences in religion. In V. Saroglou (Ed.), *Religion, personality, and social behavior* (pp. 313-337). New York, NY: Psychology Press.

Freud, A. (2018). *The ego and the mechanisms of defence*. New York, NY: Routledge. (Original work published 1936)

Frye, M. (2001). Oppression. In M. Andersen & P. H. Collins (Eds.), *Race, class, and gender: An anthology* (pp. 48–52). Belmont, CA: Wadsworth.

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*(4), 572–583. https://doi.org/10.1037/0893-3200.21.4.572

Gibney, P. (2006). The double bind theory: Still crazy-making after all these years. *Psychotherapy in Australia*, *12*(3), 48–55.

Gilliland, R., South, M., Carpenter, B. N., & Hardy, S. A. (2011). The roles of shame and guilt in hypersexual behavior. *Sexual Addiction and Compulsivity*, *18*(1), 12–29.

https://doi.org/10.1080/10720162.2011.551182

Glasser, W. (1975). *Reality therapy: A new approach to psychiatry*. New York, NY: Harper and Row.

Glenn, N. D., & Supancic, M. (1984). The social and demographic correlates of divorce and separation in the United States: An update and reconsideration. *Journal of Marriage and Family*, *46*(3), 563–575. https://doi.org/10.2307/352598

Goddard, H. W., Marshall, J. P., Olson, J. R., & Dennis, S. A. (2012). Character strengths and religiosity as predictors of marital satisfaction in a sample of highly religious and divorce-prone couples. *Journal of Couple and Relationship Therapy*, *11*(1), 2–15. https://doi.org/10.1080/15332691.2011.613308

Gola, M., Wordecha, M., Sescousse, G., Lew-Starowicz, M., Kossowski, B., Wypych, M., . . . Marchewka, A. (2017). Can pornography be addictive? An fMRI study of men seeking treatment for problematic pornography use. *Neuropsychopharmacology*, *42*(10), 2021–2031. https://doi.org/10.1038/npp.2017.78

Goodman, J. K., Cryder, C. E., & Cheema, A. (2013). Data collection in a flat world: The strengths and weaknesses of Mechanical Turk samples. *Journal of Behavioral Decision Making*, *26*(3), 213–224. https://doi.org/10.1002/bdm.1753

Gordon, A. M. (2018). How men experience sexual shame: The development and validation of the Male Sexual Shame Scale. *Journal of Men's Studies*, *26*(1), 105–123. https://doi.org/10.1177/1060826517728303

Gordon, A. M. (2019). Male sexual shame, masculinity, and mental health. *New Male Studies: An International Journal*, *8*(1), 1–24.

Grov, C., Gillespie, B. J., Royce, T., & Lever, J. (2011). Perceived consequences of casual online sexual activities on heterosexual relationships: A U.S. online survey. *Archives of Sexual Behavior*, *40*(2), 429–439. https://doi.org/10.1007/s10508-010-9598-z

Grubbs, J. B., Exline, J. J., Pargament, K. I., Hook, J. N., & Carlisle, R. D. (2015). Transgression as addiction: Religiosity and moral disapproval as predictors of perceived addiction to pornography. *Archives of Sexual Behavior*, *44*(1), 125–136. https://doi.org/10.1007/s10508-013-0257-z

Grubbs, J. B., Exline, J. J., Pargament, K. I., Volk, F., & Lindberg, M. J. (2017). Internet pornography use, perceived addiction, and religious/spiritual struggles. *Archives of Sexual Behavior*, *46*(6), 1733–1745. https://doi.org/10.1007/s10508-016-0772-9

Grubbs, J. B., & Perry, S. L. (2019). Moral incongruence and pornography use: A critical review and integration. *Journal of Sex Research*, *56*(1), 29–37. https://doi.org/10.1080/00224499.2018.1427204

Grubbs, J. B., Perry, S. L., Wilt, J. A., & Reid, R. C. (2019). Pornography problems due to moral

incongruence: An integrative model with a systematic review and meta-analysis. *Archives of Sexual Behavior*, *48*(2), 397–415. https://doi.org/10.1007/s10508-018-1248-x

Grubbs, J. B., Wilt, J. A., Exline, J. J., Pargament, K. I., & Kraus, S. W. (2018). Moral disapproval and perceived addiction to Internet pornography: A longitudinal examination. *Addiction*, *113*(3), 496–506. https://doi.org/10.1111/add.14007

Häggström-Nordin, E., Tydén, T., Hanson, U., & Larsson, M. (2009). Experiences of and attitudes towards pornography among a group of Swedish high school students. *European Journal of Contraception and Reproductive Health Care*, *14*(4), 277–284. https://doi.org/10.1080/13625180903028171

Hald, G. M., & Malamuth, N. M. (2008). Self-perceived effects of pornography consumption. *Archives of Sexual Behavior*, *37*(4), 614–625. https://doi.org/10.1007/s10508-007-9212-1

Harris, C. R., & Darby, R. S. (2009). Shame in physician-patient interactions: Patient perspectives. *Basic and Applied Social Psychology*, *31*(4), 325–334. https://doi.org/10.1080/01973530903316922

Hart, G., & Hart, J. (2017). *Monogamy with benefits: How porn enriches our relationship*. Author.

Hartmann, U. (2009). Sigmund Freud and his impact on our understanding of male sexual dysfunction. *Journal of Sexual Medicine*, *6*(8), 2332–2339. https://doi.org/10.1111/j.1743-6109.2009.01332.x

Hastings, A. S. (1998). *Treating sexual shame: A new map for overcoming dysfunction, abuse, and addiction*. Northvale, NJ: Aronson.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). New York, NY: Guilford Press.

Headley, J. (2013). *It's not about the nail* [Video file]. Retrieved from https://www.youtube.com/watch?v=-4EDhdAHrOg

Hecker, L. L., Trepper, T. S., Wetchler, J. L., & Fontaine, K. L. (1995). The influence of therapist values, religiosity, and gender in the initial assessment of sexual addiction by family therapists. *American Journal of Family Therapy*, *23*(3), 261–272.

Heene, E. L. D., Buysse, A., & Van Oost, P. (2005). Indirect pathways between depressive symptoms and marital distress: The role of conflict communication, attributions, and attachment style. *Family Process*, *44*(4), 413–440. https://doi.org/10.1111/j.1545-5300.2005.00070.x

Heiden-Rootes, K. M., Brimhall, A. S., Jankowski, P. J., & Reddick, G. T. (2017). Differentiation of self and clinicians' perceptions of client sexual behavior as "problematic." *Contemporary Family Therapy*, *39*(3), 207–219. https://doi.org/10.1007/s10591-017-9412-3

Hill, P. C., & Hood, R. W. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.

Hilton, D., & Watts, C. (2011). Pornography addiction: A neuroscience perspective. *Surgical Neurology International*, *2*(1), 19. https://doi.org/10.4103/2152-7806.76977

Johnson, D. R., & Borden, L. A. (2012). Participants at your fingertips: Using Amazon's Mechanical Turk to increase student-faculty collaborative research. *Teaching of Psychology*, *39*(4), 245–251. https://doi.org/10.1177/0098628312456615

Jozifkova, E. (2013). Consensual sadomasochistic sex (BDSM): The roots, the risks, and the distinctions between BDSM and violence. *Current Psychiatry Reports*, *15*(9). https://doi.org/10.1007/s11920-013-0392-1

Kaufman, G. (1980). *Shame: The power of caring*. Cambridge, MA: Schenkman.

Kenny, D. A., & Cook, W. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships*, *6*(4), 433–448. https://doi.org/10.1111/j.1475-6811.1999.tb00202.x

Kenny, D. A., & La Voie, L. (1985). Separating individual and group effects. *Journal of Personality and Social Psychology*, *48*(2), 339–348. https://doi.org/10.1037/0022-3514.48.2.339

Kohut, T., Baer, J. L., & Watts, B. (2016). Is pornography really about "making hate to women"? Pornography users hold more gender egalitarian attitudes than nonusers in a representative American sample. *Journal of Sex Research*, *53*(1), 1–11. https://doi.org/10.1080/00224499.2015.1023427

Kohut, T., Fisher, W. A., & Campbell, L. (2017). Perceived effects of pornography on the couple relationship: Initial findings of open-ended, participant-informed, "bottom-up" research. *Archives of Sexual Behavior*, *46*(2), 585–602. https://doi.org/10.1007/s10508-016-0783-6

Kohut, T., & Štulhofer, A. (2018). The role of religiosity in adolescents' compulsive pornography use: A longitudinal assessment. *Journal of Sex and Marital Therapy*, *44*(8), 759–775. https://doi.org/10.1080/0092623X.2018.1466012

Kouros, C. D., & Cummings, E. M. (2011). Transactional relations between marital functioning and depressive symptoms. *American Journal of Orthopsychiatry*, *81*(1), 128–138. https://doi.org/10.1111/j.1939-0025.2010.01080.x

Kwee, A., Dominguez, A., & Ferrell, D. (2007). Sexual addiction and Christian college men: Conceptual, assessment, and treatment challenges. *Journal of Psychology and Christianity*, *26*(1), 3–13. Retrieved from http://www.alexkwee.com/uploads/kweedominguezferrell07.pdf

Kyle, S. E. (2013). *Identification and treatment of sexual shame: Development of a measurement tool and group therapy protocol* (Doctoral dissertation). Retrieved from

https://pdfs.semanticscholar.org/f72b/6ba83aad6830cd0ebf9770ced2063b22a39c.pdf?_ga
=2.234976194.273785297.1582416519-603244615.1531276256

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.
https://doi.org/10.1521/jscp.2012.31.4.410

Lawrance, K. G., & Byers, E. S. (1995). *Sexual satisfaction in long term heterosexual
relationships: The interpersonal exchange model of sexual satisfaction* (Doctoral
dissertation). Retrieved from https://doi.org/10.1111/j.1475-6811.1995.tb00092.x

Leonhardt, N. D., Willoughby, B. J., & Young-Petersen, B. (2018). Damaged goods: Perception
of pornography addiction as a mediator between religiosity and relationship anxiety
surrounding pornography use. *Journal of Sex Research*, *55*(3), 357–368.
https://doi.org/10.1080/00224499.2017.1295013

Levert, N. P. (2007). A comparison of Christian and non-Christian males, authoritarianism, and
their relationship to Internet pornography addiction/compulsion. *Sexual Addiction and
Compulsivity*, *14*(2), 145–166. https://doi.org/10.1080/10720160701354771

Lichtenberg, J. D. (2008). *Sensuality and sexuality across the divide of shame*. New York, NY:
Routledge.

MacInnis, C. C., & Hodson, G. (2015). Do American states with more religious or conservative
populations search more for sexual content on Google? *Archives of Sexual Behavior*,
*44*(1), 137–147. https://doi.org/10.1007/s10508-014-0361-8

MacInnis, C. C., & Hodson, G. (2016). Surfing for sexual sin: Relations between religiousness
and viewing sexual content online. *Sexual Addiction and Compulsivity*, *23*(2–3), 196–
210. https://doi.org/10.1080/10720162.2015.1130000

Maddock, M. E., Steele, K., Esplin, C. R., Hatch, S. G., & Braithwaite, S. R. (2019). What is the
relationship among religiosity, self-perceived problematic pornography use, and
depression over time? *Sexual Addiction & Compulsivity*, *26*(3–4), 211–238.
https://doi.org/10.1080/10720162.2019.1645061

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*(2), 441–448. https://doi.org/10.1007/s10508-009-9585-4

Mahalik, J. R., Locke, B. D., Ludlow, L. H., Diemer, M. A., Scott, R. P. J., Gottfried, M., &
Freitas, G. (2003). Development of the Conformity to Masculine Norms Inventory.
*Psychology of Men & Masculinity*, *4*(1), 3–25. https://doi.org/10.1037/1524-9220.4.1.3

Mahoney, A., Pargament, K. I., Tarakeshwar, N., & Swank, A. B. (2001). Religion in the home
in the 1980s and 1990s: A meta-analytic review and conceptual analysis of links between
religion, marriage, and parenting. *Journal of Family Psychology*, *15*(4), 559–596.

https://doi.org/10.1037/0893-3200.15.4.559

Mannheimer, A. H., & Hill, T. D. (2015). Deviating from religious norms and the mental health of conservative Protestants. *Journal of Religion and Health*, *54*(5), 1826–1838. https://doi.org/10.1007/s10943-014-9951-y

Manning, J. C. (2006). The impact of Internet pornography on marriage and the family: A review of the research. *Sexual Addiction and Compulsivity*, *13*(2–3), 131–165. https://doi.org/10.1080/10720160600870711

Marino, P. (2008). The ethics of sexual objectification: Autonomy and consent. *Inquiry*, *51*(4), 345–364. https://doi.org/10.1080/00201740802166643

Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, *44*(1), 1–23. https://doi.org/10.3758/s13428-011-0124-6

Mattebo, M., Larsson, M., Tydén, T., Olsson, T., & Häggström-Nordin, E. (2012). Hercules and Barbie? Reflections on the influence of pornography and its spread in the media and society in groups of adolescents in Sweden. *European Journal of Contraception and Reproductive Health Care*, *17*(1), 40–49. https://doi.org/10.3109/13625187.2011.617853

Miller, S. A., & Byers, E. S. (2008). An exploratory examination of the sexual intervention self-efficacy of clinical psychology graduate students. *Training and Education in Professional Psychology*, *2*(3), 137–144. https://doi.org/10.1037/1931-3918.2.3.137

Miller, W. R., & Thoresen, C. E. (1999). Spirituality and health. In W. R. Miller (Ed.), *Integrating spirituality into treatment: Resources for practitioners* (pp. 3–18). Washington, DC: American Psychological Association.

Minarcik, J., Wetterneck, C. T., & Short, M. B. (2016). The effects of sexually explicit material use on romantic relationship dynamics. *Journal of Behavioral Addictions*, *5*(4), 700–707. https://doi.org/10.1556/2006.5.2016.078

Mitchell, K. J., Finkelhor, D., & Wolak, J. (2003). The exposure of youth to unwanted sexual material on the Internet: A national survey of risk, impact, and prevention. *Youth and Society*, *34*(3), 330–358. https://doi.org/10.1177/0044118X02250123

Mollon, P. (2005). The inherent shame of sexuality. *British Journal of Psychotherapy*, *22*(2), 167–177. https://doi.org/10.1111/j.1752-0118.2005.tb00274.x

Morris, C. (2015, January 15). Things are looking up in America's porn industry. *NBC News.* Retrieved from https://www.nbcnews.com/business/business-news/things-are-looking-americas-pornindustryn289431

Morrison, A. P. (1989). *Shame: The underside of narcissism*. Hillsdale, NJ: The Analytic Press.

Murray, K., & Ciarrocchi, J. (2007). The dark side of religion, spirituality and the moral emotions: Shame, guilt, and negative religiosity as markers for life dissatisfaction.

*Journal of Pastoral Counseling*, *42*, 22–41.

Nelson, L. J., Padilla-Walker, L. M., & Carroll, J. S. (2010). "I believe it is wrong but I still do it": A comparison of religious young men who do versus do not use pornography. *Psychology of Religion and Spirituality*, *2*(3), 136–147. https://doi.org/10.1037/a0019127

Newstrom, N. P., & Harris, S. M. (2016). Pornography and couples: What does the research tell us? *Contemporary Family Therapy*, *38*(4), 412–423. https://doi.org/10.1007/s10591-016-9396-4

Olson, K., Player, L., Manning, L., Likos, S., & Anderson, K. (2014). Effects of religious fundamentalism on sex-related attitudes about the self and others. *Journal of the Utah Academy of Sciences, Arts & Letters*, *91*, 247–257. Retrieved from http://www.utahacademy.org/academy-journal/

Orathinkal, J., & Vansteenwegen, A. (2006). Religiosity and marital satisfaction. *Contemporary Family Therapy*, *28*(4), 497–504. https://doi.org/10.1007/s10591-006-9020-0

Osborne, J. W. (2012). *Best practices in data cleaning: A complete guide to everything you need to do before and after collecting your data*. Thousand Oaks, CA: Sage.

Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science*, *23*(3), 184–188. https://doi.org/10.1177/0963721414531598

Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Accounting Review*, *5*(5), 411–419. https://doi.org/10.2308/accr-52343

Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Society for the Scientific Study of Religion*, *37*(4), 710–724.

Pellegrini, A. D., & Bartini, M. (2001). Dominance in early adolescent boys: Affiliative and aggressive dimensions and possible functions. *Merrill-Palmer Quarterly*, *47*(1), 142–163.

Perry, S. L. (2016). From bad to worse? Pornography consumption, spousal religiosity, gender, and marital quality. *Sociological Forum*, *31*(2), 441–464. https://doi.org/10.1111/socf.12252

Perry, S. L. (2018a). Pornography use and depressive symptoms: Examining the role of moral incongruence. *Society and Mental Health*, *8*(3), 195–213. https://doi.org/10.1177/2156869317728373

Perry, S. L. (2018b). Pornography use and marital quality: Testing the moral incongruence hypothesis. *Personal Relationships*, *25*(2), 233–248.

Perry, S. L., & Schleifer, C. (2017). Till porn do us part? A longitudinal examination of pornography use and divorce. *Journal of Sex Research*, *55*(3), 284–296.

https://doi.org/10.1080/00224499.2017.1317709

Perry, S. L., & Whitehead, A. L. (2018). Only bad for believers? Religion, pornography use, and sexual satisfaction among American men. *Journal of Sex Research*, *56*(1), 50–61. https://doi.org/10.1080/00224499.2017.1423017

Peter, J., & Valkenburg, P. M. (2009). Adolescents' exposure to sexually explicit Internet material and sexual satisfaction: A longitudinal study. *Human Communication Research*, *35*(2), 171–194. https://doi.org/10.1111/j.1468-2958.2009.01343.x

Petersen, J. L., & Hyde, J. S. (2011). Gender differences in sexual attitudes and behaviors: A review of meta-analytic results and large datasets. *Journal of Sex Research*, *48*(2–3), 149–165. https://doi.org/10.1080/00224499.2011.551851

Picone, D. (2015). *The relationship of shame, guilt, and religiousness to pornography use* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (UMI No. 10018833)

Popović, M. (2011). Pornography use and closeness with others in men. *Archives of Sexual Behavior*, *139*(5–6), 449-456. https://doi.org/10.2298/SARH1106353P

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. https://doi.org/10.1080/00224499.2011.648027

Rasmussen, K. R., & Kohut, T. (2019). Does religious attendance moderate the connection between pornography consumption and attitudes toward women? *Journal of Sex Research*, *56*(1), 38–49. https://doi.org/10.1080/00224499.2017.1396571

Regnerus, M., Gordon, D., & Price, J. (2016). Documenting pornography use in America: A comparative analysis of methodological approaches. *Journal of Sex Research*, *53*(7), 873–881. https://doi.org/10.1080/00224499.2015.1096886

Reid, R. C., Carpenter, B. N., & Fong, T. W. (2011). Neuroscience research fails to support claims that excessive pornography consumption causes brain damage. *Surgical Neurology International*, *2*(1), 64. https://doi.org/10.4103/2152-7806.81427

Resch, M. N., & Alderson, K. G. (2014). Female partners of men who use pornography: Are honesty and mutual use associated with relationship satisfaction? *Journal of Sex and Marital Therapy*, *40*(5), 410–424. https://doi.org/10.1080/0092623X.2012.751077

Rizvi, S. L. (2010). Development and preliminary validation of a new measure to assess shame: The Shame Inventory. *Journal of Psychopathology and Behavioral Assessment*, *32*(3), 438–447. https://doi.org/10.1007/s10862-009-9172-y

Robbins, T., & Anthony, D. (2017). *In gods we trust: New patterns of religious pluralism in America* (2nd ed.). New York, NY: Routledge.

Romito, P., & Beltramini, L. (2011). Watching pornography: Gender differences, violence and victimization. An exploratory study in Italy. *Violence Against Women*, *17*(10), 1313–1326. https://doi.org/10.1177/1077801211424555

Rouse, S. V. (2015). A reliability analysis of Mechanical Turk data. *Computers in Human Behavior*, *43*, 304–307. https://doi.org/10.1016/j.chb.2014.11.004

Rubenstein, C., & Shaver, P. (1982). *In search of intimacy: Surprising new conclusions from a nationwide survey on loneliness and what to do about it*. New York, NY: Delacorte Press.

Sayyadi, F., Golmakani, N., Ebrahimi, M., Saki, A., Karimabadi, A., & Ghorbani, F. (2019). Determination on the effect of sexual assertiveness training on sexual health in married women: A randomized clinical trial. *Iranian Journal of Nursing and Midwifery Research*, *24*(4), 274–280. https://doi.org/10.4103/ijnmr.IJNMR

Schneider, J. P. & Schneider, B. H. (1996). Couple recovery from sexual addiction/coaddiction: Results of a survey of 88 marriages. *Sexual Addiction and Compulsivity*, *3*(2), 111–126. https://doi.org/10.1080/10720169608400106

Shadbolt, C. (2013). Sexuality and shame. *Transactional Analysis Journal*, *39*(2), 163–172. https://doi.org/10.1177/036215370903900210

Skowron, E. A., Holmes, S. E., & Sabatelli, R. M. (2003). Deconstructing differentiation: Self regulation, interdependent relating, and well-being in adulthood. *Contemporary Family Therapy*, *25*(1), 111–129. https://doi.org/10.1023/A:1022514306491

Snyder, C. R., & Higgins, R. L. (1988). Excuses: Their effective role in the negotiation of reality. *Psychological Bulletin*, *104*(1), 23–35. https://doi.org/10.1037/0033-2909.104.1.23

Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, *93*(2), 119–135. https://doi.org/10.1037/0033-295X.93.2.119

Stewart, D. N., & Szymanski, D. M. (2012). Young adult women's reports of their male romantic partner's pornography use as a correlate of their self-esteem, relationship quality, and sexual satisfaction. *Sex Roles*, *67*(5–6), 257–271. https://doi.org/10.1007/s11199-012-0164-0

Striar, S., & Bartlik, B. (1999). Stimulation of the libido: The use of erotica in sex therapy. *Psychiatric Annals*, *29*(1), 60–62. https://doi.org/10.3928/0048-5713-19990101-13

Štulhofer, A., Buško, V., & Brouillard, P. (2010). Development and bicultural validation of the New Sexual Satisfaction Scale. *Journal of Sex Research*, *47*(4), 257–268. https://doi.org/10.1080/00224490903100561

Sun, C., Bridges, A., Johnson, J. A., & Ezzell, M. B. (2016). Pornography and the male sexual script: An analysis of consumption and sexual relations. *Archives of Sexual Behavior*, *45*(4), 983–994. https://doi.org/10.1007/s10508-014-0391-2

Szymanski, D. M., Feltman, C. E., & Dunn, T. L. (2015). Male partners' perceived pornography use and women's relational and psychological health: The roles of trust, attitudes, and investment. *Sex Roles*, *73*(5–6), 187–199. https://doi.org/10.1007/s11199-015-0518-5

Szymanski, D. M., & Stewart-Richardson, D. N. (2014). Psychological, relational, and sexual correlates of pornography use on young adult heterosexual men in romantic relationships. *The Journal of Men's Studies*, *22*(1), 64–82. https://doi.org/10.3149/jms.2201.64

Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York, NY: Guilford Press.

Tangney, J. P., Dearing, R., Wagner, P. E., & Gramzow, R. (2000). *The Test of Self-Conscious Affect-3 (TOSCA-3)*. Fairfax, VA: George Mason University.

Tangney, J. P., Wagner, P., & Gramzow, R. (1992). Proneness to shame, proneness to guilt, and psychopathology. *Journal of Abnormal Psychology*, *101*(3), 469–478. https://doi.org/10.1037/0021-843X.101.3.469

ten Kate, J., de Koster, W., & van der Waal, J. (2017). The effect of religiosity on life satisfaction in a secularized context: Assessing the relevance of believing and belonging. *Review of Religious Research*, *59*(2), 135–155. https://doi.org/10.1007/s13644-016-0282-1

Tomkins, S. S. (2008). *Affect imagery consciousness: The complete edition*. New York, NY: Springer.

Tylka, T. L., & Kroon Van Diest, A. M. (2014). You looking at her "hot" body may not be "cool" for me: Integrating male partners' pornography use into objectification theory for women. *Psychology of Women Quarterly*, *39*(1), 67–84. https://doi.org/10.1177/0361684314521784

Veer, E., & Shankar, A. (2011). Forgive me, Father, for I did not give full justification for my sins: How religious consumers justify the acquisition of material wealth. *Journal of Marketing Management*, *27*(5–6), 547–560. https://doi.org/10.1080/0267257X.2010.517707

Volk, F., Floyd, C. G., Bohannon, K. E., Cole, S. M., McNichol, M., Schott, E. A., & Williams, Z. D. R. (2019). The moderating role of the tendency to blame others in the development of perceived addiction, shame, and depression in pornography users. *Sexual Addiction & Compulsivity*, *26*(3–4), 239–261. https://doi.org/10.1080/10720162.2019.1670301

Volk, F., Thomas, J., Sosin, L., Jacob, V., & Moen, C. (2016). Religiosity, developmental context, and sexual shame in pornography users: A serial mediation model. *Sexual Addiction and Compulsivity*, *23*(2–3), 244–259. https://doi.org/10.1080/10720162.2016.1151391

Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). Thousand Oaks, CA: Sage.

Watts, F. (2001). Shame, sin, and guilt. In A. McFadyen & M. Sarot (Eds.), *Forgiveness and truth: Explorations in contemporary theology* (pp. 53–70). Edinburgh, Scotland: T & T Clark.

Weaver, M. J. (1989). Pornography and the religious imagination. In S. Gubar & J. Hoff (Eds.), *For adult users only: The dilemma of violent pornography* (pp. 68–86). Bloomington, IN: Indiana University Press.

Werner, M., Štulhofer, A., Waldorp, L., & Jurin, T. (2018). A network approach to hypersexuality: Insights and clinical implications. *Journal of Sexual Medicine*, *15*(3), 373–386. https://doi.org/10.1016/j.jsxm.2018.01.009

Whisman, M. A., Uebelacker, L. A., & Weinstock, L. M. (2004). Psychopathology and marital satisfaction: The importance of evaluating both partners. *Journal of Consulting and Clinical Psychology*, *72*(5), 830–838. https://doi.org/10.1037/0022-006X.72.5.830

Whitehead, A. L., & Perry, S. L. (2018). Unbuckling the Bible Belt: A state-level analysis of religious factors and Google searches for porn. *Journal of Sex Research*, *55*(3), 273–283. https://doi.org/10.1080/00224499.2017.1278736

Wiederman, M. W. (1999). Volunteer bias in sexuality research using college student participants. *The Journal of Sex Research*, *36*(1), 59–66.

Willoughby, B. J., Carroll, J. S., Busby, D. M., & Brown, C. C. (2016). Differences in pornography use among couples: Associations with satisfaction, stability, and relationship processes. *Archives of Sexual Behavior*, *45*(1), 145–158. https://doi.org/10.1007/s10508-015-0562-9

Wilson, G. (2015). *Your brain on porn: Internet pornography and the emerging science of addiction*. Kent, United Kingdom: Commonwealth.

Worthington, E. L., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., . . . O'Connor, L. (2003). The Religious Commitment Inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology*, *50*(1), 84–96. https://doi.org/10.1037/0022-0167.50.1.84

Wright, P. J., Bae, S., & Funk, M. (2013). United States women and pornography through four decades: Exposure, attitudes, behaviors, individual differences. *Archives of Sexual Behavior*, *42*(7), 1131–1144. https://doi.org/10.1007/s10508-013-0116-y

Wright, P. J., Tokunaga, R. S., & Bae, S. (2014). More than a dalliance? Pornography consumption and extramarital sex attitudes among married U.S. adults. *Psychology of Popular Media Culture*, *3*(2), 97–109. https://doi.org/10.1037/ppm0000024

Wubbolding, R. E. (2017). *Reality therapy and self-evaluation: The key to client change*. Alexandria, VA: American Counseling Association.

Yoo, H., Bartle-Haring, S., Day, R. D., & Gangamma, R. (2014). Couple communication,

emotional and sexual intimacy, and relationship satisfaction. *Journal of Sex and Marital Therapy*, *40*(4), 275–293. https://doi.org/10.1080/0092623X.2012.751072

Yucel, D., & Gassanov, M. A. (2010). Exploring actor and partner correlates of sexual satisfaction among married couples. *Social Science Research*, *39*(5), 725–738. https://doi.org/10.1016/j.ssresearch.2009.09.002

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 and Compulsivity*, *16*(3), 210–240. https://doi.org/10.1080/10720160903202679

## APPENDIX A: INFORMED CONSENT

**Informed Consent Form**

You are invited to be in a research survey which is a study about the Impact of Family-of-Origin Experience, Spirituality, Sexual Behavior, Sexual Attitudes, Relationships, and attitudes about pornography. As compensation, one dollar and 25 cents will be made available to participants who complete it. We ask that you read this form and ask any questions you may have before agreeing to participate in the survey. You have received the opportunity to participate in this survey through your arrangement with Amazon Mechanical Turk.

**Confidentiality**

The records of this study will be kept private and anonymous. We are asking for your honest response to all the questions. Research records will be stored securely and only researchers will have access to the records. Publications from this research study will only report on statistical information as no personal information will be requested from you.

**Contacts and Questions**

The researcher conducting this study is Fred Volk. Please feel free to send the questions you may have at any time during the course of this study by email: fvolk@liberty.edu. If you have questions later, you are encouraged to contact him via email. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), then you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Green Hall Suite 1887, Lynchburg, VA 24515 or email at irb@liberty.edu. In case you may need to talk to a counselor after taking the survey, though this is not an endorsement of the following free online counseling service, you may contact http://www.onlinecounselling4u.com/. Again, this is only a suggested resource to assist you just in case you need counseling assistance after completing the

survey.

**Risks and Benefits**

There is no direct benefit to you from your participation in this survey. Risk is mostly limited to social impact should an individual's responses be released; therefore the responses will be collected anonymously with no identifying information. You will receive $1.25 (U.S.) for completing this survey. The findings from this study have important implications for counselors and counseling services.

**Procedures**

If you agree to be in this study, we would ask you to complete the questionnaire. As part of this survey, you will be asked several questions about yourself, as well as questions about your family-of-origin, your beliefs, your attitudes, and your behavior. This survey will take between 20 and 45 minutes to complete.

**Compensation**

As compensation, one U.S. Dollar ($1.25) will be made available to participants who complete it.

**Voluntary Nature of The Study**

Thank you for your interest in participating in this survey. Your participation is voluntary, and you can quit at any time. Your decision whether or not to participate will not affect your current or future relations with Liberty University. Researchers reserve the right to refuse compensation if you do not indicate that you have willingly agreed to participate in this survey.

**Statement of Consent**

Please click "yes" if you agree with the following statement: "I have read the above

information and I consent to participate in the study and for my data to be analyzed for the

purposes of the study." All information you provide in this survey is completely anonymous. By

answering yes to the question below, you are agreeing to participate in this study.