

SELF-COMPASSION IN PORNOGRAPHY USERS: A MODERATION ANALYSIS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

Pornography use appears to be associated with many psychosocial problems for a subset of pornography users. Previous research indicates constructs such as experiential avoidance and shame-proneness may be related to pornography use. Research also suggests that self-compassion may be helpful in decreasing experiential avoidance, shame, and other predictors of problematic pornography use. To date, no research has been done examining self-compassion in pornography users. This may be an important construct to study in this population because the way people treat themselves during difficult times may be associated with the development of problematic pornography viewing patterns and negative outcomes related to their pornography use (e.g., problems in relationships with family and friends, occupational problems, legal problems). This study examined the correlation between the frequency of pornography use and self-compassion. The results suggested there was a significant but weak negative correlation between weekly frequency of pornography use and total self-compassion. Regarding the subscales, there were statistically significant weak negative correlations between frequency of pornography use and all three of the positive subscales: self-kindness, common humanity, and mindfulness. There were also weak but statistically significant positive correlations between frequency of pornography use and two of the negative self-compassion subscales: self-judgment and over-identification. It was hypothesized that self-compassion would moderate the relationship between frequency of pornography use and negative consequences of sexual behavior that pornography users experience; however, the results indicated there is no interaction between frequency of use and self-compassion. This research also hypothesized that the function of pornography use would also moderate this relationship. The results indicated that there was no interaction between frequency of use and self-compassion or between frequency of use and

sexual curiosity or emotional avoidance. There was a statistically significant interaction between frequency of use and excitement seeking as well as between frequency of use and sexual pleasure.

Keywords: common humanity, emotional avoidance, excitement seeking, function of pornography use, Internet pornography, isolation, mindfulness, negative consequences of sexual behavior, over-identification, pornography, self-compassion, self-kindness, self-judgment, sexual curiosity, sexual pleasure

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List of Abbreviations

Cognitive and Behavioral Outcomes of Sexual Behavior Scale (CBOSB)

Amazon's Mechanical Turk (MTurk)

Pornography Consumption Inventory (PCI)

Self-Compassion (SC)

Self-Compassion Scale (SCS)

CHAPTER ONE: INTRODUCTION

Pornography use may be increasing with the accessibility, affordability, and anonymity (Cooper, 1998) offered by smartphones, tablets, and computers. Many individuals report that pornography use is not problematic for them. Research on pornography use suggests there are positive effects of viewing pornographic materials, including learning more about sexuality, having more openness to sexual experiences, normalizing sexual behavior, improving communication about sexual desire, increasing relationship satisfaction, reducing feelings of boredom, and decreasing stress (Bridges & Morokoff, 2011; Cooper, Galbreath, & Becker, 2004; Grov et al., 2011; Hald & Malamuth, 2008; Paul & Shim, 2008; Weinberg, Williams, Kleiner, & Irizarry, 2010). In fact, many pornography users report that they experience many more positive effects from pornography use than they do negative effects (Hald & Malamuth, 2008). Although pornography use does not appear to be associated with problems for some people, between 20% and 60% of pornography users who were surveyed reported that they experience some degree of problems due to their pornography use (Twohig, Crosby, & Cox, 2009).

Previous research has examined factors proposed to predict problematic pornography use. Individuals who have problematic pornography use tend to have higher sexual compulsivity (Wetterneck et al., 2012), state shame, shame-proneness (Picone, 2015), and self-criticism (Reid, 2010). Because the link between shame and self-criticism prevents people from self-soothing and regulating their emotions when they are experiencing challenging and shame-inducing situations (Gilbert & Procter, 2006), high shame and self-criticism may contribute to problematic pornography use or other hypersexual behaviors (Chisholm & Gall, 2015). Research examining these constructs as well as treatments that target these areas may be useful for people struggling with pornography use and clinicians working with them.

Self-compassion (SC), a construct examining the way one treats oneself during difficult times, may be important to understand in the development of problematic pornography use because compassion toward oneself is “an antidote to the sense of threat” (Gilbert & Procter, 2006, p. 355) experienced by self-critical individuals who are high in shame. Also, SC can be used to target negative emotions directly, including shame (Germer & Neff, 2013). Self-compassion contains three separate dimensions. On the first dimension, self-kindness is contrasted with self-judgment (Neff, 2003a). Self-kindness is a gentle and understanding attitude toward oneself, while self-judgment is a critical and disparaging attitude that one takes toward one’s shortcomings or difficulties (Neff, 2016). The second dimension contrasts isolation versus common humanity (Neff, 2003a). Common humanity refers to a sense of connection with other people and an awareness that one’s own experiences serve to connect the individual to the broader human experience (Neff, 2016). In isolation, people tend to see their suffering or imperfections as unique to themselves, which can lead to feelings of loneliness (Neff, 2016). In the third dimension, mindfulness is compared to over-identification with one’s thoughts (Neff, 2003a). In over-identification, people focus on the negative aspects of themselves, their life, or their experiences (Neff, 2016) and either ignore or exaggerate their experience (Neff, 2011). Mindfulness is an awareness of one’s internal experiences, including physical sensations, memories, emotions, and thoughts, as well as focusing one’s attention on the present moment while maintaining a nonjudgmental awareness of these areas (Neff, 2016).

Some of the SC dimensions seem particularly helpful for pornography users who are experiencing problems related to pornography use. The self-kindness components may prevent people from using self-critical or judgmental statements regarding pornography viewing, which might help them to cope with life stressors in a more healthy way. Also, self-kindness might help

decrease pornography use by helping individuals examine the undesirable traits or behaviors that they possess (Reid, Temko, Moghaddam, & Fong, 2014). Self-kindness might also reduce the impact of shame (Reid et al., 2014) on pornography use. Similarly, because of the stigma and need to keep the pornography use secret due to fear of experiencing shame, individuals using pornography may perceive that they are alone in this struggle to gain control over these problematic behaviors. Developing common humanity might help people struggling with pornography use to see this as an area that connects them to others, rather than distancing them. Last, since pornography use appears to have an experiential avoidance component (Wetterneck et al., 2012), it is possible that emotion regulation is implicated in the people with a loss of control over pornography; increasing mindfulness skills might help them to stop over-identifying with thoughts or avoiding their internal experiences.

Background of the Problem

The impact of pornography use has received quite a bit of research. Studies have explored the correlations of pornography use with several different negative consequences of sexual behavior, as well as associated emotions. Some pornography users experience the following negative outcomes related to their sexual behavior: psychological, spiritual, social, legal, occupational, and behavioral (e.g., problems in important relationships; Twohig, Crosby, & Cox, 2009). Research indicates some people may use pornography as a way to escape daily stressors (Griffiths, 2012). Pornography use may be associated with anxiety, mood, or substance use disorders (Stein, Black, Shapira, & Spitzer, 2001). For some users, pornography viewing can be associated with other psychosocial problems including isolation, guilt, shame, anxiety,

emotional numbing, and decreased interest in existing relationships (Schneider, 2000). Clearly, for some individuals, pornography use can have negative results in many areas of one's life.

Pornography use appears to be related to the emotions people experience. Reid (2010) reports that hypersexual men, including individuals struggling with pornography use, tend to experience less positive emotion and more negative emotion compared to control participants. In other words, people who have pathological use of pornography may feel greater sadness and anxiety as well as feeling less joy or excitement compared to non-pornography users. Guilt and shame may also be implicated in pornography use. For adults seeking treatment for pornography use, trait shame seems to predict higher hypersexuality, while trait guilt predicts lower hypersexuality (Gilliland, South, Carpenter, & Hardy, 2011). Conversely, in a non-clinical sample of college-age individuals, guilt-proneness was not correlated with use, although shame-proneness seemed to have a small but significant correlation with pornography use (Picone, 2015). In a similar sample of hypersexual men presenting for treatment, 68% of whom reported dependence on pornography, their hostility toward themselves, guilt, and disgust predicted almost half of the variability in hypersexual behavior (Reid, 2010). Reid, Harper, and Anderson (2009) report that shame related to hypersexual behaviors including problematic pornography use tends to lead to the following actions in clinical populations (compared to non-clinical samples) as ways to escape shame: withdrawing, attacking oneself, and attacking others. It seems important for clinicians and researchers to examine the way people relate to themselves concerning their pornography use.

Self-compassion, or the way one relates to oneself during challenging times, may be clinically useful to explore in pornography users. A great deal of research has been done on self-compassion related to psychosocial problems, well-being, and negative emotionality, including

shame. Self-compassion is negatively correlated with depression and anxiety, as well as positively correlated with well-being (Neff, 2003b). The negative correlation between self-compassion and depressive symptoms seems to be mediated by shame (Johnson & O'Brien, 2013). Self-compassion interventions are associated with decreased depressive symptoms (Shapira & Mongrain, 2010), less anxiety (Arch et al., 2014), and reduced shame (Albertson, Neff, & Dill-Shackleford, 2014). These gains appear to be long lasting; self-compassion interventions are associated with reduced symptoms of stress, anxiety, and depression for up to a year (Neff & Germer, 2013). In addition to negative emotionality, the positive scales of self-compassion (mindfulness, self-kindness, common humanity) are negatively associated with psychopathology, while the negative scales (self-judgment, isolation, over-identification) are positively correlated with psychopathology (Muris & Petrocchi, 2017). In other words, people with high self-compassion tend to have lower levels of mental health symptoms. Compassion focused therapy, developed by Gilbert (2009, 2010) has many similarities with self-compassion and is thought to target the shame and self-criticism that occur in many different diagnoses in order to increase emotion regulation, feelings of “safeness,” and well-being.

Although no previous research has been conducted on self-compassion and Internet pornography users, research exists using similar constructs. Though self-forgiveness was studied in individuals with hypersexual behavior (Hook et al., 2015), this construct differs from SC in several important ways. Self-forgiveness is defined as lower motivation to avoid things associated with wrong-doing, lower motivation to punish or criticize themselves, and increased motivation to act towards themselves in kind and caring ways (Hall & Fincham, 2005). Self-forgiveness might relate to an injury done to another person or to oneself (Hall & Fincham, 2005). Self-forgiveness does not appear to address the common humanity or mindfulness aspects

of self-compassion. Also, self-forgiveness appears to be related to situations where one engaged in hurtful behavior, rather than self-kindness being applied related to an individual's perceived faults, wrongdoings, or difficulties in daily occurrences. Despite the differences between self-compassion and self-forgiveness, Hook and colleagues' (2015) research may be useful as a starting point in the study of self-compassion and pornography use. Hook and colleagues (2015) found that a measure of shame and guilt mediated the relationship between self-forgiveness and hypersexual behavior.

In a study of hypersexual individuals, Reid, Temko, Moghaddam, and Fong (2014) found that hypersexuality was negatively correlated with self-compassion. Since hypersexual behavior includes a wide range of sexual behaviors that may be problematic for individuals, the hypersexual population studied by Reid and colleagues (2014) may not necessarily be representative of Internet pornography users. Also, Reid and colleagues (2014) used the total scores from the Self Compassion Scale (Neff, 2003b) but did not analyze the subscales, which may yield additional important information related to hypersexuality or pornography use. It seems that the previous research that has been conducted supports further exploration of self-compassion in pornography users.

Statement of the Problem

Internet pornography appears to be related to many negative consequences of sexual behavior as well as shame and negative emotionality. According to compassion and self-compassion researchers (Gilbert & Procter, 2006; Neff, 2003a; Neff, Kirkpatrick, & Rude, 2007), shame and other negative emotions can be targeted through self-compassion interventions. The problem is that there is a dearth of research on SC in pornography users.

Grubbs, Hook, Griffin, and Davis, (2015) believe this research would benefit the field because interventions in psychotherapy that incorporate self-compassion, self-forgiveness, and mindfulness practices may be relevant to the shame, guilt, and moral beliefs related to sexual behavior in hypersexual individuals. Reid and colleagues (2014) proposed four ways that self-compassion might positively impact hypersexual individuals. First, encouraging self-compassion in clients may minimize the influence of shame on hypersexual behaviors (Reid et al., 2014). Second, self-compassion might change the experience of negative emotions by normalizing suffering and difficult experiences by reframing them as part of being human (Reid et al., 2014). Third, self-compassion interventions may help clients love themselves, which could activate different negative emotions, such as guilt, rather than the shame the client had been experiencing (Reid et al., 2014). If shame is decreased and guilt increased, individuals may be more likely to engage in moral behaviors (Murray, Ciarrocchi, & Murray-Swank, 2007) and to decrease the pornography use (Chisholm & Gall, 2015). Fourth, the self-kindness and the nonjudgmental aspect of mindfulness may help clients to decrease their self-criticism, thereby decreasing hypersexual behaviors (Reid et al., 2014). In summary, self-compassion might be an important construct to explore in individuals who struggle to control their pornography use.

Purpose of the Study

The purpose of this study is to explore self-compassion in a population of pornography users. This study will expand current knowledge of pornography users. This paper also bridges the gap in the literature regarding pornography use and self-compassion. In addition, this research increases understanding of the connections between several constructs related to

pornography use, including the reasons individuals are viewing pornographic materials and the negative effects that pornography use has on their lives.

Research Questions

The first research question is: what is the correlation between SC and the frequency of pornography use? Figure 1.1 provides a pictorial representation of this research question. This is an important first step because no research to date has explored this relationship. The hypothesis is that since high-frequency pornography use is associated with emotional avoidance and avoiding stress (Reid, Li, Gilliland, et al., 2011), it is anticipated that the mindfulness subscale will be inversely correlated with frequency of pornography use. Since the negative SC subscales are more strongly associated with psychopathology compared to the positive subscales (Neff, 2016), it is hypothesized that frequent, problematic pornography use will be positively correlated with the negative SC subscales (i.e., self-judgment, over-identification, isolation) and that problematic pornography use will be negatively correlated with the positive SC subscales (i.e., self-kindness, mindfulness, common humanity). It is also hypothesized that the correlation of the negative SC subscales and problematic use will be stronger than the correlation of positive SC subscales with problematic use.



Figure 1.1. Proposed theoretical model of research question one.

The second research question is whether the relationship between the frequency of pornography use and negative consequences due to sexual behaviors (e.g., occupational, relational) is moderated by SC. Figure 1.2 provides a pictorial representation of this model. This

relationship is important to understand because SC could have a protective role in pornography users' development of negative outcomes associated with sexual behavior. This could also inform whether SC interventions could be helpful in psychotherapy for individuals with problematic pornography use. The hypothesis is that SC would be a partial moderator in this relationship because individuals who have higher SC tend to have greater well-being (Neely, Schallert, Mohammed, Roberts, & Chen, 2009; Neff, 2003b) and improved interpersonal relationships (Neff, 2003b; Neff & Pommier, 2013; Neff, Rude, & Kirkpatrick, 2007).

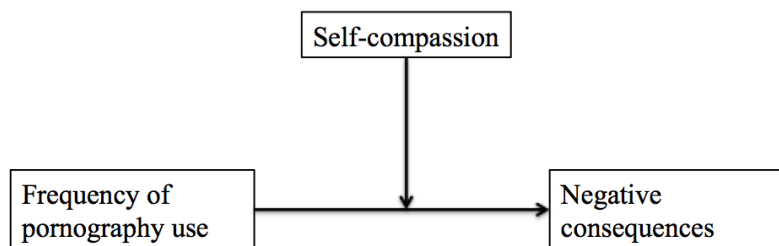


Figure 1.2. Proposed theoretical model of research question two.

The third research question asks if the function of pornography use is a second moderator, along with self-compassion, in the relationship between frequency of pornography use and negative outcomes. This question adds to the moderation analysis in question two by adding the function of pornography use as an additional moderator. This model is displayed in Figure 1.3. This question is expected to help clinicians because it will provide empirical support for reasons individuals are using pornography in the context of their motivations or functions of use. Also, this question will provide information on individuals' attitude toward themselves in relation to the function of their use. The hypothesis is that functions of pornography use, specifically emotional avoidance, will have a moderating effect on negative outcomes associated with pornography use. Research indicates more frequent use (greater than 1 hour per day) is

associated with emotional avoidance (Reid, Li, et al., 2011), which is expected to augment the problems that people experience related to pornography use.

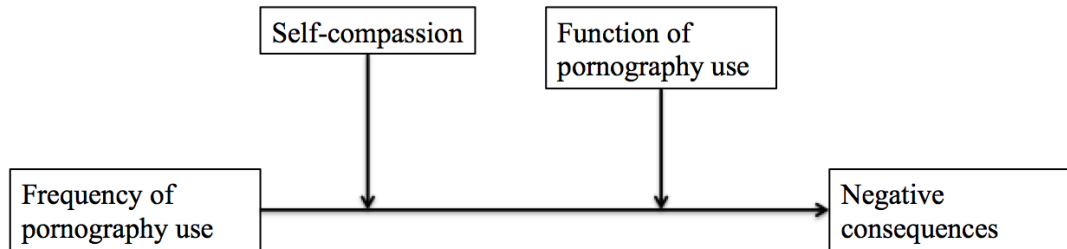


Figure 1.3. Proposed theoretical model of research question three.

Assumptions and Limitations

An assumption of this study is that the participants recruited through Amazon’s Mechanical Turk (MTurk) are representative of the broader population in the United States. Previous research indicates MTurk samples have high diversity in ethnicity, socio-economic status, and age (Casler, Bickel, & Hackett, 2013; Mason & Sui, 2011). It is also assumed that participants obtained through MTurk are representative of Internet pornography users, including those who have problematic and non-problematic use.

There are a few limitations of this study. Since this design uses a correlational design and cross-sectional sampling (rather than using a longitudinal design), it is not possible to test causal relationships between the variables. Also, because the data were collected through Amazon’s Mechanical Turk (MTurk), it is possible that the sample obtained is not representative of the larger population of pornography users. It may be the case that the sample does not contain individuals with truly pathological use or those who are experiencing significant negative effects of their pornography use, as might be seen in a clinical sample. Last, some of the measures used may be associated with limitations. The predictor variable, “weekly frequency of pornography

use,” is not a measure that has been validated or has known psychometric properties. All measures are self-report, which may have some degree of error due to difficulty remembering the amount of use or frequency, as well as social desirability.

Definition of Terms

Pornography has many different definitions, which has been a major problem in pornography research. Campbell and Kohut (2017) define pornography as “written, pictorial, or audio-visual representations depicting nudity or sexual behavior” (p.6). The definition suggested by Short, Black, Smith, Wetterneck, & Wells (2012) is “any sexually explicit material displaying genitalia with the aim of sexual arousal or fantasy” (p. 21). Reid, Li, Gilliland, Stein, Karim, & Fong (2011) used the following criteria: “material is considered pornographic if it (1) creates or elicits sexual feelings or thoughts and (2) contains explicit images or descriptions of sexual acts involving the genitals” (p. 360). For this study, pornography will be defined as images, videos, or other sexually explicit material depicting nudity and sexual behavior.

Internet pornography use is defined in this study as viewing sexually explicit material (containing images of genitalia) on a computer or other electronic device (e.g., smartphone, tablet) (Short et al., 2012). The form of Internet pornography can include videos, pictures, chat rooms, and games that incorporate sexually explicit material (Short et al., 2012).

Problematic pornography use is defined for this study as emotional distress about one’s pornography use, perceived compulsion or addiction to using pornography, and prioritizing pornography over other activities (e.g., social, occupational) (Grubbs, Volk, Exline, & Pargament, 2015).

Negative consequences are the adverse outcomes that individuals experience related to their pornography use. Based on previous research, these include psychological, spiritual, social, legal, occupational, and behavioral problems (Twohig, Crosby, & Cox, 2009) as well as depression, anxiety, stress, and problems in social functioning (Levin, Lillis, & Hayes, 2012). For the purpose of this study, negative consequences associated with pornography will be defined as any negative outcomes of use including “social, emotional, physical, legal, financial/occupational, and spiritual areas of life” (McBride, Reece, & Sanders, 2010, p. 148).

Function of pornography use is the reason the individual is viewing pornographic materials. The possible functions include, but are not limited to: sexual entertainment/arousal, learning about sexuality, connecting with other people (Goodson, McCormick, & Evans, 2000), satisfying sexual curiosity (Reid et al., 2011), coping with stress, distracting oneself, and exploring sexual fantasies, (Cooper, Morahan-Martin, Mathy, & Maheu, 2002). Research also indicates pornography may be used to improve sexual relationships, regulate one’s emotions, and fantasize about sexual interactions (Paul & Shim, 2008). For the purpose of this study, the functions of pornography use will be limited to emotional avoidance, sexual curiosity, excitement seeking, and sexual pleasure (Reid et al., 2011).

Self-compassion (SC) is a healthy attitude toward and relationship with oneself (Neff, 2003a). This includes three pairs of contrasting attitudes: self-kindness versus self-judgment, mindfulness versus over-identification, and common humanity versus isolation. Openness to one’s suffering, rather than attempting to avoid or distance oneself from suffering, promotes attempts to decrease the suffering and act with kindness toward oneself (Neff, 2003a). A nonjudgmental observing attitude toward the painful things one experiences (e.g., pain, failure, inadequacy) encourages an attitude that one’s own experiences are similar to experiences all

people have (Neff, 2003a). For the purpose of this study, self-compassion is defined as attempts to increase self-kindness, mindfulness, and common humanity while trying to decrease self-judgment, over-identification, and isolation (Neff, 2016).

Significance of the Study

This study is anticipated to further the dialogue about problematic pornography use, potential interventions for pornography users, and how the function of pornography use is associated with outcomes. Since no research to date has examined SC in pornography users, this study will explore the relationship between these constructs and how SC may impact pornography use. This research is likely to be helpful for many audiences including researchers, clinicians, and the general public. For counselors and other mental health care professionals, this research may help to better understand the relationships between these constructs and how this could impact treatment or their clients who are struggling with pornography use. The general public may benefit from this research by better understanding problematic pornography use and the need for interventions. For researchers, this study may lead to increased understanding of problematic pornography use, potential interventions (e.g., self-compassion, compassion-focused therapy) for pornography users, and how SC may impact negative outcomes of sexual behavior.

Organization of the Remaining Chapters

The second chapter is an in-depth exploration of the extant literature on these topics. This will focus on pornography use, frequency of use, negative consequences of sexual behavior that are correlated with pornography use, and possible benefits of viewing pornography. Next, the literature on self-compassion will be explored, including what self-compassion is, other factors

that tend to be associated with high and low self-compassion, and research on interventions for increasing self-compassion. The third chapter describes the research method. This includes the method of data collection, measures that were used, and data analysis procedures. The fourth chapter will focus on the results of the study. This includes an explanation of how each of the hypotheses was tested using statistical analyses and the data that was obtained. Any supplemental analyses will be described in this section. Last, the fifth chapter explores the findings of this study. This includes a summary of the results, an interpretation of these results, how these findings relate to previous research, and the implications of the findings. Also, limitations of this research and areas for future research are discussed.

Summary

Most users of pornographic materials do not report many negative effects of their use; yet for people who experience problems associated with use, pornography can impact their lives in many different ways. These include emotional and psychological impacts, religious or spiritual problems, difficulties in interpersonal relationships, occupational problems, and other types of negative effects. For other individuals, pornography use may not be the cause of psychosocial difficulties, but could occur in conjunction with other mental health conditions. Self-compassion, one's attitude toward oneself during difficult experiences, may be important to research in pornography users because self-compassion seems to be inversely related to many of the same negative consequences that pornography users experience. This study explores the relationship between self-compassion and pornography use. The next chapter reviews the literature about pornography use and research related to self-compassion.

CHAPTER TWO: REVIEW OF THE LITERATURE

The purpose of this study is to explore the relationship between frequency of pornography use and self-compassion. Specifically, the first research question will examine the correlation between these two variables. The second question examines whether SC moderates the relationship between frequency of pornography use and negative consequences of sexual behavior. In the third research question, the function of pornography use is added as a second moderator. Self-compassion is hypothesized to be an important construct in the context of pornography use. Since SC relates to one's relationship with oneself during difficult times, and because pornography can be associated with many problems for some individuals, it is important to better understand SC across the spectrum of pornography use frequency.

This chapter will begin with an overview of the constructs SC, frequency of pornography use, negative consequences of sexual behavior, and reasons for pornography use. Next, the extant research on the psychosocial problems and specific negative outcomes associated with pornography use will be reviewed. After reviewing the literature on pornography use, this chapter will focus on self-compassion. The construct and six components are explored. Next, psychosocial factors both positively and negatively correlated with self-compassion are examined. Research on self-compassion interventions is reviewed, along with all research related to self-compassion and pornography use. Last, the research questions and theoretical models will be outlined.

Internet Pornography Use

Pornography has existed for hundreds of years (Kendrick, 1987), although the nature of pornography has changed with advances in technology. Prior to the Internet, pornographic material was viewed in images or pictures, magazines, movie theatres, videotapes for home viewing, and on cable television (Regnerus, Gordon, & Price, 2016). With the Internet came increased access, affordability, and anonymous use of pornography (Cooper, 1998). Although the format of the material has changed, the nature of pornography use is more or less unchanged (Regnerus et al., 2016).

This section will first explore the research on the frequency of pornography use. The inconsistencies in research will be investigated along with possible reasons for the wide range in the frequency that researchers report. Next, the reasons people use pornography will be discussed. This includes the factors that maintain the behavior of viewing pornography despite problems that are experienced associated with high use. Characteristics and patterns of pornography use will be considered, along with negative outcomes related to pathological pornography use.

Frequency of Use

The frequency of pornography use is important to explore because some users may spend a great deal of time viewing this material. High-frequency use may be associated with greater negative outcomes. For example, an individual viewing pornography for three hours per day may begin viewing pornography at work and then may face occupational problems due to lack of productivity. Although many researchers have explored the frequency of pornography use, there has been a great deal of variability in the frequency reported by research participants. Carroll and colleagues (2008) found that 87% of male undergraduate students ($n = 313$) in their sample had

used pornography, with 48% of males viewing pornography at least once per week. In contrast, for female students ($n = 500$), 31% had viewed pornography at some point in their lives but most of these individuals (about 21% of all female participants) viewed pornography about once per month or less (Carroll et al., 2008). Regnerus, Gordon, and Price (2016) examined four national surveys of data collection and found that 46% of men between ages 18-39 ($n = 2424$) in a nationally representative sample reported using pornography in the past week. Of women ($n = 2741$) in the same age bracket, 16% reported using pornography in the last week (Regnerus et al., 2016).

In large samples of Americans, the population who use pornography excessively appears to be relatively small. In a study of over fifteen thousand people, Albright (2008) reported that only 2% of these people endorsed items that would signify problematic or compulsive Internet use related to sexual activities (including pornography use), which was defined as seeking online sexual material 11 hours or more per week. An equal percentage of men and women endorsed compulsive use (Albright, 2008). A strength of this study was the high sample size; however, the data was collected in 2004 and it seems possible that pornography use patterns may have changed since the data was collected. Albright (2008) added that the data was collected from a major United States news website and that the sample may not be representative of pornography users.

The frequency of pornography use may vary over time for some users. Reid, Li, Gilliland, Stein, Karim, and Fong (2011) found two patterns of pornography use in a clinical sample of 107 men who presented to outpatient treatment for pornography use. The first group's use patterns appeared to resemble binges, in which they would use pornography for several hours over the course of several days and then have several weeks or months without any pornography

use (Reid et al., 2011). Alternately, the second group endorsed a loss of control over pornography use and tended to act impulsively on urges to view pornography, resulting in using it in situations in which they could experience severe consequences for this behavior (e.g., at work; Reid et al., 2011). Based on this first group's behavior, the frequency of pornography use collected through surveys may not accurately capture use patterns. It is possible that the behavioral patterns of pornography users who are not seeking treatment may not resemble these two patterns; therefore, future research on this area is indicated.

Based on the increasing availability of Internet access as well as the accessibility, affordability, and anonymity of online pornography use (Cooper, 1998), pornography use could be changing over time, although there has been little research examining changing use patterns over time. Wright (2013) examined data from 14,183 male participants collected between 1973 and 2010 by the *General Social Survey* (Davis & Smith, 2010), which collected a variety of types of information from adult participants either in an in-person interview or phone interview. Researchers assessed for pornography use by asking participants if they had viewed a pornographic film in the past year (Wright, 2013). Based on this data, a regression analysis was conducted, which indicated a 0.3% increase per year for males who had viewed pornography in the past year (Wright, 2013). After the Internet was created, there was a 0.1% increase per year in the amount of males who endorsed viewing pornography during the past year (Wright, 2013). In examining the average use across decades, 26% of males reported viewing pornography in the 1970s, 30% in the 1980s, 32% in the 1990s, and 34% in the 2000s (Wright, 2013).

Much of the literature on pornography seems to focus on male populations, although female users' pornography use patterns may be important to study as well. Trends in women's pornography use seem to be similar to men's, with small increases each year. Wright, Bae, and

Funk (2013) used data from 18,225 female participants surveyed between 1973 and 2010. In the 1970s, 14% of women reported pornography use, 18% in the 1980s, 17% in the 1990s, and 16% in the 2000s (Wright, Bae, & Funk, 2013). This data may not accurately reflect patterns of use, however, since the item asked if an individual had used pornography in the past year. It is possible that some individuals were using pornography frequently throughout the year, while this behavior was not measured in this item. The last point of data collection reported by Wright (2013) and Wright and colleagues (2013) was in 2010. Since that time, it is possible that Internet access has increased and individuals can access pornography more easily (e.g., through smartphones); therefore, data from 2010 may not be reflective of current trends in use. The question whether pornography use has increased over time requires further research.

Based on the extant literature, the majority of people do not seem to have high-frequency pornography use. Small percentages of users seem to use pornography frequently, although the research on frequency of use appears problematic. The next section will further examine the deficits in this research.

Inconsistencies in data regarding frequency of pornography use. The estimates of pornography use seem to vary considerably across studies. There are many possible reasons for this. One might be discomfort disclosing one's pornography use. Based on the strong views held by some individuals about pornography's unacceptable nature and the stigma associated with discussing one's own pornography use, it is possible that the actual use of pornography is higher than estimates found in research (Regnerus, Gordon, & Price, 2016). Some data collection of pornography use has used interviews to obtain data about use, while other research has used anonymous surveys (Regnerus et al., 2016). It seems likely that social desirability may influence

results when participants are asked questions directly and face-to-face by a researcher (Regnerus et al., 2016).

Other possible reasons for differences in pornography use are the survey items that are asked. Regnerus and colleagues (2016) noted that some research asked for the last time an individual had used pornography, while other research inquired about how many times the participant had viewed pornography in the past year. The question of the number of times an individual used in the past year may not provide accurate data, especially in populations of frequent pornography users, because estimating one's use over a long period of time can be much more challenging than considering shorter time periods (Regnerus et al., 2016). While asking for the last time someone used pornography is a more accurate way to measure pornography use in a typical week or month, it is also possible that this may increase the number of participants who do not answer this question due to the direct nature of the question (Regnerus et al., 2016). A related problem to the wide variety of methods of measuring pornography is that it is not possible to compare pornography use across studies or to establish norms that might differentiate non-problematic use from problematic use (Short et al., 2012). Short and colleagues (2012) indicate the variation in definitions of pornography may also impact participants' responses. For example, broad definitions may be associated with more affirmative responses to use, with narrower definitions being associated with less reported use (Short et al., 2012). It appears that there is a need for further research on how to accurately assess the amount of time people are viewing pornographic material in order to better understand behavioral patterns and further the research on this population.

Reasons for Internet Pornography Use

Research indicates people are viewing pornography for many reasons. Goodson, McCormick, and Evans (2000) conducted pioneering research on the function of pornography use. These researchers used findings from a study on general Internet use (Kraut et al., 1998) and proposed that the function or purpose of pornography use might be for sexual entertainment or arousal, to learn about sexuality, or for connecting with other people (Goodson et al., 2000). Based on this theory and social cognitive theory, Goodson and colleagues (2000) created a measure to assess these functions of pornography. Some limitations exist with their measure. Although a factor analysis confirmed the existence of their findings, the research used to develop the items was related to general Internet use rather than Internet use related to sexual behaviors (e.g., pornography use).

Cooper, Morahan-Martin, Mathy, & Maheu (2002) extended the research of Goodson and colleagues (2000). They examined a large population of adults ($N = 7,037$) recruited through a news organization's website to better understand reasons for pornography use (Cooper et al., 2002). Cooper and colleagues (2002) found that people used pornography (with percentages of people who endorsed the item listed in parentheses) 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%). Cooper and colleagues (2002) found that women were more likely to use pornography to obtain information, meet people, buy materials, and seek support for problems. Men tended to use pornography to distract themselves, manage stress, and meet people with whom they would have sex (Cooper et al., 2002). Since this data was collected in the year 2000 and because

pornography use trends may have changed substantially during the past 15 years, it is possible that these reasons for use outlined by Cooper and colleagues (2002) are no longer accurate for current pornography users today. Also, Cooper and colleagues (2002) reported that 78% of their participants reported never feeling out of control and 13% rarely felt out of control regarding their pornography use. This may indicate the pornography use was not particularly problematic for these individuals and that there was a low amount of pathological use in this sample. Future research in this area with populations who experience greater negative outcomes related to pornography or who experience a greater loss of control may help clinicians and researchers better understand current reasons for pornography use.

Younger adults seem to report similar reasons for pornography use compared to other adult populations (Goodson et al., 2000; Cooper et al., 2002). In a sample of 321 undergraduate students, Paul and Shim (2008) found four main themes in reasons for pornography use. Students reported using pornography for relational reasons (e.g., with a romantic partner, for sexual arousal prior to sexual activity with a partner), emotion regulation (e.g., to decrease stress or relieve boredom), habitual use (e.g., loss of control over pornography use), and for fantasy (e.g., imagining having sex with one of the actors in the video) (Paul & Shim, 2008).

People who self-identify as having problematic pornography use seem to differ somewhat in the reason for their pornography use. Specifically, these individuals may be more likely to view pornography in order to avoid difficult emotions such as anxiety, shame, or sadness. Reid and colleagues (2011) examined the function of pornography use in a sample of 105 male participants who sought online coaching for pornography addiction. These participants reported using pornography to avoid emotions, because they were curious about sexuality, because they were seeking excitement, and for sexual pleasure (Reid et al., 2011). Results indicated that

participants who used pornography more than one hour per day were more likely to use pornography for emotional avoidance and stress relief (Reid et al., 2011). In other words, people who had a higher frequency of pornography use tended to use pornography to avoid their internal experiences (e.g., feelings). This appears consistent with other research by Wetterneck and colleagues (2012) who found that users who viewed pornography for emotional and cognitive avoidance tended to have more problematic use (Wetterneck et al., 2012). Additionally, Wery and Billieux (2016) found that French-speaking men who viewed pornography to regulate their mood or fantasize were more likely to have problems associated with pornography use. Reid and colleagues (2011) suggest that future research examine the function of pornography use in a population that is more heterogeneous in terms of the amount of pornography use and individuals who have non-problematic use as well as greater diversity in race/ethnicity and sexual orientation. They also recommend examining the function of pornography use in relation to other psychological constructs (Reid et al., 2011). Similarly, Wetterneck and colleagues (2012) recommend that future research examine the relationships between reasons people view pornography, frequency of pornography use, and effects of use.

The extant research supports several functions of pornography use, including sexual arousal, emotional avoidance, education purposes, connecting with other people, and many other reasons. In order to better understand pornography users who are struggling to gain control over their use, it is important to explore the function of use. In other words, asking what is maintaining this behavior is an area that this study hopes to examine further. In addition to the function of use, it is also important to explore the patterns and characteristics associated with pathological pornography use. The next section will explore the research on this area.

Characteristics Associated with Problematic Pornography Use

It is important to understand which characteristics and patterns of pornography use are more likely to be associated with problems related to the pornography use because this may help clinicians working with this population. Research on these characteristics has been conducted using several different populations across the world. In an American sample of college students and participants from the community ($N = 494$), Wetterneck and colleagues (2012) found that average weekly pornography use for men was 12.5 hours. In contrast, average use per week for women was 5.4 hours (Wetterneck et al., 2012). Male participants were significantly more likely than females to have problematic use based on adapted DSM-IV-TR criteria (Wetterneck et al., 2012). Of the participants who were classified as problematic users, two thirds were male (Wetterneck et al., 2012). Higher frequency of pornography use was associated with sexual compulsivity, impulsivity, and avoidant coping strategies, along with increased risk of having problematic use (Wetterneck et al., 2012). The authors report that the amount of time per week using pornography was less indicative of problematic use than the function of use; users who viewed pornography to avoid experiencing their thoughts and feelings tended to have more problematic use (Wetterneck et al., 2012). A limitation of this study may have been the convenience sampling methods; however, the authors propose that individuals who were more comfortable discussing their sexual behaviors may have self-selected to participate in the study, thereby increasing clinical utility (Wetterneck et al., 2012).

Because culture and stigma unique to a culture may impact behaviors, it may be useful to explore characteristics of pornography use across cultures. Ross, Mansson, and Daneback (2012) collected data from Swedish university students and through Swedish websites, some of which contained sexually explicit material. Of the 1,913 participants, 4.5% endorsed being “addicted”

to the Internet for sexual purposes and believed this was problematic (Ross et al., 2012). About two percent of participants endorsed a desire to seek treatment for this problem (Ross et al., 2012). Predictors of problematic pornography use included frequency of use and a history of negative experiences due to sexual use of the Internet (Ross et al., 2012). Another predictor of problematic pornography viewing was participants' religiosity (Ross et al., 2012). This is consistent with research by Grubbs, Exline, Pargament, Hook, and Carlisle (2015), which suggested that an individual's frequency of use and duration of pornography use may not be as important as his or her moral disapproval of pornography associated with religion/spiritual beliefs. In other words, religious pornography users are more likely to experience distress related to their use because of cognitive dissonance: their religion may consider pornography a sin yet they are viewing the material. For religious individuals, they feel distress related to their use and are more likely to believe that it is problematic (Grubbs et al., 2015).

Relationship status may be an important characteristic to study in problematic pornography use. In a study of online sexual behaviors of 1,239 Spanish college students, Ballester-Arnal, Castro-Calvo, Gil-Llario, and Grimenez-Garcia (2014) found that more male participants who were single had problematic pornography use compared to males in relationships. In other words, men in relationships were less likely to have problematic use of pornography but men who were single were more likely to endorse problematic use. This finding was not observed in female participants (Ballester-Arnal et al., 2014). A potential limitation of this study is that researchers were only asking participants about behavior in the past week (Ballester-Arnal et al., 2014), which might not account for more sporadic use or binge-type problematic use that Reid and colleagues (2011) identified. Also, it is possible that pornography

use led to relational problems and being single, rather than one's relationship status predicting pornography use patterns.

The tendency to experience certain emotions, specifically guilt and shame, has been proposed to be important in problematic pornography use (Chisholm & Gall, 2015) and hypersexual behavior (Reid, Stein, & Carpenter, 2011). In a study of 177 adults, the majority of whom were seeking treatment for pornography use, structural equation modeling indicated trait shame was a positive predictor of hypersexuality while trait guilt was a negative predictor (Gilliland, South, Carpenter, & Hardy, 2011). In other words, people who tended to have greater shame-proneness tended to have greater hypersexual behavior, while those who tended to be more prone to experiencing guilt tended to have less hypersexual behavior. A problem with this study is that it was cross-sectional; therefore, guilt and shame cannot be determined to cause or predict pornography use. Since the mean duration of pornography use in the study was nearly 16 years and on average participants had spent over a year in treatment already related to pornography use (Gilliland et al., 2011), it may be possible that pornography use was associated with greater shame proneness and less guilt proneness. Another explanation of these findings could be that the use of pornography led to shame, as opposed to the authors' findings that shame led to pornography use.

Research on predictors of problematic online sexual behaviors in 434 French-speaking men indicated the predictor that explained the greatest proportion of problematic use was participants' motives for use (Wery & Billieux, 2016). Specifically, participants who used sexually explicit online material for mood regulation or fantasizing tended to have more problematic use (Wery & Billieux, 2016). The authors propose that people may use the Internet for sexual behaviors that are searchable online but are taboo outside of the Internet (Wery &

Billieux, 2016). Similarly, findings from Ross, Mansson, & Danebeck (2012) indicated that more specific interests in pornography were associated with more problematic use. It is possible that specific interests or preferences may be more readily available on the Internet than in person. Alternately, pornography users may develop more specific interests as their use increases. The mood-regulation aspect of online sexually explicit material use seems consistent with the findings of Levin and colleagues (2012), who identified experiential avoidance as a predictor of problematic use. Other findings from this study were that problematic use of online material was associated with sexual problems (i.e., erectile dysfunction and low sexual satisfaction) (Wery & Billieux, 2016). Since the sample included only French-speaking men, these results may differ from those of different cultures and nationalities.

In summary, the literature indicates there are several characteristics and predictors associated with pornography use. High-frequency use, greater shame-proneness, and using pornography to avoid one's thoughts and feelings tend to lead to pathological use. Additionally the demographic characteristics of being single and/or identifying as religious/spiritual may be associated with greater difficulties in controlling one's pornography use. Finally, experiencing negative outcomes related to use is associated with pathological use. The next section will explore these negative outcomes in more detail.

Negative Outcomes Associated with Pornography Use

Internet pornography use may not be associated with negative outcomes for all users. For pornography users who have frequent pornography use or difficulty controlling their use, however, problems may occur because of pornography use. Research indicates the use of pornography is associated with negative outcomes for some individuals. These negative outcomes can occur in several areas, such as interpersonal relationships or occupational

difficulties. In a sample of 229 undergraduate students, Twohig and colleagues (2009) found that pornography use was associated with negative consequences from sexual behavior in the following areas: spirituality, interpersonal relationships, legal, occupational, physical health, and psychological health. Of the pornography users in this sample, between 20 to 60% of participants endorsed problems in these areas (Twohig et al., 2009). This research also indicated that the function of pornography use seemed more important than the frequency of use in the development of negative outcomes from use; trying to control one's thoughts or urges to view pornography was associated with greater negative outcomes (Twohig et al., 2009). Although Twohig and colleagues (2009) found that the amount of negative outcomes people experience from using pornography do not appear to increase as the individual's use increases, there are many problems with this research. First, an undergraduate sample was used (Twohig et al., 2009), in which pornography use may be more socially acceptable or associated with fewer or less severe consequences. Second, the methodology of inquiring about the amount of time spent viewing pornography may be problematic. To assess time spent viewing pornography, this study asked, "In the past three months, how many times have you visited computer porn Internet sites?" (Twohig et al., 2009, p. 256). The response choices to that question were "0 times, 1-2 times, 3-5 times, 6-10 times, or 10 times or more" (Twohig et al., 2009, p. 256). Although this item would adequately differentiate between pornography users and nonusers, the limit of 10 times on the high end and use over the past three months may not adequately capture use patterns of very frequent users. In other words, this method of assessing pornography use frequency does not seem to differentiate between individuals who use pornography once per week or less compared to those who are using pornography for several hours each day. A more appropriate measurement of pornography frequency and duration of use may yield additional data. Based on

the weaknesses in this study, more research exploring negative outcomes related to pornography use is indicated.

Other studies have found similar negative outcomes to Twohig and colleagues' (2009) results. Short, Kasper, and Wetterneck (2015) found that college students ($N = 223$) reported negative outcomes of pornography use in the following areas: loss of sleep, marital problems, other interpersonal relationships, and difficulties with work or school (Short et al., 2015). Participants in Short and colleagues' (2015) study also reported negative outcomes due to pornography use that were related to their relationship with God, spirituality, and participation in religious activities. Over 16% of participants reported their relationship with God had suffered, while over 14% of participants reported negative outcomes in spirituality (Short et al., 2015). Almost 5% of participants indicated pornography use impacted their participation in their religion (Short et al., 2015). Interestingly, findings from this study suggested that participants who were more religious were less likely to have ever viewed pornography and on average viewed less pornography per week (about one hour) compared to nonreligious participants (about an hour and a half of pornography use per week) (Short et al., 2015). Religious affiliation could protect people from ever viewing pornography (Short et al., 2015), which would then prevent them from experiencing religious or spiritual struggles. Alternately, it seems possible that people who began using pornography experienced a lack of connection to God as a result of use, which may be due to the inconsistency of their behavior and religious values. This would be consistent with research conducted by Grubbs and colleagues (2015). This study explored undergraduate students' pornography use and found that religious students reported greater perceived addiction to pornography, even though their use patterns were not indicative of problematic behavior (Grubbs et al., 2015). This relationship was mediated by moral disapproval of viewing

pornography (Grubbs et al., 2015), meaning the values conflict between one's religious views and one's behavior was associated with greater perception of an addiction. The guilt and other negative emotions resulting from this cognitive dissonance and the perception of being addicted or losing control of pornography may be problematic for these individuals (Grubbs et al., 2015), and might result in negative self-evaluations, shame, or other negative consequences. In summary, research in university samples indicates people may experience some negative consequences related to their pornography use, and that these negative outcomes may occur in many areas of one's life.

The above research indicates university samples report using pornography and experiencing negative outcomes related to their pornography use. Because college students may not be representative of other pornography users, exploring negative outcomes of use in adults with pathological use may extend research and aid clinicians. Reid and colleagues (2011) examined 107 men that presented for treatment for problematic pornography use. These participants identified several negative consequences of use including loss of employment, financial problems, legal problems, causing emotional pain to people they cared about, experiencing public humiliation, separating from partners, other types of hypersexual behavior (e.g., infidelity, soliciting sex from commercial sex workers, unprotected sex), and health problems (e.g., sexually transmitted infections from risky sexual behavior) (Reid et al., 2011). Since these men were actively seeking treatment, the consequences they described may not be typical of more casual pornography users or individuals who have pathological use but are not yet ready to seek treatment for pornography use. It may be the case that the severity of these negative consequences led to treatment-seeking behaviors and stop attempts.

The results of Reid and colleagues (2011), although quantitative, seem consistent with qualitative research conducted by Schneider (2000). In a study of 55 individuals who self-identified as having problematic pornography use, participants reported several negative outcomes of their pornography use (Schneider, 2000). Participants described experiencing consequences of pornography use including social isolation, depression, additional emotional problems, increased problems in romantic relationships (both sexual and problems in the relationship), occupational problems, negative financial outcomes, and even legal consequences for some participants (Schneider, 2000). A weakness of this study is that it did not include individuals who may have had high levels of use but did not believe that their pornography use was a problem. By only sampling individuals who self-identify as having problematic use, this data may not have captured pathological users with low insight into their use or who have little motivation to change.

Much of the research on negative outcomes has focused on the effects on the pornography user, but examining the negative outcomes from a systemic perspective is necessary. It may be important to understand how pornography use impacts couples' relationships, since some individuals report marital problems (Reid et al., 2011; Schneider, 2000). It seems likely that negative outcomes would be reported by a percentage of people who are either using pornography themselves or who are in a relationship with a partner who uses pornography. Grov, Gillespie, Royce, and Lever (2011) used online surveys posted on MSNBC and Elle magazine to collect data from 8,376 heterosexual adult participants who were in committed relationships and had used pornography or were in relationships with partners who had used pornography. There were significant differences across gender of negative effects of pornography use. Women were more likely than men to endorse the following negative impacts:

decreased sexual activity in their relationship, experiencing their partner as critical of their body, and experiencing pressure from their partner to perform sexual acts that the partner had viewed online (Grov et al., 2011). In contrast, men were more likely than women to endorse the following negative effects: being critical of their partner's body and experiencing less arousal for sexual activity with their partner compared to when viewing pornography (Grov et al., 2011). Other negative effects of pornography reported by participants included partners developing preferences for behaviors they had viewed online that were objectionable to the other partner, and pornography users having directed most of or all their sexual activities toward pornography (Grov et al., 2011). Some participants reported fear that use of pornography would lead to real-life infidelity, as well as existing feelings of betrayal and low self-esteem resulting from partners' use (Grov et al., 2011). A problem with this research is that only participants in current relationships were used and data from participants not in relationships were excluded. It seems likely that individuals who had experienced the greatest negative relational effects of pornography use, which may have resulted in the termination of their relationship, may not have been represented in this sample. It appears that pornography use may lead to negative outcomes in the marital or sexual relationship.

Clearly, pornography use may lead to negative outcomes related to pornography use for some, but not all, pornography users. It appears that more research is needed on the negative outcomes related to sexual behaviors due to limitations of extant research. This concludes the review of literature related to pornography use. The next section of this chapter will focus on self-compassion.

Self-Compassion

Prior to exploring self-compassion, it is necessary to first examine compassion as a general construct. Neff (2003b) defines compassion as “being open to and moved by the suffering of others, so that one desires to ease their suffering” (p. 224). Gilbert (2005) explains compassion as an element of loving kindness in which one is open to one’s own and others’ suffering while maintaining a non-defensive attitude. Being patient, kind, nonjudgmental, and understanding towards others is also important in compassion (Neff, 2003b). Another aspect of compassion is the recognition that people make mistakes and human beings are imperfect (Neff, 2003b). Kumar (2002) defines compassion as “active caring” (p. 42). Compassion is thought to entail caring for other people, empathy, sympathy, helping behaviors, soothing, giving signals of acceptance, and showing warmth (Gilbert, 2005). Compassion is important to the Buddhist tradition and is associated with loving kindness (Gilbert, 2005). Buddhist teaching emphasizes how everyone will experience suffering because life challenges are inevitable (Kumar, 2002). Buddhism views fostering compassion toward others and oneself as a way to decrease the experience of suffering for all people (Gilbert, 2005).

Self-compassion (SC) is a concept grounded in Buddhist philosophy that was initially studied by Neff (2003a) in an attempt to create an alternative conceptualization of how people relate to themselves. A central theme of SC is an awareness and openness to one’s own suffering as opposed to trying to decrease one’s suffering, avoiding it, or disconnecting from suffering (Neff, 2003a). Instead, kindness toward oneself and nonjudgmental awareness of the pain one is experiencing is encouraged so people are able to view their own experiences as being similar to other people’s experiences rather than perceiving that they are alone in the difficulty (Neff, 2003a). Many people tend to be self-critical and treat themselves harshly, although fostering SC

may assist people in forgiving their own mistakes and accepting their limitations or imperfections (Neff, 2003a). Self-compassion contains six components, which are described below.

This section explores self-compassion, including the different components of self-compassion. Next, research on which factors appear to influence SC is reviewed. The extant literature on SC's association with well-being is examined, along with correlations between low SC and psychopathology. Last, research on SC interventions is examined.

Self-Kindness

The first component of self-compassion is self-kindness. This entails choosing to treat oneself with understanding and a caring approach (Neff, 2016). Self-kindness also includes a gentle attitude toward one's own suffering or difficulties, attempts to decrease self-critical statements, and efforts to comfort oneself the same way we might treat a close friend (Neff, 2011). Self-kindness is also thought to activate the "soothing and contentment system" (Gilbert, 2010, p. 49), which promotes emotion regulation and feelings of safeness, contentedness, and peace. Once the mind is calm, it is thought that healing can occur (Neff, 2011).

Self-Judgment

In contrast to self-kindness, self-judgment is when people take a critical and cold approach toward themselves (Neff, 2016). When things do not go the way one hoped they would, there is a tendency for the person to become harsh and unsympathetic (Germer, 2009). This construct is associated with a critical ongoing dialogue with oneself, as well as negative emotions (Gilbert, 2010). Self-judgment is thought to be associated with shame, anger, and contempt (Gilbert, 2010). In addition, self-judgment can also be related to feeling inadequate, inferior, or disappointed (Gilbert, 2010). Self-judgment is believed to be common in Western

culture, where individuals berate themselves after making mistakes or experiencing failure (Neff, 2011). This criticism of oneself can lead to threat responses in the nervous system in the same way that individuals would experience criticism from other people (Gilbert, 2009).

Mindfulness

Mindfulness, in the self-compassion literature, refers to focusing on and attuning to one's own experience of suffering (Neff, 2016). Stated another way, mindfulness is taking a nonjudgmental stance toward one's present-moment experience (Neff, 2011). This is also the ability to see things objectively and as they really are in order to have compassion toward the self (Neff, 2011). In the Buddhist tradition, mindfulness is a practice in which one observes one's mind with an accepting attitude rather than trying to clear one's mind (Kumar, 2002).

Over-Identification

Over-identification, in comparison to mindfulness, occurs when "one's sense of self becomes so immersed in one's subjective emotional reactions that it becomes difficult to distance oneself from the situation and adopt a more objective perspective" (Neff, 2003b, p. 224). With over-identification, people can become lost in their emotional reactions (Germer, 2009), forget that they are assigning meaning to the experience, or shut off their perception of their emotions (Neff, 2011). An extreme over-reaction can occur when judgment from others or one's sense of self is involved (e.g., when one is giving a public speech), which can result in cognitions of worst-case scenarios (Neff, 2011).

Common Humanity

This construct entails "recognizing that one's own experience is part of the common human experience" (Neff, 2003b, p. 224). During difficult times, it can be comforting for people

to remind themselves that suffering and pain are experienced by everyone (Neff, 2011). This connects people to others in the world rather than isolating them. Since compassion is relational and self-compassion recognizes that people are bound to make mistakes, have regret, and make poor choices, there is universality in these experiences (Neff, 2011).

Isolation

Isolation, in comparison to common humanity, is the belief or perception that the person suffering or experiencing life challenges is alone, and that others do not experience difficult times. With isolation, the perspective or view of the self in the world narrows so that one's shortcomings become the main focus (Neff, 2011). People may perceive that their experiences separate them from others (Neff, 2003b). When many people experience difficult situations, make mistakes, or their flaws are exposed, negative emotions can surface (e.g., inadequacy, isolation, and disconnectedness; Neff, 2011). Isolation tends to be associated with feeling shame about one's misfortune and greater feelings of solitude (Germer, 2009). This isolation may keep people from seeking support.

Factors that May Influence Self-Compassion

There are several demographic variables that seem to be related to self-compassion. These include gender, age, and culture. Women appear to have lower total scores on SC compared to men. Female college students ($n = 225$) reported that they were more judgmental toward themselves, isolate more, and over-identify with their thoughts more, as well as had lower mindfulness scores compared to male college students ($n = 166$) (Neff, 2003b). Similar findings of differences in SC scores between genders also occurred in other research (Neff & McGehee, 2010; Neff & Vonk, 2009). This may be due to women's tendency to engage in more

self-criticism than men (Neff, 2003a). Also, women may use rumination more frequently as a coping strategy when they are experiencing difficulty (Neff, 2003a).

Although several studies support the differences in SC between genders, this appears inconclusive because other research indicates no significant difference between genders. When examining a sample of college students, adults from the community, and adults who meditated regularly, Neff and Pommier (2013) did not find any significant differences in SC across gender. Other studies found similar SC scores in men and women (Neff, Kirkpatrick, & Rude, 2007; Neff, Rude, & Kirkpatrick, 2007). This may be an area for future research to explore.

In developing or increasing oneself-compassion, some differences across genders may exist. Germer and Neff (2013) write that men may be more resistant to practicing SC due to fears of self-kindness decreasing their ability to cope with adversity they may encounter. Women, on the other hand, seem more open to SC exercises because they are soothing, comforting, and promote inner safety (Germer & Neff, 2013). It is possible that gender may have a moderating effect in SC research.

In addition to gender, self-compassion seems to be influenced by age. It appears that SC is stable in adolescents and young adults (Neff & McGehee, 2009), yet in adults SC and compassion for others seem to be positively correlated with age (Neff & Pommier, 2013). In other words, teens and younger adults do not seem to have changes in SC as they age, but as people grow older, they seem to become more self-compassionate. Similar findings in a community sample of Danish adults indicated there is a small but statistically significant positive correlation between age and SC (Neff & Vonk, 2009). This may be due to differences in the generations in how they relate to themselves and other people. Alternately, Neff and McGehee (2009) propose that people become more compassionate later in life.

Yet another demographic variable that appears to be implicated in SC is culture.

Although little research exists on SC across cultures, this research supports the existence of differences in self-compassion across cultures. In a study examining self-compassion in college students in the United States, Thailand, and Taiwan, Neff, Pisitsungkagarn, and Hsieh (2008) found that Thai students had the highest average self-compassion, followed by Americans, with Taiwanese students having the lowest self-compassion. Differences were also observed across the subscales of the three cultures. For self-kindness, Thai students had significantly higher self-kindness than Americans and Taiwanese students (Neff et al., 2008). Taiwanese students reported significantly more self-judgment than Americans, who reported significantly more self-judgment than Thai students; this same trend was observed for over-identification and isolation (Neff et al., 2008). There were no significant differences across cultures for the subscale common humanity (Neff et al., 2008). For mindfulness, there was a significant difference between Thais and Americans, with Thai students endorsing greater mindfulness (Neff et al., 2008). The high prevalence of Confucianism in the Taiwanese students may be related to an emphasis on improving oneself in this culture (Neff et al., 2008). These beliefs and cultural trends also suggest self-criticism is high and parents may shame their children or threaten to ostracize them if the children are not successful (Neff et al., 2008). The Thai students had the highest self-compassion scores, which is consistent with the high prevalence of Buddhism in Thailand (Neff et al., 2008).

There are several demographic variables that appear to influence how compassionate people are toward themselves. Age, gender, and culture may impact the degree of SC that people possess. The next section will review research related to well-being and self-compassion.

Self-Compassion and Well-Being

Self-compassion seems to be associated with many different measures of well-being. In a sample of 391 college students, total SC was positively related to life satisfaction (Neff, 2003b). Neely, Schallert, Mohammed, Roberts, and Chen (2009) had similar findings. High SC was positively correlated with life satisfaction and purpose in life (Neely et al., 2009). The researchers attribute this to the way participants' managed negative emotions such as disappointment (Neely et al., 2009). In an undergraduate sample of non-meditators, the SC subscales common humanity and mindfulness were positively correlated with happiness (Hollis-Walker & Colosimo, 2010).

It seems that SC influences how people experience emotions. Neff (2003b) indicates SC functions as a way to regulate one's emotions. People with high SC tend to experience greater happiness, optimism, and other positive affect (e.g., feeling excited or proud) (Neff, Rude, & Kirkpatrick, 2007). Self-compassion was also positively correlated with emotion processing, which means people who have high SC tend to have more understanding and clarity of the emotions they experience (Neff, 2003b). There is a positive correlation between SC and emotional intelligence (Heffernan, Griffin, McNulty, & Fitzpatrick, 2010; Neff, 2003b), indicating people who are self-compassionate tend to have greater understanding of, control over, and management of their emotions.

Self-compassion impacts how people handle difficult situations. People with high SC tend to engage in more emotion-focused coping, specifically by making the best of a bad situation by accepting it, growing from it, or trying to see it in a more positive way (Neff, Hsieh, & Dejjitterat, 2005). Individuals with high SC tend to engage in less avoidance-oriented coping, including less denial of the problem and less frequent mental disengagement (e.g., distracting

oneself or daydreaming; Neff, Hsieh, & Dejitterat, 2005). In other words, self-compassion seems to help people address life challenges head-on by accepting these difficulties rather than avoiding thinking of or addressing the problem. Similarly, Yarnell and colleagues (2015) write that SC promotes resilience because it alters the way people react to negative situations. Individuals who have high SC seem to have an ability to put negative events into perspective and remain composed during difficult experiences (Leary et al., 2007). People with high SC tend to catastrophize less, blame themselves less, and experience lower levels of negative emotions compared to people with low SC (Leary et al., 2007). Individuals with high SC also tend not to compare themselves to others, experience self-consciousness, or ruminate about themselves following a negative experience (Neff & Vonk, 2009). These findings may be due to self-compassionate individuals' ability to accept their weaknesses along with their strengths (Neff & Vonk, 2009). It appears that SC has a protective role in burnout, with individuals with high SC experiencing lower amounts of burnout (Barnard & Curry, 2012).

One's view of self tends to be related to self-compassion. In a cross-sectional study of 232 college students, Neff (2003b) found that participants who reported higher overall SC tended to have higher self-esteem compared to participants with low SC. Neff (2003b) indicated that SC appears to be a different construct from self-esteem since the correlations between self-esteem measures and SC are statistically significant and of moderate strength. Furthermore, self-compassion may be more stable than self-esteem because one's judgment of one's worth is not based on meeting specific standards (as in self-esteem) but is based on "being one's authentic self" (Neff, 2003b, p. 241). Additionally, self-compassion may have some protective factors against some negative aspects of high self-esteem, such as narcissism and needing to believe that

one is above average to have positive views of self (Neff, 2009). In other words, self-compassion may have longer-term effects for people.

Self-compassion may also be related to self-knowledge and self-awareness. Neff, Rude, and Kirkpatrick (2007) found that SC was strongly positively correlated with reflective wisdom, which is self-awareness, insight, and seeing reality objectively. This seems consistent with research by Leary and colleagues (2007), who found that people with higher SC were able to see and appraise themselves more accurately than those with low SC. It is possible that SC gives people a sense of safety in order to accurately view themselves (Neff, Rude, & Kirkpatrick, 2007).

It is possible that SC may be associated with improved functioning in interpersonal relationships. This may be because developing a self-compassionate stance may also encourage compassionate attitudes toward others (Neff, 2003a). People with higher SC tend to have greater affective wisdom, which is the presence of positive emotions and behaviors directed toward others (Neff, Rude, & Kirkpatrick, 2007). High SC is correlated with concern for others, including empathy, considering others' perspectives, forgiveness, and altruism (Neff & Pommier, 2013). Self-compassion is positively correlated with agreeableness; this indicates the kindness one shows oneself, connection to others, and emotional balance may help people get along well with others (Neff, Rude, & Kirkpatrick, 2007). Alternately, individuals who have high scores on agreeableness may have less difficulty adopting self-compassion practices and a compassionate view toward themselves. Self-compassion does appear to be associated with social relationships. This is consistent with other research by Neff (2003b) in which SC in college students was associated with increased social connectedness. This finding was replicated in adolescents and young adults (Neff & McGehee, 2009). It is possible that SC promotes

emotional stability, another personality trait, which then encourages increased interpersonal awareness (Neff, Rude, & Kirkpatrick, 2007). Leary and colleagues (2007) found that SC moderated the reactions people had to receiving feedback. In other words, people with high SC seem to be able to tolerate both positive and negative evaluations from others, while individuals with low SC recognized positive feedback to be about themselves but had difficulty integrating negative feedback (Leary et al., 2007).

The research about self-compassion seems to indicate that it is associated with mental health and well-being. Life satisfaction, emotion management, healthy coping styles, and self-awareness all seem to be related to the ability to be compassionate toward oneself in the face of difficulty. For people who have difficulty with self-compassion, negative outcomes seem to be likely. The next section will describe previous research about how low self-compassion is related to measures of psychopathology, personality variables, and coping styles.

Self-Compassion and Psychosocial Problems

Low self-compassion appears to be related to psychological symptomology, emotions that people experience, thought processes, and ways people relate to themselves and others. In a preliminary study of 391 undergraduate students, Neff (2003b) found that the total SC score was negatively correlated with depression and anxiety. In other words, people with low self-compassion tended to have higher depression and anxiety compared to people with high self-compassion. These results were replicated in a second sample of 232 college students with similar findings, even after controlling for self-esteem (Neff, 2003b). Self-compassion tends to be negatively correlated with depression across cultures. In the United States, Taiwan, and Thailand, individuals with low SC tended to have more depressive symptoms (Neff, Pisitsungkagarn, & Hsieh, 2008).

People who have low SC also seem to have increased occurrences of mental health conditions. In a meta-analysis of fourteen studies that explored SC and psychopathology, MacBeth and Gumley (2012) calculated the aggregate effect size for the relationship between psychopathology and SC. MacBeth and Gumley's (2012) results indicated a large effect size exists ($r = -0.54$). This suggests people who have lower SC tend to have greater psychopathology. These results tend to apply to a broad set of symptoms rather than specific diagnoses (MacBeth & Gumley, 2012).

Low self-compassion appears to be associated with the emotions that people experience. In a sample of 177 college students, low self-compassion was significantly associated with high neuroticism (Neff, Rude, & Kirkpatrick, 2007), which is the predisposition to experience greater negative emotions rather than being more emotionally stable (Costa & McCrae, 2008). This seems consistent with Neff's (2003b) findings about the negative correlation between SC and depression and anxiety. Similarly, the isolation subscale appears to be negatively correlated with happiness in a sample of undergraduates (Hollis-Walker & Colosimo, 2010). In other words, people who tend to see themselves as isolated and alone with their difficulties are less likely to experience happiness.

In addition to emotions, low self-compassion may impact cognition. Self-compassion may be important in the way people think about stressors or challenges as they are occurring. College students who tend to have low SC scores are also inclined to ruminate frequently or suppress their thoughts (Neff, 2003b). Although rumination and thought suppression may appear to be opposites, both of these cognitive behaviors can be problematic for people. Another cognitive pattern that was observed was the tendency for low SC individuals to require cognitive closure when they had experienced a difficult situation (Neff & Vonk, 2009).

During challenging situations, people who tend to have low self-compassion seem to relate to themselves very differently than those with high self-compassion. Low self-compassion also seems to be associated with self-consciousness and negative thoughts about oneself (Neff & Vonk, 2009). Additionally, in a sample of college students, SC negatively correlated with perfectionism (Neff, 2003b), suggesting that people who are lower in self-compassion tend to be more perfectionistic, compared to those who are high in self-compassion. Perfectionism can be problematic because people may have excessively high expectations of themselves and may belittle themselves when they fail to meet these standards (Neff, 2011).

Low SC appears to be associated with difficulty coping with challenging interpersonal situations. People with low SC tend to experience more anger directed toward others (Neff & Vonk, 2009). This might suggest difficulty with accepting responsibility (Neff & Vonk, 2009) for their role in the problem. Alternately, the anger towards others may be related to the difficulty low SC individuals have seeing situations objectively. Individuals who have low SC are more likely to compare themselves to others during difficult times (Neff & Vonk, 2009). This might indicate that social comparisons, prejudice, or discrimination are occurring (Neff & Vonk, 2009). The anger towards others and possible negative views of others after social comparison seem likely to have negative impacts on interpersonal relationships.

The research previously described about low self-compassion and correlations with several psychosocial problems is problematic in some ways. Much of this research on SC is cross-sectional and correlational; therefore, causality cannot be examined. To address some of these limitations, Pauley and McPherson (2010) conducted a qualitative interpretive phenomenological analysis study of 10 participants who were diagnosed with depression or anxiety. Participants indicated they experienced two problems with self-compassion. First, they

described trouble developing, implementing, and maintaining a stance of kindness toward themselves (Pauley & McPherson, 2010). Second, they indicated their psychological disorder had influenced their ability to be kind and caring toward themselves (Pauley & McPherson, 2010). Although research suggests that it is possible for people with depression and anxiety to develop self-compassion and benefit from it (Germer & Neff, 2013), it is possible that individuals with psychiatric conditions have greater difficulty with SC than the general population. This may be related to lower emotional stability in this population. Also, the difficulties that some individuals with diagnoses have incorporating self-compassion may be because some of the self-compassion interventions, such as mindfulness, requiring clients to possess certain cognitive and emotional competencies that may be lacking in clients with various types of psychopathology (Gilbert, 2010). This seems consistent with Gilbert's (2010) statements that highly shame-prone individuals have particular difficulty with self-compassionate interventions and may be resistant to them.

This section has reviewed the extant literature related to the relationship between SC and several problems that people may experience. Research suggests that low SC tends to be associated with having a psychological disorder, as well as being more prone to depression, anxiety, and negative emotions. People who have difficulty being kind toward themselves are also likely to have different coping styles in terms of emotion management and cognition. During difficult times, people who are low in SC seem more likely to experience deterioration in their relationships with themselves and with others. Research also indicates that people with a diagnosis of depression or anxiety are likely to have trouble implementing self-compassion practices. The next section explores the research on clinical self-compassion interventions.

Self-Compassion Interventions

The concept of being kind to oneself is associated with ancient Buddhist practices (Neff, 2003a), although psychology has recently begun using self-kindness practices as a way to help clients who may struggle with a range of mental health disorders. Self-compassion can be used with general populations (Neff & Germer, 2013) and several self-help books (e.g., Neff, 2011) exist. Research on self-compassion interventions and compassion-focused therapy appears to be growing. This section will explore the treatments and research.

Mindfulness Self-Compassion. Neff and Germer (2013) developed an 8-week psychoeducational group SC intervention called Mindfulness Self-Compassion (MSC). Each week contains one 2-hour session that teaches a specific topic (e.g., introduction to SC, mindfulness, developing compassionate self-talk) and there is a half-day retreat between the fourth and fifth sessions in which meditation, yoga, and mindful eating are practiced (Neff & Germer, 2013). This intervention is intended to be used with “the general public and some clinical populations” (Neff & Germer, 2013, p. 30), although specific clinical populations or disorders that would be appropriate for this group are not discussed. The group is structured to be led by two group leaders, one of which should be a licensed mental health provider (Neff & Germer, 2013).

In a pre- and post-test study, participants who completed MSC groups experienced greater SC, satisfaction with life, happiness, and mindfulness, along with decreased anxiety, stress, and depression (Neff & Germer, 2013). In a randomized controlled study, the MSC group experienced significant benefits compared to the control group: increased compassion for oneself and others, mindfulness, and life satisfaction, as well as decreased depression, anxiety, stress, and avoidance; gains were maintained at 6 months and 1 year follow-ups (Neff & Germer,

2013). These results indicate that SC is a set of skills that can be increased through training to promote well-being (Neff & Germer, 2013). This research used mostly female participants with higher education and previous meditation experience (Neff & Germer, 2013), which might limit the generalizability of these findings.

Journaling interventions. Journaling is a commonly used intervention with many treatments and theoretical orientations. Shapira and Mongrain (2010) conducted a study in which 1,002 participants were randomly assigned to an online journaling treatment condition. The active interventions were a self-compassion condition and an optimism condition, while the control condition asked participants to journal about an early memory. Participants had a mean pre-treatment score on depressive symptoms in the “moderate” range (Shapira & Mongrain, 2010). Participants in the self-compassion group learned the rationale for SC and instructions for journaling. Then, they were asked to write about a situation that occurred that day that was difficult for them. They were asked to respond to themselves in a kind way through writing. Results indicated that the participants in the self-compassion group and optimism group experienced greater reductions in depression symptoms and greater gains in happiness compared to people in the control condition (Shapira & Mongrain, 2010). For the self-compassion condition, the results of improved depressive symptoms lasted for 3 months and the increased happiness lasted 6 months (Shapira & Mongrain, 2010). A weakness of this study seemed to be the instructions participants were given regarding self-compassionate writing. These instructions incorporated self-kindness, but did not include mindfulness or common humanity; therefore, adding these components may alter the efficacy of the intervention.

Compassion-focused therapy. This type of therapy was developed by Gilbert (2005, 2009, 2010) and is based on neuroscience research suggesting the presence of three affect

regulation systems. These include the threat and protection system; the drive and resource-seeking system; and the soothing and safeness system (Gilbert, 2009). The basis of this model of therapy is that reinforcement and an individual's history lead to internal and external threats or fears, which lead to safety strategies (internal and/or external), which in turn lead to specific consequences (Gilbert, 2010). These consequences can include self-criticism, distress, safety behaviors, and other unintended consequences, which can cause anger, fear, and self-critical metacognitive beliefs (e.g., one is not coping well and should be coping better) (Gilbert, 2010).

Compassion-focused therapy involves psychoeducation about the development of the brain and how “much of what goes on in [the client's] brain is not their fault” (Gilbert, 2010, p. 62). The client then learns about the three emotion regulation systems (Gilbert, 2010). In a functional analysis, the client is asked what their biggest fear would be of giving up a safety strategy (e.g., self-criticism), which helps the therapist determine what the function of the safety strategy is (Gilbert, 2010) and also serves to remove shame regarding the behavior (Gilbert, 2009). Next, the clinician validates these safety strategies and helps the client to “stop criticizing, condemning, and blaming themselves for their symptoms, thoughts, or feelings, [so] they are freer to move towards taking responsibility and learning to cope with them” (Gilbert, 2009, p. 201). The therapist can then teach the client how compassion toward the self can help achieve the same result but activate a different affect regulation system (Gilbert, 2010). Clients also learn to reallocate their attention (similar to mindfulness) as a way to turn off the threat activation system and the drive system while turn on the soothing and safeness system (Gilbert, 2009, 2010). Ultimately, the role of the clinician is to provide an interpersonal relationship where the client can experience safeness, to continue experiencing safe feelings while processing difficult topics in psychotherapy, and changing self-critical statements to self-kindness (Gilbert, 2009).

This concludes the section on self-compassion. Research supports self-compassion as being associated with well-being. Many self-compassion interventions have been developed to increase these ways of relating to oneself during challenging times. The next section will integrate self-compassion with pornography use by exploring the research questions and theoretical models that are proposed for this study.

Self-Compassion and Pornography Use

Little theoretical research exists regarding pornography users and SC. Chisholm and Gall (2015) theorize that SC may help people struggling with problematic pornography use to be kind to themselves instead of self-loathing and to decrease the shame they experience through increased mindfulness. Germer and Neff (2013) state, “self-compassion directly targets shame” (p. 864), which is supported by research on interventions promoting SC (Kelly, Zuroff, & Shapira, 2009). Since shame appears to be associated with problematic pornography use (Gilliland et al., 2011; Picone, 2015; Twohig, Crosby, & Cox, 2009; Wery & Billieux, 2016; Young, 2008), SC may be an important construct to examine in pornography users. It seems possible that self-compassion may have a protective mechanism in the development of problematic pornography use. For example, some people use pornography to avoid thoughts and feelings, which is inconsistent with the mindfulness component of self-compassion; therefore, people with higher mindfulness and self-compassion might be less likely to use pornography for emotional or experiential avoidance. Alternately, self-compassion may impact the way people cope with the difficulty they are experiencing controlling their pornography use.

There is a paucity of research examining SC in pornography users. Of the extant literature, Reid, Temko, Moghaddam, and Fong (2014) examined men presenting to outpatient

treatment for hypersexual behavior. Self-compassion was negatively correlated with hypersexuality ($r = -0.438, p \leq .01$) (Reid et al., 2014). Also, SC partially mediated the effects of rumination and shame on hypersexual behavior. Based on these results, Reid and colleagues (2014) propose that if individuals struggling with hypersexuality increase their self-compassion, the shame and rumination that may be problematic for them will have less influence on hypersexual behavior. A strength of this study is that a clinical population was used. A problem in applying this study to pornography users is that hypersexuality encompasses many behaviors (e.g., consensual behavior between adults, masturbation, pornography use, strip clubs) (Kafka, 2010), which may not be representative of pornography users.

Hook and colleagues (2015) studied self-forgiveness and hypersexual behavior in a sample of 187 undergraduate students. Self-forgiveness, as conceptualized by Hall and Fincham (2005) is thought to occur when people have less motivation to avoid the stimuli that were associated with the wrong-doing, less motivation to criticize or punish themselves, and more motivation to act kindly and benevolently toward themselves. Self-forgiveness can be related to forgiving an injury that one caused oneself or an injury that one inflicted on another person (Hall & Fincham, 2005). Participants were asked to consider something they had done in the past month that was incongruent with their sexual values, followed by completion of an online survey. Measures of self-forgiveness and guilt/shame were used with instructions to consider the event that occurred in the last month. A measure of hypersexuality (the Hypersexual Behavior Inventory; Reid, Garos, & Carpenter, 2011) was used also. The measure of guilt and shame mediated the relationship between self-forgiveness and hypersexual behavior (Hook et al., 2015). A few problems with this research are the population that was used and the measures. First, the sample was mostly female, and female samples tend to have lower hypersexual behavior than

males (Hook et al., 2015). Second, the measure of shame and guilt was originally designed to assess remorse and self-condemnation (Fisher & Exline, 2006). The items on this measure may not have been representative of the constructs that Hook and colleagues (2015) intended to measure. Fisher and Exline (2006) reported the correlations between the remorse subscale and the self-condemnation subscale and the guilt-proneness and shame-proneness scales of the Test of Self Conscious Affect (Tangney, Wagner, & Gramzow, 1989) were low, which suggests that this measure may not have been appropriate for the variables they intended to measure. A third problem that might exist with this research is that guilt and shame-proneness, which appear to be trait measures, were examined as mediators of the relationship between self-forgiveness over the past month and hypersexual behavior over the past month. The argument could be made that trait guilt and shame developed much earlier than the predictor variable, self-forgiveness, which violates the time/order relationship needed for mediation analysis (Hayes, 2013). Finally, since the research by Hook and colleagues (2015) examined hypersexual behaviors rather than pornography use, these findings could be dissimilar from pornography use specifically. Similarly, self-forgiveness seems to differ from self-compassion, which may suggest a need for additional research using a self-compassion measure.

Based on the lack of research on self-compassion in pornography users, as well as the methodological problems and limitations of existing research, research examining SC in pornography users is warranted. The next section describes the research questions that will be tested in this study.

Research Questions, Hypotheses, and Theoretical Model

Based on the extant literature, several research questions and hypotheses were developed. The first hypothesis was that the frequency of pornography use would be inversely related with self-compassion. The frequency of pornography use may differentiate truly pathological use (e.g., viewing 11 or more hours per week based on Albright's [2008] criteria) from non-problematic use, which would be less frequent use (e.g., twice per month). This study proposes that the more frequent and pathological use would be associated with lower self-compassion. It was hypothesized that the positive subscales of self-compassion (mindfulness, self-kindness, common humanity) will be inversely correlated with frequency of pornography use and the negative subscales of self-compassion will be positively correlated with frequency of pornography use. Regarding the overall SC score, it was hypothesized that the overall score would be inversely correlated with pornography use.

Second, a statistical model was proposed. It was hypothesized that the relationship between frequency of pornography use and problems experienced due to pornography use would be moderated by self-compassion. Figure 2.1 provides a diagram of this proposed model. The rationale for this model is that greater pornography use will lead to negative outcomes related to use; however, self-compassion might help people in the way they relate to themselves with these challenges, thereby decreasing the negative consequences.

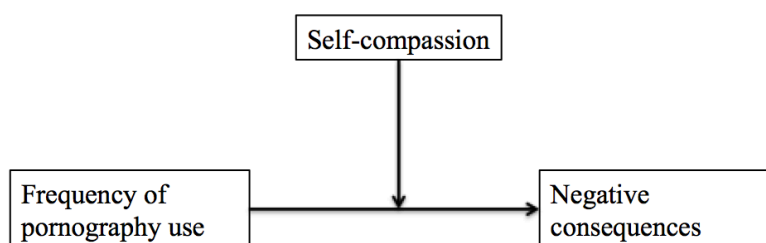


Figure 2.1. Proposed theoretical model of research question two.

Last, the third research question was whether the function of pornography use also moderates the relationship between frequency of use and psychosocial problems that people experience related to their pornography use. The hypothesis was that certain functions of pornography use, such as emotional avoidance, would be associated with greater problems associated with use. Figure 2.2 demonstrates this proposed model.

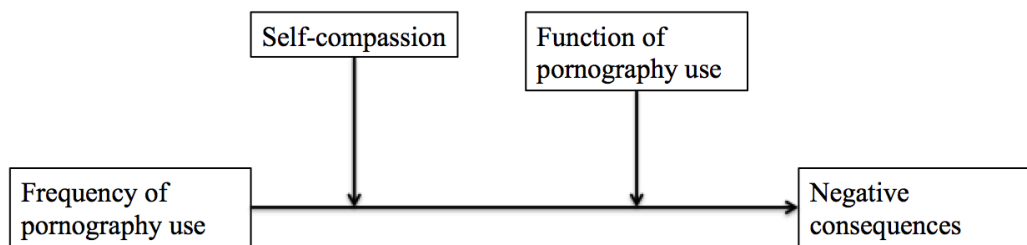


Figure 2.2. Proposed theoretical model of research question three.

Summary

Use of pornography appears to be fairly common across the world, although estimates of pornography use vary considerably. Research indicates pornography use is not increasing as much as anecdotal evidence may suggest, although the methodology of this research is problematic and may not accurately reflect patterns of use. Several studies exist related to characteristics of individuals who have problematic pornography use. Trends related to problematic pornography use included high-frequency use and viewing pornography to escape one's thoughts and feelings. Individuals who have pathological pornography use are likely to experience problems in several areas of their life, which might be due to the pornography use or occur simultaneously. These negative consequences due to sexual behavior may occur in the following areas: psychological, religion and spirituality, relationships, work, and legal problems.

The way that people relate to themselves during difficult times may be important in problematic pornography use. Self-compassion examines this relationship with oneself through present moment awareness, a kind and caring attitude, and conceptualizing this experience as connecting oneself with other people. Self-compassion tends to be associated with mental and emotional well-being, while lower amounts of self-compassion tend to be correlated with psychological symptoms and related problems. Several types of interventions exist to increase self-compassion. To date, there is no research on self-compassion in pornography users and relatively little research on similar constructs. This study seeks to bridge this gap in the literature and proposes several hypotheses. The next chapter of this paper will focus on the methodology of the proposed study.

CHAPTER THREE: METHODS

This chapter focuses on the methodology used to assess the relationship between pornography use and self-compassion, as well as examining whether self-compassion has a moderating role in negative consequences of pornography use. This chapter briefly reviews the purpose of the study, the research questions, and hypotheses. Next, the process of obtaining participants is explored, along with an explanation of the measures that were used in this study. The research procedures are described, followed by the statistical tests used to analyze the data and test the hypotheses.

Research Purpose

The purpose of this research is to better understand problematic pornography use by examining how self-compassion, a construct correlated with psychological well-being, is related to pornography use. Also, the function of pornography use and the negative outcomes associated with sexual behaviors will be tested in a moderation analysis. Gaining additional insight into problematic pornography use may help mental health providers whose clients are struggling with this problem.

Research Questions and Hypotheses

Research Question One

What is the correlation between SC and the frequency of pornography use?

Hypothesis 1a. There will be an inverse correlation between the mindfulness subscale and frequency of pornography use.

Null hypothesis. There will be no relationship between mindfulness and frequency of pornography use.

Hypothesis 1b. The self-kindness subscale will be inversely correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between self-kindness and frequency of pornography use.

Hypothesis 1c. The common humanity subscale will be inversely correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between common humanity and frequency of pornography use.

Hypothesis 1d: The self-judgment subscale will be positively correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between self-judgment and frequency of pornography use.

Hypothesis 1e. The over-identification subscale will be positively correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between over-identification and frequency of pornography use.

Hypothesis 1f. The isolation subscale will be positively correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between isolation and frequency of pornography use.

Hypothesis 1g. The overall score for self-compassion will be inversely correlated with frequency of pornography use.

Null hypothesis. There will be no relationship between the overall self-compassion score and frequency of pornography use.

Research Question Two

Is the relationship between frequency of pornography use and negative outcomes related to sexual behavior moderated by self-compassion?

Hypothesis 2. The relationship between the frequency of pornography use and negative outcomes related to sexual behavior will be moderated by self-compassion.

Null hypothesis. Self-compassion will have no effect on the relationship between frequency of pornography use and negative outcomes related to sexual behavior.

Research Question Three

Is the relationship between frequency of pornography use and negative outcomes related to sexual behavior moderated by self-compassion and function of pornography use?

Hypothesis 3. The relationship between the frequency of pornography use and negative outcomes related to sexual behavior is moderated by self-compassion and the function of pornography use.

Null hypothesis. Self-compassion and the function of pornography use will have no effect on the relationship between frequency of pornography use and negative outcomes related to sexual behavior.

Research Design

This study used a nonexperimental cross-sectional between-subjects design. This design was chosen because no treatment or intervention was used. Since a longitudinal design was not used, caution is important in the interpretation of any time-order or causal relationships.

Participants were recruited using Mechanical Turk (MTurk), a crowdsourcing Internet marketplace run by Amazon. Benefits of using MTurk include the fast collection of data due to the large number of participants, as well as the relatively inexpensive cost of data collection compared to other methods (Johnson & Borden, 2012). Research indicates 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 represent a greater geographical area than other sampling methods (Buhrmester, Kwang, & Gosling, 2011), this method is believed to increase 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 participants were asked to provide informed consent to participate in the study. Appendix A contains the informed consent statement that participants read. Those who provided consent were then given several measures, which included demographic items (see Appendix B for items), the Self-Compassion Scale (SCS; Neff, 2003b), items measuring frequency of pornography use (available for review in Appendix C), the Pornography Consumption Inventory (PCI; Reid et al., 2011), and the Cognitive and Behavioral Outcomes of Sexual Behavior Scale (CBOSB; McBride, Reece, & Sanders, 2007). Other measures that were not used in this study were also included, which

examined anxiety, stress, depression, religiosity, and other constructs. In between these measures, catch trial items were included. At the end of the survey, participants were asked if they paid attention to the questions and answered honestly. After participants completed the surveys, the data were downloaded into IBM SPSS Statistics Version 25. Data analysis procedures are described in more detail below.

Selection of Participants

An online platform, MTurk, was used to recruit participants. Adult participants (age 18 or older) were recruited. Exclusion criteria included not using pornography in the past 6 months, being under the age of 18, and declining to give consent for the study. To obtain sufficient variability of participants' pornography use and to account for some participants not completing the survey, the target sample size for this study was 500 participants.

Research Instruments

Demographic information. Participants were asked their gender, age, race, which sexes they are attracted to, highest level of education, employment status, annual income, marital status and history, recent sexual activity in the past 6 months, and religious affiliation. Appendix B contains all of the demographic items.

Pornography use. Participants were asked several questions about pornography (see Appendix C for complete list of questions). The questions used in this study inquired about how many times participants had used pornography in the past week, month, and 6 months. Participants were also asked how many hours per week they use pornography and how many times per week they masturbate.

Self-compassion. Self-compassion was measured using the Self-Compassion Scale (SCS; Neff, 2003b). It assesses the six components of SC, provides a score for each of these

subscales, and yields a total score. A sample item of the SCS is “I’m disapproving and judgmental about my own flaws and inadequacies” (Neff, 2003b, p. 231). The SCS contains 26 items on a 5-point Likert scale in which 1 means “almost never” and 5 means “almost always” (Neff, 2003b). Based on previous research, the total score has excellent internal consistency ($\alpha = .92$); the internal consistency for the subscales is in the acceptable range (Cronbach’s α between .75 to .81) (Neff, 2003b). The scale has good discriminate validity and test-retest reliability (Neff, 2003b; Neff, Rude, & Kirkpatrick, 2007).

To calculate the scores of the SCS subscales, the negative subscales (self-judgment, over-identification, and isolation) are reverse coded. Then the means of each subscale are calculated. To calculate the total SCS score, a grand mean of all six subscales is calculated.

Function of pornography use. To assess the purpose and function of pornography use (a moderator in the third research question), the Pornography Consumption Inventory (PCI; Reid, Li, Gilliland, Stein, Karim, & Fong, 2011) was used. This measure contains 15 items on a 5-point Likert scale. For the PCI, 1 means “never like me,” 2 means “rarely like me,” 3 means “somewhat like me,” 4 means “often like me,” and 5 means “very often like me” (Reid et al., 2011, p. 385). A sample item from the PCI is “I use it to avoid feeling uncomfortable or unpleasant emotions” (Reid et al., 2011, p. 385). The PCI contains a total score as well as subscales assessing the following constructs: emotional avoidance, sexual curiosity, excitement seeking, and sexual pleasure. The scale has adequate concurrent and discriminant validity, as well as high reliability for the total scale ($\alpha = .93$) and subscales (α between .85 and .95) (Reid et al., 2011). A strength of this measure is that it provides a clear description of pornography to participants, which is often lacking in other instruments (Short et al., 2012). The definition used in the PCI is consistent with the operational definition used in this study.

To score the subscales of the PCI, the items for each subscale are summed. Higher scores indicate the participant has a higher propensity to use pornography for the reason associated with that subscale. To calculate the total score of the PCI, the items are summed.

Negative outcomes related to pornography use. The Cognitive and Behavioral Outcomes of Sexual Behavior Scale (CBOSB; McBride, Reece, & Sanders, 2007) was used as the outcome variable in questions three and four, which assess psychosocial problems that users experience due to pornography use. The CBOSB contains 20 items measuring cognitive problems, which are thought to be the concerns that individuals have about possible outcomes. Also in the CBOSB, there are 16 items that assess the extent to which someone has experienced negative outcomes from sexual behaviors (e.g., occupational, financial, legal, physical, spiritual, social). High scores on both scales indicate a greater degree of problems. The cognitive items contain a 4-point Likert scale ranging from 0 (“never”) to 3 (“always”) (McBride, Reece, & Sanders, 2010). The behavioral items are yes/no questions with yes responses being coded as a 1 and no responses coded as 0 (McBride et al., 2010). To determine the total score for cognitive items, the responses to each question are summed. For the total score on behavioral items, the scores are summed. Total CBOSB scores include the sum of behavioral and cognitive items.

The internal consistency of the cognitive items was high ($\alpha = .89$) and the behavioral items had an internal consistency that was also good ($\alpha = .75$) (McBride et al., 2010). Previous research by Twohig and colleagues (2009) has used this measure to examine negative outcomes due to pornography use. Individual items on the cognitive scale in which participants chose “sometimes,” “often,” or “always” signified a problem (Twohig et al., 2009).

Additional items. Catch trial items were included in the data collection. These incorporate questions with verifiable responses (Chandler, Mueller, & Paolacci, 2013). The

rationale for using these was to identify participants who were responding randomly. An example is an item that stated, “Please select ‘Did not apply to me at all’ for this item.” Also, an item was included that stated:

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

This question is associated with increased reliability (Rouse, 2015).

Research Procedures

Prior to collecting data, approval was obtained from the institutional review board. After approval of the research, a survey was created on MTurk, followed by pilot testing of the survey. Next, a request for participants was submitted. Participants were asked to read an informed consent document that explained the study. Participants were told the survey is assessing attitudes about pornography, sexual behavior, sexual attitudes, relationships, spirituality, and family-of-origin experience. Participants were informed that the data that was collected would be anonymous, kept private, stored securely, and only available to the researcher. Participants were notified that they would not have any direct benefits from participation in the survey and that the risk is mainly limited to the social impact that would occur if the responses were released, which is the reason that participants are not asked for identifying information. Participants were informed that their participation is voluntary and they can withdraw from the survey at any time.

At the end of the informed consent document, participants were asked whether they read the informed consent and if they consent to participate in the study; responses included yes and no. Participants who agreed (selected yes) to the informed consent were directed to the survey. After completion of the survey, participants will be paid \$1.00 for their participation. Data collection occurred in December of 2017.

Data Processing and Analysis

The data was downloaded into IBM SPSS Statistics Version 25 with the PROCESS macro for SPSS (Hayes, 2013). The data were screened. Missing data were excluded from the analysis. The responses of participants who answered catch trial items incorrectly were excluded from the data to eliminate participants who were randomly responding. A preliminary data screening determined if scores on the measures are normally distributed. The data were screened for outliers.

Pearson's correlation coefficients were used to test the hypotheses in the first research question. To test the second and third research questions, moderation models were tested using PROCESS (Hayes, 2013), which is a macro for SPSS that allows testing of conditional process models. Bootstrapping, a resampling method that works well with irregular distributions (Hayes, 2013), was used. A moderation analysis (model one from Hayes, 2013) was conducted for the second research question and the third research question used model two from Hayes (2013).

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

This chapter reviewed the research questions including the hypotheses. The research design for this cross-sectional study was explored. Next, the selection of participants was described. The measures that were used in this study were explored and evaluated. Finally, the data screening and analysis was covered. This concludes the chapter about research methods.

CHAPTER FOUR: RESULTS

The purpose of this study was to examine how participants' pornography use frequency, self-compassion, and reasons for using pornography were related to negative outcomes that participants' experienced from sexual behavior. First, this study examined the relationship between self-compassion and the frequency of pornography use. This study also proposed two moderation models. Model one proposed that self-compassion moderates the relationship between frequency of pornography use and negative outcomes. Model two suggested that self-compassion and the reason for pornography use (e.g., sexual curiosity, emotional avoidance, excitement seeking, or sexual pleasure) moderated the relationship between frequency of pornography use and negative outcomes of sexual behavior.

This study used a sample of 498 adults who endorsed using pornography at least once in the last six months. Participants were given demographic items as well as questions about the frequency of their pornography use and the average amount of time per week they spent using pornography. Participants completed measures that assessed their self-compassion, reasons for their pornography use, and possible negative outcomes that they had experienced or were concerned that they may experience related to their sexual behaviors. This chapter describes the data analysis used to examine whether the hypotheses were supported by the data. A summary of the findings is presented here.

Data Screening

A sample of 498 participants was obtained during data collection in December of 2017. Several methods were employed to screen data. First, attempts were made to remove cases in

which participants were responding carelessly. The average length of time that participants completed the survey was 24 minutes and 13 seconds ($SD = 29$ minutes and 56 seconds). Participants who completed the survey in less than five minutes were removed. There were three cases that were deleted at this step. Next, participants who responded incorrectly to the catch trial items were deleted. Also, participants were deleted who said “no” to a question inquiring whether they had paid attention and answered honestly. There were 33 participants who responded incorrectly to catch trial items or who selected “no” when asked if they paid attention. These cases were deleted, which resulted in a total of 462 cases that were retained at this step.

A criterion for people to participate in the study was that they must have used pornography in the past 6 months. The data was inspected to ensure that all participants had used pornography in the past 6 months. There were four cases in which participants indicated they had used pornography during the past week but did not respond to the items assessing their use over the past 30 days and past 6 months. Because they answered affirmatively to use in the past week, these cases were retained.

To detect careless responding from participants, the variance on some of the measures was examined. First, variance of the Self-Compassion Scale (SCS) subscales was calculated. After sorting the cases in ascending order on this new variable, the data were visually inspected and the cases in which participants selected the same response for 10 or more consecutive items on the SCS were deleted. Twenty-nine cases were deleted, which resulted in 433 cases that were retained. Next, variance on the Pornography Consumption Inventory (PCI) was calculated for each participant. After sorting the cases in ascending order on this new variable, the individual PCI items were visually screened. The cases in which participants selected the same response for 10 or more consecutive items were removed. Thirteen cases were deleted, which resulted in 420

cases being retained. Because low variance was expected on the Cognitive and Behavioral Outcomes of Sexual Behavior Scale (CBOSB) for participants who were experiencing relatively few or no negative outcomes due to pornography use or other sexual behavior, variance on these subscales was not used to identify careless responders.

Because this study was based on active pornography users, which was defined as use within the past month, it was necessary to remove cases in which participants had not used pornography in the last month. The cases were sorted and cases in which participants had not used pornography in the past month were deleted. This resulted in a total of 371 participants that were retained.

The data were examined for outliers. Histograms were created on several items that measured how many hours per week participants reported viewing pornography and how many times per week they masturbated. For the item that inquired about hours of pornography use per week, outliers were observed. One participant entered 72, indicating this individual viewed 72 hours of pornography per week. Because this is physically possible and anecdotal evidence suggests this occurs in clinical populations in which individuals are experiencing substantial problems with pornography use, this response was retained. For the item assessing the number of times participants reported masturbating weekly, there were two participants who reported 30 times per week. Again, because individuals in clinical settings have reported high-frequency masturbation similar to these frequencies, these participants were retained. Sample means and standard deviations were calculated for the SCS and PCI. Osborne (2012) recommends that participants who scored outside ± 3.0 standard deviations were removed. No participants had scores outside ± 3.0 standard deviations on the SCS total score, the subscales of the SCS, the PCI total, or the subscales of the PCI. It is expected that there will be some participants with extreme

high scores on the amount of time they spend viewing pornography per week and the CBOSB; therefore, outliers were not deleted from the CBOSB or the frequency of weekly pornography use.

To explore whether the data were normally distributed, skew and kurtosis were calculated. On the variable number of hours of pornography use in the past week, the data did not appear to be normally distributed; however, this was expected. Because participants were sampled from a population that was expected to be similar to the general population in regards to pornography use, and because the general population has relatively few individuals (approximately 2%) who have pathological pornography use (Albright, 2008), it was anticipated that the data would be positively skewed. Positive skew was also observed on the CBOSB total and CBOSB subscales. Similar to the hours of pornography, it was anticipated that relatively few participants would experience substantial negative impacts from pornography use or other sexual behaviors; therefore, the trends in the data were consistent with what was expected. The SCS total, SCS subscales, PCI, and PCI subscales demonstrated relatively normal distribution with little skew or kurtosis. Although the data on hours of pornography used per week and CBOSB appear to violate the assumptions of use of correlation and regression (Warner, 2013), Hayes (2013) advises that having a normal distribution is not necessary for using regression including moderation analyses. Because most data are not actually normally distributed and because Likert-type scales do not produce continuous distributions, it is appropriate to use ordinary least squares regression (Hayes, 2013).

The items that asked participants to type in their responses (i.e., string variables) were examined to ensure that responses were correctly entered. Responses that were not in the correct format were corrected. For example, a participant who responded to the number of hours per

week of pornography use with “½” was entered as 0.5. On the item that asked participants to estimate the number of times per week that they masturbated, some participants responded with answers such as “1-2” and the mean of the two responses was recorded. For example, a participant indicated that they masturbated 1-2 times per week, and this was changed to 1.5. Another respondent typed “30+” for this item and it was changed to 30 because the upper limit of masturbation per week was not indicated. Similarly, for the item asking participants how long (in minutes) they typically use pornography, responses were visually screened and corrections made (e.g., a response of “20min” was changed to 20). On this item, when participants listed a range of time (e.g., 5-10) an average of the two numbers was used.

Participant Demographics

Of the participants who endorsed using pornography in the last month ($N = 371$), 51.5% of participants were male, 48.2% were female, and one participant selected “other” to describe their gender. Participants’ ages ranged from 18 to 71 years of age ($M = 36.9$, $SD = 10.8$). The majority of the sample was Caucasian (74.9%), with 10.5% describing their race as African American, 6.7% Asian, 5.4% Hispanic, 1.3% American Indian or Alaska Native, and 1.1% choosing “other.” Regarding participants’ highest reported level of education, the majority of participants (37.5%) endorsed having at least a bachelor’s degree. The remaining participants endorsed less than a high school diploma (0.8%), high school diploma or GED (11.1%), college freshman (7.0%), college sophomore (7.5%), college junior (4.9%), college senior (2.4%), trade or technical school (10.8%), master’s degree (12.9%), professional degree (3.5%), and doctorate (1.6%). The majority of participants (66%) selected “employed for wages,” while 16.2% chose self-employed, 4.3% unemployed, 1.9% homemaker, 5.7% student, 0.8% military, 3.2% retired,

and 1.6% unable to work. Most participants (50.4%) reported they are currently married or have a life partner. Other responses to current relationship status included currently single and never in a relationship (3.8%), single and not currently in a relationship (18.6%), in a non-committed dating relationship (3.8%), in a monogamous dating relationship (18.3%), married but legally separated (0.8%), divorced (4.0%), and widowed (0.3%). Regarding marital history, 50.4% of participants had been married once, 10.2% married twice, 1.1% married three times, 0.3% married more than three times, and 37.7% had never been married. Participants endorsed the following religious affiliations: no religious affiliation (39.9%), Protestant (16.2%), Non-denominational Christian (14.8%), Catholic (13.7%), Jewish (3.2%), New Age or Wiccan (3.2%), Buddhist (2.7%), Hindu (1.3%), Mormon (1.1%), Muslim (0.3%), and other (3.5%). See Table 4.1 for demographic information.

As previously noted, participants were included in the final sample if they endorsed pornography use in the past month. The average number of hours that participants reported using pornography per week was 2.54 ($SD = 5.063$). The range of hours of pornography use per week was no use on the low end to 72 hours of use per week. An independent samples t test was calculated to explore whether there were differences between men and women in the number of hours of pornography use per week. The average number of hours of pornography use per week for men ($n = 191$) was 2.58 hours ($SD = 3.86$), while women ($n = 176$) averaged 2.46 hours of pornography use per week ($SD = 6.12$). There was no significant difference in mean weekly hours of pornography use between men and women, $t_{365} = .215$, $p = .79$, two-tailed.

Table 4.1

<i>Participant Demographics</i>		
	<i>N</i> or Range	% or <i>M</i>
Age	18-71	36.9
Gender		
Male	191	51.5
Female	179	48.2
Other	1	.3
Racial Identity		
Caucasian/White	278	74.9
African American	39	10.5
Asian	25	6.7
Hispanic	20	5.4
American Indian or Alaska Native	5	1.3
Other	4	1.1
Educational Background		
Less than High School	3	0.8
High School diploma or equivalent (e.g., GED)	41	11.1
College Freshman	26	7.0
College Sophomore	28	7.5
College Junior	18	4.9
College Senior	9	2.4
Trade, Technical, or Vocational Training	40	10.8
Bachelor's Degree	139	37.5
Master's Degree	48	12.9
Professional Degree	13	3.5
Doctorate	6	1.6
Employment Status		
Employed for Wages	245	66.0
Self-Employed	60	16.2
Not Employed	16	4.3
Homemakers	7	1.9
Students	21	5.7
Military	3	0.8
Retired	12	3.2
Unable to Work	6	1.6
Marital History		
Never Married	140	37.7
Married Once	187	50.4

Married Twice	38	10.2
Married Three Times	4	1.1
Married More than Three Times	1	0.3
Current Relationships Status		
Currently Single – Never in a Relationship	14	3.8
Single – Not Currently in a Relationship	69	18.6
Non-committed Dating Relationship	14	3.8
Monogamous Dating Relationship	68	18.3
Married/With a Life Partner	187	50.4
Married, but Legally Separated	3	0.8
Divorced	15	4.0
Widowed	1	0.3
Religion		
Protestant (e.g., Methodist, Baptist, or other Non-Catholic Christian Denomination)	60	16.2
Catholic	51	13.7
Christian (Non-Denominational)	55	14.8
Mormon	4	1.1
Muslim	1	0.3
Hindu	5	1.3
Jewish	12	3.2
Buddhist	10	2.7
New Age or Wiccan	12	3.2
None	148	39.9
Other	13	3.5

Participants were asked how many times they use pornography per 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 (48.0%) selected 1-3 times. Other responses included 0 times (22.6%), 4-6 times (15.1%), 7-9 times (6.5%), and 10 or more times (7.5%). When asked about monthly pornography use participants reported using 1-3 times (26.4%), 4-6 times (27.2%), 7-9 times (12.1%), and 10 or more times (32.2%). See Table 4.2 for pornography use statistics.

Table 4.2

<i>Pornography Use Statistics</i>		
	<i>N</i> or Range	% or <i>M</i>
Average Hours of Pornography Used per Week	0-72	2.54
Pornography Use in the Past Week		
0 Times	84	22.6
1-3 Times	178	48.0
4-6 Times	56	15.1
7-9 Times	24	6.5
10 or More Times	28	7.5
Pornography Use in the Past Month		
1-3 Times	98	26.4
4-6 Times	101	27.2
7-9 Times	45	12.1
10 or More Times	123	32.2

Sample Means

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

Data Analysis

Data analysis was performed using IBM SPSS Statistics Version 25 with the PROCESS macro for SPSS (Hayes, 2013). Participants who did not complete all the items for any measure were excluded from the analysis. Bivariate correlations were completed between the SCS and its subscales with the frequency of pornography use. Also, bivariate correlations were calculated for the frequency of pornography use and negative outcomes related to sexual behavior (the CBOSB and its subscales). Two moderation models were tested. In the remainder of this chapter, results from these analyses are explored.

Table 4.3

Descriptive Statistics of All Measures Used in this Study

Measure	Minimum Score	Maximum Score	<i>M</i>	<i>SD</i>
SCS Total	1.00	5.00	3.08	0.89
SCS Self-Kindness	1.00	5.00	2.79	1.08
SCS Self-Judgment	1.00	5.00	2.87	1.14
SCS Common Humanity	1.00	5.00	2.89	1.04
SCS Isolation	1.00	5.00	2.81	1.20
SCS Mindfulness	1.00	5.00	3.08	1.03
SCS Over-identification	1.00	5.00	2.64	1.15
CBOSB Total	0.00	57.00	8.81	9.77
CBOSB Cognitive Total	0.00	45.00	7.06	8.33
CBOSB Cognitive Legal and Occupational	0.00	10.00	0.86	1.75
CBOSB Cognitive Psychological and Spiritual	0.00	12.00	2.30	2.78
CBOSB Cognitive Social	0.00	12.00	2.30	2.78
CBOSB Cognitive Physical (Pain/Injury)	0.00	8.00	0.86	1.54
CBOSB Cognitive Physical (Disease/Pregnancy)	0.00	8.00	1.30	1.72
CBOSB Cognitive Financial	0.00	6.00	0.62	1.06
CBOSB Behavioral Total	0.00	16.00	1.75	2.53
PCI Total	19.00	69.00	42.57	11.55
PCI Sexual Curiosity	3.00	20.00	10.93	4.16
PCI Emotional Avoidance	4.00	25.00	11.40	4.98
PCI Excitement Seeking	2.00	15.00	8.56	3.10
PCI Sexual Pleasure	3.00	15.00	11.68	3.07

Note. SCS = Self-Compassion Scale. CBOSB = Cognitive and Behavioral Outcomes of Sexual Behavior Scale. PCI = Pornography Consumption Inventory.

Correlations

Self-compassion and frequency of use. Pearson correlations were performed to examine the relationship between total self-compassion and the six components (subscales) of self-compassion to the number of times participants reported using pornography per week. See Table 4.4 for Pearson correlations and significance levels. The analysis suggested a weak correlation between SCS total and frequency of pornography use ($r = -.129, p < 0.05$). This suggests participants who used more pornography tended to have lower self-compassion and provides

support for hypothesis 1g. Regarding the SCS subscales, weak statistically significant relationships existed in five of the six subscales. Hypotheses 1a, 1b, 1c, 1d, and 1e were supported, although these weak correlations suggest that other variables are important to consider in the understanding of frequency of pornography use in addition to self-compassion.

Table 4.4

Correlations between Weekly Frequency of Pornography Use and Self-Compassion

Self-Compassion Scale	Frequency of Use Pearson Correlation Coefficient (<i>r</i>)
SCS Total	-.129**
SCS Self-Kindness	-.118*
SCS Self-Judgment	.093*
SCS Common Humanity	-.093*
SCS Isolation	.080
SCS Mindfulness	-.141*
SCS Over-identification	.099*

Note. **. Correlation is significant at the 0.01 level (1-tailed). *. Correlation is significant at the 0.05 level (1-tailed).

Correlations were also calculated with the average number of hours participants reported viewing pornography per week and self-compassion total. The results were not statistically significant ($p = .09$) and suggested a very weak relationship ($r = -.069$).

Negative outcomes and frequency of use. Because negative outcomes using the CBOSB is the outcome variable for the moderation analyses, Pearson correlations were calculated to examine the relationship between frequency of use and negative outcomes of sexual behaviors. There were statistically significant weak relationships between the frequency of pornography use and the CBOSB subscales, as well as CBOSB total. These results are displayed in Table 4.5.

Table 4.5

<i>Correlations between Weekly Frequency of Pornography Use and Negative Consequences</i>	
Cognitive and Behavioral Outcomes of Sexual Behavior Scale	Frequency of Use Pearson Correlation Coefficient (<i>r</i>)
CBOSB Total	.323**
CBOSB Cognitive Total	.309**
CBOSB Cognitive Legal and Occupational	.334**
CBOSB Cognitive Psychological and Spiritual	.183**
CBOSB Cognitive Social	.183**
CBOSB Cognitive Physical (Pain/Injury)	.222**
CBOSB Cognitive Physical (Disease/Pregnancy)	.214**
CBOSB Cognitive Financial	.275**
CBOSB Behavioral Total	.232**

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

Testing Model One

The second research question asked whether self-compassion moderates the relationship between frequency of pornography use and negative outcomes from use. To test the moderation model, Hayes' (2013) Conditional Process Analysis PROCESS macro for SPSS was used. Model one used frequency of pornography use per week as the predictor variable and negative outcomes that participants worried about due to sexual behavior (CBOSB cognitive subscale) as the outcome variable. The proposed moderator for this model was self-compassion total, which includes positive self-compassion (e.g., self-kindness, mindfulness, and common humanity) and subscales measuring negative self-compassion (e.g., self-judgment, over-identification, and isolation). A pictorial representation of this theoretical model is presented in Figure 4.1 and Figure 4.2 presents the statistical model. The frequency of pornography use and self-compassion score were mean-centered prior to analysis because this makes it easier to interpret the results (Dalal & Zickar, 2012) and makes the regression coefficients more meaningful (Hayes, 2013). Also, mean-centering may make interpretation easier for the reader (Hayes, 2013). Bootstrapping resampling using 5,000 bootstrap samples was used.

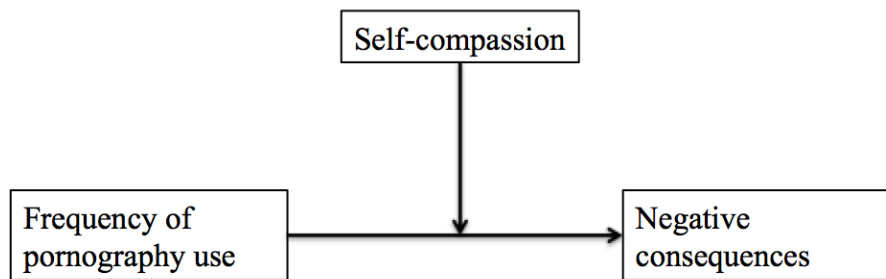


Figure 4.1. Hypothesized theoretical model one.

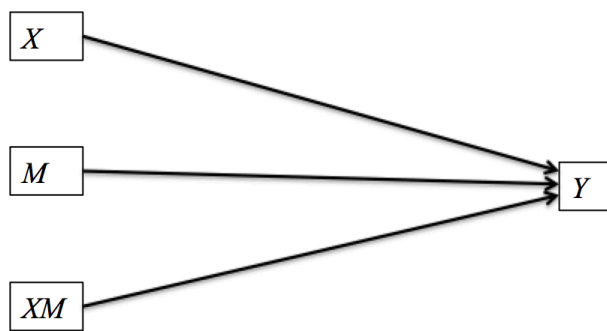


Figure 4.2. Hypothesized statistical model one.

Overall, the first model was statistically significant ($F(3, 366) = 18.10, p < .001, R^2 = .13$). This means that the predictors and their interaction account for 13% of the variance in negative outcomes. For the predictor frequency of use, $b = 2.13, t(366) = 5.77, p < .001$. Frequency of use per week is a statistically significant predictor of negative outcomes. With an increase of one standard deviation in frequency of use, there is an increase in pornography users' concerns about experiencing negative outcomes by approximately 2 points on the CBOSB cognitive subscale. Self-compassion total score was also a statistically significant predictor of negative outcomes. For the predictor self-compassion total, $b = -1.74, t(366) = -3.72, p < .001$. This suggests that when participants' self-compassion scores were one standard deviation below the mean, they tended to have greater pornography use. Although the overall model was supported, the interaction between frequency of pornography use and self-compassion was not

statistically significant ($b = -.0006$, $t(366) = -.0014$, $p = .9989$). The confidence interval for the interaction based on 5,000 bootstrap samples included zero (-0.88 to 0.88), indicating that no interaction exists (see Figure 4.3). The results of the model are displayed in Table 4.6.

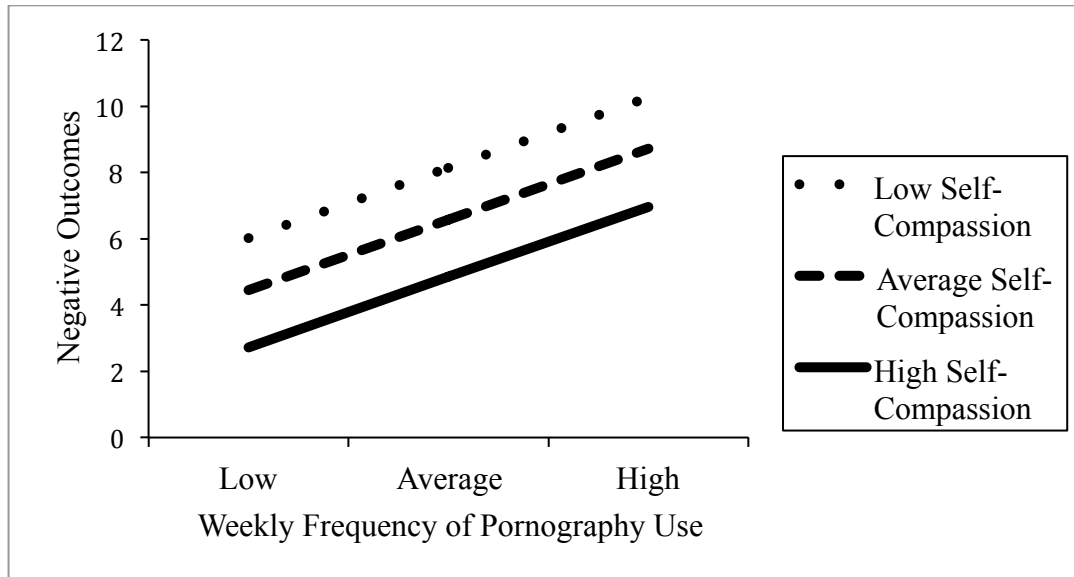


Figure 4.3. Main effects of weekly frequency of pornography use and self-compassion on negative outcomes.

Table 4.6.

<i>Process Model Results for Model One</i>					
<i>Source</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	7.073	.410	17.256***	6.267	7.879
Frequency of Use	2.128	.369	5.774***	1.403	2.853
SCS-Total	-1.742	.468	-3.720***	-2.663	-.821
Frequency X SCS-Total	-.001	.448	-.001	-.881	.880

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

Testing Model Two

The second model added to the first model by adding a second moderator variable. The predictor variable was weekly frequency of pornography use and the outcome variable was negative outcomes that participants worried about due to sexual behavior (CBOSB cognitive subscale). The first moderator was the self-compassion total score, which incorporates positive self-compassion (e.g., self-kindness, mindfulness, and common humanity) with subscales measuring negative self-compassion (e.g., self-judgment, over-identification, and isolation). The second moderator was the reason that participants use pornography, as measured by the PCI. This measure contains four subscales that assess reasons for pornography use: sexual curiosity, emotional avoidance, excitement seeking, and sexual pleasure. Each of these subscales was used as a moderator in four separate versions of this model. This theoretical model is displayed in Figure 4.4 and the statistical model is presented in Figure 4.5. The frequency of pornography use, self-compassion total, and function of pornography use (as measured by the PCI subscales) were mean-centered prior to analysis and bootstrapping resampling using 5,000 bootstrap samples was used.

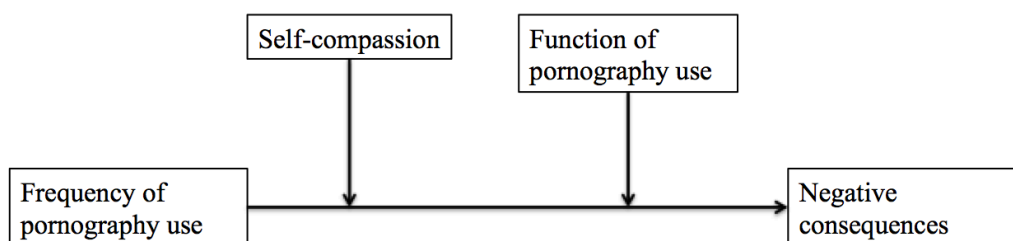


Figure 4.4. Hypothesized theoretical model two.

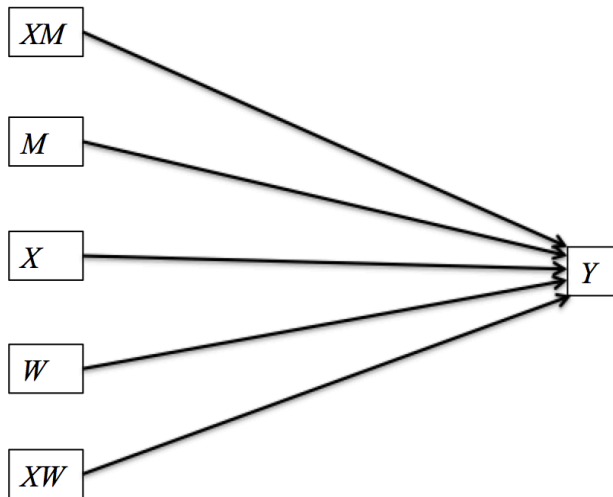


Figure 4.5. Hypothesized statistical model two.

Sexual curiosity as a second moderator. The sexual curiosity subscale of the PCI was added as a moderator. This model was statistically significant ($F(5, 364) = 15.23, p < .001, R^2 = .17$). This indicates that 17% of the variance in negative outcomes is accounted for with this model. Frequency of pornography use was a statistically significant predictor of negative outcomes ($b = 2.00, t(364) = 5.54, p < .001$). As participants pornography use increased by one standard deviation, they tended to have an increase in scores on the CBOSB cognitive by 2 points. Self-compassion total was also a significant predictor for negative outcomes ($b = -1.61, t(364) = -3.50, p < .001$). Participants who scored one standard deviation above the mean on self-compassion tended to score about 3.5 points lower on the CBOSB cognitive subscale. Sexual curiosity was also a statistically significant predictor of negative outcomes ($b = .42, t(364) = 4.35, p < .001$). Participants who scored one standard deviation above the mean on sexual curiosity tended to have about a 0.4 point increase on negative outcomes as measured by CBOSB cognitive. There were two interactions in this model, neither of which was statistically significant. The first interaction was frequency of pornography use times self-compassion ($b = .02, t(364) = .05, p = .96$). The second interaction was frequency of pornography times sexual

curiosity ($b = .01$, $t(364) = .13$, $p = .90$). The confidence intervals using 5,000 bootstrap samples included zero.

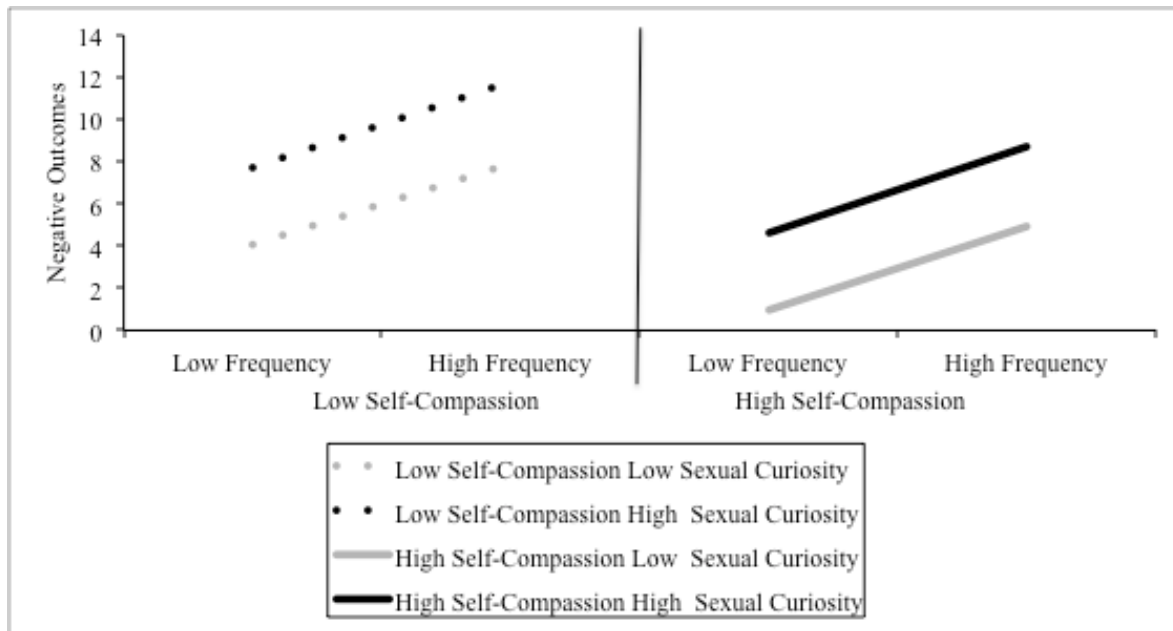


Figure 4.6. Main effects of weekly frequency of pornography use, self-compassion, and sexual curiosity on negative outcomes

Table 4.7.

Process Model Results for Model Two with Sexual Curiosity as a Second Moderator

Source	<i>b</i>	<i>SE</i>	<i>t</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	7.072	.401	17.622***	6.283	7.861
Frequency of Use	2.003	.361	5.543***	1.292	2.713
SCS-Total	-1.607	.459	-3.504***	-2.509	-.705
Frequency X SCS-Total	.024	.442	.053	-.846	.893
PCI-Sexual Curiosity	.419	.097	4.348***	.230	.609
Frequency X PCI-Sexual Curiosity	.011	.080	.132	-.148	.168

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

Emotional avoidance as a second moderator. Overall, the model that examined whether self-compassion and emotional avoidance moderated the relationship between frequency of use and negative outcomes was supported ($F(5, 364) = 18.60, p < .001, R^2 = .20$). This indicates that the model accounts for 20% of the variance in the data. Weekly frequency of pornography use was a statistically significant predictor ($b = 1.79, t(364) = .4.95, p < .001$). This indicates that as participants increase their frequency of pornography use by one standard deviation, they tend to experience nearly two points increase in the CBOSB subscale that measures their concern about experiencing negative outcomes. The self-compassion scale was also a significant predictor of negative outcomes ($b = -1.09, t(364) = -2.36, p < .05$). For participants who have self-compassion scores that are one standard deviation below the mean, these individuals tend to have scores that are about one point higher on the CBOSB cognitive subscale. Emotional avoidance was also a statistically significant predictor of negative outcomes ($b = .47, t(364) = 5.70, p < .001$). Participants who tended to use pornography as a way to avoid negative emotions tend to experience slightly greater amounts of negative outcomes. This model contains two interactions. The first interaction, frequency of pornography use times self-compassion, was not statistically significant ($b = .09, t(364) = .21, p = .84$). The second interaction was frequency times emotional avoidance and also was not statistically significant ($b = .09, t(364) = 1.12, p = .26$). The confidence intervals for both of these interactions contained zero.

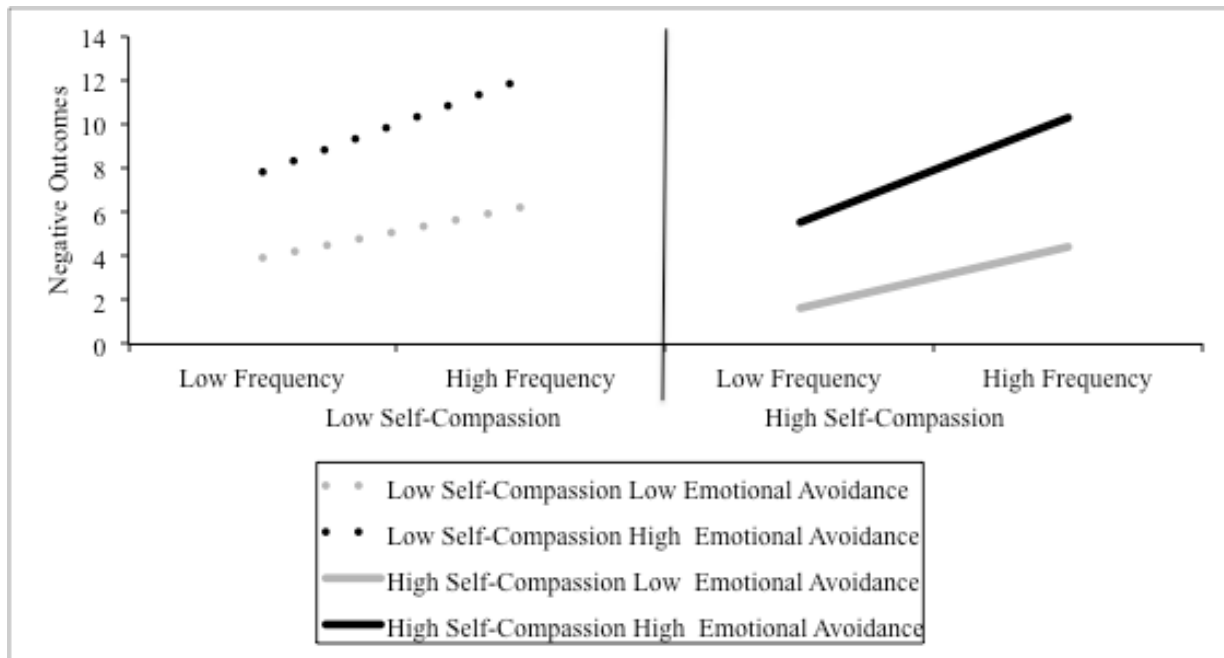


Figure 4.7. Graph of negative outcomes predicted from weekly frequency of pornography use, self-compassion, and emotional avoidance

Table 4.8.

Process Model Results for Model Two with Emotional Avoidance as a Second Moderator

Source	<i>b</i>	<i>SE</i>	<i>t</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	6.981	.401	17.413***	6.193	7.770
Frequency of Use	1.785	.360	4.953***	1.076	2.494
SCS-Total	-1.092	.463	-2.357*	-2.003	-.181
Frequency X SCS-Total	.092	.442	.208	-.777	.961
PCI-Emotional Avoidance	.470	.083	5.696***	.308	.632
Frequency X PCI-Emotional Avoidance	.090	.080	1.117	-.068	.247

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

Excitement seeking as a second moderator. This model examined whether self-compassion and using pornography for excitement-seeking purposes moderated the relationship between weekly frequency of pornography use and negative outcomes due to pornography use. The model was statistically significant ($F(5, 364) = 15.02, p < .001, R^2 = .17$). This model accounted for 17% of variance in negative outcomes. Frequency of pornography use was a statistically significant predictor of negative outcomes ($b = 1.91, t(364) = 5.20, p < .001$). Self-compassion was a statistically significant predictor of negative outcomes ($b = -1.53, t(364) = -3.31, p < .05$). Finally, excitement seeking was also a significant predictor of negative outcomes ($b = .52, t(364) = 3.92, p < .001$). The first interaction in the model, frequency of pornography use times self-compassion, was not statistically significant ($b = -.21, t(364) = -.47, p = .64$). The confidence interval for this interaction based on 5,000 bootstrap samples included zero (-1.08 to 0.66). The second interaction, frequency of pornography use times excitement seeking, was statistically significant ($b = -.23, t(364) = -2.03, p < .05$) and the confidence interval for this interaction did not contain zero (-0.45 to -0.01). This interaction is displayed in Figure 4.8, where low-frequency refers to participants whose frequency was at the 16th percentile and high-frequency is participants whose frequency of use is at the 84th percentile. (Percentiles were used rather than standard deviations because the data was skewed).

The interaction was probed using the pick-a-point approach. Weekly frequency of pornography use was a significant predictor of negative outcomes at all levels of self-compassion and excitement seeking except for when participants had high scores on both self-compassion and on excitement seeking.

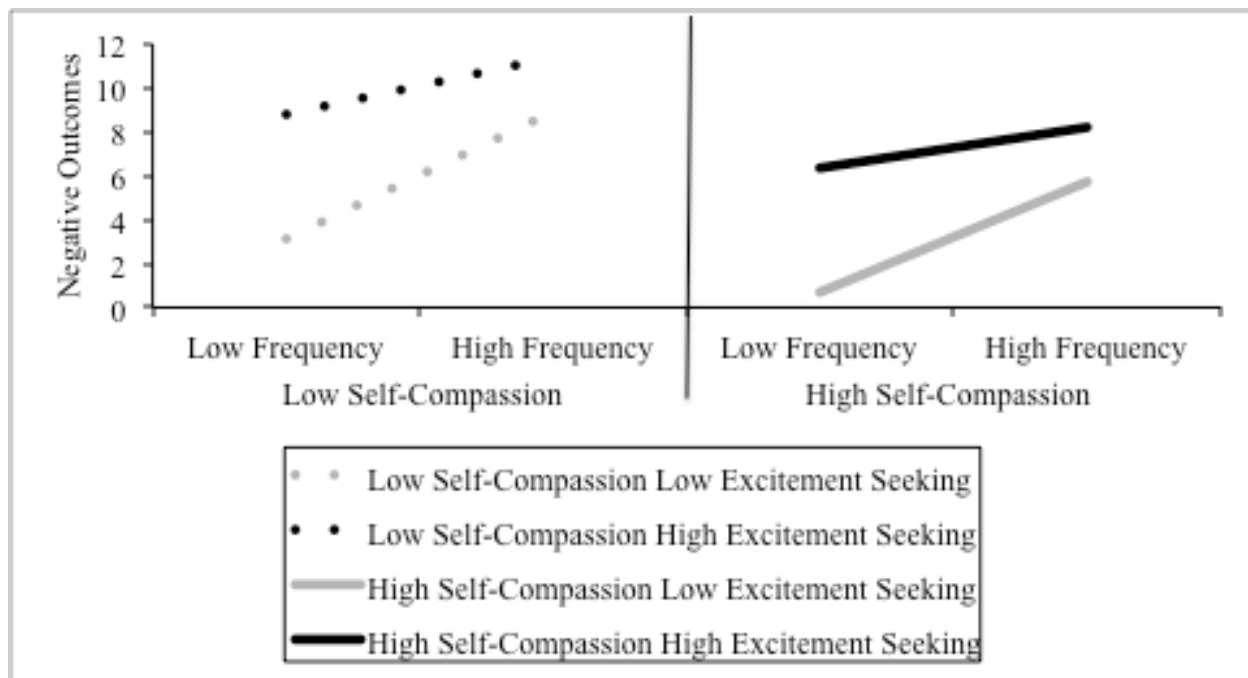


Figure 4.8. Graph of interaction between weekly frequency of pornography use and excitement seeking.

Table 4.9.

Process Model Results for Model Two with Excitement Seeking as a Second Moderator

Source	<i>b</i>	<i>SE</i>	<i>t</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	7.197	.406	17.712***	6.398	7.996
Frequency of use	1.907	.367	5.199***	1.186	2.628
SCS-Total	-1.528	.461	-3.314**	-2.434	-.621
Frequency X SCS-Total	-.208	.443	-.469	-1.080	.664
PCI-Excitement Seeking	.518	.132	3.923***	.258	.777
Frequency X PCI-Excitement Seeking	-.228	.112	-2.034*	-.448	-.008

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

Sexual pleasure as a second moderator. The last moderation analysis examined whether self-compassion and using pornography for sexual pleasure moderated the relationship between frequency of pornography use and negative outcomes from sexual behavior. The overall model was statistically significant ($F(5, 364) = 18.49, p < .001, R^2 = .20$). This model accounted for 20% of the variance in negative outcomes. In this model, frequency, self-compassion, and sexual pleasure were significant predictors of negative outcome. For frequency of pornography use per week ($b = 2.15, t(364) = 5.98, p < .001$). The self-compassion total measure was a significant predictor of negative outcomes ($b = -1.98, t(364) = -4.36, p < .001$). Sexual pleasure was also a significant predictor of negative outcomes ($b = -.44, t(364) = -3.37, p < .001$).

Participants who had scores on sexual pleasure as the reason for pornography use that were one standard deviation above the mean tended to have scores that were about one half point lower on the CBOSB cognitive subscale. The first interaction, frequency times self-compassion, was not statistically significant ($b = -.41, t(364) = -.93, p = .35$) and the confidence interval for this interaction included zero. The second interaction was frequency times sexual pleasure, which was statistically significant ($b = -.53, t(364) = -5.00, p < .001$). The confidence interval for this second interaction did not include zero (-0.75 to -0.32). This interaction is displayed in Figure 4.9. In this graph, low-frequency refers to participants whose frequency was at the 16th percentile and high-frequency is participants whose frequency of use is at the 84th percentile. (Percentiles were used rather than standard deviations because the data was skewed).

The interaction was probed using the pick-a-point approach. Weekly frequency of pornography use was a significant predictor of negative outcomes when participants had scores at low and average scores on sexual pleasure, but not at high levels of scores on sexual pleasure. In other words, in cases with low, average, or high self-compassion scores and high scores on

sexual pleasure, frequency of pornography use was not a statistically significant predictor of negative outcomes.

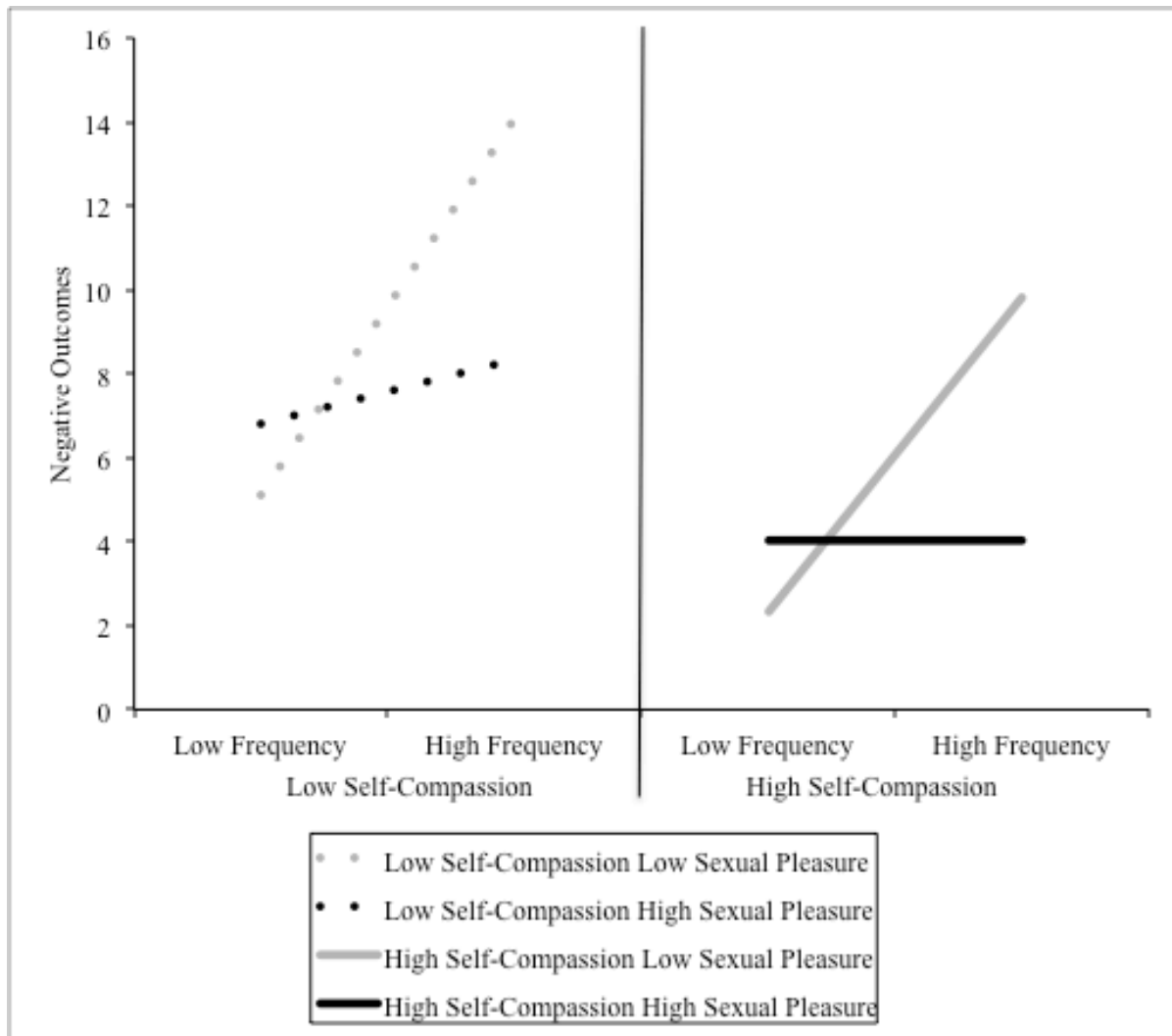


Figure 4.9. Graph of interaction between weekly frequency of pornography use and sexual pleasure.

Table 4.10.

Process Model Results for Model Two with Sexual Pleasure as a Second Moderator

<i>Source</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	7.352	.397	18.510***	6.570	8.133
Frequency of use	2.153	.360	5.983***	1.446	2.861
SCS-Total	-1.978	.453	-4.364***	-2.869	-1.087
Frequency X SCS-Total	-4.09	.438	-.933	-1.271	.453
PCI-Sexual Pleasure	-.441	.131	-3.368***	-.699	-.183
Frequency X PCI-Sexual Pleasure	-.535	.107	-4.997***	-.745	-.324

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

Summary

A sample of 371 adults who reported using pornography in the past month was used in this study. Bivariate correlations were conducted to answer the first research question: What is the relationship between frequency of pornography use and self-compassion. The majority of the hypotheses related to the relationship between frequency of pornography use and self-compassion were supported. As hypothesized, negative relationships were found between all of the positive self-compassion subscales (e.g., mindfulness, self-kindness, common humanity) and frequency of pornography use. Also, positive relationships were found between self-judgment and frequency of use as well as between over-identification and frequency of use, which were consistent with the hypotheses. No relationship was found between isolation and frequency of pornography use. There was a negative relationship between overall self-compassion and frequency of use, which is consistent with hypothesis 1g.

The moderation models proposed in this study were not supported; specifically, there were no interactions between self-compassion and frequency of use. There were interactions between frequency of use and excitement seeking, as well as frequency of use and sexual pleasure, although no interactions existed between frequency and the two other reasons for pornography use (i.e., sexual curiosity and emotional avoidance). These models accounted for a small percentage of variance and further research is indicated to better understand how other factors are related to self-compassion and pornography use. These results will be discussed in greater detail in Chapter Five.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study is based on three main theories, which are supported by the literature. First, research indicates that problematic pornography use may be associated with shame and self-criticism (Picone, 2015; Reid, 2010). Second, when people are experiencing shame and criticizing themselves, they may be unable to use emotional regulation strategies (Gilbert & Procter, 2006), so shame and self-criticism may exacerbate pornography use or other hypersexual behaviors (Chisholm & Gall, 2015). Third, directing compassion toward oneself can reduce the sense of threat associated with shame (Gilbert & Procter, 2006) and address the negative emotions that people are experiencing (Germer & Neff, 2013). Research also indicates that self-compassion is associated with well-being (Neff, 2003b); therefore, people who have higher self-compassion may be less likely to have problematic pornography use or to experience negative outcomes from viewing pornography. This study was conducted to examine the relationship between pornography use and self-compassion. Specifically, the first research question explored the relationship between the frequency of pornography use and self-compassion. The second research question hypothesized that self-compassion would moderate the relationship between frequency of pornography use and the negative outcomes related to sexual behavior that participants experienced. The third research question added a second moderator, the function of pornography use, to the same model.

The previous chapter described data analysis and results; this chapter explores the significance of this study's findings. Research questions one through three will be discussed, including the predictor variable frequency of use, the moderators self-compassion and function of pornography use, and the outcome variable negative consequences due to sexual behavior.

The chapter describes implications for practice, limitations that exist in this study, and suggestions for future research.

Summary of Findings and Implications

The participants in this study were recruited through MTurk. Four hundred ninety-eight participants completed four measures: the frequency of their pornography use, SCS, PCI, and CBOSB. Only participants who confirmed they had used pornography in the past month ($n = 371$) were included in the data analysis. The participants were between ages 18 and 71 ($M = 36.9$ years) and were mostly male (51.5%), Caucasian (74.9%), married once (50.4%), and employed (66%); a plurality had a bachelor's degree (37.5%) and were nonreligious (39.9%). The greatest number of participants (48%) reported that they viewed pornography between one and three times per week, and the average duration of pornography use per week was 2.54 hours.

Research Question One

Question one inquired about the correlation between frequency of use and self-compassion. The seven hypotheses associated with this question addressed each of the SCS subscales as well as the total score. Because self-compassion is associated with several measures of well-being (Hollis-Walker & Colosimo, 2010; Neely et al., 2009; Neff, 2003b; Neff, Rude, & Kirkpatrick, 2007), it was hypothesized that a negative correlation would exist between frequency of pornography use and self-compassion total, as well as between frequency of use and the positive subscales of self-compassion: self-kindness, mindfulness, and common humanity. Because low self-compassion (i.e., higher scores on the negative SC subscales) is associated with pathology (Macbeth & Gumley, 2012; Neff, 2003b; Neff, Rude, & Kirkpatrick, 2007), it was hypothesized that there would be positive correlations between frequency of

pornography use and the negative self-compassion scales: self-judgment, isolation, and over-identification.

Most of the hypotheses associated with the first research question were supported. There were statistically significant but weak negative relationships between frequency of use and self-compassion total and between frequency of use and the positive subscales. This indicates that participants who viewed pornography more frequently tended to have lower self-compassion. Statistically significant but weak positive correlations were observed between frequency of use and self-judgment and between frequency of use and over-identification. This suggests that participants who used pornography more often tended to engage in more self-judgment and were more likely to over-identify with their thoughts and feelings, compared to participants who viewed pornography less frequently.

It is important to note that correlation does not imply causation. Also, the data were collected at one point in time in a nonexperimental research design. The correlations between self-compassion and frequency of pornography use described below do not indicate that one of these constructs caused changes in the other construct; rather, these values indicate the strength of the linear relationship. It is also important to note that the correlations found in this study were weak, and it seems likely that other factors are important to consider. Using partial correlation to control for these other factors may be helpful in understanding these relationships in the future.

Correlation between frequency of use and mindfulness. Mindfulness is the awareness of internal experiences (e.g., physical sensations, memories, emotions, and thoughts) and focusing attention on the present moment while maintaining a nonjudgmental awareness of these areas (Neff, 2016). It was hypothesized that the mindfulness subscale would be inversely correlated with frequency of pornography use. This hypothesis was supported, although the

correlation was weak. Because the correlation was negative, this indicates that as the mindfulness scores increased (indicating participants had awareness and nonjudgmental acceptance of their current thoughts and feelings), participants tended to have lower pornography use. Conversely, as mindfulness decreased (i.e., participants were less able to have awareness and acceptance of their thoughts and feelings), frequency of use seemed to increase. This is consistent with research that indicates participants who have greater experiential avoidance tend to have more problematic pornography use (Levin et al., 2012; Wetterneck et al., 2012) and research that indicates high-frequency pornography use is associated with emotional avoidance and avoiding stress (Reid, Li, Gilliland, et al., 2011). It seems that mindfulness may help people view their thoughts and emotions in healthy ways rather than trying to push these away through pornography use. Alternately, because mindfulness is associated with well-being in general (Baer, Lykins, & Peters, 2012; Bowlin & Baer, 2012) and is a component of a treatment that was effective in reducing problematic pornography use (Twohig & Crosby, 2010), individuals with higher mindfulness may be less likely to engage in pornography use at high frequencies that would be potentially problematic. Although this was the strongest correlation that emerged, the data indicated that this correlation explained only 2% of the variance. This suggests that there is a great deal more to learn about other variables that may account for some variance in this relationship.

Correlation between frequency of use and self-kindness. Self-kindness is treating oneself with understanding and a caring approach (Neff, 2016), having a gentle attitude toward one's own suffering or difficulties, trying to decrease self-critical statements, and making efforts to comfort oneself the same way an individual might treat a close friend (Neff, 2011). It was hypothesized that there would be a negative correlation between weekly frequency of use and

self-kindness because psychopathology is negatively correlated with self-compassion (Neff, 2016). There was a weak but statistically significant negative correlation between weekly frequency of pornography use and self-kindness, which indicates that this hypothesis was supported. Participants who had greater self-kindness tended to view pornography less often, whereas more frequent use of pornography was associated with participants reporting that they extended less kindness toward themselves. Gilbert (2010) writes that self-kindness activates the “soothing and contentment system” (p. 49), helping people regulate their emotions as well as feel safe, connected, and peaceful. People who are able to have a kind stance toward themselves may be able to regulate their emotions and might not turn to pornography as frequently. The weak correlation between these two variables suggests that there are other variables that may be important to explore or control for in the context of these two constructs.

Correlation between frequency of use and common humanity. Common humanity is the awareness that one’s own experiences connect one to the broader human experience, which leads to a sense of connection with other people (Neff, 2016). Because there is stigma associated with problematic pornography use, it was expected that individuals who struggled with their use (those with high-frequency use) would tend to feel alone in their difficulties with pornography use, rather than viewing this struggle as part of the broader human experience. It was hypothesized that there would be a negative correlation between common humanity and frequency of pornography use. The results indicated that there was a weak but statistically significant negative correlation between common humanity and frequency of use. Participants who had less frequent use had slightly higher scores on common humanity, while those who had higher-frequency use tended to have lower scores on this construct. Because this relationship was weak, it is possible that common humanity does not have much impact on people’s pornography

use behaviors. Alternately, this may be an important factor to consider in individuals who identify as having problematic use, whereas it might be relatively unimportant for those who do not believe their pornography use is problematic.

Correlation between frequency of use and self-judgment. Self-judgment is an attitude of criticism toward oneself (Neff, 2016), often characterized by disapproving self-talk (Gilbert, 2010). This construct is thought to be positively correlated with shame, anger, contempt, inferiority, and disappointment with oneself (Gilbert, 2010). Because self-judgmental statements can lead to threat responses in the nervous system that mimic responses that occur after receiving criticism from someone else (Gilbert, 2009), this construct may be particularly applicable to pornography use because shame is theorized to be important in hypersexual behavior (Reid et al., 2011), specifically problematic pornography use (Chisholm & Gall, 2015), and there is some empirical support for this relationship (Gilliland et al., 2011; Picone, 2015; Twohig et al., 2009; Wery & Billieux, 2016). This construct was hypothesized to have a positive relationship with frequency of pornography use because it was expected that individuals who have more problematic and frequent use would view themselves more negatively and be critical toward themselves. There was a weak but statistically significant positive correlation between self-judgment and weekly frequency of pornography use. This suggests that participants who were more judgmental of themselves tended to have slightly higher weekly pornography use. This correlation was weak, which indicates that there are likely other variables that are important to consider and might account for more variance. It is also possible that this relationship may be stronger in populations that have a higher degree of problematic pornography use.

This correlation between frequency of use and self-judgment may be consistent with Chisholm and Gall's (2015) conceptualization of cyclical patterns of pornography use and

shame. These authors hypothesize that feelings of shame lead to higher compulsive behaviors, which then lead to pornography use, greater feelings of shame, and greater sexual compulsivity (Chisholm & Gall, 2015). If pornography use is followed by self-critical statements and negative emotions (e.g., shame, embarrassment, guilt), it is possible that engaging in pornography viewing might temporarily alleviate self-criticism and the associated negative affect, although these cognitions and affect may be likely to return after the individual stops viewing pornography.

Correlation between frequency of use and over-identification. Over-identification occurs when people focus on negative aspects of themselves, their life, or their experiences (Neff, 2016) and either ignore or exaggerate their experience (Neff, 2011). In other words, individuals view these thoughts or feelings (which may not be accurate) as completely accurate and struggle to remain objective in their view toward their own beliefs and emotions. It was hypothesized that there would be a positive relationship between over-identification and frequency of use. The results indicated there was a statistically significant but weak relationship between these two variables. Participants who used pornography more frequently tended to have higher scores on over-identification than those with lower frequency of use. This low correlation indicates the presence of other variables that may account for some variance that is currently unaccounted for by these variables.

These findings appear to be consistent with Grubbs, Braden, Kraus, Wilt, and Wright's (2017) hedonic reinforcement model of pornography use and with neurobiology work that identifies solitary computer use as likely being a way to self-regulate (Porges, 2017). Grubbs and colleagues (2017) postulate that pornography use is reinforced because it leads to pleasure and alleviates negative affect. If pornography users over-identify with their thoughts and feelings, it seems possible that viewing pornography temporarily stops this over-identification by changing

the focus of the pornography user's attention; however, these over-identification cognition patterns may return after viewing pornography, which may result in increased frequency of use to control thoughts and feelings. In other words, pornography use is temporarily effective in self-regulation but relatively ineffective long-term.

Correlation between frequency of use and isolation. Isolation is the perception that a person who is suffering is alone in these difficulties and that other people do not experience challenges. People may believe that their struggles separate them from other people (Neff, 2003b) rather than connecting them to other people. Isolation can lead to feeling ashamed, inadequate, disconnected, or lonely (Germer, 2009; Neff, 2011) and can prevent people from seeking support. This study hypothesized that problematic (i.e., frequent) pornography use would be associated with greater isolation. There was not a statistically significant correlation between frequency of pornography use and isolation, which suggests that participants who viewed more pornography did not necessarily see themselves as more alone with their problems than participants who viewed pornography less often.

It is surprising that the lowest correlation and the only correlation that was not statistically significant was the correlation between isolation and frequency of use. Previous research indicates frequent pornography users often experience loneliness (Yoder et al., 2005). Because pornography use is often a solitary activity and because of the stigma associated with problematic use, it was expected that participants who tended to feel alone in their difficulties would have higher frequencies of use than those who did not see themselves as disconnected from other people due to their problems. It is possible that this assumption is incorrect, although other possibilities exist. Pearson's correlations measure linear relationships, so if there was a curvilinear relationship (e.g., participants with low-frequency and moderate pornography use

may have had fairly similar scores on the isolation subscale, but at the very high end of frequency, scores may have increased), this would not have been detected. This sample did not contain many individuals who had high frequency of pornography use, so it is possible that these hypothesized trends were not captured in this population of lower-frequency pornography users. Also, this population may not have experienced distress from their pornography use that would prompt them to feel isolated regarding this distress.

Alternately, pornography users may not be experiencing a sense of isolation. Stigma about pornography use may be decreasing, especially in populations that are active online, such as those who are using MTurk. Actual prevalence of pornography use seems to be increasing (Wright, 2013). It seems possible that people who have frequent pornography use may rationalize their use by saying that everyone is viewing pornography. Indeed, Doidge (2007), a psychiatrist, wrote that many of his male patients who endorsed viewing pornography tried to reduce their discomfort with similar statements. These statements about “everyone” using pornography could lead to a decreased sense of isolation or perhaps increased common humanity.

Correlations between frequency of use and self-compassion total. It was hypothesized that participants who had higher frequency of pornography use would have lower self-compassion total scores. As anticipated, the self-compassion total score had a statistically significant, albeit weak, negative relationship with weekly frequency of pornography use. This suggests that participants who had higher self-compassion tended to have lower frequency of pornography use. Pornography use is not necessarily problematic for all individuals, but those who are struggling with their use may have lower self-compassion. Although self-compassion has not been explored in the context of pornography users in previous literature, research

indicates that self-compassion is negatively correlated with Internet addiction (Iskender & Akin, 2011), which may have some commonalities with problematic pornography use (e.g., loss of control over behavior, preoccupation with the activity, decreased interest in activities other than using the Internet, engaging in solitary online activities). These authors proposed that Internet addiction is a symptom of pathology (Iskender & Akin, 2011). Because self-compassion is correlated with well-being (Neff, Kirkpatrick, & Rude, 2007), this construct and other factors may explain the relationships between self-compassion and these difficulties controlling one's use of pornography or other sites on the Internet.

Research Question Two

The second research question asked whether self-compassion moderates the relationship between frequency of use and negative outcomes. Both self-compassion and weekly frequency of pornography use were statistically significant predictors of negative outcomes; however, no interaction existed between frequency of use and self-compassion. A main effect was observed for self-compassion. Participants with low self-compassion seemed to experience the highest amount of negative outcomes, followed by individuals with average self-compassion; people with high self-compassion tended to have the lowest amount of negative outcomes. There was also a main effect for frequency of use. Participants who had lower pornography use tended to have fewer negative outcomes compared to those who had higher-frequency use.

Despite the lack of interaction between frequency of use and self-compassion, it appears that they are both predictors of negative outcomes related to sexual behavior. These predictors accounted for about 13% of variance in negative outcomes, which suggests that there are other variables that are important to explore in understanding the negative outcomes that pornography users experience. Self-compassion may have a protective role in the development of problematic

pornography. For example, people who are higher in self-compassion seem to have adequate emotion-regulation abilities (Neff, 2003b) and would be less likely to seek pornography for emotion regulation purposes, thereby preventing them from developing problematic use. Also, it seems reasonable to speculate that self-compassion has a protective mechanism against experiencing negative outcomes more broadly, including mental health conditions, neuroticism (i.e., negative emotionality rather than emotional stability), and strain in interpersonal relationships.

Research Question Three

In the third research question, self-compassion and the function of pornography use were both proposed as moderators of the relationship between frequency of pornography use and negative outcomes. Four separate tests were done with each of the PCI subscales (sexual curiosity, emotional avoidance, excitement seeking, and sexual pleasure) as a moderator along with self-compassion total. In all four of these tests, frequency of use was a statistically significant predictor of negative outcomes, as was total self-compassion. All four of the functions of use (the PCI subscales) were also significant predictors of negative outcomes. In all of the four tests, there was no interaction between frequency of use and self-compassion. Likewise, there was no interaction between frequency of use and sexual curiosity or between frequency of use and emotional avoidance. There were statistically significant interactions between frequency of use and excitement seeking and between frequency of use and sexual pleasure.

Sexual curiosity as a second moderator. Although neither of the interactions (frequency X self-compassion and frequency X sexual curiosity) was statistically significant, all three of these variables were significant predictors of negative outcomes. Main effects were observed in

this model. As the frequency of pornography use increased, individuals tended to experience more negative outcomes. Participants who had higher self-compassion seemed to experience fewer negative outcomes than individuals who had lower self-compassion. Also, participants who reported that they were using pornography for sexual curiosity tended to have greater negative outcomes than those who did not endorse using pornography for sexual curiosity. Of all participants, those who had the greatest negative outcomes tended to have high-frequency use, low self-compassion, and high sexual curiosity. When sexual curiosity was added as a second moderator, the variance in negative outcomes explained by these predictors increased nearly 4% compared to model one. This suggests that understanding the function of use helps explain the outcomes that participants experience and provides support for psychotherapists conducting a functional analysis of pornography use.

Emotional avoidance as a second moderator. In this model, frequency of use, self-compassion, and emotional avoidance were all statistically significant predictors of negative outcomes, although no interactions were observed in this model. This model accounted for 20% of the variance in negative outcomes. Higher-frequency use, lower self-compassion, and higher emotional avoidance were associated with greater negative outcomes. Because emotional avoidance tends to be associated with more problematic pornography use (Levin et al., 2012; Wetterneck et al., 2012), it was theorized that this function of use would be associated with more negative outcomes compared to participants who were not using pornography in order to avoid their emotions. In general, the model supports this theory: participants who had higher emotional avoidance scores tended to have greater negative outcomes than those who had lower emotional avoidance scores.

Based on the theoretical framework of the study and previous research that indicates emotional avoidance is associated with problematic pornography use (Levin et al., 2012; Reid et al., 2011; Wery & Billieux, 2016; Wetterneck et al., 2012), it was expected that emotional avoidance as a function of pornography use would have a statistically significant interaction with frequency of use; however, this was not indicated in the results. It is possible that participants may have had little awareness that their use of pornography functioned as a way to avoid internal experiences. If the function of pornography use is emotional avoidance, but individuals tend to have difficulty recognizing and labeling their emotions (i.e., alexithymia), it is possible that this process of experiencing an emotion and then viewing pornography to avoid the emotion might be occurring outside of individuals' awareness. This is consistent with Bargh and Morsella's (2008) work, which suggests that behavioral impulses are occurring constantly, are shaped by many factors (e.g., culture, values, past situations), and are operating at an unconscious level to influence how people behave. Förster and Jostmann (2012) explain that activities that help people regulate themselves through bringing their "thoughts, feelings, and behavior in line with their own standards, values, and goals" (p. 147) often occur on an automatic level rather than through conscious awareness. It seems plausible that behaviors associated with emotion regulation are also occurring without the individual's awareness of the function or motivation of the behavior. Bargh and Morsella (2008) propose that the impulse before a behavior is unconscious (or outside of the individual's awareness) and only after the behavior has occurred do individuals experience the conscious processes. Siegel (2011) suggests this is because the areas of the brain that process information from the environment and emotions (i.e., limbic system) are able to process information more quickly than brain regions associated with meaning making (i.e., the prefrontal cortex). Complex behaviors are often driven by unconscious motives

and goals, as are the ways people manage distractions or temptations they encounter while pursuing a goal (Förster & Jostmann, 2012).

Another mechanism through which difficulty labeling emotions may occur is through a lack of integration between brain hemispheres (Cozolino, 2010). Pornography users who are viewing pornography to escape emotions may experience emotions in their right hemisphere, but due to a lack of bidirectional transfer, they may be experiencing difficulty labeling these emotions. It seems possible, then, that some pornography users may not have conscious awareness of the function of their behavior or the ability to label the emotion, especially if it is related to self-regulation or emotion regulation. This may have impacted participants' responses on the emotional avoidance subscale of the PCI, as well as other subscales of that measure.

Previous research on pornography use that has included the PCI has found that relatively few participants endorsed emotional avoidance as the reason for pornography use (Brown, Durtschi, Carroll, & Willoughby, 2017). This may provide further support that pornography users have difficulty identifying that their use serves as a way to reduce their negative emotions. Alternately, many pornography users may not, in fact, use pornography to regulate their mood or avoid certain emotional states. Further research on emotional avoidance in pornography users is indicated.

Interaction between frequency of pornography use and excitement seeking. In this model, self-compassion total and excitement seeking were proposed to moderate the relationship between frequency of pornography use and negative outcomes. All three of the predictor variables (frequency of use, self-compassion, and excitement seeking) were statistically significant predictors of negative outcomes; these three variables accounted for 17% of the variance in negative outcomes. There was a statistically significant interaction between weekly

frequency of pornography use and excitement seeking. Pornography users who had lower frequency and lower excitement seeking tended to have very low negative outcomes. As the frequency of use increased for the participants who had low scores on excitement seeking, their negative outcomes increased substantially, and this increase was greater than the increase that occurred when participants had higher excitement seeking. In other words, the slope for individuals with low excitement seeking was greater than the slope for individuals with high excitement seeking. In general, individuals who had higher scores on excitement seeking tended to have greater negative outcomes, regardless of their frequency of use, which seems consistent with Grubbs and colleagues' (2017) hedonic model of pornography use. These findings suggest that excitement seeking might be a particularly problematic function of pornography use. People who view pornography to experience more excitement in their lives, even if their actual frequency of pornography use is fairly low, seem almost as likely as the high-frequency users to experience problems related to sexual behavior. This may warrant additional research to better understand the use patterns in individuals who are attempting to experience greater levels of excitement through their pornography use.

Interaction between frequency of pornography use and sexual pleasure. In this model, self-compassion and sexual pleasure were proposed to moderate the relationship between weekly pornography use frequency and negative outcomes. Frequency, self-compassion, and sexual pleasure were all significant predictors of negative outcomes. These three variables accounted for 20% of the variance in negative outcomes. There was a statistically significant interaction between weekly frequency of pornography use and sexual pleasure. For participants who endorsed pornography use for sexual pleasure purposes (i.e., participants who scored high

on sexual pleasure), there was little difference in negative outcomes between the high-frequency and low-frequency pornography users.

When low sexual pleasure was examined, a large difference was observed between low- and high-frequency pornography users. Participants who had low scores on sexual pleasure and who endorsed low-frequency use tended to have much lower negative outcomes than those who had high-frequency use and low sexual pleasure scores. This last group, individuals who had high-frequency use and low scores on sexual pleasure, tended to have fairly high scores on negative outcomes; this relationship appeared to be even more pronounced in individuals who had low self-compassion scores. Tolerance, conceptualized in behavioral addictions literature as experiencing less positive mood effects and needing to engage in more of the behavior to experience the same effect in mood change (Grant, Potenza, Weinstein, & Gorelick, 2010), may be occurring in individuals with problematic pornography use (Doidge, 2007). Like tolerance, habituation or decreasing responses to pornographic material also seems to occur in individuals with high levels of pornography use (Kühn & Gallinat, 2014; Love, Laier, Brand, Hatch, & Hajela, 2015; Prause, Steele, Staley, Sabatinelli, & Hajcak, 2015). In the current study, participants who were not viewing pornography for sexual pleasure may have been developing increased tolerance to pornography use. They may have increased their frequency of use because they no longer experienced the same level of satisfaction. Doidge (2007) proposes that increased sensitization to pornography, along with increased tolerance to pornographic material, leads to individuals craving or desiring pornography more, but not liking it or experiencing pleasure from viewing it. This theory may be what was occurring for some participants in this study.

These findings from this study appear to be consistent with previous research and general understanding of pornography users. For example, Reid and colleagues (2011) found that

pornography users who had problematic use tended to use pornography more for emotional regulation and coping than for sexual satisfaction. It could be argued that individuals using pornography only for sexual pleasure are less likely to have pathological use compared to those using it to avoid emotions or cope with stressors. Although people using pornography for sexual pleasure tend to have higher scores on impulsivity and lower ability to regulate themselves, pornography users who use pornography to avoid emotions tend to have even higher impulsivity and lower self-discipline than those using it for sexual pleasure (Reid et al., 2011).

Previous research indicates people who are using pornography less than once per month and up to a few times per month tend to use pornography for sexual arousal and pleasure (Brown, Durtschi, Carroll, & Willoughby, 2017). Individuals who do not have problematic use (i.e., high-frequency use, high compulsivity or impulsivity related to use) may be using pornography to meet sexual urges or for sexual pleasure. It is possible that pornography use is a relatively safer choice than engaging in sexual activity (Brown et al., 2017) if the use is occurring to manage sexual urges or experience sexual pleasure. It seems logical to conclude that this intentional decision to view pornography rather than engaging in sexual activity might prevent negative outcomes (e.g., pregnancy or sexually transmitted infections) that individuals might encounter if they were engaging in sexual activity instead of viewing pornography. Also, if individuals have religious or spiritual beliefs that discourage sexual 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 partnered sexual activity. These explanations, along with other possible factors occurring in this population, may explain the trends observed in the present study.

Overall Findings from Moderation Models

The findings from this study seem consistent with a hedonic model of pornography use proposed by Grubbs and colleagues (2017). These researchers posit that pornography use is primarily driven by and reinforced by hedonism. Pornography use functions as a way to experience pleasure and relieve pain (Grubbs et al., 2017). Pornography may also be driven by sensation seeking, experiencing sexual arousal, curiosity about sexuality (i.e., the desire to learn more about sexuality), avoiding boredom, and coping with stress (Grubbs et al., 2017). The findings in the present study seem to extend this hedonic model by incorporating negative outcomes. Specifically, this study may indicate which of the components of hedonic use are more likely to lead to negative outcomes than others. The results suggest that people who are viewing pornography to experience sexual pleasure do not have greater negative outcomes as their frequency of use increases, while people who are not using pornography for sexual pleasure experience many more negative outcomes as their use increases. In other words, pornography use that is driven by seeking sexual pleasure does not seem to lead to as many negative outcomes, regardless of the frequency of use. On the other hand, the participants in this study who used pornography for sexual curiosity, emotional avoidance, and excitement seeking seemed to have greater levels of negative outcomes as their use increased.

Additional Findings

Differences between genders in pornography use. In the present study, participants were asked to type in the average number of hours that they used pornography per week. There were no statistically significant differences in the average number of hours that males versus females reported using pornography per week; however, the standard deviation was much higher for women than for men, which suggests there was more variability in the hours of pornography

use per week for women than for men. The finding that women's pornography use was not significantly different from men's seems inconsistent with previous research, which tends to indicate that women use pornography less often than their male counterparts (Brown et al., 2017; Carroll et al., 2008; Cooper et al., 2002; Hald, 2006; Morgan, 2011; Price, Patterson, Regnerus, & Walley, 2016; Regnerus et al., 2016; Wetterneck et al., 2012). For example, Wetterneck and colleagues (2012) found that men used an average of 12.5 hours of pornography per week, while women used about 5.4 hours per week. In the present study, men and women both used an average of about 2.5 hours of pornography per week. These findings suggest that both men and women in the present study's sample are using less pornography than samples that have been collected by other researchers. Another possibility is that pornography use behaviors are changing for women. This seems consistent with findings from Wright and colleagues (2013) that American women, as a whole, seem to have small increases in pornography use each year. It is also possible that female MTurk users may be different from previously studied female populations in terms of their pornography use and viewing frequency.

Correlations between frequency of use and negative outcomes. Because negative outcomes served as the outcome variable in the moderation models and frequency of use served as the predictor variable, correlations were calculated between weekly frequency of use and the CBOSB total score and its subscales. These statistically significant correlations were positive, indicating that greater frequency of use was associated with higher negative outcomes. On the CBOSB total and on all of the CBOSB subscales, positive and statistically significant correlations with frequency of use existed. These findings are consistent with previous research. Twohig and colleagues (2009) also examined the correlation between the CBOSB and frequency of use; their research had similar correlations between frequency of pornography use and the

CBOSB subscales. In other research that did not examine the CBOSB specifically, higher-frequency pornography use was associated with loneliness (Yoder et al., 2005), insecure attachment styles (Szymanski & Stewart-Richardson, 2014), lower relationship satisfaction (Morgan, 2011), less sexual satisfaction (Bridges & Morokoff, 2011; Morgan, 2011; Szymanski & Stewart-Richardson, 2014), and sexual risk-taking (Sinkovic, Stulhofer, & Bozic, 2013).

Problematic pornography use, according to individuals who self-identified as having problematic cybersex behaviors, was associated with spending less time with family members, increased incidence of divorce or separation, loss of jobs, financial problems, and increased conflict with family members (Schneider, 2000). Similarly, hypersexual behavior, which can include problematic pornography use, is associated with experiencing higher levels of negative emotions and lower levels of positive emotions (Reid, 2010), problems in romantic relationships, sexual problems, decline in mental health, and emotionally injuring those whom the hypersexual individual cares about (Reid, Carpenter, et al., 2012). Although these findings do not extend the literature, they appear to replicate and provide support for previous research on pornography users.

Limitations of the Study

One limitation may be the way the predictor variable, weekly frequency of pornography use, was measured. The item that was used in the correlation and moderation models asked participants, “How many times have you used pornography in the past week?” The response choices to that question were “0 times, 1-3 times, 4-6 times, 7-9 times, or 10 or more times.” This method of assessing a ratio variable was measured in an ordinal manner, which may have decreased the clarity of the data provided by participants. Although participants were also asked

to estimate how many hours per week they used pornography, this item was not selected for use in the moderation models because no correlations appeared to exist between hours of pornography use per week and self-compassion.

It is possible that the participants in the study were dissimilar to pornography users in general. Mechanical Turk 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 United States population and Internet users in general, as well as better educated yet having lower incomes than the United States population (Paolacci, Chandler, & Ipeirotis, 2010), it is possible that the data collected are 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 because they were not able to provide an objective report about themselves or because they may have lacked awareness about the functions of their pornography use, as discussed above. Also, the measures may not have accurately measured the constructs that they purported to measure. For example, the CBOSB is designed to measure negative outcomes from sexual behavior in general, not only pornography use, and includes items that may not have applied to participants (e.g., items about pregnancy and disease related to sexual activity may not have applied to individuals who were not engaging in partnered sexual activity but were using pornography). Alternately, these measures may have provided false positives in terms of negative outcomes. For example, the CBOSB inquired about whether the participant's partner had become pregnant; yet, if a couple were trying to conceive, the couple would not have viewed this as a negative outcome.

Also, because this study assessed sensitive subjects that are potentially embarrassing for many people, it is possible that social desirability impacted participants' responses (Osborne, 2012). 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.

Another possible limitation of this study is the CBOSB measure, which seemed to have a floor effect: most participants scored quite low on this measure. Moreover, this study used the CBOSB cognitive total subscale, which assessed participants' concern about possible negative outcomes related to sexual behaviors. This was considered more important than actual negative outcomes because participants' perceptions of negative outcomes are more likely to be distressing for them, may be a more sensitive measure, and may be more representative of participants' internal reality than actual negative outcomes. On the other hand, using the CBOSB behavioral scale, which measures actual negative outcomes that have occurred, may have been a more objective assessment. The cognitive subscale may have been influenced by participants' rumination and insight into how pornography might influence various aspects of their life; neither of these variables was controlled for in this study.

Suggestions for Future Research

Future research should continue exploring self-compassion in pornography users. Including additional variables that are associated with problematic pornography use is indicated. Controlling for specific variables may be important for future research to better understand the relationship between self-compassion and pornography use. This might increase the variance that is accounted for, which could help researchers and clinicians better understand how self-compassion relates to these other variables. Other variables that could be included in these

studies include assessments of psychopathology (e.g., the Depression Anxiety and Stress Scale; Lovibond & Lovibond, 1995), well-being (e.g., the Ryff Scales of Psychological Well-Being; Ryff & Keyes, 1995), measures of 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), personality traits, religiosity, perceived addiction, and other related constructs.

Including individuals who are nonusers or infrequent users of pornography may be an important next step for research. Comparing self-compassion scores of active pornography users (i.e., those who have used in the past month) to those of people who are not currently pornography users may also help researchers better understand self-compassion in pornography users.

Identifying a more appropriate independent variable measure may also be helpful for correlational studies; frequency of pornography use may not necessarily suggest problematic use. Measures that identify symptoms associated with problematic use, such as unsuccessful attempts to stop using pornography or preoccupation with pornography use, might be more appropriate constructs. Research studying these symptoms of problematic pornography use as predictor variables in conditional process analyses as well as correlational research is indicated. Likewise, using alternate measures for negative outcomes might be more clinically meaningful because some of the CBOSB subscales may not apply directly to pornography users. Specifically, it is recommended that the Hypersexual Behavior Consequences Scale (HBCS; Reid, Garos, & Fong, 2012) be used.

It is recommended that a replication study use a population with more frequent use or individuals who identify as having problematic use. This study included relatively few individuals with very frequent pornography use, which may be less clinically meaningful. In other words, studying a population of pornography users who identify as having problematic use and express a desire to decrease their use may be more representative of populations presenting for psychotherapy. Developing a better understanding of self-compassion in these individuals is an important step for future research.

It may be clinically useful for researchers to explore populations who have very high pornography use but do not endorse problematic use. Examining self-compassion and negative outcomes in this group may be important because these individuals may in fact have problematic use but may not recognize their pornography use as problematic. Alternately, if these individuals are not experiencing any negative outcomes related to their use, it may be useful for researchers to understand the mechanisms that prevent them from encountering negative outcomes. Determining the function of high-frequency and high-duration pornography use compared to lower-frequency use could also be useful for clinicians; this may help psychotherapists better understand what factors are driving the behavior of viewing pornography frequently.

The moderation models included in this study used the subscales of the PCI to help clarify the reasons for pornography use and how this impacted negative outcomes. This part of the study did not include the self-compassion subscales or the CBOSB subscales. Future research should examine these subscales to better understand these moderation models. Specifically, determining which positive and negative self-compassion subscales seem to account for the most variance in negative outcomes or problematic use would be important because this might help clinicians tailor treatment interventions for pornography users. Using the different CBSOB

subscales (e.g., legal and occupational, psychological and spiritual) may provide additional information for clinicians on which specific negative outcomes participants seem to be experiencing.

Research on pornography tends to examine males' use; there is much less research on female pornography users (Grubbs et al., 2017). Women's pornography use in general seems to be an area for future research. This study's findings about similar frequency of pornography use across genders are inconsistent with previous research, and the function of pornography use in men versus women was not examined. Future research should determine whether the reasons for pornography use are similar in men and women or if differences exist. Although previous research by Baltieri, de Souza Gatti, de Oliveira, Aguiar, and Silva (2016) compared women's scores on the PCI to men's scores, this sample was made up of female Brazilian medical students. Also, because Baltieri and colleagues (2016) removed participants who exhibited elevated scores on depression measures, this sample is likely to differ substantially from people who have problematic pornography use because those users may exhibit higher depression (Bridges & Morokoff, 2011). This previous research seems less likely to generalize to populations of female pornography users, and more research in this area is needed.

Qualitative research may be useful to explore the relationship between self-compassion and pornography use. For example, a study examining how individuals who report having problematic use relate to themselves on the self-compassion components could be useful in identifying trends and other variables that may be related. This could be helpful for psychotherapists as well as people struggling with pornography use to better understand the lived experiences of these individuals. For example, hearing self-judgmental schemas or automatic thoughts from people who describe themselves as having problems with pornography use may

help clinicians better understand clients who present for treatment. This research could also normalize the challenges that clients experience, which may increase hope for members of the general public who are considering seeking psychotherapy for pornography or other hypersexual issues.

Clinical studies on participants seeking treatment for pornography use are indicated because relatively few studies on treatments for this population have been conducted. Because Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) incorporates mindfulness practices, which are addressed in self-compassion, and because ACT has demonstrated efficacy in populations struggling with problematic pornography use (Twohig & Crosby, 2010), self-compassion interventions may be appropriate for clinical tests. Research examining self-compassion in a group format might explore the efficacy of Neff and Germer's (2013) Mindfulness Self-Compassion protocol. Individual psychotherapy research could incorporate interventions from Gilbert's (2005, 2009, 2010) Compassion Focused Therapy.

Clinical Implications

For Counselors

Self-compassion interventions appear to be effective in decreasing depressive symptoms (Shapira & Mongrain, 2010), anxiety (Arch et al., 2014), and shame (Albertson, Neff, & Dill-Shackleford, 2014). Furthermore, these gains from self-compassion interventions can last up to a year (Neff & Germer, 2013). Although the relationships between self-compassion and pornography use are still not well understood, these findings indicate that developing increased self-compassion may be clinically useful for individuals who are struggling with problematic pornography use. For example, self-kindness interventions may help pornography users to

decrease self-critical or judgmental statements about their pornography use, which could help them to cope with life stressors in healthier ways. Fostering an attitude of kindness toward themselves may help clients become more objective in their view of themselves, which may help them identify problematic behaviors. Self-kindness could play an important role in reducing shame's impact (Reid et al., 2014), which might help clients decrease their pornography use.

When seeing clients who identify pornography use as a treatment target, psychotherapists could use the SCS measure at the beginning of therapy to inform treatment and better understand how their clients relate to themselves. This measure could inform the interventions that clinicians recommend, which might include self-compassion. For example, increasing self-kindness, common humanity, and mindfulness may change the way pornography users relate to themselves, which could impact their use of pornography. Interventions such as Neff and Germer's (2013) 8-week psychoeducational Mindfulness Self-Compassion group and Gilbert's (2005, 2009, 2010) Compassion Focused Therapy may be useful with this population.

The findings about the interaction between the function of pornography (i.e., excitement seeking, sexual pleasure) and negative outcomes suggest that this relationship may be clinically significant. It is recommended that clinicians who are providing psychotherapy or other mental health services (e.g., medication management) to individuals who report problematic use should inquire about the reason that individuals are using pornography. This may be helpful in treatment planning and identifying alternative behaviors that individuals could engage in instead of viewing pornography. For example, people who report viewing pornography because they are feeling bored (i.e., emotional avoidance, excitement seeking) may find it helpful to discuss alternative activities that they might do to relieve the feelings of boredom without using pornography. Because labeling emotions can lead to decreased stress and down-regulation of the

amygdala, psychotherapeutic interventions in which clients label emotions (e.g., journaling) can promote improved emotion regulation abilities (Cozolino, 2010) and may be effective in helping clients reduce their pornography use.

Incorporating self-compassion may also be appropriate related to specific functions of pornography use. For people who are viewing pornography to avoid negative emotions (e.g., anxiety, loneliness), clinicians may incorporate mindfulness interventions to help clients recognize these feelings, label them, develop a nonjudgmental attitude toward these emotions, and learn to “sit with” them rather than trying to alleviate them. If pornography is being used for excitement seeking, clinicians could discuss with clients alternative ways that are consistent with the client’s values or goals that would help the client experience more excitement on a regular basis.

For Counselor Educators and Supervisors

Many mental health professionals report that they have received insufficient training related to pornography use. Research conducted by Ayres and Haddock (2009) suggests that many psychotherapists are working with clients who present to therapy with problems related to pornography use, yet nearly half of the therapists who participated in the study indicated they had received no training in working with clients who are struggling with pornography use. Many clinicians indicate their graduate training had not prepared them adequately to work with this population (Ayres & Haddock, 2009; Bloom, Gutierrez, Lambie, & Ali, 2016; Goldberg, Peterson, Rosen, & Sara, 2008; Short, Wetterneck, Bistricky, Shutter, & Chase, 2016). It seems that courses in graduate programs are not adequately covering the diagnosis and treatment of issues related to pornography use (Goldberg et al., 2008). More specifically, counselors working with children and adolescents seem to feel unprepared to address problematic pornography use in

clients under age 18 (Goldberg et al., 2008). While this may be due to the lack of research conducted in the United States on children and teens' use of pornography (Bloom & Hagedorn, 2015), it may also be due to a lack of training. Research also suggests that mental health professionals who specialize in sexual disorders or who have a doctoral degree (rather than a master's degree) tend to feel more competent to treat problematic pornography use (Short, Wetterneck, Bistricky, Shutter, & Chase, 2016). It seems that additional training increases clinicians' perceived competence in working with this population.

The American Counseling Association (ACA) mandates that counselors "practice only within the boundaries of their competence, based on their education, training, supervised experience, state and national professional credentials, and appropriate professional experience" (2014, p. 8). Research suggests that counselors who have received quality training in treating pornography use feel more confident in their competence in working with pornography users during counseling (Bloom et al., 2016). It is recommended that graduate programs in counseling (as well as other types of programs including marriage and family therapy, social work, and clinical psychology) should modify their curriculum to include the assessment, diagnosis, and treatment of pornography use and other hypersexual behaviors in the training of their students.

If graduate programs are beginning to address hypersexual behaviors and pornography use during students' clinical training, counselor educators and supervisors need to be competent in these areas. Specifically, counselor educators and supervisors need to be competent in assessing, diagnosing, and treating problematic pornography use so that they can teach counseling students about how to provide effective and ethical psychotherapy to their clients. Among licensed mental health providers, it seems that there is a lack of familiarity with evidence-based treatments for problematic pornography use (Short et al., 2016), which is likely

true for clinical supervisors and counselor educators. It is recommended that counselor educators and supervisors attend continuing education courses, read the current peer-reviewed literature about pornography use in the context of psychotherapy, and learn more about how to assess for pornography use and other hypersexual behaviors.

A related issue is that many counselors may not be comfortable broaching the topic of sexual behavior with clients, especially pornography use. Research indicates only about 20% of mental health professionals ask their clients about pornography use (Goldberg et al., 2008), but counselors who assess for pornography use and associated problems are more likely to address these in psychotherapy (Bloom et al., 2016). Therapists who have more comfort discussing sexuality with their clients tend to have had greater training and supervision related to sexuality in counseling (Bloom et al., 2016; Harris & Hays, 2008). There is existing literature (e.g., Walters & Spengler, 2016) about increasing therapists' comfort and effectiveness when they discuss pornography use with clients. Clinical supervisors may find it helpful to incorporate these recommendations to increase supervisees' comfort with these discussions.

Previous research also suggests clinicians' personal views and attitudes toward pornography impact how they work clinically with their clients who have problematic pornography use (Ayres & Haddock, 2009). Bloom and colleagues (2016) indicate that counselors who view sexuality more positively tend to assess for pornography use more often, which may indicate they are more likely to address it in treatment. Because the ACA Code of Ethics (2014) mandates that counselors not impose their values, beliefs, or attitudes on clients, it seems that this issue of counselors' beliefs about pornography impacting their treatment may be problematic from an ethical lens. Counselor educators and supervisors should explore with

counseling students how their own values, beliefs, and attitudes about pornography use (and sexuality more broadly) may impact their clinical work with clients.

Summary of the Chapter

This chapter presented a summary of the findings, clinical implications, limitations to this study, and recommendations for future research. There were three main findings. First, frequency of pornography use was positively correlated with negative self-compassion components (self-judgment and over-identification) and negatively correlated with overall self-compassion and with the positive components (self-kindness, mindfulness, common humanity). These correlations, although weak, were statistically significant and in the hypothesized direction. Controlling for additional factors (e.g., neuroticism, impulsivity) may shed additional light on the unexplained variance in these relationships. Second, frequency of pornography use, self-compassion, and the function of use (i.e., sexual curiosity, emotional avoidance, excitement seeking, and sexual pleasure) were identified as statistically significant predictors of negative outcomes that individuals experience related to sexual behavior. Third, interactions existed between frequency of use and excitement seeking and between frequency of use and sexual pleasure. Future research is recommended. Specifically, because this study did not examine the SCS or CBOSB subscales in the moderation analysis, inclusion of these subscales in moderation analyses may provide additional information about these models. The inclusion of additional variables is indicated to potentially increase the proportion of explained variance. Using different measures for the predictor and outcome variables may be more clinically applicable. Replicating this study in high-frequency pornography users who identify as having problematic use, as well as those who do not report problematic use but have high pornography use, may shed more light

on the relationship between frequency of use and negative outcomes. The findings from this study inform clinical work with individuals who present to counseling with problematic pornography use.

Summary of the Study

Previous research suggests that shame and self-criticism are important in problematic pornography use (Picone, 2015; Reid, 2010). Self-compassion and compassion-focused therapy propose that directing compassion toward oneself can target this shame, self-criticism, and negative emotions (Germer & Neff, 2013; Gilbert & Procter, 2006; Reid et al., 2014). Therefore, it was proposed that self-compassion might moderate the relationship between an individual's frequency of pornography use and the negative outcomes that he or she experiences related to use.

This study recruited 489 participants through MTurk. To examine active pornography users, defined as those who had used pornography in the past month, only the 371 participants who reported using pornography at least once in the past month were included. Participants' weekly frequency of pornography use was negatively correlated with self-kindness, common humanity, and mindfulness; frequency of use was positively correlated with self-judgment and over-identification. Pornography users who have higher overall self-compassion seem to use pornography less often, although it is likely that other factors are at play in this relationship, and future research is warranted. The frequency of use, self-compassion, and the reason participants reported using pornography were all significant predictors of the negative outcomes that participants experienced. These constructs, along with other factors associated with pornography

use, are likely important for clinicians to consider when providing counseling to individuals struggling to control their pornography use.

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APPENDIX A: INFORMED CONSENT

Informed Consent Form

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

Confidentiality

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

Contacts and questions

The researcher conducting this study is Fred Volk. Please feel free to send the questions you may have at any time during the course of this study by email: fvolk@liberty.edu. If you have questions later, you are encouraged to contact him via email. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), then you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Green Hall Suite 1887, Lynchburg, VA 24515 or email at irb@liberty.edu. In case you may need to talk to a counselor after taking the survey, though this is not an endorsement of the following free online counseling service, you may contact <http://www.onlinecounseling4u.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: DEMOGRAPHIC ITEMS

Demographic Items

1. What is your gender?

Male Female Other

2. What is your age?

3. What is your race?

Caucasian/White African American
 American Indian or Alaska Native
 Asian Native Hawaiian or other Pacific Islander
 Hispanic, Latino, or of Spanish Origin Other

4. What sexes are you attracted to?

Men only Women Only Men and Women Neither Men nor Women

5. 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

6. Employment Status: Are you currently...?

Employed for wages Self-employed Not employed
 A homemaker A student Military
 Retired Unable to work

7. 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			

8. How many times have you been married?

Never married	Once	Twice	Three times	More than three times
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9. How long have you been married to your current spouse (leave blank if never married).

0-5 years	6-10 years	11-15 years	16-20 years	More than 20 years
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10. 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
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Married/Life Partner	Married, but Legally Separated
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Divorced	Widowed
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11. 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
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12. 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
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Jehovah's Witness	Muslim	Hindu
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Jewish	Buddhist	New Age/Wiccan
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Taoist	None	Other
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APPENDIX C: ITEMS MEASURING PORNOGRAPHY USE

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?

APPENDIX D: PERMISSION TO USE CBOSB SCALE

Permission to Use the Cognitive and Behavioral Outcomes of Sexual Behavior Scale

RE: Requesting permission to use the Cognitive and Behavioral Outcomes of Sexual Behavior Scale

Mc Bride, Kimberly <Kimberly.Mcbride@UToledo.Edu>

Tue 10/17/2017 8:13 AM

To: Phillips, Lucy <lphillips14@liberty.edu>;

Hello Lucy,

Thank you for your email. I am pleased that you are interested in using the CBOSBS in your research. You have my permission.

I wish you the best of luck!

Dr. McBride

From: Phillips, Lucy [lphillips14@liberty.edu]

Sent: Sunday, October 15, 2017 3:11 PM

To: Mc Bride, Kimberly

Subject: Requesting permission to use the Cognitive and Behavioral Outcomes of Sexual Behavior Scale

Hello Dr. Mc Bride,

I am a Ph.D. student in Counselor Education and Supervision at Liberty University. For my dissertation, I will be studying pornography users and the negative outcomes that they experience related to viewing pornography. I am interested in using the Cognitive and Behavioral Outcomes of Sexual Behavior Scale that you developed. Would it be possible for me to use the CBOSBS in my research? Thank you in advance for considering this request. Please do not hesitate to contact me if you have any questions about this research.

Regards,
Lucy Phillips

Lucy C. Phillips, M.A., LCPC (Maryland), LPC (Texas)
lphillips14@liberty.edu