RELIGIOSITY, MORAL DISAPPROVAL, SHAME AND PORNOGRAPHY USE:

ASSESSING THE RELATIONSHIP BETWEEN SHAME AND SEXUAL BEHAVIORS

by

Ryan A. Carboneau

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the degree

Doctor of Philosophy

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ABSTRACT

Many compulsive and hypersexualized behaviors, including pornography use, have been associated with negative emotional, neurological, and psychosocial problems in a subset of users. Research showed that the constructs of shame, shame-proneness, and attachment may be related to the use of pornography as well as the theory of addiction. Shame-proneness is a construct that is consistently and positively associated with a variety of internalizing symptoms including depression, social, and generalized anxiety as well as a linked to an assortment of externalizing and risky behaviors such as anger, substance use, and criminal offending. Research suggested that higher levels of religiosity have a strong relationship to the moral disapproval of the use of pornography based on individual religious beliefs. This study examined the correlation between religiosity and sexual shame based on earlier research, which hypothesized that moral disapproval would mediate the relationship between religiosity and sexual shame. This research also hypothesized that shame-proneness would moderate the relationships between religiosity and moral disapproval, moral disapproval, and sexual shame, and finally the relationship between religiosity and sexual shame. The results showed that consistent with earlier research; moral disapproval mediated the relationship between religiosity and sexual shame. The study found that shame-proneness was a direct predictor of sexual shame however it did not moderate direct or indirect effects on the proposed theoretical relationships.

Keywords: pornography use, shame-proneness, sexual shame, religiosity, moral disapproval, attachment, shame, addiction, internalizing symptoms, risky behaviors

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CHAPTER ONE: INTRODUCTION

Pornography use is relatively common over the past two decades due to the accessibility, affordability, and anonymity provided by the many types of Internet-connected devices available to consumers (Cooper, Delmonico & Burg, 2000). Struthers' (2009) secondary review of the data proposed that shame is also a contributing factor towards pornography consumption. Sabina, Wolak, and Finkelhor (2008) found that 50% of boys and 32% of girls experienced guilt or shame after engaging in pornography use. Increase in pornography use was associated with the concomitant increase in researchers looking to understand the conditions under which pornography becomes problematic. Given the negative outcomes associated with feelings of shame (Arel, 2015; Picone, 2015) and the associated feelings of shame that a subset of pornography users seem to experience (Grubbs, Exline, Pargament, Hook, & Carlisle, 2015; Tangney, Wagner, & Gramzow, 1992), there continues to be a need to further understand the dimensions of these subgroups that result in functional rather than dysfunctional behavior (Kafka, 2010) and the many potential psychological outcomes that stem from shame and pornography use (Bancroft & Vukadinovic, 2004; Mulac, Jansma & Linz, 2002; Riemersma & Sytsma, 2013; Yoder, Virden & Amin, 2005).

Previous research focused on the many negative effects of pornography use including shame (Arel, 2015; Picone, 2015), problems with emotional attachment within the context of close relationships (Riemersma & Sytsma, 2013; Zapf, Greiner, & Carroll, 2008), feelings of anxiety and depression (Bancroft, 2002; Mulac et al., 2002), hypersexual online and offline behaviors (Kafka, 2010), aggression (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010), dominance (Toronto, 2009), loneliness (Wright, Tokunaga, & Kraus, 2015) and dissociation (Yoder et al., 2005).

Shame-proneness, an individual's overall susceptibility to feeling shame at any given time, may lead to higher levels of pornography use, and more generally, higher levels of hypersexuality (Picone, 2015), compulsive behaviors (Tangney, Wagner, & Gramzow, 1992), and religiosity (Murray, Ciarrocchi & Murray-Swank, 2007). There was a highly consistent relationship found between religiosity and deviance (Baier & Wright, 2001) and Reid, Carpenter, and Hook (2016) noted that hypersexual behavior and religious behavior might have a cyclical relationship with one another.

Recent research has focused on the topic of religiosity and its relationship to pornography use to assess the effects between the two variables as well as assessing for shame, shame-proneness, the moral disapproval of pornography uses and an individuals' perceived addiction to pornography. Grubbs et al. (2015) examined the association between religiosity and perceived addiction to internet pornography. The authors found that religiosity predicted greater perceived addiction though it did not predict greater use of pornography. Further, the authors reported that those religious participants perceived themselves to have an addiction to the use of pornography, though their actions and behaviors were found to contradict their self-assessments. Grubbs et al. (2015) also noted in their study that religiosity was robustly and strongly related to the moral disapproval of the use of pornography based on their religious beliefs. Volk, Thomas, Sosin, Jacob, & Moen (2016) replicated these findings in their own study.

For decades clinicians studied shame (Brown, 2012; Carnes, 1983; Kyle, 2013; Picone, 2015) and its key role in religiosity and other sexual behaviors. It would help the field of shame research to assess shame-proneness and its potential relationship to sexual shame. Research on sexual shame was scarce (Kyle, 2013) and would help clinicians and clients working with pornography use, hypersexual, and/or compulsive behaviors. It is the hope that this research and

study will give further credence to the clinical models and treatment of compulsive and hypersexual behaviors.

The simple mediation model developed by Grubbs et al. (2015) looked at how the moral disapproval of pornography use mediated the relationship between religiosity and perceived addiction. Volk et al. (2016) added to the simple model and created the serial mediation model which included the antecedent and later outcome of childhood household religiosity and sexual shame to the beginning and end of the model, respectively. Volk et al. (2106) found that each of the relationships in the serial mediation model was significant in the hypothesized direction. Household religiosity was predictive of personal religiosity; personal religiosity was predictive of moral disapproval of pornography use; moral disapproval of pornography use was predictive of perceived addiction to pornography, and perceived addiction to pornography was predictive of sexual shame. Their research noted that moral disapproval had the hypothesized indirect effect as well as an unhypothesized direct effect on sexual shame. The focus of this study centers on the results of Volk et al. (2016), (i.e., understanding the nature of the direct effect of moral disapproval on sexual shame) and the need to provide thorough bio-psycho-social-spiritual assessment and specialized clinical care for individuals with sexual concerns/issues whose shame keeps them in the cycle of powerlessness to stop their behaviors are the two drivers.

Noting the direct effects that occurred between moral disapproval and sexual shame in the Volk et al. (2016) study, the current study seeks to extend their serial mediation model. This study will assess the relationship between personal religiosity and sexual shame and will look at the mediating variable of moral disapproval and its effects on the relationship. This study will remove the perceived addiction to pornography variable and assess the serial mediation model noting the direct effects between moral disapproval and sexual shame. This study will also

assess the moderating variables of both shame-proneness and compulsivity and the relationship they have on sexual shame in those individuals who have used, are planning to use or are making efforts to use pornography sometime soon. Shame-proneness may play a key role in the usage of pornography as it is expected that higher shame-proneness will lead to higher levels of sexual shame. There is also the expectation that higher levels of compulsivity will either worsen a negative view of self, inciting the experience of shame, or the compulsivity will reduce moral disapproval resulting in lower sexual shame. Finally, high moral disapproval should lead to higher sexual shame, while low moral disapproval should lead to lower levels of sexual shame. Chapter 2 will continue a more detailed discussion on these topics.

Background of the Problem

The exposure to and continued use of pornography, both online and offline, create a host of negative personal, social, and/or relational consequences. Several meta-analyses (Wright, Tokunaga, Kraus, & Klann, 2017; Wright et al., 2015) have found an assortment of negative outcomes including decreased levels of both relationship and sexual satisfaction. Wright et al. (2015) found that individuals who consume pornography more often were more likely to hold attitudes conducive to sexual aggression and engage in sexually aggressive acts than individuals who did not consume pornography or consumed it less frequently.

When assessing men's behavior toward women after viewing sexually explicit films, the research concluded that after a short-term priming exposure to pornographic materials, there was clinical significance between groups who viewed different videos in areas of dominance, anxiety, physical touch, and gaze aversion (Mulac et al., 2002). Yoder et al. (2005) found an established association between loneliness and pornography use, noting that pornography use served as a coping strategy to reduce the feelings of loneliness. Stack, Wasserman, and Kern (2004) found

that the earlier literature on Internet pornography had been dominated by psychological models and very few studies of sociological predictors. They found dedicated support for the positive relationships between social control variables and cyber-pornography use such as religious, marital, and political bonds. The authors found that earlier sexually deviant behavior had a more powerful impact on cyberporn use than strongly held religious beliefs.

Regarding emotional difficulties in pornography users, Cooper, Putnam, Planchon, and Boies, (1999) found four distinct types of internet pornography users including recreational, depressive, stress-reactive, and compulsive sexual types. Most users or addicts had difficulty expressing their emotions, particularly anger, and that most have experienced trauma of some kind during childhood. Young (2008) mentioned several risk factors in the development of internet sex addiction: emotional problems, personal problems, relapse from sex addiction, and the unlocking of hidden sexual feelings. Further research on negative moods such as anxiety and depression (Bancroft, 2002), as well as affect regulation, may help in lessening the use of pornography and subsequent negative effects of that use, which may lead to more deviant and destructive sexually addictive behaviors (Adams & Robinson, 2001). Bancroft and Vukadinovic (2004) hypothesized and found an increase in sexual interest and responsiveness during negative mood states.

Cooper et al. (2001) found that the predictive variables between those having online sexual problems and those not having online sexual problems were coping with stress, distraction, meeting for sex, and/or socialization. Using a sample religious population of college students, Picone (2015) studied the role of shame-proneness and its meaningful relationship to greater pornography use, indicating that the higher the shame, the greater the pornography use. The difference, however, is deciphering between state shame, shame felt in the current moment,

and shame-proneness, one's proneness to feel shame based on several factors. A definition of these two experiences of shame appear later in the chapter.

Picone's (2015) results support much of the earlier research in the field that religiosity often predicts greater levels of moral disapproval of pornography use (Grubbs et al., 2015). The moral disapproval of pornography, in turn, leads to greater perceived addiction (Volk et al., 2016), but predict lower rates of actual pornography use compared to their non-religious counterparts. Gilliland, South, Carpenter, and Hardy (2011) discovered that an endorsement of some type of religious affiliation did not appear to impact the level of hypersexuality, shame, guilt, or motivation to change. In another study, Reid et al. (2016) found that the religious participants did not experience greater levels of shame due to their hypersexual behavior and noted that the levels of maladaptive shame were comparable between groups of religious and non-religious participants. Noting the contradictory findings in these studies about religious populations, shame, and sexual behaviors, there are other variables accounting for the variance in the development of shame.

Much of the earlier research on pornography use suggested that religiosity mostly served as a positive buffer, reducing the frequency of use amongst those religious participants in each study (Grubbs et al., 2015; Short, Kasper & Wetterneck, 2015). However, in a sample population of 125 religious, male college students, Abell, Steenbergh, and Boivin (2006) found a positive relationship between spiritual belief scores and increased internet pornography use. Their study concluded that one-third of the participants struggled with higher levels of pornography use as well as strong desires to go to pornographic websites during any school-related online activities (e.g. research, email, etc.).

There are many pieces to the puzzle about pornography use amongst religious populations and many plausible reasons for usage including emotional avoidance and insecure attachment. Attachment has been studied within the context of addictive behaviors, and insecure attachment styles tend to be associated with feelings of shame and a lifetime of increased sexualized behaviors (Leedes, 2002). Previous research suggested that many religious individuals feel shame when engaging in activities contrary to their core religious beliefs (Picone, 2015; Grubbs et al., 2015). The research of Prosek et al. (2017) revealed the construct of shame acting as an antecedent and consequence of substance abuse, which has a similar addictive cycle as the sexual addiction model. While guilt typically acts as a behavior-modifying experience, shame often debilitates the individual and fuels a cycle of addiction by creating greater levels of negative affect that can sometimes precipitate the use of substances or negative coping behaviors (Scherer, Worthington, Hook, & Campana, 2011). Research is clear that specifically after abusing substances, individuals often feel state shame resulting from the potential negative consequences and the violation of religious or moral convictions (Dearing, Steuwig, & Tangney, 2005; Prosek et al., 2017).

Grubbs et al. (2015) showed in their research that there are greater levels of perceived addiction in religious populations using pornography, even though the actual amount of pornography use was not statistically significant. Volk et al. (2016) found that there was a direct effect of moral disapproval on sexual shame and this current study further assessed those effects by looking specifically at the relationship between religiosity, sexual shame, and the mediating variable of moral disapproval. This study also proposes shame-proneness as a moderator between personal religiosity and moral disapproval, between moral disapproval and sexual shame and between personal religiosity and sexual shame. This study also proposes that

compulsivity will act as a moderator, strengthening the relationship between moral disapproval and sexual shame. These concepts will be further explained and explored in the following Chapter.

Statement of the Problem

Shame is an emotion linked to many negative relational constructs. There is a correlation with addiction, aggression, anger, blame, lack of empathy, substance abuse, and psychological symptoms such as anxiety, depression, and dissociation. Shame is less adaptive than guilt and affects the sense of self and self-worth in many negative ways (Dearing et al., 2005). Shame-proneness specifically has limited research and would be highly beneficial to assess within a population of religious, pornography users.

Pornography use, particularly amongst religious and some married populations appears related to many negative consequences of greater and riskier online and offline sexualized behaviors as well as relational consequences and feelings of shame (Kyle, 2013). According to Volk et al. (2016), the serial mediation model assesses the specific relationship each variable has with the next and found that each variable is predictive of the following one in the hypothesized direction. The authors found that there were direct effects between moral disapproval and sexual shame (which accounted for 20% of the variance) that perceived addiction to pornography did not account for. The previous research assessed the relationship between shame and Internet pornography (Chisolm & Gall, 2015; Kyle, 2013) and further research into this specific area would help assess the relationship between moral disapproval and sexual shame. This study added to the missing link between the construct of shame and its direct effects on the behaviors of individuals struggling with hypersexual or compulsive behaviors.

Purpose of the Study

The purpose of this study is to assess levels of shame, compulsivity, and religiosity in a population of pornography users. The hope is to create further research in the area of shame-proneness and its relationship to, and effects on sexual shame, to help clinicians better assist those struggling. In addition, this study added to the growing body of research related to the areas of shame, shame-proneness, religiosity, moral disapproval, perceived addiction, attachment, compulsivity and hypersexuality (Gilliland et al. 2015).

Research Questions

The six research questions for the current study are as follows:

RQ1: What is the relationship between religiosity and sexual shame?

To date, there have been unhypothesized direct effects found between these two variables in a previous study (Volk et al., 2016), however, a study devoted to this portion of the serial mediation model will continue to add to the literature regarding shame and its role in pornography use. Hypothesis: There will be a positive correlation between religiosity and sexual shame, noting the discrepancy between the individual's action and beliefs.

Religiosity ⟶ Sexual Shame

Figure 1.1 Model of research question one.

RQ2: Does moral disapproval mediate the relationship between religiosity and sexual shame?

Previous direct effects were found specific to moral disapproval mediating the relationship between religiosity and perceived addiction to pornography (Volk et al., 2016). Hypothesis: The relationship between religiosity and sexual shame will be strengthened by the variance added by moral disapproval.

Moral Disapproval

Religiosity ⟶ Sexual Shame
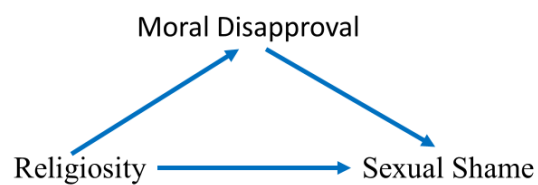
Figure 1.2 Model of research question two.

RQ3: Does shame-proneness moderate the relationship between religiosity and moral disapproval.

Shame-proneness is typically a precursor to feeling state shame after an undesired behavior (Dearing, Stuewig, & Tangney, 2005). Hypothesis: The relationship between religiosity and moral disapproval will be strengthened by shame-proneness.
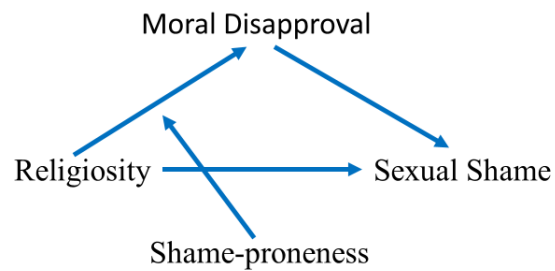
Figure 1.3 Model of research question three.

RQ4: Does shame-proneness moderate the relationship between moral disapproval and sexual shame. Hypothesis: The relationship between moral disapproval and sexual shame will be strengthened by shame-proneness.
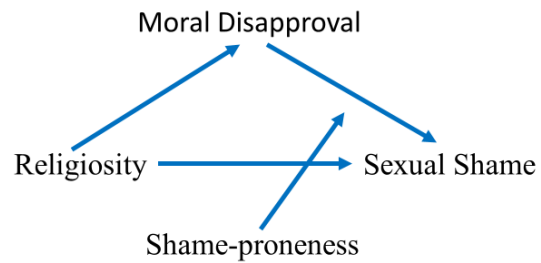
Figure 1.4 Model of research question four.

RQ5: Does shame-proneness moderate the relationship between religiosity and sexual shame.

Certain religious individuals are susceptible to shame-proneness (Prosek et al., 2017). Hypothesis: The relationship between religiosity and sexual shame would also be strengthened by shame-proneness.
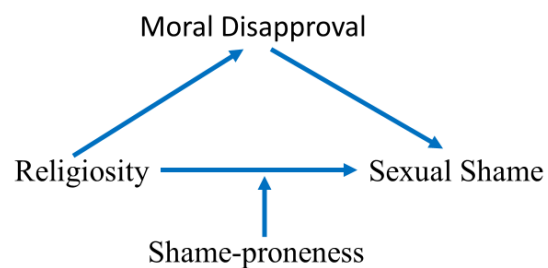
Figure 1.5 Model of research question five.

RQ6: Does compulsivity moderate the relationship between moral disapproval and sexual shame. Hypothesis: Compulsivity would strengthen the relationship between moral disapproval and sexual shame.
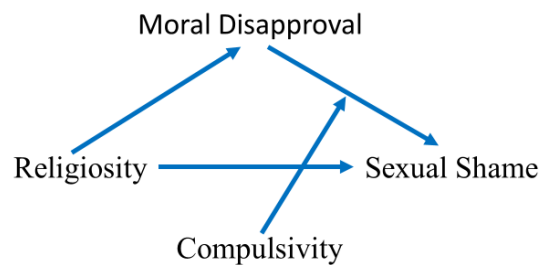
Figure 1.6 Model of research question six.

Assumptions and Limitations

One assumption of this study is that using Amazon's Mechanical Turk© to recruit the participants will enable generalizability of this study and represent the broader population in the United States. Previous research indicated MTurk samples have high diversity in ethnicity, socio-economic status, and age (Casler, Bickel, & Hackett, 2013; Mason & Sui, 2011). Another assumption is that the participants obtained through MTurk are representative of pornography users to include those who have both problematic and non-problematic use.

There are a few limitations of this study. Since this study uses a correlational research design, it is not possible to test causal relationships between the variables. Also, because the data was collected through Amazon's Mechanical Turk© (MTurk), it is possible that the sample initially obtained is not representative of the larger population of pornography users. It may be

the case that the sample does not have individuals who are compulsively using pornography or who are experiencing significant negative effects due to their pornography use. Also, some of the measures used may be associated with limitations. Finally, all the measures taken are via self-report, which may have some level of error due to difficulty remembering the amount or frequency of use, as well as social desirability.

Definition of Terms

*Pornography***:** For the purposes of this study, the definition of pornography is as explicitly written, pictorial, or audio-visual content depicting nudity or sexual behavior with the goal of sexual arousal. Operationally defining the term pornography has been difficult due to the vast array of pornographic material available. Ciclitira (2002) stated that "pornography is an elusive term with a range of meanings, dependent not only on cultural, social, and historical contexts but also on individuals' own experiences and beliefs" (p. 191). Manning (2006) stated that there has remained a challenge to operationally define the use of pornography which may diminish the ability to synthesize the research as to what types of pornography are being used by research participants. Carroll et al. (2008) define Internet pornography as online photos and/or videos presenting explicit nudity with the goal of enhancing sexual arousal. Campbell and Kohut (2017) define pornography as "written, pictorial, or audio-visual representations depicting nudity or sexual behavior" (p. 6). To assess pornography use, participants used self-report measures.

Religiosity: Religiosity is a multifaceted belief system incorporating cognitive, emotional, motivational, and behavioral aspects (Hackney & Sanders, 2003). Religiosity usually refers to membership and participation in the organizational structures, beliefs, rituals, and other activities related to a religious faith such as Christianity, Judaism, Hinduism, or Islam (Moberg,

2008). Derived from the Latin *relegare*, meaning *to bind together,* the word religion signifies a

bond, or attachment between humanity and a greater power. Scholars identified at least three

historical descriptions of the term: a supernatural power to which individuals must respond, a

feeling in individuals who conceive of such some power, and ritual acts carried out in respect of

that power (Larson et al., 1998). The *Religious Commitment Inventory* (RCI) measured

participants' religiosity (Worthington et al., 2003).

     Shame: Carnes (1991) said that shame is at the core of all addiction. Brown (2012)

defined shame as "the intensely painful feeling or experience of believing that we are flawed and

therefore unworthy of love and belonging" (p. 69). Scheff (2003) stated that shame is "the large

family of emotions that includes many cognates and variants, most notably embarrassment, guilt,

humiliation, and related feelings such as shyness that originate in threats to the social bond" (p.

255). Scheff also postulated that a threat to the attachment bond generates shame, then "not only

embarrassment, shyness, and modesty but also feelings of rejection and failure, and heightened

self-consciousness of any kind" (p. 255). For the purposes of this study, the construct of shame

assessed for measuring shame-proneness (see next definition).

     Shame-proneness: Shame-proneness measures the proneness of an individual making a

negative evaluation of the global-self [Test of Self-Conscious Affect, TOSCA] (Tangney et al.,

2002). Shame-proneness is related to interpersonal sensitivity, a key factor in supporting

attachment bonds, but also associated with a defense mechanism of externalizing blame, which is

detrimental to attachment bonds (Fontaine, Luyten, De Boeck, & Corveleyn, 2001). Shame-

proneness is an individual's overall susceptibility to feeling shame at any given time (Dearing et

al., 2005) and rather than moving towards emotional connection, the feeling of shame-proneness

drives the individual to avoid attachment figures and use negative coping strategies or behaviors.

Shame-proneness is consistently and positively associated with a variety of internalizing symptoms (Tangney et al., 1992), including depression (Stuewig & McCloskey, 2005), as well as social and generalized anxiety (Fergus, Valentiner, McGrath, & Jencius, 2010). A variety of externalizing and risky behaviors are linked to shame-proneness, such as anger (Tangney, Wagner, Fletcher, & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996), substance use (Dearing, Stuewig, & Tangney, 2005), and criminal offending (Wright, Gudjonsson, & Young, 2008). Participants' shame-proneness was measured using the TOSCA, which is the most widely used assessment measuring guilt and shame proneness.

Sexual Shame: Currently, no singular definition exists for sexual shame. The definition of shame is as the intensely painful feeling that an individual is inherently flawed, unacceptable, unworthy of love, and belonging. According to Kyle (2013), sexual shame is the experience of these emotions in response to one's current or past sexual thoughts, behaviors or experiences. Volk et al. (2016) noted that sexual shame has referred to how a person believes that they are being perceived by others and may also be related to how they view themselves as possibly sexually deviant or unlike the norm. Certain factors contribute to sexual shame such as earlier sexual abuse, an extreme religious environment, non-consensual sexual activity, looking at pornography and promiscuity (Lichtenberg, 2007). "Sexual shame is the emotional experience of unworthiness that clusters around events of the past" (Murray et al., 2007, p. 225).

Hypersexuality: Hypersexuality is a pattern of intense, recurrent, and excessive preoccupation with sexual fantasies, urges, and behaviors that individuals struggle to control (Kafka, 2010; Reid, Garos, & Carpenter, 2011). Hypersexuality, a clinical condition which includes observable symptoms (i.e., a high frequency of sexual activity), subjective symptoms (i.e., perceiving that one's sexual fantasies, urges, and behavior are uncontrollable), adverse life

consequences associated with their out-of-control sexual behavior, and significant psychological distress because of one's hypersexuality (Hook, Hook, Davis, Worthington, & Penberthy, 2010).

Sexual Compulsivity: Sexual compulsions are repetitive behaviors or mental acts, of which the purpose is to avoid or reduce personal anxiety or distress, rather than to give sexual pleasure or gratification (American Psychiatric Association, 2013). The sexual compulsivity model originally conceptualized hypersexuality as an obsessive-compulsive type of disorder (Coleman, 1990, 1992; Quadland, 1985).

Significance of the Study

There is a scant amount of research on shame-proneness and its links to sexual shame and other addictive behaviors. This study will take one step closer to assessing linkages between shame-proneness and addictive behaviors as well as creating further discussion with concern to pornography use, sexual shame, and religiosity. For clinicians, this research may find further evidence of the effects of shame and shame-proneness on pornography users, so they can continue to assist those struggling with these behaviors. The general public may find this research helpful by better understanding sexual shame and the problematic behaviors that cause it. Finally, for researchers, this study may lead to an increased understanding of shame as well as shame-proneness and open the door to further research assessing the problem of pornography use and other sexualized behaviors.

Organization of the Remaining Chapters

Chapter 2 will give an in-depth exploration of the literature on the topics of pornography use, shame, addiction, attachment, and religiosity. Chapter 3 will describe the research methods, including the method of data collection, measures used, and the data analysis procedures.

Chapter 4 will present the results of the study and will involve a discussion of how each of the hypotheses was tested using statistical analyses. Finally, Chapter 5 will discuss the findings of the study. Included will be a summary of the results, an interpretation of these results, how these findings relate to earlier research and the implications of the findings. Limitations of this research and areas for future research will also be discussed.

Summary

In summary, the problem of pornography use, particularly for religious populations, has continued to give mixed and somewhat opposing results in earlier studies. Pornography use for religious and non-religious people alike caused negative personal and relational consequences in the lives of users in the biological, sociological, psychological, and spiritual arenas. These problems consist of but are not limited to aggression, dissociation, impulse gratification, sexual aggression, objectification, and difficulty assessing fantasy versus reality. Pornography use may also affect individuals' job performance, shame levels, and potentially cause a great deal of distress if pornography use violates their religious beliefs. This study looked to better understand the role of sexual shame and its effects on pornography use, specifically looking at religious beliefs and their relationship with shame. The following chapter will review the literature on pornography use and research related to religiosity, shame, sexual shame, attachment, and addiction.

CHAPTER TWO: REVIEW OF THE LITERATURE

The purpose of this study is to assess the relationship between religiosity and sexual shame in a population of pornography users. The first research question examined the correlation between these two variables. The second question looks at whether moral disapproval mediated the relationship between religiosity and sexual shame. The third, fourth, and fifth questions add the moderator shame-proneness to each of the relationships, and the sixth looked specifically at compulsivity and efforts made towards the use of pornography. The research questions assessed for different experiences of shame and its mediating or moderating relationship to sexual shame.

This chapter will begin with an overview of the literature on religiosity and pornography use. Following that, the writing focused on the literature featuring the many potential psychosocial problems and negative outcomes associated with pornography use. After reviewing the literature on pornography use, this chapter will focus on aspects of shame, sexual shame, as well as compulsivity, hypersexuality, and attachment. Finally, an outline and review of the research questions and theoretical models complete the chapter.

Religiosity

Miller and Thoresen (1999) stated that religiosity encompasses the beliefs, rituals, and practices associated with a particular religious institution. Piedmont (2001) empirically defined religiosity as being concerned with shaping one's experience of a transcendent being is shaped by and expressed through, a community, group experience, or social organization. Much of the early work within the psychology of religion emphasized attendance at religious services as well as denominational membership and their relationship to other factors (Cashwell, Giordano, Lankford, King & Henson, 2017; Foubert & Bridges, 2017). Allport's (1950) formative

intuitions about religiosity focused specifically on the construct of spirituality, which may or may not include religious attendance or expression. Zinnbauer et al. (1997) found an association between religiosity and higher levels of church attendance, intrinsic religiousness, authoritarianism, parental religious attendance, religious orthodoxy, and self-righteousness. Early research lacked consistency in the relationship between these factors and psychological outcomes with attendance and membership yielding benefits in some studies while also being associated with psychopathology in other studies (Borras et al., 2010; Pargament & Lomax, 2013; Tangney & Dearing, 2002; Zinnbauer et al., 1997).

Freud (1927) famously stated that religion represented a defense against childish helplessness, which was the cynical attitude of many early 20th century thinkers. Religion has the label as a coping strategy (Harrison et al., 2001), a resource to turn to in times of trouble (Pargament, 1997), a passive retreat from problems, and an outright denial of pain and suffering (Pargament & Lomax, 2013). Despite the negative labels, religion has robust ties with restraint related to substance abuse (Prosek et al., 2017), crime and delinquency (Kelly, Polanin, Jang, & Johnson, 2015) and sexual promiscuity (Davidson et al., 1995).

Recent research looked at some of the cognitive, emotional, motivational, and behavioral aspects of religiosity (Hackney & Sanders, 2003). Harrison et al. (2001), performed a review of the empirical research around religious coping and found religious coping predicated on two different assumptions:

First, it assumes that all humans encounter trials and transitions that push them beyond their own capabilities, triggering a dynamic process of coping, which is distinguishable both from the triggering event and from the outcomes of coping. Second, it assumes that

in coping the individual is a proactive agent, engaging multiple possibilities and choices (p.86).

Further research is needed on the *dynamic process of coping* and how it relates to emotional and behavioral aspects of religious individuals specific to pornography users and those wrestling with unwanted sexual behaviors.

Regarding the relationship between religion and sexuality and the robust ties between restraint and promiscuity, many cross-sectional and longitudinal studies showed increased levels of self-reported religiosity related to higher rates of premarital abstinence, fewer lifetime sexual partners, and less frequent intercourse outside of marriage (Murray-Swank, Pargament, & Mahoney, 2005; Paul, Fitzjohn, Eberhart-Philips, Herbison, & Dickson, 2000). Individuals who reported no religious affiliation had more sexual partners than those with a specific religious affiliation (Laumann, Gagnon, Michael & Michaels, 1994), and reported that 40 studies showed support of a link between greater religiosity and less premarital sexuality (Murray-Swank et al., 2005).

Although some religious individuals act in ways consistent with their beliefs, others have difficulty aligning their beliefs and behaviors. Exline (2002) found that religious individuals often encounter higher levels of personal distress including feelings of guilt and shame when thinking about or acting in ways that are contrary to or inconsistent with their held beliefs. This contradiction can often cause inner conflict as the incongruence of an individual's personal and religious beliefs may differ and cause inconsistencies as well as the experience of shame. Research suggested that not living up to the self-imposed expectations of God showed a higher likelihood to participate in activities perceived as shame-based (Murray, Ciarrocchi & Murray-

Swank, 2007). The following section will discuss the research on religiosity and pornography use.

Religiosity and Pornography Use

Recent research showed that religiosity negatively correlated with pornography use (Short et al., 2015). Religious pornography users are more likely to report levels of higher emotional distress along with perceiving themselves as addicted to pornography than their non-religious counterparts, although the actual pornography usage is less (Grubbs et al., 2016; Short et al., 2015; Volk et al., 2016). Short et al. (2015) assessed the relationship between religiosity and Internet Pornography (IP) use and found that 16% of the participants reported that their IP use interfered with their relationship to God and 14.3% stated that IP use affected their spirituality. Their study found that those who endorsed more religiosity used less internet pornography than those endorsing less or no religiosity.

However, some religious individuals also reported problems related to pornography use. For example, excessive pornography use related to struggles with fidelity in Christian couples within committed relationships (Laaser & Gregoire, 2003), and individuals with strong religious backgrounds reported other issues associated with pornography use, including sex addiction, perceived addiction to pornography and other sexually compulsive behaviors (Grubbs et al., 2015). Religion may tend to promote different pathways to hypersexuality, such as covert sexual activity. Baier and Wright (2001) found a highly consistent relationship between religiosity and deviance and noted that hypersexual behavior and religious behavior might have a cyclical relationship with one another (Reid, Carpenter & Hook, 2016). Studies assessed the role of shame in pornography use (Gilliland et al., 2011; Picone, 2015), however, few studies have noted the effects of shame-proneness and its specific relationship to pornography use and sexual

shame (Gilliland et al., 2011). Based on their research, Reid et al. (2016) called for future studies on the potential contribution of religiosity to factors of protection or vulnerability from unwanted behaviors. Other studies recommend further research on the topics of religiosity and pornography use to better understand the relationship between religiosity, perceived addiction, and shame-proneness in the use of pornography (Picone, 2015; Reid et al., 2016). Chisolm and Gall (2015), in their secondary review of the literature, suggested how the use of a positive spiritual experience, as well as the use of self-compassion, can hold promise in breaking the cycle of pornography use. This study focused specifically on the relationship between religiosity and sexual shame, hoping to build a bridge, which will lead to the role of shame-proneness in sexual behaviors. First, some of the many reasons for pornography use will be discussed along with what drives individuals to use pornography despite potential negative relational, social and personal consequences.

Reasons for Pornography Use

There are many reasons why individuals use and view pornographic materials. Cooper et al. (2002), found that people used pornography as a way to distract themselves (78%), learn about sex (35%), cope with stress (29%), investigate sexual fantasies (21%), meet people with similar interests (19%), purchase sexual materials (12%), meet people with whom to have dates (10%), meet people with whom to have sex (10%), and to seek support related to sexual problems (7%).

Foubert and Bridges (2017) noted that there is a scarce amount of literature on specifically what motivates people to use pornography (Cooper et al., 2002; Frable, Johnson, & Kellman, 1997; Stack, Wasserman, & Kern, 2004). Common sense and the general public likely believe that pornography is used primarily for sexual stimulation, however, pornography use

may occur for a number of distinct reasons, far beyond simple sexual enjoyment. Braun-Courville and Rojas (2009) found that adolescents visit pornographic websites because they are sexually curious (50%), by accident (46%), and to seek information (17%). The male population in the study cited their reasons for use were sexual excitement (53%) and simply because they liked it (44%), while females (37%) were more likely to say that they were curious about watching, while males (49%) and females (36%) said that they watched in order to get information about sex (Romito & Beltramini, 2012). Further reasons for pornography use in a different population of men was sexual stimulation (i.e., masturbation), while the women in the study sought a more relational aspect of wanting to take part in sexual activity with a romantic partner (Bridges & Morokoff, 2011). More motives found for pornography use consisted of satisfying curiosity, relieving boredom, reducing stress, and minimizing feelings of loneliness (Foubert & Bridges, 2017).

The research found many reasons for pornography use, including but not limited to coping with stress, sexual arousal, mood enhancement, curiosity, emotional avoidance, meeting other people, and more (Foubert & Bridges, 2017; Stack, Wasserman, & Kern, 2004). Some pornography users reported negative outcomes after use, while others reported significant negative outcomes and consequences such as shame (Chisolm & Gall, 2015), perceived addiction (Grubbs et al., 2016) and other psychopathology (Kafka, 2010; Samenow, 2010; Schultz, Hook, Davis, Penberthy, & Reid, 2014). Findings tended to focus on the more positive reasons for pornography usage, yet a population of users continues to turn to pornography despite their best efforts to stop using it. The next section will cover the research associated with the many negative outcomes that come from the use of pornography.

Negative Outcomes Associated with Pornography Use

Previous research focused on the many negative outcomes associated with pornography use including feelings of shame (Arel, 2015; Picone, 2015) problems with emotional attachment within the context of close relationships (Riemersma & Sytsma, 2013; Zapf, Greiner, & Carroll, 2008), feelings of anxiety and depression (Bancroft, 2002; Mulac, Jansma & Linz, 2002), hypersexual online and offline behaviors, (Kafka, 2010) aggression (Bridges et al., 2010), dominance (Toronto, 2009), loneliness (Wright et al., 2015) and dissociation, (Yoder et al., 2005).

Several meta-analyses covering pornography use found negative outcomes such as sexual aggression (Wright, Tokunga & Kraus, 2015), dominance and gaze aversion (Mulac, Jansma, & Linz, 2002) as well as impulse gratification, objectification, and difficulty assessing fantasy versus reality. Social factors also noted include loneliness (Yoder et al., 2005), linkages between social control variables and increased cyberporn use (Stack et al., 2004), and past sexually deviant behavior having a more powerful impact on cyberporn use than strongly held religious beliefs. Finally, Carrol et al. (2008) found that upwards of 20% of their participants who engaged in the use of pornography found their behavior unacceptable, which may be associated with the experience of shame-related thoughts and feelings. While certain pornography users do not self-report negative outcomes or consequences due to their pornography use and view their use as a positive experience, some populations of pornography users hide their use and/or use covertly to deny and minimize any negative consequences. Since the experience of shame is maladaptive and may lead to a continued cycle of use (Prosek et al., 2017), the aspect of shame and specifically shame-proneness would be beneficial to address in the growing body of research regarding addictive behaviors.

Shame

The construct of shame has two aspects that measure shameful emotional experiences. Shame as a measurable in the present moment emotion (state shame), or as a trait or characteristic (shame-proneness). Pornography is positively related to feelings of shame (Picone, 2015), and elevated levels of shame can be detrimental to pornography users, causing individuals to feel hopeless to change their behaviors (Chisolm & Gall, 2015). Shame is already known to be related to substance abuse (Dearing, Stuewig & Tangney, 2005) and associated with emotional avoidance as well as aggression (Tangney, 1991) which has driven the belief that shame is maladaptive and related to psychopathology.

Regarding shame and its presence in religiosity, Murray, Ciarrocchi, and Murray-Swank (2007) stated that shame is intricately connected to feeling spiritually alienated. Shame did not reduce an overall sense of spiritual connectedness or stop one from engaging in religious practices. Noting the positive effects between religiosity and shame, higher levels of religiosity can also yield higher levels of sexual behaviors and increased levels of shame. Reid, Harper, and Anderson (2009) argued that further understanding about the precipitating and perpetuating risk factors associated with maladaptive shame would be beneficial in future studies.

Shame has a strong positive relationship with externalization, blaming others or circumstances for one's own negative behavior (Tangney, 1990). Externalization is most likely creating denial and ignorance due to not wanting to consider or face the potential consequences of their negative coping strategies. Struthers (2009) suggested that shame, an emotion which is common amongst many types of addictions, is a contributing factor towards the use of pornography, and shame was found to cause the addicted person to ruminate and feel stuck in both thought and action (Chisolm & Gall, 2015). Adams and Robinson (2001) reported that

shame drives the addictive system and plays a cyclical role in addictive behaviors. Prosek et al. (2017) discussed understanding their participants' experience of shame as a part of the negative, cyclical pattern of substance abuse and shame. Many therapists, clinicians, and other professionals working with addicts agree that the role of shame plays a powerful part in the addictive process, however, research has yet to fully confirm these findings.

The feeling and experience of shame have an impact on one's thoughts, beliefs, and actions about sexualized behaviors. Shame, in general, produces negative results, different than guilt. Thus it could be any type of shame is maladaptive and detrimental to the individual experiencing it. The next section will look at the specific aspects of shame-proneness and state shame and their role in addictive behaviors.

Shame Proneness

Shame-proneness is an individual's overall susceptibility to feeling shame at any given time (Dearing, Stuewig, & Tangney, 2005). Research showed a positive association between shame-proneness and problematic alcohol and drug use (Dearing et al., 2005), and consistently showed a positive relationship between shame-proneness and a variety of psychological symptoms, including depression, anxiety, obsessive-compulsive tendencies, pornography use, and hypersexuality (Allan, Gilbert, & Goss, 1994; Andrews, Qian, & Valentine, 2002; Gramzow, & Tangney, 1992; Harder, 1995; Jones, & Kugler, 1993; Picone, 2015). Shame-proneness is measurable in early ages, and research suggested that the way children cope with feelings of shame, play a role in the development of future behavioral issues (Muris & Meesters, 2013). Further research is necessary focusing on childhood shame-proneness, which may increase the likelihood of later maladaptive cycles of risky behavior.

Dweck and Leggett (1988) noted that in response to childhood failure, certain children confront failure and look for new strategies to achieve the task, while others focus more on the failure and its implications for their sense of self-worth. Stuewig et al. (2015) suggested that children who focus more on the failure are more likely to feel and experience shame. Shame-prone children are more likely to get *stuck* in the shameful feelings of having failed, which could correlate with drinking and drug use later in life (Treeby & Bruno, 2012). The emotional distress and painful feeling of shame can also incite defensiveness and irrational anger towards self and others (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney et al., 1996). Instead of being able to acknowledge the problem and learn from it, shame-prone individuals are inclined to distort, rationalize, or deny the occurrences (Stuewig et al., 2015). Individuals struggling with compulsivity and hypersexuality also deny, rationalize, and distort reality as a way of removing personal blame for their actions (Adams & Robinson, 2001). Many psychosexual disorders stem from childhood related neglect, trauma, or ongoing child sexual abuse (Blain, Muench, Morgenstern, & Parsons, 2012; Griffin-Shelley, 2014; Schwartz & Galperin, 2002).

Research showed that the experience of guilt coincides with taking responsibility for one's actions (Tangney, 1990; Tangney & Dearing, 2002). Stuewig et al. (2015) stated that "Feelings of guilt about specific behaviors are less likely to invoke the defensiveness, denial, and externalization of blame that is so characteristic of shame" (p. 222). Individuals scoring higher on guilt-proneness are better able to take responsibility and begin repairing the action (Steuwig et al., 2015). Overall, a person's proneness to guilt appears to be much more constructive to adapt to potential negative circumstances, while one's proneness to shame appears to bring some very deep psychological distress and pain (Muris & Meesters, 2013). Regarding psychological adjustment and the self, the differences between guilt and shame look at the distinction between

focusing negatively on the self, versus focusing simply on the behavior. Noting the positive effects that stem from guilt-proneness, it would benefit the literature to focus on ways of recognizing, lowering, or eliminating feelings of shame-proneness. Future research would help therapists and clients struggling with shame-proneness and the negative outcomes associated with problematic behaviors.

State Shame

State shame is a self-perceived level of shame related to a specific action, behavior, or event (Turner, 1998). According to Tangney and Dearing (2002), the challenges associated with assessing state shame can be substantial and noted that individuals tend to deny and underreport their feelings of shame because of either a lack of self-awareness or social desirability. Individuals may also self-isolate when feeling shame, which may reduce participation, increasing attrition rates within the participant groups (Tangney & Fischer, 1995). The experience of shame may be so emotionally debilitating that individuals could be unwilling or unable to express themselves when feeling it (Babcock & Sabini, 1990; Kaufman, 1989). After looking at the different experiences of shame, it is important to look also at the effects that come about in an individual's experience of shame.

The Effects of Shame

Morrison (1998) suggested that shame is universally manifested by the sufferer's behavior and even in their physical appearance, noting symptoms such as "brows furrowed, eyelids drooping, and gaze cast downward, the head characteristically hangs forward. The body posture is stooped, shoulders are slack, and the gait is slow and shuffling" (p. 7). Shame can motivate individuals to hide from the self and others and will very often deny responsibility and

blame others for the occurrence (Tangney & Dearing, 2002). Shame can precipitate an individual feeling inferior, defective, unworthy, incompetent, weak, unlovable, despairing, and feel like a failure (Morrison, 1998).

Studies showed that the experience of shame can be powerfully detrimental to students' abilities to learn and can often be an impairment to their academic performance (Johnson, 2012). Shame can create neurological problems, inhibiting creativity, and hindering the brain from processing new ideas (Womack, 1999). It can also cause elevated levels of stress and contribute to eating disorders, low self-esteem, suicidal ideation, self-injury, and compulsive behaviors (Pinto-Gouveia & Matos, 2011; Rizvi, 2004; Tangney & Dearing, 2002 Tangney, Wagner, & Gramzow, 1992). Specifically noting the effects between shame and many types of sexual behaviors, the following section examines the relationship between shame and many types of sexualized psychopathologies.

Shame and Hypersexuality, Sexual Compulsivity, and Sexual Addiction

Both researchers and therapists identified shame as a key component in the repetitive cycle of addictive behaviors (Riemersma & Sytsma, 2013). Research shows evidence linking shame-proneness and problematic drug and alcohol use (Dearing, Stuewig, & Tangney, 2005; Prosek et al., 2017) and shame is also a factor in a population of pornography users (Carrol et al., 2008). Shame brings many negative and self-deprecating thoughts and feelings to individuals' experiences including continued adverse effects on sexual behaviors (Chisolm & Gall, 2015).

Hypersexuality and Shame

The definition of hypersexuality is a pattern of recurrent, intense, and excessive preoccupation with sexual fantasies, urges, and behavior that individuals struggle to control

(Kafka, 2010; Reid, Garos, & Carpenter, 2011). Hypersexuality is most often associated with

depressed mood and anxiety (Kafka & Hennen, 2002; Nair, Pawar, Kalra, & Shah, 2013; Schultz

et al., 2014). Samenow (2010) mentioned the biopsychosocial formulation of hypersexual

disorder, studying attachment, trauma, social aspects, and the biological nature of addiction and

how each has their impact on the individual. Reid, Stein, and Carpenter (2011) found that shame

was significantly correlated with hypersexuality, however, their findings suggested that shame

was not a significant direct predictor of hypersexuality.

Gilliland et al. (2011) assessed the effects of guilt and shame on hypersexuality. Shame

was positively predictive of hypersexual behavior, while guilt was positively predictive of

motivation to change. The shame that many hypersexual individuals report due to their

hypersexual behaviors may interfere with their efforts to change their negative behaviors

(Gilliland et al., 2011). Similarly, they found that shame-proneness also predicted higher levels

of hypersexuality. There were similar findings in a non-clinical sample of college students, that

shame-proneness was clinically correlated to the use of pornography (Picone, 2015).

Sexual Compulsivity and Shame

According to Walton, Cantor, Bhullar, and Lykins (2017), the sexual compulsivity model

originally conceptualized hypersexuality as an obsessive-compulsive type of disorder. Many

individuals search for relief from emotional distress that may occur due to negative sexual

thoughts or impulses that arise (Bancroft et al., 2003; Reid et al., 2009). These sexual thoughts,

urges, and behaviors are then negatively reinforced when they become paired with the reduction

of a negative stimulus such as emotional distress (Reid et al., 2009). Bancroft and Vukadinovic

(2004) suggested that for some individuals struggling with hypersexuality, the increased level of

sexual arousal becomes a conditioned response to their negative mood or distressed emotional

state (Walton et al., 2017). Research suggested that sexual compulsivity may be brought on by a particular trauma or stress-related disorder, such as post-traumatic stress disorder, and may also be due to childhood trauma, neglect, or sexual abuse (Blain et al., 2012; Griffin-Shelley, 2014; Schwartz & Galperin, 2002). Walton et al. (2017) developed the conceptualization of sexual compulsivity as a trauma and stress-related disorder. Howard (2007) suggested that hypersexual persons engage in compulsive and sexual behaviors to cope with stress, grief, and emotional distress as well as painful memories, such as sexual abuse or the death of a family member. The research on hypersexuality proposes that certain behaviors may simply be maladaptive coping with post-traumatic stress or emotion dysregulation (Walton et al., 2017).

The research suggests that shame evoked a differential attentional style congruent with the motivational dynamics typically found in individuals with sexual compulsivity (Petrican, Burris & Moscovitch, 2015). Specifically, the experience of shame triggered increased sexualization of erotically suggestive targets, which was specific to sexual compulsivity. There is very little amount of empirical data in the literature concerning sexual compulsivity and shame, and future research in this area would benefit the field of shame related exploration.

Sexual Addiction and Shame

Sexual addiction, compulsive sexual behavior, sexual compulsivity, and sexual impulsivity are all terms that describe a psychological disorder that has the definition of an individual's inability to control their sexual behaviors, either online or in real life. Hook et al. (2010) found that there are two dominant terms and models for describing this disorder: *sexual compulsivity* and *sexual addiction*. One of the most widely discussed models of hypersexuality theorizes sexual behavior as a behavioral addiction (Carnes, 1991; Hall, 2013; Kingston & Firestone, 2008). The first sex addiction model conceptualized discussed hypersexuality

specifically stemming from the emotional trauma that was usually associated with sexual abuse, child abuse, or a family history of addiction (Birchard, 2011; Carnes, 1983; Ragan & Martin, 2000). The classic sex addiction model hypothesized that addictions begin due to insecure attachment relationships, impaired impulse control, shame-based cognitions, as well as mood disorders (Riemersma & Sytsma, 2013).

Walton et al. (2017) stated that "sex addiction is thought to be maintained through the cycle of cognitive preoccupation, obsession, fantasy, sexual triggers and rituals, compulsive sexual behavior, and emotional despair consistent with a wounded sense of self" (p. 2237). The cycle of sex addiction may become imprinted neurologically and can be psychologically damaging and difficult to change (Reid & Woolley, 2006). Katehakis (2009) proposed that sex addiction occurs due to the potential neurobiological deficits that develop during early childhood, which may also affect the attachment process. Researchers found three specific barriers that prevent addicts from breaking the compulsive cycle and setting up successful intimacy. These include shame, affect dysregulation, and an inability to maintain adequate sexual boundaries (Adams & Robinson, 2001). Riemersma and Sytsma (2013) similarly noted the history and possible precursors of sexual addiction being sexual abuse, impaired attachment, shame, impulse control disorders, and co-morbid mood disorders such as anxiety, depression, or co-occurring addictions such as drug and or alcohol abuse. Finally, Goodman (2008) suggested that the process of addiction involved the impaired neurobiological interaction of three functions: motivation-reward, affect regulation, and behavioral inhibition.

Summary

Shame appears to play a significant role in addictive behaviors such as pornography use, hypersexual behaviors, sexually compulsive behaviors, and sex addiction. As hypersexuality is

associated with relationship insecurity, it is logical that certain hypersexual individuals either avoid or have trouble connecting with or attaching to others. Further research on attachment and its relationship with shame and addictive behaviors is necessary to further the discussion on the relationship between insecure attachment and other sexualized behaviors (Riemersma & Sytsma, 2013).

Attachment

Relationship insecurity and impaired attachment relationships are possible precursors of sexual addiction and increased sexual behaviors. Attachment theory was first developed by Bowlby (1973), and it theorizes the universal need of every human being to form emotionally close, loving, and safe bonds, as children with their primary caregivers. Research in attachment theory identified four styles: secure, dismissing, preoccupied, and fearful, the latter three encompassing the insecure attachment styles (Hazan & Shaver, 1987). Securely attached individuals typically view themselves and others in a more positive light and characterized by an internalized sense of self-worth as well as a comfortability with intimacy in close relationships (Hazan & Shaver, 1987). The insecure attachment styles have an unhealthy emotional connection in relationships, typically stemming from insecurities and intrapersonal difficulties (Riemersma & Sytsma, 2013).

Arel (2015) found that shame presented in the absence of secure attachment showing that the attachment process needs further exploration and study. Insecure attachment styles tended to be associated with a lifetime of increased sexualized behaviors (Leedes, 2001). When compared to securely attached individuals, those insecurely attached tended to have their first sexualized experience (intercourse) earlier in life (Leedes, 2002). They also have an increased number of lifetime sexual partners, report more experiences of sexual behaviors with strangers, have more

frequent one-night stands, and commit more acts of infidelity (Bogaert & Sadava, 2002; Cooper, Shaver, & Collins, 1998; Leedes, 2002). Leedes' (1999, 2002) theory proposed that sexual addictions occur based on an individual's attachment style and whether they are secure or insecure. The author also found that in a small sample of sex addicts that 95% had an insecure attachment style. According to Leedes (2001), excessive sexual behavior must focus primarily on attachment processes rather than just behavior. The author suggested that individuals who are unable to form a close attachment relationship during childhood and have a proclivity towards fantasy will then turn to fantasies to manage their relationships. Based on Leedes' research, Zapf et al. (2008) suggested that people who are insecurely attached "use fantasy as a surrogate means to establish a sense of security" (p. 160). Perhaps instead of striving for and creating a healthy emotional connection, insecurely attached or emotionally avoidant individuals attach themselves to specific behaviors or internal fantasies to self-regulate and achieve a state of homeostasis or *secure base*.

Leedes (1999) reported that 95% of the sample of 22 self-reported sex addicts self-identified as having an insecure attachment (68% avoidant, 27% anxious). Zapf et al. (2008) studied a self-identified group of sexually addicted men and reported that 44% were fearful-avoidant, 28% were preoccupied, 20% were dismissing-avoidant, and 8% reported that they were securely attached. The authors also noted that hypersexual men were more likely than non-hypersexual men to relate with avoidant or anxious attachment in their romantic relationships. Carnes (1983) found that 78% of individuals in an inpatient treatment program for sexual addiction reported coming from a *rigid* and *disengaged* family structure. Zapf, Greiner, and Carroll (2008) found that nearly 50% of sexually addicted men are less likely to relate to their partners in a secure manner than non-addicted men. The authors suggested that insecure

attachment style may be a causal factor in the development of sexual addiction. Their research also suggested that individuals who suffer from sex addiction are also likely to suffer in their adult romantic relationships.

Like shame, insecure attachment can also be a proponent, which may lead to addictive behaviors (Hall, 2013). Adams and Robinson (2001) stated that "Sexual addiction can be conceptualized as an intimacy disorder manifested as a compulsive cycle of preoccupation, ritualization, sexual behavior (or anorexia – excessive control over sexual behavior) and despair" (p. 23). Cooper, Delmonico, and Burg (2000) studied the critical question of whether, and to what extent, the online sexual compulsive behaviors translate into damaging behavior offline such as infidelity, voyeurism, exhibitionism, or other hypersexual behaviors. The clinical distinction between online pornography use, online sexual compulsivity, hypersexuality, sexual compulsivity, and sexual addiction would be helpful for clinicians diagnosing specific behaviors, however, the *DSM* has yet to diagnose sexual addiction as a mental health disorder. While this study does not specifically focus on sexual addiction, the research suggested that the combination of shame, out-of-control sexualized behaviors, and an insecure attachment style may lead to a series of negative outcomes and problematic personal and relational consequences including psychopathology. The remaining portions of this chapter are focused on the specific research questions and hypotheses to be tested.

Research Questions, Hypotheses, and Theoretical Model to be Tested

Based on the extant literature, several research questions and hypotheses have been developed. The first hypothesis is that religiosity will have a positive relationship with sexual shame. It is hypothesized that there will be a positive relationship between religiosity and sexual

shame, higher religiosity would lead to higher sexual shame, particularly due to the previous

direct effects found by Grubbs et al. (2015) and Volk et al. (2016).

Second, a statistical model is proposed. This study proposes that the mediation model

(Grubbs et al., 2015) and serial mediation model (Volk et al., 2016) would remove the *Perceived*

Addiction to Pornography Scale and assess the relationship between moral religiosity and sexual

shame. It is hypothesized that the relationship between religiosity and sexual shame is mediated

by moral disapproval. Figure 2.1 provides a diagram of this proposed model. Research has

shown clear connections between moral disapproval and perceived addiction (Grubbs et al.,

2015; Volk et al., 2016) as well as between perceived addiction and sexual shame (Volk et al.,

2016), however, assessing the relationship between moral disapproval and sexual shame would

simplify the model, create a clearer relationship between the two variables and assess the amount

of variance that the perceived addiction to pornography variable has on sexual shame.
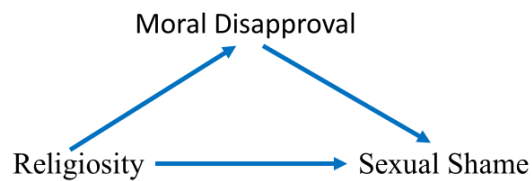
Figure 2.1. Proposed statistical model of research question two.

Finally, the third, fourth and fifth research questions are: (c) Does shame-proneness

moderate the relationship between religiosity and moral disapproval; (d) Does shame-proneness

moderate the relationship between moral disapproval and sexual shame; and (e) Does shame-

proneness moderate the relationship between religiosity and sexual shame. Shame-proneness is

typically a precursor to feeling state shame (Dearing, Stuewig, & Tangney, 2005), it is

anticipated that shame-proneness will moderate all of these relationships and that they would be

strengthened by shame-proneness. Figure 2 demonstrates this proposed model.
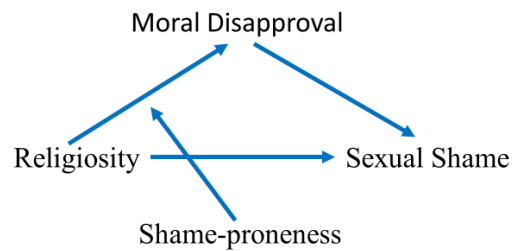
Figure 2.2. Proposed statistical model of research question three.
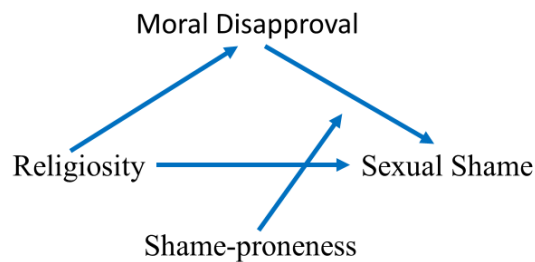
Figure 2.3. Proposed statistical model of research question four.

Moral Disapproval

Religiosity → Sexual Shame

Shame-proneness
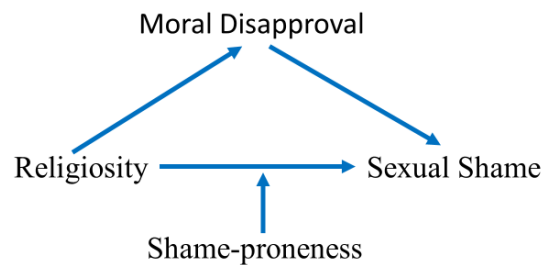
Figure 2.4. Proposed statistical model of research question five.

Summary

A review of the existing literature revealed that shame, a self-directed negative view-of-self tends to create self-loathing and a lack of self-compassion (Chisolm & Gall, 2015). It often cripples individuals and arrests their neurobiology, creating anxiety, and emotional distress and a desire for mood regulation back to a secure or stable state. For those who have insecure attachment styles, feelings of shame can cause emotional distress leading to a desire to maintain self-regulation, and many individuals experiencing shame, or potential addicts, choose a pill, drink, drug, behavior, or sexual act as a way of coping with the emotional distress (Bogaert & Sadava, 2002; Leedes, 1999).

Shame-proneness creates state shame more easily, which can then lead to feelings of maladaptive shame, causing hypersexual-prone individuals to have similar responses and desires to act out sexually (Gilliland et al., 2011). Many individuals desire an escape from the out-of-control feelings created by sexualized thoughts or urges and are unable to self-regulate. It is predicted that shame-proneness will have a positive relationship with sexual shame.

This chapter discussed the literature on religiosity, pornography use, shame, shame-proneness, hypersexuality, sexual compulsivity, and attachment. The following chapter will discuss the methods, research questions, hypotheses, research design, participants, and instruments to be used in this study.

CHAPTER THREE: METHODS

This chapter will focus specifically on the methods used to assess the relationship between religiosity and sexual shame as well as examining whether moral disapproval has a mediating role in the experience of sexual shame. This chapter will briefly review the purpose of the study, the research questions, and hypotheses. The remainder of the chapter discusses recruitment of participants, along with an explanation of the measures, instruments utilized, the research procedures, and the statistical tests used to analyze the data and test the hypotheses. Finally, the chapter ends with a discussion of ethical considerations.

Research Purpose

The purpose of this research is to better understand the problem of sexual shame by examining religiosity and its relationship to sexual shame in a population of pornography users. Additionally, the researcher assessed the serial mediation model and studied several moderating and mediating relationships between variables such as compulsivity, shame-proneness, and moral disapproval. The researcher hoped that gaining additional insight into the problem of shame-proneness and sexual shame could help mental health providers whose clients are struggling with the problem of sexual hypersexuality/compulsivity/addiction to more easily assess their behaviors and provide insights and assessments to help stop the cycle of addiction.

Research Questions and Hypotheses

Research Question 1: What is the correlation between religiosity and sexual shame?

Hypothesis 1: There will be a positive correlation between religiosity and sexual shame.

*Null hypothesis***:** There will be no relationship between religiosity and sexual shame.

Research question 2: Is the relationship between religiosity and sexual shame mediated by moral disapproval?

Hypothesis 2: The relationship between the religiosity and sexual shame will be strengthened by the variance added by moral disapproval.

*Null hypothesis***:** Moral disapproval will have no effect on the relationship between religiosity and sexual shame.

Research question 3: Is the relationship between religiosity and moral disapproval moderated by shame-proneness?

Hypothesis 3: The relationship between religiosity and moral disapproval will be strengthened by shame-proneness.

*Null hypothesis***:** Shame-proneness will have no effect on the relationship between religiosity and moral disapproval.

Research question 4: Is the relationship between moral disapproval and sexual shame moderated by shame-proneness?

Hypothesis 4: The relationship between moral disapproval and sexual shame will be strengthened by shame-proneness.

*Null hypothesis***:** Shame-proneness will have no effect on the relationship between moral disapproval and sexual shame.

Research question 5: Is the relationship between religiosity and sexual shame moderated by shame-proneness?

Hypothesis 5: The relationship between religiosity and sexual shame will be strengthened by shame-proneness.

*Null hypothesis***:** Shame-proneness will have no effect on the relationship between religiosity and sexual shame.

Research question 6: Is the relationship between moral disapproval and sexual shame moderated by compulsivity?

Hypothesis 6: The relationship between moral disapproval and sexual shame will be strengthened by compulsivity.

*Null hypothesis***:** Compulsivity will have no effect on the relationship between moral disapproval and sexual shame.

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Research Design

</div>

This study used a correlational research design assessing the relationships between each of the variables. The researcher used Mechanical Turk© (MTurk) to recruit participants. MTurk is a crowdsourcing Internet marketplace run by Amazon. The benefits of using MTurk include the fast collection of data due to the considerable number of participants as well as the relatively inexpensive cost of data collection compared to other methods (Johnson & Borden, 2012). To encourage a higher response rate and the completion of all measures, the researcher offered participants minimal monetary compensation ($1.00) for completion of all survey materials. Research indicated MTurk samples provide greater ethnic and socio-economic diversity compared to other common samples [e.g., college students] (Casler, Bickel, & Hackett, 2013) as well as greater diversity in age (Mason & Suri, 2011). Since MTurk samples are a greater geographical area than other sampling methods (Buhrmester, Kwang, & Gosling, 2011), this increases the generalizability of results. The psychometric properties (e.g., test-retest reliability) of using MTurk also appear to be consistent with other sampling methods (Buhrmester, Kwang, & Gosling, 2011).

After recruiting a sample of online participants, the researcher asked participants to provide informed consent to participate in the study. After getting consent from each participant,

the testing procedures began. The measures will be as follows: demographic measures, items measuring the frequency of pornography use, the Religious Commitment Inventory (RCI), the Moral Disapproval Scale, the Kyle Inventory of Sexual Shame (KISS), the Test of Self-Conscious Affect (TOSCA) and the Cyber Pornography Use Inventory-9 (CPUI-9). Between these measures, the researcher included catch trial items. At the end of the survey, the researcher asked participants if they paid attention to the questions and answered honestly. The researcher downloaded the data to SPSS Statistics. The next section includes the data analysis procedures.

Selection of Participants

The researcher completed and used MTurk research online for this research. All participants ($N = 1279$) were 18 years or older. Exclusion criteria included being under the age of 18 and declined to give consent for the study. For the purposes of this study, the researcher sampled only those research participants who intentionally viewed pornography within the past month prior to their participation ($N = 554$).

Research Instruments

Demographic information. Demographic questions used in this study included participants' age, gender, race, sexuality, religious/spiritual affiliation, relationship status, and belief in God. See Appendix B for demographic questions.

Frequency of pornography use. The researcher assessed pornography use using items inquiring whether the participant had made efforts to use pornography in the past month prior to their participation in the study. See Appendix C for frequency of pornography use questions.

Religiosity. The researcher measured religiosity with the Religious Commitment Inventory [RCI] (Worthington et al., 2003), which is a measure of personal religiosity. This

measure was previously adapted by Volk et al. (2016) by dividing the questions to assess

personal religiosity (RCI-P) versus household religiosity (RCI-H). For the purposes of this

study, only the RCI-P will be utilized. The RCI-P consists of 10 items that measure religious

commitment. Each item is on a 5-point rating Likert scale from 1 (not at all true of me) to 5

(totally true of me). Scores on the RCI show evidence for internal consistency and construct

validity (Worthington et al., 2003). For the current sample, the Cronbach's alpha coefficients for

the RCI-P were .97. The RCI has strong psychometric properties and acceptable test-retest

reliability (.80) (Miller, Shepperd & McCullough, 2013). See Appendix D for RCI.

Moral Disapproval. The Moral Disapproval scale, developed by Grubbs et al. (2015),

used in this study for finding participants' levels of negative moral or ethical beliefs about

viewing pornography. Because the data sample is not from a religious population, the researcher

adapted the scale by removing the reference to *sin*, which will make the scale more applicable to

non-religious participants who may not place the same weight onto religious concepts such as

sin. This version was used in previous studies (Grubbs et al., 2015; Volk et al., 2016). The 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), and respondents rated their levels of agreement with each

statement from 1 (not at all) to 7 (extremely). The Cronbach's alpha coefficient was .96 for the

current sample. There is limited research on this scale, however it previously produced a

Cronbach's alpha coefficient of .93 (Volk et al., 2016) and correlation of .97 (Grubbs et al.,

2015) respectively. See Appendix E for *Moral Disapproval Scale.*

Sexual Shame. The researcher measured sexual shame using the Kyle Inventory of

Sexual Shame (KISS; Kyle, 2013). KISS is a 20-item inventory that evaluates levels of shame

from sexual experiences (e.g. "I replay painful events from my sexual past over and over in my mind," "I feel like I am never quite good enough when it comes to sexuality," and "I think people would look down on me if they knew about my sexual experiences"). Participants complete each item on a 7-point rating scale from 1 (strongly disagree) to 7 (strongly agree). Scores on the KISS show evidence for internal consistency (Kyle, 2013). For the current sample, the Cronbach's alpha coefficient was .749. See Appendix F for *Sexual Shame Scale.*

Shame-proneness. Tangney's Test of Self-Conscious Affect (TOSCA) measured shame-proneness (TOSCA-3; Tangney et al., 2000). The TOSCA is a scenario-based self-report questionnaire measuring proneness to shame and guilt. A negative sample scenario would be "You attend your coworker's housewarming party and you spill red wine on a new cream-colored carpet, but you think no one notices." For each scenario, reactions are presented, including a shame reaction ("You would wish you were anywhere but at the party") and a guilt-reaction ("You would stay late to help clean up the stain after the party"). For each scenario, all reactions are rated from 1, "not likely," to 5, "very likely," yielding sum-scores for shame-proneness and guilt-proneness between 11 and 55. Tangney and colleagues reported alphas of 0.77–0.88 for the shame-proneness scale (Tangney & Dearing, 2002). For the current sample, the Cronbach's alpha coefficient was .81. See Appendix G for *Shame-Proneness Scale*.

Compulsivity. *The Cyber Pornography Use Inventory*-9 (*CPUI*-9) measured compulsivity. This 9-item scale measures perceived addiction to internet pornography using three, three-item subscales: Perceived Compulsivity, Access Efforts, and Emotional Distress. Participants rated their agreement with items on a 7-point rating scale from 1 (not at all) to 7 (extremely). Scores on the CPUI-9 show evidence for internal consistency and construct validity

(Grubbs et al., 2015). For the current sample, the Cronbach's alpha coefficient was .75. See

Appendix H for *Compulsivity Scale*.

Research Procedures

This section details the processing and analysis of the collected data. The Institutional

Review Board for Liberty approved the use of all procedures used in this study.

Data Processing and Analysis

The researcher downloaded the data into SPSS Statistics version 25 using Hayes (2017)

PROCESS model. To answer the first research question, Pearson correlation was calculated

between the total RCI score and the total KISS score. These results will be displayed in a table in

the following chapter.

The second research question involved a mediation analysis using multiple regression to

assess whether moral disapproval (using the Moral Disapproval Scale) mediated the relationship

between the RCI and the KISS. A table was created to report the coefficients, standard error, and

p values of the relationships in the model, along with the R^2 values.

The third question involved a moderation analysis using multiple regression and assessed

whether shame-proneness (TOSCA-3) moderated the relationship between the RCI and Moral

Disapproval. To display findings from this test, a table was created to report the coefficients,

standard error, and p values of the relationships in the model, along with the R^2 values.

Similarly, the fourth research question also involved a moderation analysis using multiple

regression to assess whether shame-proneness (TOSCA-3) moderated the relationship between

Moral Disapproval (using the Moral Disapproval Scale) and the KISS. The fifth research

question is similar and assessed whether shame-proneness (TOSCA-3) moderated the

relationship between religiosity (RCI) and sexual shame (KISS). To display findings from this

test, a table was created to report the coefficients, standard error, and p values of the

relationships in the model, along with the R^2 values.

The sixth and final research question involved a moderation analysis using multiple

regression to assess whether compulsivity (using the response, "I am addicted to pornography")

moderated the relationship between moral disapproval and the KISS. To display findings from

this test, a table was created to report the coefficients, standard error, and p values of the

relationships in the model, along with the R^2 values.

Ethical Considerations

Although the study was designed to ensure anonymity for participants, the regulations

and guidelines from the institutional review board and from the American Counseling

Association's (2014) ethical guidelines for research were implemented throughout the study.

Because the study inquired about sensitive information (e.g., frequency of pornography use,

negative outcomes from sexual behaviors), participants' anonymity was considered throughout

the study. Although the researcher paid participants for completing the survey, these payments

were made through MTurk, which does not provide participants' identity to researchers. The

demographic items did not ask for identifying information and the data from this study did not

contain any identifying information from participants.

It was not anticipated that participants would encounter adverse risks from completing

the survey items. Some of the items in the survey assessed material that is personal or could be

embarrassing to participants. Participants were provided with an online counseling resource in

the informed consent in case they experienced any distress while completing the survey.

Summary

The chapter reviewed the research methods along with the research design for this study, the selection of participants, and the measures used. Finally, this researcher explained the screening, data analysis, and display of results. The next chapter presents the results of this research clearly and concisely, including graphical depictions and tables of the results.

CHAPTER FOUR: RESULTS

The purpose of this study was to assess the relationships between religiosity and sexual shame as well as examining mediating or moderating factors of moral disapproval, shame-proneness, and compulsivity in a group of pornography users. The study examined the relationship between religiosity and sexual shame using a potentially new mediation model. The mediation model suggested that moral disapproval mediated the relationship between religiosity and sexual shame. The model also suggested that shame-proneness moderated the relationship between religiosity and moral disapproval, the relationship between moral disapproval and sexual shame, and between religiosity and sexual shame. Finally, this research suggested that compulsivity moderated the relationship between moral disapproval and sexual shame.

This study used a sample of 554 adults, ages 19-74 (male = 50.7%, female = 48.2%, other = 1.1%) who endorsed using pornography at least once in the last thirty days. The researcher gave participants demographic items as well as questions about the frequency of their pornography use and the average amount of time per week and per month that they spent using pornography. Participants completed measures that assessed their pornography use, religiosity, moral disapproval, compulsivity, shame-proneness and sexual shame. This chapter describes the data analysis used to examine whether the hypotheses were supported by this data. Included in this chapter is a summary of the findings.

Data Screening

The researcher obtained a sampling of 1279 participants during data collection in March of 2018 and used several methods to screen the data. Exclusion of participants included in step 1: those participants who did not give their consent to participate in the research (53 participants excluded). Step 2: three participants who responded incorrectly to the catch trial items were

deleted. Step 3: three participants excluded who gave the same response over 20 times. And

step 4: 26 participants who responded in less than 1.5 seconds per question were deleted. The

researcher assessed the variance for each scale to ensure that participants did not respond

identically on each item for each scale and there were no cases removed on this step. Finally,

only those who had used pornography in the 30 days prior to participating in the survey were

retained, yielding a final sample size of 554.

Participant Demographics

Of the participants who endorsed using pornography in the last month ($N = 554$), 50.7%

of participants were male, 48.2% were female, and 1.1% of the participants selected other to

describe their gender. Participants' ages ranged from 19 to 74 years of age ($M = 35.4$, $SD =$

11.4). The majority of the sample was Caucasian (74.8%), with 10.9% describing their race as

African American, 5.3% Asian, 7.3% Hispanic, 0.5% American Indian or Alaska Native, and

1.3% choosing other. Regarding participants' highest reported level of education, the majority of

participants (39.7%) endorsed having at least a bachelor's degree. The remaining participants

endorsed less than a high school diploma (0.2%), high school diploma or GED (12.9%), college

freshman (6.3%), college sophomore (7.6%), college junior (4.9%), college senior (3.3%), trade

or technical school (10.1%), master's degree (12.0%), professional degree (2.2%), and doctorate

(0.9%). The majority of participants (64.7%) selected employed for wages, while 14.8% chose

self-employed, 4.7% unemployed, 4.4% homemaker, 6.7% student, 0.9% military, 3.1% retired,

and 0.7% unable to work. Most participants (42.3%) reported they are currently married or have

a life partner. Other responses to current relationship status included currently single and never

in a relationship (5.4%), single and not currently in a relationship (14.8%), in a non-committed

dating relationship (5.2%), in a monogamous dating relationship (25.7%), married but legally

separated (1.3%), divorced (4.7%), and widowed (0.5%). Regarding marital history, 40.9% of

participants had been married once, 9.3% married twice, 1.8% married three times, 0.2% married

more than three times, and 47.8% had never been married. Participants endorsed the following

religious affiliations: Protestant (15.9%), Catholic (16.8%), Non-denominational Christian

(17.8%), Mormon (0.5%), Muslim (0.9%), Hindu (0.9%), Jewish (2.0%), Buddhist (1.1%), New

Age or Wiccan (3.3%), no religious affiliation (32.1%), and other (8.7%). See Table 4.1 for

demographic information.

Table 4. 1 *Participants Demographics*

	N or Range	% or *M*
Age	19-74	35.4
Gender		
Male	280	50.7
Female	266	48.2
Other	6	1.1
Racial Identity		
Caucasian/White	412	74.8
African American	60	10.9
Asian	29	5.3
Hispanic	40	7.3
American Indian or Alaska Native	3	0.5
Other	7	1.3
Educational Background		
Less than High School	1	0.2
High School diploma or equivalent (e.g., GED)	71	12.9
College Freshman	35	6.3
College Sophomore	42	7.6
College Junior	27	4.9
College Senior	18	3.3

Trade, Technical, or Vocational Training	56	10.1
Bachelor's Degree	219	39.7
Master's Degree	66	12.0
Professional Degree	12	2.2
Doctorate	12	0.9

<div align="center">Employment Status</div>

Employed for Wages	355	64.7
Self-Employed	81	14.8
Not Employed	26	4.7
Homemakers	24	4.4
Students	37	6.7
Military	5	0.9
Retired	17	3.1
Unable to Work	4	0.7

<div align="center">Marital History</div>

Never Married	263	47.8
Married Once	225	40.9
Married Twice	51	9.3
Married Three Times	10	1.8
Married More than Three Times	1	0.2

<div align="center">Current Relationships Status</div>

Currently Single – Never in a Relationship	30	5.4
Single – Not Currently in a Relationship	82	14.8
Non-committed Dating Relationship	29	5.2
Monogamous Dating Relationship	142	25.7
Married/With a Life Partner	234	42.3
Married, but Legally Separated	7	1.3
Divorced	26	4.7
Widowed	3	0.5

<div align="center">Religion</div>

Protestant (e.g., Methodist, Baptist, or other Non-Catholic Christian Denomination)	88	15.9
Catholic	93	16.8
Christian (Non-Denominational)	98	17.8
Mormon	3	0.5
Muslim	5	0.9
Hindu	5	0.9
Jewish	11	2.0
Buddhist	6	1.1
New Age or Wiccan	18	3.3
None	177	32.1
Other	48	8.7

As previously noted, participants were included in the final sample if they endorsed pornography use in the past month. Measures were taken specifically to assess both use in the past 30 days as well as use in the past week. The average number of times that participants reported using pornography per week was 2.08 ($SD = 1.055$). The range of hours of pornography use per week was between zero and ten or more uses per week. Participants were asked how many times they use pornography over the past week and the responses that they could choose from included 0 times, 1-3 times, 4-6 times, 7-9 times, and 10 or more times. The majority of participants (50.4%) selected 1-3 times. Other responses included 0 times (29.2%), 4-6 times (9.9%), 7-9 times (4.3%), and 10 or more times (6.1%). The average number of times that participants reported using pornography per month was 3.32 ($SD = 1.197$). The range of hours of pornography use per month was between one and ten or more uses per week. Participants were also asked how many times they use pornography over the past 30 days and the responses that they could choose from included 1-3 times, 4-6 times, 7-9 times, and 10 or more times. The majority of participants (34.3%) selected 1-3 times. Other responses included 4-6 times (26.2%), 7-9 times (13.2%), and 10 or more times (26.4%). See Table 4.2 for pornography use statistics.

Table 4. 2 *Pornography Use Statistics*

	N or Range	% or *M*
Average Times of Pornography Used per Week	0-10+	2.08
Pornography Use in the Past Week		
0 Times	162	29.2
1-3 Times	279	50.4
4-6 Times	55	9.9

7-9 Times	24	4.3
10 or More Times	34	6.1
Pornography Use in the Past Month		
1-3 Times	190	34.3
4-6 Times	145	26.2
7-9 Times	73	13.2
10 or More Times	146	26.4

Sample Means

The minimum score, maximum score, mean, and standard deviation were calculated for

all of the measures used (See Table 4.3 *Descriptive Statistics of all Measures Used in this Study).*

Table 4. 3 *Descriptive Statistics of all Measures Used in this Study*

Measure	Minimum Score	Maximum Score	*M*	*SD*
What is your age?	19.00	74.00	35.4	11.4
CPUI-Compulsivity	1.00	10.00	2.59	2.12
CPUI-Efforts	1.00	10.00	2.09	1.71
CPUI-Negative Affect	1.00	10.00	2.45	2.09
CPUI-Total	1.00	8.56	2.38	1.58
Sexual Shame	1.65	4.95	2.89	0.59
Pornography-Moral Disapproval	1.00	7.00	2.06	1.50
RCI-Personal	1.00	5.00	1.86	1.09
TOSCA-Shame	11.00	55.00	36.96	7.95

Note. CPUI = Cyber Pornography Use Inventory. TOSCA = Test of Self-Conscious Affect. RCI = Religious Commitment Inventory.

Data Analysis

The researcher used IBM SPSS Statistics Version 25 with the PROCESS macro for SPSS (Hayes, 2017) to analyze the data. Participants who did not complete all the items for any measure were excluded from the analysis. Testing of three mediation models used Model 4, Model 59, and Model 64 to assess the six research questions (Hayes, 2017).

Analyses

Research Questions 1 & 2: These questions were each measured using the simple mediation analysis (Model 4, See Hayes, 2017), and controlled for pornography use in hours as a covariate.

RQ1: What is the correlation between religiosity (RCI) and sexual shame (KISS)?

RQ2: Is the relationship between religiosity (RCI) and sexual shame (KISS) mediated by moral disapproval?

It was hypothesized that religiosity would be positively correlated with sexual shame and that moral disapproval would mediate the relationship and have a positive effect. Consistent with previous work, the hypothesis of an indirect effect of religiosity on sexual shame through moral disapproval while controlling for pornography use was supported as indicated by both the total effect of X on Y ($c\_cs = .078$; $p = .001$) and the 95% bias-corrected bootstrap confidence interval (CID.067–.132). As expected and consistent with previous work (Grubbs et al., 2015; Volk et al., 2016), personal religiosity was positively related to moral disapproval, moral disapproval was positively related to sexual shame, and the relationship between personal religiosity and sexual shame was mediated by moral disapproval. Moral disapproval also

mediated a high amount (25.2%) of the variance between religiosity and sexual shame (See

Tables 4.4, 4.5, & 4.6).

Table 4.4 *Process Model Results for Model One with Moral Disapproval as the Mediator*

Outcome variable: Moral Disapproval

Source	b	se	t	LLCI	ULCI
Constant	.775	.114	6.817***	.552	.999
Religiosity (RCI)	.692	.051	13.594***	.592	.792
Pornography Use Hours	-.004	.016	-.282	-.035	.026

*Note. * p < .05. ** p < .01. *** p < .001.*

Table 4.5 *Process Model Results for Model One with Moral Disapproval as the Mediator*
Outcome variable: Sexual Shame (KISS)

Source	b	se	t	LLCI	ULCI
Constant	2.590	.050	51.366***	2.491	2.690
RCI	-.020	.025	-.796	-.069	.029
Moral Disapproval	.142	.018	7.801***	.106	.177
Pornography Use Hours	.023	.007	3.392***	.010	.036

*Note. * p < .05. ** p < .01. *** p < .001.*

Table 4. 6 . *Process Model Results for Model One with Moral Disapproval as the Mediator Total*
Effect Model

Source	b	se	t	LLCI	ULCI

Constant	2.700	.051	52.953***	2.600	2.800
Religiosity (RCI)	.078	.023	3.420***	.033	.123
Pornography Use Hours	.022	.007	.002**	.008	.036

Note. * *p* < .05. ** *p* < .01. *** *p* < .001.

Level of confidence for all confidence intervals in output: 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

Research questions 3, 4 & 5: These questions were all measured using the Moderated Mediation analysis (Model 59, See Hayes, 2017) assessing for shame-proneness (TOSCA) and its moderating effects on each of the relationships.

RQ3: Is the relationship between religiosity (RCI) and moral disapproval moderated by shame-proneness (TOSCA)?

RQ4: Is the relationship between moral disapproval and sexual shame (KISS) moderated by shame-proneness (TOSCA)?

RQ5: Is the relationship between religiosity (RCI) and sexual shame (KISS) mediated by shame-proneness (TOSCA)?

All of the relationships were assessed using shame-proneness as a moderator and hypothesized that shame-proneness would moderate each of the relationships respectively. Shame-proneness was not found to change the amount of variance between religiosity and sexual shame which remained at 25.4%. Shame-proneness was found to be a significant predictor of sexual shame (*p* < .001), however, it did not moderate the any of the relationships between variables. Shame-proneness had no direct or indirect effects on any of the relationships (See Tables 4.7 & 4.8).

Table 4. 7 *Process Model Results for Model Two with Shame-Proneness as the Moderator Outcome variable: Moral Disapproval*

Source	b	se	t	LLCI	ULCI
Constant	.009	.065	.141	-.119	.137
Religiosity (RCI)	.693	.051	13.600***	.593	.793
TOSCA	.007	.007	1.040	-.006	.021
RCI X TOSCA	.005	.006	.852	-.007	.018
Pornography Use Hours	-.004	.016	-.266	-.035	.027

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4. 8 *Process Model Results for Model Two with Shame-proneness as the Moderator Outcome variable: Sexual Shame*

Source	b	se	t	LLCI	ULCI
Constant	2.842	.027	105.912***	2.789	2.894
Religiosity (RCI)	-.017	.024	-.690	-.064	.031
Moral Disapproval	.137	.018	7.781***	.102	.171
TOSCA	.019	.003	6.442***	.013	.025
RCI X TOSCA	.001	.003	.306	-.005	.007
Moral Disapproval X TOSCA	-.001	.002	-.310	-.005	.004
Pornography Use Hours	.024	.006	3.691***	.011	.037

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Research question 6: This question was measured using the moderated mediation analysis (Model 64, See Hayes, 2017).

RQ6: Is the relationship between moral disapproval and sexual shame (KISS) moderated by compulsivity (CPUI)? (See Table 4.9 & 4.10)

It was hypothesized that compulsivity would moderate the relationship between moral disapproval and sexual shame. While compulsivity had no moderating effects on the relationship, it was a direct predictor of sexual shame ($p < .001***$). These results are consistent with Volk and his colleagues (2016). That is, even with shame proneness and perceived compulsivity in the model, moral disapproval of pornography use accounted for a statistically significant portion of unique variance in sexual shame.

Table 4. 9 *Process Model Results for Model Three with Compulsivity as the Moderator Outcome Variable: Moral Disapproval*

Source	b	se	t	LLCI	ULCI
Constant	.008	.066	.141	-.122	.138
Religiosity (RCI)	.687	.052	13.210***	.584	.789
TOSCA	.008	.007	1.092	-.006	.022
RCI X CPUI	.006	.007	.877	-.007	.019
Pornography Use Hours	-.004	.016	-.255	-.035	.027

Note. $* p < .05. ** p < .01. *** p < .001.$

Table 4. 10 *Process Model Results for Model Two with Moral Compulsivity as the Moderator*
Outcome Variable: Sexual Shame

Source	b	se	t	LLCI	ULCI
Constant	2.886	.029	101.240***	2.830	2.942
Religiosity (RCI)	-.030	.023	-1.293	-.076	.016
Moral Disapproval	.055	.021	2.569*	.013	.096
TOSCA	.018	.003	6.499***	.013	.024
Moral Disapproval X TOSCA	.000	.002	.221	-.003	.004
Compulsivity (CPUI)	.156	.019	8.278***	.119	.193
Moral Disapproval X CPUI	-.009	.009	-1.084	-.026	.008
Pornography Use Hours	.007	.006	1.134	-.005	.020

Note. $* p < .05. ** p < .01. *** p < .001.$

Level of confidence for all confidence intervals in output: 95.0000
Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

Summary

The researcher conducted mediation analyses to answer the six research questions

addressing religiosity, moral disapproval, sexual shame, shame-proneness, and compulsivity.

Each of the hypotheses suggested that there would be mediating or moderating effects between

each of the relationships tested. As hypothesized, there was a significant correlation between

religiosity and sexual shame through moral disapproval accounting for approximately 25% ($r^2 =$ .252, $p < .001$) of the variance in the relationship.

The mediation model proposed in this study supported the hypothesis of an indirect effect of religiosity on sexual shame through moral disapproval while controlling for pornography use. Though the moderated mediation analysis was not significant, shame-proneness was found as direct predictor of sexual shame in the model. The next chapter concludes this dissertation with a discussion of these results in greater detail.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has added to previous mediation models of pornography use. Grubbs et al. (2015) proposed an initial simple mediation study assessing perceived addiction to pornography in a religious population of pornography users and Volk et al. (2016) expanded it to a serial mediation model, adding variables of household religiosity and sexual shame to the beginning and end of the model, respectively. Their research was consistent with the literature that higher levels of religiosity led to higher levels of perceived addiction to pornography, though it did not lead to higher amounts of actual pornography use. Volk et al. (2016) found previous unhypothesized direct effects between moral disapproval and sexual shame, which presented the premise for the current study. The purpose of the study was two-fold: (a) To assess for a potential relationship between religiosity and sexual shame without the variable *perceived addiction to pornography*, and (b) Help build a stronger pathway between constructs of shame and addictive behaviors by measuring shame-proneness and its relationship with sexual shame in a population of pornography users. This chapter provides a summary of the findings, a discussion of the implications of these findings, an overview of some of the identified limitations of the study and recommendations for future research.

Summary of Findings and Implications

This study tested three specific models as an attempt to detect correlations between variables as well as identify a pathway between shame-proneness and the outcome variable, sexual shame. Consistent with the previous research (Volk et al., 2016), there was a significant relationship between religiosity and sexual shame through moral disapproval while controlling for pornography use. The second model found that shame-proneness accounted for about 20% of the variance on sexual shame and had a direct effect but did not moderate the relationship.

Finally, the third model tested showed no significant interactions between compulsivity moderating the relationship between moral disapproval and sexual shame.

Shame and the development of the sexual-self are known to be relational processes that often develop within the confines of healthy attachment relationships (Riemersma & Sytsma, 2013; Zapf et al., 2008). The literature consistently has shown correlations between constructs of shame, insecure attachment, and unhealthy compulsive or hypersexual behaviors (Picone, 2015; Shadbolt, 2009; Zapf et al., 2008). The *Triple-A* engine (Cooper et al., 2000) caused a significant increase in pornography use, and there are a host of negative neurological, psychological, sociological, relational, and emotional outcomes and personal consequences due to extended amounts of use (Riemersma & Sytsma, 2013). Shame is known to fuel the addictive cycle, perpetuating the use of negative behaviors despite significant consequences in the life of the addict (Prosek et al., 2017). The problem of addiction is escalating and supportive literature linking shame and shame-proneness to addictive behaviors may help therapists and the greater population struggling with unwanted behaviors. The findings of this study fit within this broader research literature.

Conclusions

Research Question 1

Question one inquired about the correlation between religiosity and sexual shame. The researcher hypothesized that there would be a positive relationship between these variables; higher religiosity would lead to higher sexual shame. This relationship showed statistical significance in the total effects ($r^2 = .078$, $p = .001$). These findings are consistent with the research literature. The sample size in this study is large enough to provide appropriate

statistical power to identify statistical significance. The results add continued significance to the relationship linking religiosity and sexual shame. The results may help explain problems of pornography use amongst religious populations, many of whom morally disapprove of pornography use based on religious beliefs, yet still struggle with unwanted sexual behaviors (Grubbs et al., 2015).

Research Question 2

The second research question asked whether moral disapproval mediated the relationship between religiosity and sexual shame. Volk et al. (2016) found direct effects between these variables in an earlier study (Volk et al., 2016), and this researcher hypothesized that moral disapproval would mediate the relationship between religiosity and sexual shame. This hypothesis supported, roughly 4% of the variance in the relationship between religiosity and sexual shame is mediated through the moral disapproval of pornography use and this relationship was significant (c-cs = .078, $p < .001$). The literature on religiosity and pornography use needs further research to assess for the other 96% of the variance in the relationship.

While research reveals a negative correlation between religiosity and pornography use (Short et al., 2015), some have reported higher levels of sexual compulsivity amongst religious individuals (Abell et al., 2006). Noting the significant effects of moral disapproval in this study and previous studies (Grubbs et al., 2015; Volk et al., 2016), further research to explore the moral disapproval of pornography use and its effects on sexual shame would benefit the field.

Research Questions 3, 4 & 5

The third research question asked whether shame-proneness moderated the relationship between religiosity and moral disapproval. The fourth research question asked whether shame-

proneness moderated the relationship between moral disapproval and sexual shame and the fifth research question asked whether shame-proneness moderated the relationship between religiosity and sexual shame. The analyses failed to find a significant correlation between shame-proneness and any of the relationships assessed. Based on earlier research, the researcher hypothesized that shame-proneness, a factor found to be present in a population of substance abusers (Prosek et al., 2017), would moderate each of the proposed relationships. As expected, though shame-proneness did not moderate any of the relationships, it was a significant predictor of sexual shame ($p < .001$). Shame-proneness can be seen in the withdrawal or hiding of self, or of certain behaviors leading to the avoidance of shame-invoking thoughts or experiences (Straub, McConnell, & Messman-Moore, 2018). The symptoms of sexual shame include low sexual energy, low self-acceptance, avoidance of intimacy, hypersexuality, and sexual avoidance (Kyle, 2015). Based on the commonality of avoidance and low sense of self within the constructs of shame-proneness and sexual shame, and based on prior research (Picone, 2015), the relationship between these variables is significant.

Research Question 6

The final research question asked whether compulsivity moderated the relationship between moral disapproval and sexual shame. The researcher hypothesized that compulsivity would have a positive effect and moderate the relationship as previous research showed evidence of positive correlations between compulsivity and sexual shame: as shame increases, so do sexualization and compulsive behaviors (Petrican et al., 2015). There was no significant interaction, either by compulsivity or shame proneness. Compulsivity, however, was a direct predictor of sexual shame ($p < .001$). Those individuals who experienced sexual compulsivity, particularly in religious populations, may view themselves as defective or inferior, having

problems that they cannot manage. It is possible that these individuals are also feeling a sense of shame-proneness and therefore experiencing higher levels of psychological distress and pain due to the negative focus on self.

Discussion

Regarding population, assessments, and instruments used for the purposes of this study, research design, procedures, and results, this study is consistent with previous literature (Grubbs et al., 2015; Volk et al., 2016). This study sought to extend previous models regarding religiosity, moral disapproval, perceived addiction to pornography, pornography use, and sexual shame. The findings, particularly the direct effects between moral disapproval and sexual shame are also congruent with previous work (Volk et al., 2016).

Personal religiosity has consistently been associated with negative attitudes about pornography and pornography use (Grubbs et al., 2015) including the moral disapproval of pornography use. What this study changed was removing the perceived addiction to pornography variable and still found comparable results noting that the direct effects of the study were statistically significant ($p < .001$) when assessing the relationship between religiosity and sexual shame through moral disapproval.

There are many reasons for pornography use as noted in the literature review. Recent research indicated that individuals who use of pornography between less than once and up to a few times per month tend to use for pleasure and sexual arousal (Brown, Durtschi, Carroll, & Willoughby, 2017). Certain individuals may view their pornography use as problematic, however other individuals may not. For some, pornography use may be occurring simply to meet unwanted sexual urges. It is possible that pornography use is a safer, more socially

acceptable choice than engaging in sexual activity, particularly if an individual is in a relationship. One might conclude that an intentional decision to view pornography rather than engaging in sexual activity might prevent negative relational outcomes that individuals might encounter if they were to engage in sexual activity rather than viewing pornography. Also, if individuals have core religious beliefs that discourage sexual behaviors or relationships outside of marriage, pornography use may appear to be a more acceptable outlet for exploring one's sexuality or managing sexual urges than engaging in sexual activity with another individual. These explanations, along with other factors occurring in this study's population may explain the results observed in the present study.

There are many potential precursors to hypersexuality or sexual compulsivity such as anxiety and depressed mood (Kafka & Hennen, 2002), shame (Riemersma & Sytsma, 2013), childhood trauma, sexual abuse, neglect, relief from emotional distress (Reid et al., 2009), post-traumatic stress, grief (Blain et al., 2012; Griffin-Shelley, 2014), emotion dysregulation (Walton et al., 2017), family history of addiction (Carnes, 1983) and insecure attachment relationships (Riemersma & Sytsma, 2013). Gilliland et al. (2011) noted that shame-proneness was positively predictive of hypersexual behavior and as some individuals choose pornography in which to engage in those behaviors, it makes sense that some pornography users may experience shame during or after use. There are obviously other factors and confounding variables in which the mixed findings in the research present themselves. Future research in the area of shame, shame-proneness, and pornography use would greatly benefit the population suffering from unwanted use but unable to stop themselves from viewing.

Implications for Research

Many religious individuals morally disapprove of pornography use however still use it to cope with negative mood states or other reasons such as education or sexual release (Grubbs et al., 2015). That same religious population may struggle to align their behaviors with their beliefs and future research to help those struggling with unwanted pornography use would greatly benefit that population of users. While many clinicians and the recent research findings know shame fuels the cycle of addiction (Carnes, 1999; Prosek et al., 2017), the construct of shame needs further research to assess its true implications and interactions with those who experience shame before, during, or after their unwanted behaviors. Clinicians have known and discussed the topic of shame for years and its role in the addictive cycle, however, scientific research would be helpful in finding out specifically how shame fuels this cycle or how to stop it. Other variables that could be included in future studies might include assessments measuring problematic pornography use (e.g., the Hypersexual Behavior Inventory; Reid, Garos, & Carpenter 2011), sexual shame or shame-proneness (e.g., the Test of Self-Conscious Affect; Tangney, Dearing, Wagner, & Gramzow, 2000; the Kyle Inventory of Sexual Shame; Kyle, 2013), religiosity, moral disapproval of pornography use, perceived addiction, or other related constructs such as negative moods, depression, and anxiety.

It may be clinically useful for researchers to explore populations who have very high pornography use but do not endorse problematic use or negative consequences. Individuals who seek help or clinical intervention for their pornography use are more than likely already experiencing negative consequences such as social, professional, or relational problems. Or perhaps this population of users who do not experience negative consequences is perfectly content and needs no intervention.

Much of the research on pornography tends to examine males' use, while there is much less research on female pornography users (Grubbs et al., 2017). Women's pornography use has been increasing over the past several years and seems to be an area for potential future research. The present study had nearly equal percentages of males and females in the population. Future research should determine whether the reasons for pornography use are similar in men and women or if differences exist.

Qualitative research may also be useful to explore the relationship between shame-proneness and pornography use, particularly in religious populations. In a clinical sample of participants seeking treatment for compulsive pornography use (Gilliland et al., 2011), noted that religious and non-religious individuals had similar levels of shame, hypersexuality, guilt, and motivation to change. Perhaps there are differences in religious and non-religious populations when pornography levels are not at clinical levels, however it appears that for those seeking treatment for compulsive pornography use, religion may not be a factor even though previous research found religiosity to be a positive buffer reducing the frequency of use (Short et al., 2015).

The researcher noted the effects of compulsivity in this study. It is possible that compulsivity was not the most accurate measure to use in a religious population. Higher levels of religiosity led to higher moral disapproval of the use of pornography in certain religious populations (Grubbs et al., 2015; Volk et al., 2016). Those same populations who have higher levels of moral disapproval of pornography may also perceive themselves to be addicted to pornography, although their use may not be at clinical levels since the researcher did not study clinical populations. The current study showed that higher levels of religiosity were also related to higher levels of shame-proneness, which is a direct predictor of sexual shame. It is possible

that certain religious pornography users adopt an identity of addiction viewing themselves to be addicted therefore feeling little to no shame regarding their pornography use. Perhaps other measures would be more appropriate such as assessing denial or minimization of thoughts and actions.

Finally, it was rather surprising to see that shame-proneness did not moderate any of the relationships and was only a direct predictor of sexual shame. Since shame is known to be a major proponent in compulsive and hypersexual behaviors (Reid, Stein & Carpenter, 2011), it is possible that the pornography uses by this population did not reach clinical levels. It is also possible that the measure used to assess shame-proneness (TOSCA), did not depict an accurate representation of the variable, although the Cronbach's alpha level was .81 for this study. Further research to find what may also account for the variance would benefit those populations with higher levels of pornography use and perceived addiction.

Implications for Practice

Pornography use has been growing exponentially due to the affordability, accessibility, and anonymity of the Internet and Internet-connected devices. For clinicians, understanding the function that the pornography use serves and the reasons behind individuals' use of pornography would be helpful. Many individuals may use pornography while experiencing negative moods, feelings associated with anxiety or depression as well as reasons of mood stabilization and affect regulation (Bancroft & Vukadinovic, 2004; Cooper et al., 2001). Building self-awareness in clients and helping them to understand reasons for use as well as teaching self- and mood regulation techniques may be helpful to lessen unwanted pornography use in certain client populations. Other treatments to include might be shame-lowering techniques, emotion

regulation skills, self-compassion, acceptance and commitment therapy, and mindfulness exercises.

There is a link between shame and many negative outcomes (Arel, 2015; Picone, 2015), and the experience of shame has negative relational constructs and affects the sense of self and self-worth in many negative ways (Dearing, Steuwig, & Tangney, 2005). As many clinicians understand the role of shame to fuel the addictive cycle, it may be helpful for them to have clients take the TOSCA shame-proneness scale to understand better how shame interacts with each client. Shame-proneness has a positive relationship with sexual shame in the current study as well as previous studies (Volk et al., 2016), however in populations where pornography use is not shameful but something to be proud of, it begs the question as to whether lower levels of shame-proneness may also lead to lower sexual shame and possible lower use.

Further research in the area of shame and shame-proneness and its effect on levels of pornography use and other hypersexual behaviors is needed to provide clinicians and their clients with better ways to assess shame levels as well as providing shame lowering exercises. Clinicians would benefit from a clinical diagnosis of sexual addiction with specific symptoms and clinical criteria. This diagnosis would then assist professionals to create measures to assess and assist clients with their addictive behaviors.

Limitations of the Study

One limitation of this study may be the way in which the predictor variable, weekly frequency of pornography use, was measured. The item that was in the correlation and moderation models asked participants, "How many times have you used pornography in the past month?" The response choices to that question were 1-3 times, 4-6 times, 7-9 times, or 10 or

more times. This method of assessing a ratio variable used an ordinal measurement, which may have decreased the clarity of the data provided by participants.

It is possible that the participants in the study were dissimilar to the generalized population of pornography users. Because MTurk users appear to have lower extraversion, lower emotional stability, and lower self-esteem compared to other samples (Goodman, Cryder, & Cheema, 2013), these differences and other possible differences may affect the generalizability of these results. Additionally, since MTurk samples tend to be younger than the mean U.S. population and internet users in general, as well as being better educated yet having lower incomes than the overall U.S. population (Paolacci, Chandler, & Ipeirotis, 2010), it is possible that the data collected was not representative of pornography users in general.

Another limitation of the study is the self-report measures. It is possible that participants' responses were not accurate as they may not have been able to provide an objective report about themselves or because they may have lacked awareness about the functions of their pornography use. Also, the measures may not have accurately assessed the constructs that they purported to measure, although many of the assessments have high reliability and high Cronbach's alpha scores in this study.

Also, because this study assessed sensitive subjects that are potentially embarrassing for many people, it is possible that social desirability impacted participants' responses (Tangney & Dearing, 2002). A measure of social desirability was not incorporated into the list of measures, so it was not possible to determine the degree to which this occurred in this sample.

Summary

This chapter presented a summary of the findings, limitations of this study, clinical implications, and recommendations for future research. Two main and significant findings came from this study. First, consistent with previous research (Volk et al., 2016), religiosity was positively correlated with sexual shame and mediated by the moral disapproval of pornography use. Second, this study showed that, though there were no direct or indirect effects, shame-proneness was a direct predictor of sexual shame. Further replications of this model and previous models will be beneficial in assessing the role of shame in pornography users. The findings from this study may also inform clinical work with individuals who present in counseling with problematic pornography use, levels of shame or other compulsive or hypersexual behaviors.

Previous research suggested that shame, shame-proneness, and moral disapproval of the use of pornography are key factors in problematic sexual behaviors including pornography use (Grubbs et al., 2015; Picone, 2015). Sexual shame is a topic that has been studied recently (Picone, 2015; Volk et al., 2016) and previous research found direct effects between the moral disapproval of pornography use and sexual shame (Grubbs et al., 2015; Volk et al., 2016). This study removed the perceived addiction to pornography variable from the serial mediation model (Volk et al., 2016), and tested the direct effects between religiosity and sexual shame. Therefore, it was proposed that the relationship between religiosity and sexual shame would be mediated by the moral disapproval of pornography use.

Participants' religiosity was positively correlated with sexual shame and while shame-proneness did not moderate the relationships, it was a direct predictor of sexual shame. Future research ought to focus on shame-proneness and its role in pornography use as well as

compulsive or hypersexual behaviors. Understanding the role of shame and shame-proneness in unwanted sexual behaviors and within the cycle of addiction would be helpful for clinicians in treating these disorders.

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Appendix A Informed Consent

Informed Consent

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 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 either of 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 (one U.S. dollar) 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) 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.

Yes

No

Appendix B Demographics

Do you identify as:

Male   Female   Other

What is your age?

Do you identify as:

Caucasian/White   African American   American Indian or Alaska Native

Asian   Native Hawaiian or other Pacific Islander

Hispanic, Latino, or of Spanish Origin   Other

What sexes are you attracted to?

Men only   Women Only   Men and Women

Neither Men nor Women

What is your highest completed educational level?

No schooling completed   Less than high school

High school diploma or equivalent (e.g. GED)   College Freshman

College Sophomore   College Junior   College Senior

Trade/technical/vocational training   Bachelor's degree

Master's degree   Professional degree   Doctorate Degree

Employment Status: Are you currently...?

Employed for wages   Self-employed   Not employed

A homemaker   A student   Military

Retired   Unable to work

What is your household's annual income?

Under $10,000 $10,000-$19,999 $20,000-$29,000

$30,000-$39,999 $40,000-$49,999 $50,000-$59,999

$60,000-$69,999 $70,000-$99,999   Over $100,000

How many times have you been married?

Never married   Once   Twice

Three times   More than three times

How long have you been married to your current spouse in YEARS (leave blank if never married).

What is your current relationship status? Please choose only one of the following:

Single (I have never been in a serious relationship.)

Single (I am not currently in a serious relationship, but have been in the past.)

Non-committed Dating Relationship   Monogamous Dating Relationship

Married/Life Partner   Married, but Legally Separated

Divorced   Widowed

Have you been sexually active in the last six months with your current romantic partner?

No   Yes   I don't have a current romantic partner

In terms of religion, how would you describe yourself? Choose one of the following answers:

Protestant (e.g. Methodist, Baptist, or some other Non-Catholic Christian denomination)

Catholic   Christian (Non-Denominational)   Mormon

Jehovah's Witness   Muslim   Hindu

Jewish   Buddhist   New Age/Wiccan

Taoist   None   Other

About how often do you attend religious services each YEAR?

Please choose the answer that best describes your belief in God.

I believe there is a God.

     I sometimes believe there is a God.

     I used to believe there was a God but do not anymore.

     I do not believe there is a God and I cannot say that I have ever believed in a God.

To what degree does religion or faith affect your everyday life and decision-making?

A great deal   A lot   A Moderate amount

A little   None at all

Appendix C Frequency of Pornography Use

1. How old were you when you first were exposed to pornography?

2. Were you alone in that first instance or were you with others? Please describe (include how many people, your relationship with them, and their ages) or write "alone." Also include any other information that you might think is important.

3. Have you ever intentionally used pornography for the purposes of sexual gratification?

      Yes   No

4. How old were you when you first became a pornography user (accessed pornography at least once every six months)?

5. How many times have you used pornography in the last week?

      0 times   1-3 times   4-6 times   7-9 times   10 or more times

How many times have you used pornography in the last month?

      0 times   1-3 times   4-6 times   7-9 times   10 or more times

How many times have you used pornography in the last 6 months?

      0 times   1-3 times   4-6 times   7-9 times   10 or more times

6. On average, how many hours a week do you use pornography?

7. About how many times do you masturbate per week?