

ADOLESCENT SEXTING: AN EXAMINATION OF THE PSYCHOSOCIAL
CONTRIBUTIONS TO THE CREATION AND SHARING OF SEXUAL IMAGES

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	ix
LIST OF FIGURES	ix
ABSTRACT	x
CHAPTER 1: INTRODUCTION	1
PREVALENCE OF SEXTING	4
VIEWS ON ADOLESCENT SEXTING	6
WHAT WE KNOW ABOUT SEXTING (AND WHAT WE DO NOT)	8
GOALS OF THE PRESENT STUDY	12
SIGNIFICANCE OF THIS WORK	15
ORGANIZATION OF THE DISSERTATION	16
CHAPTER 2: LITERATURE REVIEW	17
SEXTING ACTIVITIES AND THE THEORY OF REASONED ACTION.....	17
WHY DO ADOLESCENTS PARTICIPATE IN SEXTING?	21
<i>The Online Disinhibition Effect</i>	21
<i>Considering Sexting in Relation to Adolescents' Psychosocial Development</i>	29
<i>Summary and Hypotheses</i>	33
THE SEXUAL DOUBLE STANDARD	35
<i>Evidence of a Mediated Sexual Double Standard</i>	38
<i>Impact of the Mediated Sexual Double Standard</i>	42
<i>Summary and Hypotheses</i>	45
OBJECTIFICATION THEORY	47

<i>Mediated Sexual Objectification</i>	48
<i>Mediated Sexual Objectification Effects</i>	54
Effects on Women	54
Effects on Men	60
<i>Applicability of Objectification Theory to Adolescents</i>	65
<i>Sexualization</i>	68
<i>Sociocultural Attitudes of Appearance</i>	70
<i>Summary and Hypotheses</i>	71
CHAPTER 3: METHOD	75
DESIGN	75
SAMPLE	75
PROCEDURES	77
PRE-TEST	78
MEASURES	78
<i>Control Variables</i>	78
Age	79
Need for Popularity	79
Sexual Activeness Experience	80
Parental Control	80
Access to Mobile Technology	80
<i>Criterion Variables</i>	80
Sexting Behaviors	81
Sexting Attitudes	81
Sexting Intentions	82
Sexting Subjective Norms	82

Perceived negative/positive risks/consequences	83
<i>Predictor Variables</i>	83
Online Disinhibition	83
Personal Fable Beliefs	84
Imaginary Audience Beliefs	85
Support of Legal/Social Sanctions for Girls and Boys Who Sext	85
Acceptance of Women as Sex Objects	86
Trait Self-Objectification.....	86
Sociocultural Attitudes Toward Appearance/Media Beliefs	87
Internalization of Sexualization.....	87
Data Analysis.....	88
CHAPTER 4: RESULTS	89
DESCRIPTIVE STATISTICS	89
RESEARCH QUESTIONS AND HYPOTHESES.....	91
<i>H1a-d: Higher Levels of Online Disinhibition Will Positively Predict Sexting</i>	91
<i>RQ1a-c: Will Online Disinhibition Predict Each Type of Sexting Activity?</i>	93
<i>H2a-d: The Relationships Predicted in H1a-d are Moderated by Personal Fable Beliefs</i> ...	94
<i>RQ2a-d: Are the Relationships Predicted in H1a-d Moderated by Imaginary Audience Beliefs?</i>	96
<i>RQ3: Will There be Gender Differences in Sexting?</i>	98
<i>RQ4: Will There be Gender Differences in Sexting Activities?</i>	98
<i>RQ5: Will There be Gender Differences Regarding the Consequences of Sexting?</i>	99
<i>RQ6a: Will Adolescents Support Stricter Peer and Legal Sanctions for Girls or Boys?</i>	99
<i>RQ6b: Are there Gender Differences in Support of Peer and Legal Sanctions?</i>	100
<i>H3a-d: Self-Objectification Will Positively Predict Sexting for Girls.</i>	101

<i>RQ7a-d: Does Gender Moderate the Relationship Between SO and Sexting?</i>	103
<i>H4: SO Will Mediate the Relationship Between ISS and Sexting</i>	104
<i>RQ8: Do Sociocultural Beliefs About Attractiveness Portrayed in the Media Predict Sexting?</i>	106
<i>RQ9: Does SO Mediate the Relationship Between Sociocultural Beliefs About Attractiveness Portrayed in the Media and Sexting?</i>	108
<i>RQ10a-d: Will SO Predict Sexting for boys?</i>	109
<i>H5a: Acceptance of Women as Sex Objects Will Predict Sexting</i>	110
<i>H5b: The Relationship Between Acceptance of Women as Sex Objects and Sexting Will be Moderated by Gender</i>	111
CHAPTER 5: DISCUSSION	113
REVIEW OF FINDINGS	113
<i>Online Disinhibition</i>	113
<i>Gender Differences and the Consequences of Sexting</i>	119
<i>Self-Objectification</i>	124
IMPLICATIONS	130
<i>Theoretical Implications</i>	130
<i>Practical Implications</i>	134
LIMITATIONS AND FUTURE DIRECTIONS.....	136
CONCLUSION	139
REFERENCES	141
APPENDICES	168
APPENDIX A: QUESTIONNAIRE	168
APPENDIX B: SCHOOLS RECRUITMENT PACKET.....	188
APPENDIX C: TEENS RECRUITMENT SCRIPT	192
APPENDIX D: PARENTAL CONSENT FORM	193

APPENDIX E: ASSENT FORM.....	195
VITA	197

LIST OF TABLES AND FIGURES

TABLES	159
1. DESCRIPTIVE STATISTICS OF VARIABLES, BY GENDER	159
2. ZERO-ORDER CORRELATIONS BETWEEN PREDICTOR AND CRITERION VARIABLES.....	161
3. ZERO-ORDER CORRELATIONS BETWEEN CONTROL AND CRITERION VARIABLES	161
4. HIERARCHICAL MULTIPLE REGRESSION ANALYSES PREDICTING SEXTING VARIABLES FROM ONLINE DISINHIBITION	163
5. HIERARCHICAL MULTIPLE REGRESSION ANALYSES PREDICTING SEXTING ACTIVITIES FROM ONLINE DISINHIBITION.....	163
6. HIERARCHICAL MULTIPLE REGRESSION ANALYSES PREDICTING SEXTING VARIABLES FROM SELF-OBJECTIFICATION FOR FEMALE PARTICIPANTS.....	164
7. HIERARCHICAL MULTIPLE REGRESSION ANALYSES PREDICTING SEXTING VARIABLES FROM SATAQ	164
8. HIERARCHICAL MULTIPLE REGRESSION ANALYSES PREDICTING SEXTING VARIABLES FROM ACCEPTANCE OF WOMEN AS SEXUAL OBJECTS	165
FIGURES	166
1. RESULTS OF H1 POST HOC ANALYSIS	166
2. RESULTS OF H3 POST HOC ANALYSIS	166
3. RESULTS OF H4 MEDIATION MODEL, FOR FEMALE PARTICIPANTS	167

ABSTRACT

Sexting, typically defined as the sending, receiving, or forwarding of sexually explicit or suggestive messages or images through cell phones and other mobile devices, is a popular activity among adolescents and is becoming a part of the dating process. Societal concerns about adolescent sexting range from moral panic to legality issues. Similarly, much existing research on sexting centers on legal issues or bullying, while less research considers the health implications of sexting. The most recent research has begun to examine the associations between media socialization and sexting. It is important to understand the various predictors of sexting; this could inform intervention programs centered on this phenomenon. Thus, this study examined the psychosocial predictors of adolescent sexting, focusing specifically on developmental, gendered, and technological explanations. After a pre-test of 220 college-age individuals was completed in order to determine the positive and negative consequences of sexting, a cross-sectional survey of 201 Midwestern adolescents aged 14-17 was conducted.

Results showed that higher levels of online disinhibition positively predicted sexting intentions, subjective norms, and behaviors, yet it did not predict sexting attitudes, and these relationships were not moderated by personal fable beliefs or imaginary audience beliefs. Higher levels of online disinhibition also positively predicted the receiving and requesting of sext messages, but not the sending of sext messages. The second set of analyses showed gender differences in sexting: boys had more favorable attitudes about sexting, girls perceived higher levels of subjective norms of sexting, yet there was no difference between sexting intentions or behaviors between boys and girls. Additionally, boys requested sext messages more than girls, but boys and girls were

equally likely to send and receive sexting messages. Results also showed that girls received more negative consequences for sexting, while boys received more positive consequences regarding sexting, and boys felt more strongly that girls should receive the negative consequences of sexting compared to girls. Finally, the acceptance of women as sex objects predicted positive sexting attitudes and intentions to sext, but this relationship was not moderated by gender. The third set of analyses showed that higher levels of trait self-objectification positively predicted favorable attitudes about sexting, sexting intentions, and sexting subjective norms for girls, and that self-objectification mediated the relationship between internalization of sexualization and sexting attitudes. Self-objectification did not predict any of the sexting variables for boys, but sociocultural beliefs about attractiveness portrayed in the media positively predicted sexting attitudes, intentions, and subjective norms for boys. The results of this study can usefully inform educational and targeted intervention programs regarding sexting risks.

Chapter 1: Introduction

“We make ourselves seem like . . . down to fuck. We make ourselves seem like we’re up for anything. And in a way, all of this Internet stuff sort of traps you. You’ve started an alter ego that has to be maintained, and has to be real in a way. So, yeah, I mean it does kind of shape how you end up, and how you are in real life” (Bauer, Gradus, & Huckabee, 2012). Winnifred Bonjean Alpart spoke these words in *Sexy Baby*, a documentary about sexiness in the cyber age. Winnifred is a 12-year-old girl living in New York City who is navigating her way through a world saturated with sex, social media, and technology. She is a smart, creative, and driven girl who enjoys gymnastics and acting. As she starts to transition into the teenage years, she expresses thoughts and feelings typical for adolescents: losing interest in her hobbies, feeling different and uninteresting, feeling that her parents do not love her anymore, and “needing” to hook up with somebody. She loves social media and Facebook, and she knows the importance of posting attractive and sexy pictures of herself. Winnifred states that who you are on Facebook is who you want to be, and not who you really are, yet she also describes the complex interplay between an online and offline identity.

Winnifred’s experience of adolescence in a sex- and Internet-saturated culture is not necessarily unique. Adolescents, particularly girls, realize the importance of being sexy (Tolman, 2009) and they may experiment with their sexuality through taking photos of themselves and posting them online via social media or through “sexting” by sending them to individuals via mobile device (Dir, Coskunpinar, Steiner, Cyders, 2013).

Although teens may be aware of the risks of sharing sexy images, the cultural importance placed on being sexy and the adolescent need for intimacy or popularity may outweigh the risks. As publicized in news accounts, one of the risks associated with sexting is experiencing subsequent bullying. In 2009, Jessica Logan and Hope Witsell both committed suicide after they were bullied about sexts that were made public (Celzic, 2009; Inbar, 2009). Jessica Logan had shared nude photos with her boyfriend, and after they broke up he shared the photos with other girls at school. She was bullied by being called names like "slut" or "whore," and people threw various objects at her at school. Jessica started skipping school, and eventually she hanged herself in her closet. Hope Witsell was only 13 when she texted a picture of her breasts to her boyfriend. Allegedly another girl was on the boyfriend's phone and forwarded the picture to many people. Hope was verbally and physically bullied, and eventually hanged herself with her favorite scarves in her bedroom (Kaye, 2010).

These stories describe the more severe consequences of sexting, typically defined as the sending, receiving, or forwarding of sexually explicit or suggestive messages or images through cell phones and other mobile media (Chalfen, 2009). Sexting is a popular activity among adolescents and is becoming a part of the dating process (Lenhart, 2009). Societal concerns about adolescent sexting range from moral panic to legality issues. The previous stories highlight the moral panic surrounding sexting; the condoms in the locker prank shows the assumption that one is having sex if he or she is sexting. Being called "slut" or "whore" implies that one is having sex with multiple partners. Legality issues also surround sexting because if the subject of the nude photos is under 18, it is considered child pornography. Anyone distributing these photos, including the initial

sender, can be charged with the crime of distributing child pornography (Herbeck, 2009). Sexting is a growing issue for schools to deal with (Day, 2010), and many schools must make their own rules about cell phones in the classroom.

Indeed, adolescent sexting is largely viewed as a problem by parents, educators, and researchers because of concerns about bullying, legality, or sexual activity that may be accompanying sexting. However, some scholars have challenged this view. For example, Levine (2013) argues that fear about young adults' sexuality should not be spread and that young adults are in the prime of sexual development so it makes sense that they would want to participate in sexting. Hasinoff (2012) argues that if consensual sexting were considered to be a creative form of self-expression and as an agentic act of media production, then instead of criminalizing teens, developing ways to protect individuals from unauthorized sharing of images would be the appropriate focus. Thus, it is possible that views on adolescent sexting may begin to shift.

The present study will examine adolescent sexting, including behavioral intentions, attitudes, and subjective norms about sexting from a new media, gendered, and self-objectification point of view. Although research has examined sexting in the contexts of the law, bullying, and the sexual activity that may accompany sexting, the current research will take a socio-cultural approach to exploring this phenomenon. Specifically, predictors of sexting and intentions and attitudes about sexting will be examined. Taking a socio-cultural approach to this issue can help researchers to understand the issue in a new light that could eventually inform effectively tailored interventions.

In this chapter, I will briefly describe varying estimates of adolescent sexting prevalence, the differing views on the dangers or benefits of adolescent sexting, and extant research on sexting. Then I will present my own questions about adolescent sexting after identifying gaps in the literature and describing the significance of my work.

Prevalence of Sexting

Reports on the prevalence of sexting among adolescents and young adults range from 2.5% to upwards of 25%. For example, Mitchell, Finkelhor, Jones, and Wolak (2012) conducted a survey of a national sample of youth Internet users in the United States ranging from 10-17 years of age, and found that 2.5% had sent sexual images of themselves and 7.1% had received sexual images. However, it is important to consider that this survey was conducted over the phone while parents were home, so these findings could underestimate the prevalence of sexting because the participants may have felt nervous about getting in trouble or embarrassed about their answers. Strassburg, McKinnon, Sustaita, and Rullo (2013) have argued that the Mitchell et al. (2012) findings are misleading because the 2.5% statistic includes younger adolescents. When considering just the adolescents who were 15-17 years of age, 15% had sent sexts. Similarly, Mitchell et al. (2012) claimed that the other studies that yielded higher percentages of adolescent sexting are flawed, arguing that other studies do not assess the problem from a policy perspective. Mitchell and colleagues defined sexting to be limited to full nude images that would be considered child pornography, and their estimates are markedly lower than others and are presented in such a way that minimizes adolescent participation in sexting.

Most studies report a higher prevalence of adolescent sexting. In the oft-cited Pew Internet study of a U.S. national sample of 800 teens aged 12-17 (Lenhart, 2009), 4% reported sending sexting images, and 15% reported receiving sexting images. When just considering 17 year olds, 8% sent sexts, while 30% report receiving sexts. In another study, Dake, Price, and Maziarz (2012) conducted a survey of students aged from 12-18 in 36 middle schools and 36 high schools in a Midwestern state. The survey was a general health assessment and featured the CDC's Youth Risk Behavior Survey. Overall, 17% of reported having participated in sexting; only 3% of those aged 12 participated, while 32% aged 18 participated. Sexting participation doubled from the 12 to 13 year olds, and again from the 13 to 14 year olds. Of the 15 year olds, more than one in five (22%) participated. This study usefully provides a snapshot of how sexting among adolescents grows rapidly over a period of a couple of years.

In another study of 606 high school students from a private school in the southwestern United States, 18% of participants had sent a sext image while 39% had received an image (Strassberg et al., 2013). When considering just seniors, one-quarter had sent sexts, and over half had received sexts. Males were more likely to report sending and receiving sexts.

The prevalence of sexting is even higher for young adults. Gordon-Messer, Bauermeister, Grodzinski, and Zimmerman (2013) surveyed 3,447 young adult Internet users aged 18-24. Results showed that 30% had sent sexts, and 40% had received sexts. Benotsch, Snipes, Martin, and Bull (2013) measured overall engagement of sexting in their survey of 763 young adults attending a large public university, and found that 44% participate in sexting. Thus, sexting grows in popularity with age from the adolescent

years to the young adult years. Although sexting is more popular for young people, even elderly people are partaking in sexting (Leshnoff, 2009).

The estimates are so widely varying because of the ages of the people surveyed and because of the way that sexting was operationalized in the various studies. For example, Mitchell et al. (2012) had a limited conceptualization of sexting, only including fully nude photographs that would be considered pornography. Conversely, other studies (e.g., Dake et al. 2012; Gordon-Messer et al. 2013; Lenhart, 2009) considered partially nude or suggestive images to be sexting. Sexting will be defined liberally in the present study, in line with the majority of existing work. In particular, the Pew Internet and American Life Project's definition of sexting (Lenhart, 2009) will be used, defining sexting as sending, receiving, or requesting sexually suggestive nude or nearly nude photos or videos. Thus, the current project excludes word-only texts from the definition of sexting.

One common theme throughout each of these studies is that people are at least twice as likely to report receiving sexts than sending them. Perhaps it is easier to admit to receiving sexts than sending sexts. Researchers studying sexual behaviors generally assume underreporting from participants, but this may be even more exaggerated for adolescent girls (Brener, Billy, & Grady, 2003). Nevertheless, it is apparent that sexting is an activity that a considerable amount of adolescents are participating in, and thus is worthy of examining.

Views on Adolescent Sexting

Concerns about sexting have been buttressed by the media, in everything from news reports to entertainment media. As the stories discussed in the beginning of this

chapter illustrate, many media reports focus on suicides or bullying/cyberbullying resulting from sexting, or on the potential legal ramifications of sexting. Similarly, much existing research centers on legal issues or bullying surrounding sexting (Dake, et al. 2012; O’Keefe & Clark-Pearson, 2011), while less research considers the health implications of sexting (Benotsch, et al. 2013). And although some scholars have considered the psychological impacts of sexting, few studies have been carried out to actually test these psychological implications. For example, Strassberg et al. (2012) considered the suicides previously mentioned and concluded, “while such consequences are extreme and are likely rare, they illustrate, at least, the end point of a continuum of possible psychological risks associated with sexting” (p. 17). Nevertheless, Strassberg and colleagues did not measure any psychological constructs in their study and instead focused on the prevalence of sexting.

On the whole, news media professionals and researchers have problematized adolescent sexting. Both parties express concern about the various risks associated with sexting. However, some scholars have challenged this view. Hasinoff (2012) argued that we should consider sexting as creative sexual self-expressive media production that can be pleasurable. She suggests that consensual sexting could help adolescents to explore their identity and sexualities. Dake et al. (2012) suggest that future research may consider that sexting could be beneficial for some teens, and that it might be a safe way for them to explore sexuality without actually engaging in sexual activity. Building on this idea, we might consider that sexting is a way for adolescents to experiment with sexuality without immediate risk of sexually transmitted disease or non-consensual sexual acts. Furthermore, based on the psychosocial developmental research previously

mentioned, sexting is developmentally appropriate; adolescents begin to feel a need for intimacy and are preoccupied with their changing bodies.

What We Know About Sexting (And What We Do Not)

The majority of existing research focuses on the prevalence, demographics, or predictors of sexting, the legal issues surrounding sexting (e.g., Arcabascio, 2010; Calvert, 2009; Ostrager, 2010; Wolak, Finkelhor, & Mitchell, 2012), or sexual and other risk behaviors associated with sexting (e.g. Benotsch et al., 2013). Some research has explored sexting and psychological health (e.g. Dake et al., 2012). As sexting is a relatively new phenomenon, much of the literature is exploratory in nature.

For example, research focused on identifying predictors of sexting shows that extraversion, neuroticism, low agreeableness, and being in a romantic relationship are predictors, while sensation seeking surprisingly is not (Delevi & Weisskirch, 2013). Other predictors are self-perceived other-sex popularity, need for popularity (Abeele, Campbell, Eggermont, & Roe, 2014), having peers who sexted, being sexually active, and being non-heterosexual (Rice et al., 2012).

Some researchers have examined the relationship between sexting and other risky behaviors. For example, Dake et al. (2012) examined the prevalence of adolescent sexting and its relationship with various risky behaviors. The results showed that sexting was strongly correlated with other risky sexual behaviors (i.e. sex with multiple partners, not using contraception), and sexting was also correlated with risky substance use (alcohol, tobacco, marijuana). Benotsch et al. (2013) had similar findings: individuals who sexted were more likely to report risky substance use and risky sexual behavior. Gordon-Messer et al. (2013) found no relationship between sexting and sexual risk

behaviors in their study of young adults aged 18-24; perhaps the older age of the sample of participants is the reason for this. It is possible that both sexting and sexual behaviors are more widespread and normalized for young adults.

Several researchers have explored the relationship between sexting and emotional or psychological health. Dake et al. (2012) found associations between sexting and various emotional health issues like depression, attempted suicide, being bullied, forced intercourse, and physical abuse. Conversely, Gordon-Messer et al. (2013) found that sexting was not associated with depression, anxiety or self-esteem, in their survey of young adults.

Drouin, Vogel, Surbey, and Stills (2013) explored sexting in the context of young adults in different types of romantic relationships. Drouin et al. explored the content of sexts, the mediums used to sext, the types of romantic relationship in which sexting might be used and the motivations for sexting for young adults. Results show that sending texts rather than pictures was more popular, that text messages on cell phones was by far the most popular way to transmit sexual messages, and that individuals in all types of romantic relationships (committed, casual sex, and cheating) sexted, but people in committed relationships sexted the most and motivations varied across relationship type. In another study, Drouin and Landgraff (2012) examined the relationship between sexting and attachment style in young adults in committed romantic relationships, finding that those with an insecure attachment style were more likely to sext.

Other research on sexting has established a third person effect: that adolescents believe that sexting has a more harmful effect on others than on themselves (Wei & Lo, 2013). In another study by Dir and colleagues (2013), the role of expectancies for

sexting was explored. Results of a survey of undergraduate students revealed that males had stronger positive expectancies about receiving sexts, and that females had stronger negative expectancies. Additionally, participants reported that motivations to sext were to be fun and flirtatious or to experiment with sexuality.

One particularly relevant study examined sexting among 4453 Dutch adolescents and the incident characteristics of their interactions. Along with measuring the age and gender of the message sender, the familiarity of the sender, the frequency of Internet use, level of online disinhibition, parental mediation, psychological well-being, self-control, and experience with being cyberbullied were also measured. Data was collected via an online survey at school during class, and secondary schools were randomly selected for participation in the survey. Results showed that about a quarter of the sample had received online sexual requests, and while only less than one third of these individuals perceived the experience to be bothersome, females were more likely to report the experience as being bothersome. Only 3% of the participants had produced online sexual images. Results also revealed that receiving online sexual requests and perceiving this as bothersome was associated with being young, female, a higher level of online disinhibited behavior, a lower level of psychological well-being, and being cyberbullied. Exposing sexual body parts was associated with a high frequency of Internet use, a higher level of online disinhibited behavior, and lower levels of self-control. Exposing sexual body parts online and feeling bad about it was associated with a higher level of online disinhibited behavior and being cyberbullied. Finally, adolescents with higher levels of online disinhibition and lower levels of self-control were more likely to engage in sexting. The authors conclude by arguing that adolescents experience multifaceted and dialogic

online sexual interactions. This piece is especially relevant to the current study because the findings show that being female is associated with being involved in negative sexting experiences and having higher levels of online disinhibition makes one more likely to participate in sexting. This study supports the idea that there may be gender differences in experiences with sexting.

Finally, there is limited research that examines sexting from a critical gendered perspective. Ringrose, Harvey, Gill, and Livingstone (2013) consider gender inequity and sexual double standards surrounding sexting, taking a critical view of the results from a qualitative study of 35 adolescents. Based on interviews and focus groups, the authors found that girls find value in being asked for a picture of their bodies, whereas boys get value in collecting, rating, and sharing the images of the girls' bodies. Girls must navigate a delicate dance, as they will be slut-shamed if they acquiesce to sexting requests. The authors critique this sexual double standard by arguing that it is problematic, and urge that we need to address gender inequity issues by understanding and questioning them. Similarly, Walker, Sanci, and Temple-Smith (2013) interviewed 33 people aged 15 -20, and also found that gendered themes emerged. Girls were perceived as being responsible for any negative results following sending a sext, even though many times they were pressured or even coerced to do so, and girls who sexted risked putting their reputation on the line. Meanwhile, boys gained status and experienced other positive effects of sexting. Interestingly though, both girls and boys discussed feeling pressure to participate in sexting. Both of these studies stand to contradict previous formative studies that claim there are no gender differences in sexting practices (e.g., Dake, et al. 2012; Lenhart, 2009).

Based on the current state of literature, considerable research has revealed information about the predictors, demography, and legal issues surrounding sexting, but there are three major gaps in the literature. First, missing in existing literature is research that explores *why* adolescents participate in sexting. A new media theoretical lens will be employed to answer this question; theory created specifically for new communication technologies would be ideal for studying this relatively new phenomenon that involves mobile media. Additionally, adolescent's psychosocial development will be considered to explore why adolescents are compelled to sext. Second, although some scholars have considered the idea that there may be a double standard for boys and girls participation in sexting (e.g., Ringrose et al. 2013, Walker et al. 2013), more attention is needed. It is possible that the risks and consequences for participation in sexting are greater for girls than for boys, and that boys may be more inclined to request a picture while it may be taboo for girls to request a sexy photo. Studying sexting from the perspective of the sexual double standard will allow for an understanding of this phenomenon from a new and useful perspective. Third, missing in the existing research is the consideration that individuals are likely engaging in self-objectifying processes when they are creating a nude or nearly nude photo or video for someone else. Thus, objectification theory (Fredrickson & Roberts, 1997) is an ideal theory with which to examine sexting processes.

Goals of the Present Study

As previously explained, missing in the existing body of research is work that utilizes new media theory to examine sexting, Some of the research lacks theoretical grounding, and instead descriptively reports on the prevalence of sexting (e.g., Dake, et al.

2012, Strassberg, et al. 2013). Some of the research has strong theoretical grounding, but employs traditional mass communication theories like the third person effect (Wei & Lo, 2013), traditional psychological theories like attachment theory (Drouin & Landgraff, 2012), or other general theories such as expectancy theory (Dir et al. 2013). Therefore, a gap in the literature is that sexting has not been examined from a new media theory perspective. Smartphones may have aided in the new phenomenon of sexting, Thus, the recency of the sexting phenomenon brought about by the advent of new technology provokes the question; what is it about new media that promotes the sharing of sexual pictures? The current study seeks to fill this gap by considering the online disinhibition effect (Suler, 2004) as a theoretical tool to help elucidate why adolescents are willing to take the risk of participating in sexting. The online disinhibition effect suggests that people say and do things, like self-disclose more easily, that they would not ordinarily say and do in face-to-face situations; communicating online or through text allows people to loosen up. One may not feel comfortable to request a nude or sexy photo (or to see a person nude in the physical form) in person, but may feel disinhibited enough to ask the question from behind a screen in their own bedroom. Conversely, an individual may feel disinhibited when having a conversation through text and acquiesce to a request for a sexy photo, even when they may not have felt comfortable to do something like this in person. One may feel encouraged to take a sexy photo because of the ability to craft and edit an ideal picture, and additionally they may feel somewhat dissociated from themselves and consider a sext to be somewhat of a separate entity than themselves. Thus, it is useful to ask, do higher levels of online disinhibition predict sexting involvement?

More broadly, existing research lacks a theoretical base for examining *why* adolescents participate in sexting. In addition to considering this question from the new media theoretical perspective of the online disinhibition effect (Suler, 2004), I will examine adolescents' psychosocial development in relation to the propensity to take risks like sexting. Elkind's (1967) work on the consequences of egocentrism in adolescence and Erikson's (1968) work on identity development are especially relevant. Exploring these psychological mechanisms will help to explain why adolescents might still choose to participate in risky behavior even if they know what the potential consequences are.

Another gap in the literature is that more often than not, sexting is not studied from a gendered perspective, and some researchers report that there are no gender differences for sexters (e.g., Lenhart, 2009). Critical scholars (Ringrose et al. 2013, Walker et al. 2013) have questioned these assumptions and argue differently, purporting that sexting is influenced by gender dynamics and that girls in particular experience a sexual double standard such that they are encouraged to create nude pictures yet are often harassed and shamed when they do. I argue in accordance with these scholars that sexting practices are gendered and function on a system of sexual double standards. The sexual double standard in our culture is that sexual norms, attitudes and behaviors vary according to gender (Oliver & Hyde, 1993; Ward 2002). Specifically, for men and boys, sexuality is tolerated and seen as natural, and the importance of 'scoring' is emphasized. For women and girls, sexuality is controlled and restricted, although they are simultaneously expected to be sexually attractive (Aubrey, 2004; Ward, 2002). Women should be passive, and men should be active sexual aggressors, yet it is the job of women to stop or delay sexual activity from occurring. Media scholars have identified that the

sexual double standard exists and is promoted on television (Aubrey, 2004; Ward, 1995), and the same may be true for sexting. Thus, the present study seeks to examine sexting from a gendered perspective, predicting that involvement in and consequences of sexting differs according to gender. Are males more likely to initiate sexting? Are there more or worse consequences for participating in sexting for girls? Do adolescents support stricter peer and legal sanctions for girls who sext rather than boys who sext?

Furthermore, sexting has not been studied from a sexual objectification point of view (Fredrickson & Roberts, 1997). It cannot be overlooked that some individuals who participate in sexting may be engaging in self-objectifying processes. Self-objectification occurs when one takes an observer's perspective on the self by treating one's self as an object to be evaluated by others (Bartky, 1990; Fredrickson & Roberts, 1997). In other words, an individual that perceives their self to be objects for others' sexual pleasure may be acting on this self-perception when they create a sexy photo for another individual. Thus, objectification theory is a central grounding theory for this project. The present study seeks to test the hypothesis that higher levels of self-objectification will predict involvement in sexting, more so for girls.

Significance of This Work

This study will contribute to existing knowledge in several ways. As previously mentioned, the majority of research surrounding sexting focuses on the prevalence and demography of sexting, and other such descriptive information. In other words, much of the existing research lacks a strong theoretical base. A goal of this project is to view sexting from the theoretical point of view of the online disinhibition effect (Suler, 2004), the sexual double standard (Aubrey, 2004; Ward, 1995), and objectification theory

(Fredrickson & Roberts, 1997). Furthermore, much of the existing research is published in health, law, or general journals. Analyzing adolescent sexting from a media communication scholarly point of view seems appropriate and essential.

Organization of the Dissertation

This chapter attempts to demonstrate the importance of the adolescent sexting phenomenon, some potential risks associated with sexting, a brief overview of existing research on sexting and the tone of this research, and the goals of the present project. The following chapter will explore the literature and theoretical underpinnings of this study: new media theory, the sexual double standard, and objectification theory. The third chapter will detail the method of this study: a cross-sectional survey of adolescents. The fourth chapter will report the results. Finally, the fifth chapter will discuss the findings and offer theoretical and practical implications.

Chapter 2: Literature Review

There are four main theoretical areas and relevant literature that will be reviewed here. First, the Theory of Reasoned Action (Fishbein & Ajzen, 1975) will be the organizing theoretical framework used for general sexting practices, thus the theory will be reviewed first. Next, literature that allows one to broadly consider why adolescents participate in sexting will be reviewed. Specifically, the online disinhibition effect (Suler, 2004) and adolescent's psychosocial development will be considered in relation to sexting. The next section considers the consequences and risks of sexting and how they may be related to gender. Specifically, literature surrounding the sexual double standard will be reviewed in order to lay the groundwork necessary to consider whether girls may experience more consequences for participation in sexting than boys. And finally, objectification theory (Fredrickson & Roberts, 1997) and research surrounding sexually objectifying media and its effects will be thoroughly reviewed in order to address the question in this dissertation: is sexting an inevitable consequence of living in a highly sexualizing culture? After each body of literature, related research questions and hypotheses will be offered.

Sexting Activities and The Theory of Reasoned Action

It is first necessary to define sexting and to discuss the specific sexting activities that are of interest to the present study. Sexting is defined liberally as sending, receiving, or requesting sexually suggestive nude or nearly nude photos or videos (Lenhart, 2009). In terms of sexting activities, the actual behavior of sending and receiving of sexts is of interest, as well as a request for a nude or sexy photo or video. But it is also important to consider adolescents' attitudes and intentions about sexting, as this may be predictive of

future behavior. The theory of reasoned action (Fishbein & Ajzen, 1975) is an ideal theoretical and organizational tool in this instance. This theory provides a cognitive model for predicting behavior, and posits that attitudes and subjective norms lead to a behavioral intention, which in turn leads to a behavior. In other words, if a person has favorable attitudes about a behavior and there are perceived social pressures to perform a behavior, and person is likely to intend to carry out said behavior and thus eventually actually perform the act.

This theory is generally well supported by empirical research (Ajzen, 1991), and scholars in various disciplines have utilized it as a predictive tool to study a myriad of phenomena. Three studies that are particularly relevant to the current project will be reviewed here.

Gillmore, Archibald, Morrison, Wilsdon, Wells, Hoppe, Nahom, and Murowchick (2002) tested the applicability of the theory of reasoned action (Fishbein & Ajzen, 1975) to teen sexual behavior. Specifically, they were interested in understanding teens' decisions to have sex. A two-year longitudinal study was conducted in which data were collected twice. The data analysis included 749 students from a large northwest urban school district who were in grades 9-11 at the initial wave of data collection. Surveys were administered by interviewers, who read the questions aloud as participants followed along on their paper surveys and recorded their answers. Measures of the survey included sexual behavior, intentions to have sex, general attitudes toward sex, general norms about having sex, outcome beliefs (perceptions of how likely a given outcome is, and how good or bad the outcome is), and normative beliefs were measured. The results showed that general attitudes and general norms were associated with intentions, and, in

turn, intentions were associated with sexual intercourse. The models for boys and girls did not differ. The findings give support to the predictive power of the theory of reasoned action, and show that the theory is applicable and relevant to sex research.

Another study by Albarracin, Johnson, Fishbein, and Muellerleile (2001) that gives major support to the applicability of the theory of reasoned action (Fishbein & Ajzen, 1975) to predicting sexual behavior is a meta-analysis of 96 data sets that featured associations between the model's main variables that predicted condom use using the tenets of the theory of reasoned action and planned behavior (Ajzen, 1988). Overall, results showed that the theories of reasoned action and planned behavior were highly successful predictors of condom use. Specifically, condom use was associated with intentions, intentions were based on attitudes and subjective norms, and attitudes were associated with behavioral beliefs, and norms were associated with normative beliefs. The strength of these relationships was influenced by the consideration of past behavior.

Finally, Hudson (2011) used the theory of reasoned action (Fishbein & Ajzen, 1975) to identify attitudes and subjective norms toward sexting, sexting behavioral intentions, and sexting behaviors amongst undergraduate students, and to identify the relationships between these variables. Additionally, she wanted to see how self-esteem levels were related to these variables. Results from a cross-sectional survey showed that overall attitudes were positive about sexting, even though individuals were aware of the risks involved with sexting. Most participants perceived sexting to be "very common" or "fairly common" amongst women their age, and less common amongst men their age (with the exception of sharing/forwarding sexts), and most (80.9%) of the participants reported that they had engaged in sexting behavior in their lifetime. Results showed

significant correlations between all of the theory of reasoned action variables, with the relationship between behavioral intentions and behaviors, and regression models showed that the theory of reasoned action variables predicted sexting behavior. This study shows that the theory of reasoned action is a useful predictive tool for sexting, at least amongst undergraduate students.

These studies show that the theory of reasoned action (Fishbein & Ajzen, 1975) is a strong predictive tool for explaining sex-related behavior. Thus, the tenets of this theory will be applied to sexting. If a young person believes that sexting is cool and feels peer pressure to participate, then they may have intentions to sext and eventually send a nude or sexy photo. On the other hand, if one is heavily influenced by authority figures like parents, they may feel pressure to avoid participating in sexting, and thus have no intentions to send nude or sexy photos. Thus, the theory of reasoned action is highly applicable to the present study, and sexting dependent variables will be articulated with this theoretical guide: sexting attitudes, sexting intentions, sexting subjective norms, and sexting behaviors will be measured.

Why Do Adolescents Participate in Sexting?

This section begins with the articulation of Suler's (2004) online disinhibition effect. It describes some of the factors that may lead to online disinhibition and includes a discussion of the concept in relation to sexting. Next, adolescent psychology literature will be reviewed including Elkind's (1967) work on adolescent egocentrism and Erikson's (1968) work on identity.

The online disinhibition effect. As previously mentioned, new media theory is conspicuously missing from the sexting literature. As sexting involves the use of new(er)

technology, it is necessary to ask: what is it about this platform that promotes the exchange of sexual photos? Prior to the smartphone, there were other platforms that allowed the exchange of nude photos (i.e. Polaroid cameras), yet it was not a phenomenon like sexting is now. Thus, the online disinhibition effect (Suler, 2004) will be considered as a theoretical tool that may help elucidate what it is about the medium through which sexting occurs that encourages sexting. This theory helps to explain why one would be willing to take the risk of sending a nude or sexy photo.

Suler (2004) articulated the online disinhibition effect based on his prior research (Suler, 2003) and the research of others (e.g., Joinson, 1998; Joinson, 2001; Leung, 2002) that suggests that people present themselves differently online. They self-disclose more easily, and say or do things that they would not ordinarily say or do in face-to-face situations. Research about self-presentation online stems from Erving Goffman's (1959) work on self-presentation. Goffman argued that individuals perform identities in face-to-face (f-t-f) situations in order to make a particular impression on others, typically in socially favorable ways, Computer-Mediated Communication (CMC) scholars extend and expand on Goffman's work on f-t-f communication to communication online (i.e. Miller, 1995; Walther, 1996). Walther (1996) argues that the opportunities to make favorable impressions may be augmented in CMC, because of the ability to more selectively self-present. For example, individuals are freed of impressions formed from physical or vocalic attributes, and they are able to self-censor due to the asynchronous nature of most CMC. He calls this type of communication "hyperpersonal" and explicates this theoretical perspective through empirical studies (Walther, 2007; Walther, 2011).

Another study about self-presentation and CMC by Tidwell and Walther (2002) examined the effects of communication channels on self-disclosure, question-asking, and uncertainty reduction. Participants were 158 male and female students from a university. Participants were paired up with one member of the opposite sex, and they were instructed to get to know each other or to work on a solution to a decision-making problem in a face-to-face or computer-mediated setting with a partner that they had not previously met. After the conversations, participants completed short surveys assessing their impressions of their partner. The conversations were analyzed and coded by judges. Results show that uncertainty reduction theory is just as applicable to CMC situations as it is to f-t-f situations, with slight modifications to conversation to modify channel. Additionally, results suggest that individuals communicating via computer-mediated channels can and will develop personalized relationships characterized by intimacy; this is important because at the time there had been popular schools of thought that CMC was impersonal and that individuals could not be intimate via CMC. Finally, and most relevant to the present discussion, results showed that individuals communicating via CMC were more likely to ask more intimate questions and to disclose more than individuals in the f-t-f context, and this finding has been replicated (Antheunis, Valkenburg, & Peter, 2007).

While the self-presentation research reviewed thus far has dealt with the positive affordances of CMC, another important line of research explores the dark side of CMC such flaming and toxic online disinhibition. Kiesler, Siegel, and McGuire (1984) describe that “in computer subculture, *flaming* refers to the practice of expressing oneself more strongly on the computer than one would in other communication settings” (p.

1130). Kiesler et al. (1984) conducted three separate experiments in which three-person groups were asked to reach consensus on a problem in three different contexts: face-to-face, online anonymously, and online non-anonymously. Results from all three experiments showed that groups were equally task-oriented in all contexts, that group members participated more equally in the discussion in online contexts, and most relevantly that computer-mediated groups were more “uninhibited” than face-to-face groups as measured by uninhibited verbal behavior, “defined as frequency of remarks containing swearing, insults, name calling, and hostile comments” (p. 1129). This early research on disinhibition and flaming paved the way for future research,

A study conducted by Alonzo and Aiken (2004) helped to explain why individuals engage in flaming. They employed uses and gratifications theory (Katz, Blumler, & Gurevitch, 1973) to determine the motives to flame. Participants were 160 university students, who participated in a 15-minute face-to-face meeting session in a group of eight participants, while using an electronic gallery writing program. The meeting sessions were used to solve a problem (parking problem on campus), and the electronic gallery writing program was used so that individuals could comment anonymously about the issue and read others’ anonymous comments. Results show that sensation/disinhibition seeking was a motive to flame and that high-sensations seekers engage in flaming for entertainment and to pass the time. Anxiety was also found to be a predictor of flaming for escape and relaxation, and assertiveness predicting flaming for passing the time. Additionally, men flamed more than women and were far more likely to flame for entertainment than women.

The self-presentation online research reviewed set the groundwork for later research that explored why individuals are disinhibited and tend to self-disclose more online as compared to offline communication. Joinson's (1998; 2001) work is particularly important in the present discussion. His work published in 2001 details three studies that test the notion that people disclose more information in CMC than in f-t-f communication. All three studies involved participants that were undergraduate students who were awarded course credit for their participation. Study 1 ($N = 40$) involved dyads of participants communicating in either f-t-f or CMC environments in order to solve a dilemma. Results showed that dyads in the CMC condition disclosed significantly more about themselves than dyads in the f-t-f dyads. Study 2 ($N = 42$) involved a procedure similar to study one, in which dyads of participants solved a dilemma in one of two conditions: visually anonymous or visually non-anonymous (a video conferencing system was utilized). Results show that dyads in the anonymous condition self-disclosed significantly more than dyads who could see each other while communicating. Study 3 ($N = 84$) involved private and public self-focus being experimentally manipulated during CMC, and the impact on self-disclosure was measured. Results show that dyad-based CMC private self-awareness led to significantly higher levels of self-disclosure than public self-focus. This study shows strong support for the notion that people are disinhibited when communicating online, and gives support for the idea that anonymity could be one of the reasons for this disinhibition.

Based on this research, Suler (2004) offered the online disinhibition effect, arguing that being online allows people to loosen up and express themselves more openly, both in positive and negative ways. He describes benign disinhibition as involving

sharing personal things, revealing emotions, or being kinder or more generous than usual. On the other hand, toxic disinhibition involves being overly rude, hateful, or threatening, or exploring the dark places of the Internet, like sites involving crime or violence, that they would not be involved with in the offline world. In the context of the current study, sharing personal images with another person may be conceptualized as being more benign than toxic disinhibition, whereas some of the potential consequences of sexting, like cyberbullying, may be conceptualized as toxic disinhibition

Suler (2004) theorized six factors that cause or lead to disinhibition: dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, and minimization of authority. These factors help to explain why people engage in online disinhibition. First, dissociative anonymity is the idea that people are relatively anonymous online, and, through a process of dissociation, their online self can become separate from their offline self. Through this process, individuals do not have to fully own their own online behavior. Second, invisibility can be related to anonymity in that people cannot be seen in some forms of digital communication, but even when identities are known, individuals do not have to worry about how they appear or sound when they type a message. Most related to the present study is that the invisibility of digital communication frees individuals from having to worry about how others appear or sound in response to a message; “seeing a frown, a shaking head, a sigh, a bored expression, and many other subtle and not so subtle signs of disapproval or indifference can inhibit what people are willing to express” (p. 322). Third, this communication is asynchronous. Not having to deal with others’ immediate reactions disinhibits people. Fourth, Suler theorized that solipsistic introjection is another factor that helps to explain why people

engage in online disinhibition. According to Suler (2004), solipsistic introjection occurs when individuals feel that “their mind has merged with the mind of the online companion. Reading another person’s message might be experienced as a voice within one’s head, as if that person’s psychological presence and influence have been assimilated or introjected into one’s psyche” (p. 323). This experience helps an unknown person to become easily known and to be perceived as similar to the subject engaging in solipsistic introjection. Fifth, dissociative imagination occurs when people dissociate online fiction from offline fact. In other words, one may consider their online life to be completely separate from their offline life; rules and norms that apply to offline life may not seem to apply in online life. Finally, the online world is a place in which cues on one’s power authority (e.g., dress, body language) do not exist. Thus, the reduced cues environment leads to a minimization of status and authority.

These six factors articulated by Suler (2004) offer a way for one to understand why people may engage in online disinhibition. The present study will consider the general tendency to be disinhibited and what role this disinhibition may play in adolescents’ sexting behaviors, intentions, attitudes, and subjective norms.

Although the online disinhibition effect (Suler, 2004) was originally conceived to account for behavior on the Internet, it is also relevant to sexting and online communication in general. Although obviously one cannot be anonymous while sexting with another individual, he or she may feel that because they are not physically present with the other person, they are somehow separate or not responsible for their actions. When sending a sext, the individual can take plenty of time to prepare and edit the picture, without the recipient knowing. In this way, individuals can manipulate lighting and

angles in order to create a photo that may conform to the ideal of what is considered sexy. This may be a major reason for wanting to create and share sexy photos. Finally, not having to deal with others' immediate reactions may be calming to a person who is having one of his or her first sexual experiences; he or she may avoid feelings of embarrassment the immediate threat for unwanted sexual advances. These factors are also applicable to one who sends a request for a nude or sexy picture. Individuals may feel more comfortable initiating a request for sexy pictures when texting with someone than they would in person, due to disinhibition.

While the online disinhibition effect makes intuitive and logical sense, empirical research utilizing it is somewhat scant. Schouten, Valkenburg, and Peter (2007) test the relationship between disinhibition and online self-disclosure in their study exploring processes underlying adolescents' online self-disclosure; they refer to these processes as the Internet-attribute-perception model. They surveyed 1,203 male and female Dutch adolescents and used structural equation modeling to test their predictions. Results showed that adolescents' perceptions of the relevance of controllability and reduced nonverbal cues encouraged feelings of disinhibition. Furthermore, disinhibition predicted self-disclosure, whereas all other variables in the model were only indirectly related to self-disclosure. Although they drew heavily from Walther's (1996) research on hyperpersonal communication theory for their study, the results give some empirical support for the online disinhibition effect, specifically in the context of an adolescent population.

A study by Lapidot-Lefler and Barak (2012) gives support to some of the factors that Suler (2004) theorized to cause online disinhibition. These researchers were interested in toxic disinhibition specifically, and focused on anonymity, invisibility, and

lack of eye contact as three distinct predictors of toxic disinhibition. They conducted an experiment ($N = 142$) with a 2x2x2 factorial design based on the three predictors of toxic disinhibition. In typical fashion, dyads were presented with a dilemma and were asked to debate via online chat. Results show that lack of eye-contact was the chief contributor to the negative effects of online disinhibition (i.e. flaming), over anonymity and invisibility. Based on the results, the authors argue that previous research has conceived of anonymity too broadly and has not considered some of the other online factors, like lack of eye-contact, which might impact online disinhibition. They suggest that an “online sense of unidentifiability” may be a more refined way to explain how anonymity can lead to disinhibition.

A study by Udris (2014) gives major support to the online disinhibition effect, and provides a thorough and usable scale with which to test online disinhibition. For this study, 887 Japanese adolescents took a survey about cyberbullying. The survey included Udris’s proposed Online Disinhibition Scale (ODS), which was developed using Suler’s (2004) theoretical framework of the Online Disinhibition Effect. Results show that online disinhibition predicted cyberbullying; Udris argues that this shows that technology can affect behavior in cyberspace, with possible negative consequences. Furthermore, EFA and CFA were conducted to validate the scale. EFA yielded two factors: benign disinhibition and toxic disinhibition, and CFA supported the two factor solution as an acceptable model fit. The ODS scale will be employed in the present study.

Finally, as previously mentioned, Kerstens and Stol (2014) examined sexting among 4,453 Dutch adolescents and found that receiving online sexual requests and perceiving this as bothersome was associated with being young, female, a higher level of

online disinhibited behavior, a lower level of psychological well-being, and being cyberbullied. Exposing sexual body parts was associated with a high frequency of Internet use, a higher level of online disinhibited behavior, and lower levels of self-control. Exposing sexual body parts online and feeling bad about it was associated with a higher level of online disinhibited behavior and being cyberbullied. This study suggests that levels of online disinhibition do play a factor in sexting participation, and the present study will build on this work by testing if levels of online disinhibition influence the decision making process about participating in sexting.

Considering Sexting in Relation to Adolescents' Psychosocial Development

Because the present study examines sexting in adolescents, it is important to recognize that adolescents constitute a unique population that is undergoing psychological developmental phases. Thus, to understand how sexting dovetails with adolescents' psychosocial development, I discuss the work of David Elkind and Erik Erickson, two important adolescent development theorists.

First, to understand how adolescent development is related to the propensity to take risks, the work of Elkind (1967), who focuses on egocentrism in adolescence, is most relevant. According to Elkind, in adolescence, individuals develop a conquest of thought; that is, adolescents develop the ability to conceptualize their own thought and to consider the thought of others. Although this ability to conceptualize own and other thought is essential to development, the problem is that an adolescent fails to realize that others are not as preoccupied with his or her appearance and behavior as he or she is.

Elkind (1967) identified two consequences of adolescent egocentrism: the development of an imaginary audience and a personal fable. The idea of an imaginary

audience is that adolescents continually react to what they anticipate others may think of their behavior or appearance. They believe that others are as admiring or as critical of them as they are of themselves. In present times, social media and other mobile media can only fuel the feeling of an imaginary audience, as there are many people that could potentially be interested in a Facebook post, Instagram picture, or tweet. While continually anticipating an imaginary audience, adolescents also believe that their circumstances and feelings are especially unique and cannot be understood by anyone, and that this personal uniqueness makes them invincible. This personal fable is the reason that many adolescents take risks and ignore precautions; they *understand* the risks and the precautions that they should take to avoid them, but ultimately feel invincible. In the context of the present study, we may consider that most adolescents know the risks of sexting (just like they know the risks of drunk driving or unprotected sex), but feel that potential negative repercussions will not happen to them.

It is important to note that the reliability and construct validity of the imaginary audience and the personal fable constructs are supported by research (Elkind & Bowen, 1979). In 2007, Alberts, Elkind, and Ginsberg developed a 12-item personal fable scale, and tested it on a sample of 6th, 7th, and 8th graders while also surveying them about risk-taking behaviors. The results show that as predicted, the personal fable scores increased with age as did risk-taking.

Second, to understand how sexting is related to adolescent identity development, Erikson's work on identity development in adolescence is relevant. Erikson (1968) considers human development from the perspective of "crises", and suggests that individuals re-emerge from crises with an increased sense of self and becomes a healthier

or more whole person. The term crisis is meant not as a catastrophe but as a crucial turning point of heightened vulnerability and potential, and weathering the crisis helps a young person to eventually grow into a whole person with a fixed identity. Erikson theorizes a series of crises that each person experiences in each stage of early life. Most relevant to the current work is the stage of adolescence. This stage is marked by the preoccupation with what others think and by genital maturation. In order to move out of the stage of adolescence, Erikson articulates that one must overcome a crisis of intimacy, which includes both sexual and psychosocial intimacy with another person. As Erikson states, “the youth who is not sure of his identity shies away from interpersonal intimacy or throws himself into acts of intimacy which are ‘promiscuous’ without true fusion or real self-abandon” (p. 135). Erikson describes that those who do not eventually experience intimacy will be marked by a deep sense of isolation and distantiation, which is “the readiness to repudiate, isolate, and if necessary, destroy those forces and people whose essence seems dangerous to one’s own” (p. 136).

Elkind (1967) argues that the previously discussed concept of the personal fable is overcome by Erikson’s crisis of intimacy:

Once the young person sees himself in a more realistic light as a function of having adjusted his imaginary audience to the real one, he can establish true rather than self-interested interpersonal relations. Once relations of mutuality are established and confidences are shared, the young person discovers that other have feelings similar to his own and have suffered and been enraptured in the same way. (p. 1032)

In the context of the current study, sexting could be considered an example of an adolescent attempt at sexual intimacy. From this perspective, sexting might be seen as a productive activity for adolescents because it matches up with their developmental stage. Attempting intimacy is healthier than isolation, and it is important to move past this crisis in order to move out of the stage of adolescence. This perspective provides some reasoning as to why young people would take the risk of sexting: indeed, it might feel risky yet completely essential to experience sexual intimacy at this age. Sexting may offer a somewhat safe and controlled environment to take a first step toward being intimate with another person. Perhaps the intense need to feel close to another person outweighs the potential risks.

Indeed, adolescents are more likely than individuals from any other developmental stage to participate in all types of risk-taking behavior (e.g., reckless driving, sex without contraception, illegal drug use, minor criminal activity) (Arnett, 1992). Assailly (2013) argues that the majority of risks taken in adolescence are exploratory and experimental, and that risk-taking is gendered in that males take more risks than females.

Thus, adolescent development theories and concepts are important to consider when conceptualizing how adolescents experience and think about sexting. Adolescents are experiencing a time when their bodies are changing rapidly, have heightened concerns about what peers think about them, crave emotional and sexual intimacy, and feel that they are invincible. These experiences vary according to gender, but the need to explore and experiment with newfound feelings is shared by all.

Summary and Hypotheses. This review attempts to lay groundwork for the question “why do adolescents participate in sexting?” The online disinhibition effect (Suler, 2004) generally helps to explain why one may loosen up or disclose more online than in offline situations. In the context of the present study, it helps to explain why young people may choose to send nude or nearly nude sexy images or videos to another person. Communicating via text message with another person helps an individual get to know another in a different and perhaps more intimate-feeling way than in offline life, and may allow one to open up and want to share intimate photos. Through the process of dissociation an individual's online self can become separate from their offline self, thus individuals may not fully own their own online behavior; sending a sexy photograph may not feel quite “real” or relevant to one’s everyday life. Additionally, the reduced cues and asynchronous environment of text messaging provides an individual with the opportunity to take as much time as needed to create an ideal sexy image (through makeup, props, lighting, filters, multiple attempts, etc.) while being free of immediate feedback from the receiver that may be stressful to some (i.e. a bored or negative facial expression). In other words, the text messaging may provide an ideal ground for sexually curious yet self-conscious young individuals, and those with a propensity to feel disinhibited while communicating online or via text may be more likely to participate in sexting activities.

With the online disinhibition effect (Suler, 2004) and its application to sexting and the theory of reasoned action (Ajzen & Fishbein, 1975) in mind, the following hypotheses and research questions are posed:

H1a-d: Higher levels of online disinhibition will positively predict sexting attitudes, intentions, subjective norms, and behaviors.

RQ1a-c: Will online disinhibition predict each type of sexting activity (sending, receiving, requesting)?

As previously described, Elkind's research shows that there are two consequences of adolescent egocentrism: the development of an imaginary audience and a personal fable. Believing that their circumstances and feelings are especially unique and cannot be understood by anyone and that this personal uniqueness makes them invincible is a personal fable experienced adolescents. Those who buy into this fable are likely to ignore potential negative risks of sexting because they believe that the rules do not apply to them or that the bad things that happen to other will not happen to them. Thus, the relationships predicted in H1a-d are likely to vary according to how much one buys into the personal fable, such that those who have strong personal fable beliefs and high levels of disinhibition are more likely to participate in sexting. Thus,

H2: The relationships predicted in H1a-d will be moderated by personal fable beliefs.

The idea that everyone is as concerned with one's actions as they are themselves, and that everyone is as admiring or as critical of them as they are of themselves, may also help to explain why adolescents participate in or avoid sexting. However, an imaginary audience could work to amplify the predictions in H1a-d or to minimize them. For example, the idea that one has an audience awaiting them could encourage an individual to create the perfect sexy photo and send it to someone. Conversely, the idea that one has an audience could discourage one from sending a sext because of the fear of many people

viewing an image intended for just one person. As such, the following research question is posed:

RQ2: Are the relationships predicted in H1a-d moderated by imaginary audience beliefs?

The Sexual Double Standard

The purpose of this section is to consider the risks and consequences of sexting and to question whether girls experience more risks and negative consequences than boys; is there a sexual double standard for sexting? The sexual double standard is the cultural belief that recreational sexual activity for men is permissible and even laudable whereas such activity for women is discouraged and restricted (Crawford & Popp, 2003; Muehlenhard, 1988). In other words, there are differing standards for sexual permissiveness for women and men (Reiss, 1967). In terms of the present study, it would be expected that girls would suffer more or worse consequences for participating in sexting than boys. This section begins with a review of general research on the sexual double standard. Next, research on the mediated sexual double standard is reviewed, followed by research examining the impact of the mediated double standard. Finally a summary and a brief discussion of potential sexting risks are presented, and hypotheses and research questions are posed.

Reiss (1960, 1964, 1967) conducted the first thorough studies on the sexual double standard. He was broadly interested in premarital heterosexual permissiveness, and he studied this topic from the multiple points of view of race, social class, age, religion, and parental attitudes/family characteristics. After a long line of research Reiss determined

that while it was a minority opinion, there was a double standard in terms of gender and sexual permissiveness.

Since Reiss's work, others have studied the sexual double standard in various contexts. For example, Hynie and Lydon (1995) explored women's perceptions of women's contraceptive behavior and their assumptions about men's attitudes toward female contraceptive use. These researchers were primarily interested in female contraceptive use and considered the sexual double standard as one barrier to women's desire to use contraceptives. The study was an experiment that 57 women participated in. The women were invited to participate in a "social memory" study in which they would read diary accounts of women. They were told that they could choose to read one of seven diary entries that were about various scenarios, but in actuality all women only had two options and were assigned to a sexual encounter scenario and a distraught friend scenario (this scenario existed to keep up the guise). There were three conditions in the sexual encounter scenario: one in which the man provided the condom, one in which the woman provided the condom, and no condom. After reading the diary entry, participants completed measures in which they rated the women in the scenarios on their personality traits, indicated their attitudes about the women's behavior, and some other miscellaneous measures included to keep up the guise of the study. Results show that the targets were rated most negatively when the woman provided the condom. Furthermore, participants assumed that the target's sexual companion would feel less positive about her when she provided the condom than if he provided the condom or they had unprotected sex. The authors argue that the results suggest that women believe that men socially derogate women who provide condoms, reasoning that women perceive social pressure to

appear sexually modest. Thus, women may feel discouraged to take the initiative to be sexually safe, and would have unprotected sex over providing a condom themselves. The authors argue that these results uncover a sexual double standard about sexual contraception; that there are not egalitarian standards for using or providing sexual contraception.

The sexual double standard has also been examined in the context of adolescent peer acceptance. Kaeager and Staff (2009) measured the social status of sexually permissive youth using existing data from the National Longitudinal Study of Adolescent Health, a nationally representative sample of adolescents in grades 7 to 12 collected from 1994-2001. Kaeagar and Staff created a peer acceptance outcome variable from the existing data, and their predictor variables were student-reported lifetime sexual partners, special romantic partners, non-romantic sexual partners, extracurricular activities, school performance, alcohol use, involvement in violence, whether they were new to the school, physical development and attractiveness, BMI, and demographics. Results show that although most of the covariates of peer acceptance were similar for boys and girls (e.g., sports memberships, BMI, social background) there were strong gender differences for sexual behavior: more sexual partners for boys was associated with boys' peer acceptance while more sexual partners for girls was negatively associated with girls' peer acceptance. The association for boys was strongest for boys of low socio-economic status. The researchers conclude that "boys with many sexual 'conquests' are thus expected to be well-liked at schools, while permissive girls are predicted to have low status in school-based networks" (p. 156). This research provides strong evidence in a natural setting and national sample that there is a sexual double standard in the adolescent population.

Perhaps the best evidence for a cultural sexual double standard is a review of 30 studies conducted over a 20-year period by Crawford and Popp (2010). Their review includes experimental studies, ethnographies, focus group studies, interview studies, and linguistic analyses. Their review shows that sexual double standards are influenced by situational and interpersonal factors as well as cultural and ethnic grouping factors. Overall, they conclude that there is plenty of evidence of the existence of different standards of sexual permissiveness for men and women.

Evidence of a Mediated Sexual Double Standard

There are likely a number of contributors to the development of the sexual double standard (e.g., conversations with peers, Andre, Frevert, & Schuchmann, 1989), but one area of research considers how television and other media contribute to these norms. This body of research will be reviewed here.

Media researchers have documented the sexual double standard on television. For example, Ward (1995) conducted a content analysis of themes about sexuality in television, through an examination of 20 popular prime-time programs among children and adolescents such as *Fresh Prince of Bel Air*, *Blossom*, *Full House*, and *The Simpsons*. For this study, the unit of analysis was segments of dialogue present during conversational turns that contained a message about sexuality, and each segment was coded as containing a message from one or more categories (a categorical coding system was created from a list of themes about sexuality; the system contained 17 categories). The categories from the coding system belong to two paradigms: one which asserts that there are three orientations to sexuality (recreational, relational/marital, and procreational), and the other which considers gender role norms and expectations in

relation to sexuality (ten dominant categories of male and female sexuality were created). The coding occurred in three waves: one in which the coders specified interactions, the second in which the interactions were searched for containing references to sexuality, and the third in which the segments were coded as belonging to one or more categories from the coding system. About 30% of the segments contained references to sexuality. Results show that in general, a recreational, rather than a procreational role for sex, was emphasized. There were more messages about the male sexual role than the female sexual role, and the most common theme for the male sexual role was that men typically see women as sexual objects and value them based on their appearance. The next most common themes for the male sexual role was that men are sex driven and they are always ready for sex, and that masculinity was equated with being sexual. There was less emphasis on the female sexual role, but the most common theme here was that women are attracted to specific types of men. Surprisingly, uncommon messages were that women are sexually passive and that women are sexual limit setters. This study unveiled some examples of the sexual double standard on television that adolescents viewed most.

Aubrey (2004) considered the sexual double standard in teen television programming, specifically in terms of sexual consequences. This content analysis expanded upon previous literature by recording the physical consequences of sex as well as emotional, social, and punitive consequences of sex (negative/positive), while specifically considering gender. The sample included 84 episodes of programs that were one hour in length, aired during prime time on a broadcast network, and that featured adolescent characters. Results show that negative consequences far outweigh positive consequences to sex, that sexual behaviors are more likely to be initiated by male

characters than female characters (although there was no significant difference for who initiated sexual dialogue), females received more negative consequences than male characters, and finally when females initiated a sexual reference they were more likely to receive a negative consequence than when male characters initiated a sexual reference. From a social cognitive theory (Bandura, 1994) perspective, Aubrey concludes that viewers may come to see men's sexuality as proactive and women's sexuality as reactive, due to the finding that males are more likely to initiate sex. Applied to the present study, an implication of Aubrey's study is that adolescents might support stricter peer and legal sanctions for girls who sext than for boys who sext.

In another content analysis of television programming researchers document the heterosexual script, a concept developed in research by Tolman and colleagues closely related to the sexual double standard. Kim, Sorsoli, Collins, Zylbergold, Schooler, and Tolman (2007) observed that most content analytic work examining mediated sexual content is focused on the frequency of and the way that sex is portrayed. Instead, they oriented their research from a feminist perspective using combination of scripting theory (Gagnon & Simon, 1973) and the theory of compulsory heterosexuality (Rich, 1980) as their theoretical lenses. Scripting theory postulates that sexuality is learned from sexual scripts that exist in our culture that suggest what sex is and how to do it. The theory of compulsory heterosexuality states that heterosexual relationships are considered to be the only normal or appropriate type of relationship/behavior for people, rather than it being "natural". Kim et al. combine these two theories to investigate a "heterosexual script" that exists on television. They developed a coding system that would facilitate the identification of the existence of the heterosexual script on television, and then applied

this coding system to primetime network television programs popular among teen viewers. They used a deductive and inductive method (drawing from existing conceptions of sexual roles on TV from Ward (1995), and from their own viewing of television to identify popular scripts) to create the coding system. They ended up with eight codes, pairs that belonged to the four elements of the heterosexual script: the sexual double standard (sex as masculinity and good girls), courtship strategies (masculine and feminine courting strategies), attitudes toward commitment (masculine and feminine commitment), and homophobia (male-oriented homophobia and appropriation of female homosexuality). Next they implemented the coding system. They found that the heterosexual script was enacted mostly through the sex as masculinity code (45.15%), followed by the good girls code (11.5%), then masculine courtship strategies, and then masculine/feminine commitment. In short, the heterosexual script is pervasive on primetime television (averaging 15.3 references to the script per hour). The authors argue that most people would not see the heterosexual script as being particularly problematic, especially compared to other issues of sex on TV, and most would probably not even notice this script because it is so ingrained into our culture. However, viewing this script over and over could impact adolescents' sexual decision-making. Thus, in this study, the sexual double standard is conceptualized as being part of a larger framework of the heterosexual script.

Scholars have also considered the sexual double standard in the context of other media as well. Hust, Brown, and L'Engle (2008) conducted a content analysis of sexual health content in various media using a combination of quantitative and qualitative measures. The researchers first used a quantitative analysis of a large body of television,

magazine articles, movies, and music popular with white and black 12-14 year olds. In total, 236,066 units across these four media were coded and analyzed for the inclusion of sexual content. Out of these units, 308 were selected as having sexual health content. Of these 308 units, five units that had a high proportion of sexual health content were selected from each of the four media areas to be examined qualitatively. The qualitative analysis involved constant discovery to look for themes, and then second and third run-throughs of the data allowed the researchers to classify the data into subthemes, and then more encompassing subthemes. In the end, three subthemes emerged from the data: puberty is humiliating and humorous, boys are obsessed with sex and sexual performance, and girls are responsible for contraception, teen pregnancy, and STI prevention. The authors argued that portraying puberty as humorous undercuts the validity of serious concerns of teens actually experience this stage, both males and females. The other two themes show teen girls and boys what each gender should be concerned with: all of the sexual health concerns are put on the girls' plate to worry about. Thus, in the context of sexual health messages, the sexual double standard thrives.

Impact of the Mediated Sexual Double Standard

In addition to content analytic work, media research has examined the impact of the sexual double standard on media users. Building on earlier work, Ward (2002) examined how television exposure affects attitudes and assumptions about sexual relationships. In this piece, Ward highlighted the importance of establishing sexual relationships and sexual decision making in late adolescence and emerging adulthood, and argues that television is a sexual socialization agent. This is problematic because research suggests that television is a concerning source to learn about sexuality because

of its stereotypical and distorted portrayals of sexuality. Ward noted that most prior research findings are correlational, that the existing experimental studies have yielded mixed results, and that emphasis should be placed on the gender-specific content (i.e. the double standard) rather than on a global view of sexuality. Thus, an experiment addressing these concerns was conducted with 269 undergraduate participants. Stimuli were selected to depict each of three sexual stereotypes that Ward (1995) identified: dating is a recreational sport, women are sexual objects whose value resides in their physical appearance, and men are sex-driven. Each participant was randomly assigned to view a clip from one of these three conditions, and then they evaluated the clips and completed questionnaires. Results indicate that more endorsement of the sexual stereotypes presented was associated with heavier and more involved viewing. There were both correlational and experimental links between television viewing and participants' sexual attitudes, mostly for female participants. Males endorsed the sexual stereotypes more strongly than women overall, and there were associations between heavier TV exposure and deeper viewing involvement and the sexual stereotypes. But, there were no differences between the experimental and control groups for men; endorsement of sexual stereotypes was equally strong in both groups. Women in the experimental group showed stronger endorsements of the stereotypes. Ward reasoned that the stronger outcomes for women may be a result of living in a culture that sends conflicting messages to women about their sexuality, thus there is more opportunity for change. Overall, these results suggested that young people are affected by gender-specific messages that promote a sexual double standard.

Similarly, Aubrey, Harrison, Kramer, and Yellin (2003) sought to take a more nuanced look at gender differences in sexual expectations gleaned from television. For this study, both cultural expectations about sex for males and females and how much and what type of television one watches, were examined. The cognitive information-processing model (Huesmann, 1997) was used as the theoretical framework. This theory integrates social learning theory (Bandura, 1994) and scripts theory (Gagnon & Simon, 1973) and includes three main steps for the process of observational learning: attention/interpretation, retrieval of the script from memory (an evaluation of the script as being appropriate for the current situation), and anticipation/evaluation of society's responses to the behavior. Results of a survey of 202 undergrad students (96 males, 106 females) showed that exposure to sexual television was associated with expectations of increased sexual variety among males only, and that exposure to sexually oriented television was associated with expectations of earlier sexual timing among females only, as expected. These predictions held up even after controlling for some factors (i.e. relationship status, relationship satisfaction). Viewing to learn predicted expecting a broader variety of sexual activities for males.

In another study, Tolman, Kim, Schooler, and Sorsoli (2007) focused on the associations between the heterosexual script and adolescents' sexual behavior and sexual agency. This work is done with scripting theory in mind and from the viewpoint that adolescents can and should make active sexual decisions. They hypothesized that viewing more sexual talk and sexual behavior on television would be associated with greater sexual experience. Specifically, they posited that boys with high exposure to sexual behavior and sexual talk on television would exhibit more sexual experience

because the heterosexual script emphasizes the importance of sexuality and sexual assertiveness in boys' lives. They were unsure if boys with more exposure would exhibit more or less sexual agency because sexuality is emphasized but the heterosexual script also denies boys' ability to say no to sex, which is an important aspect of sexual agency. The heterosexual script includes conflicting messages about girls' sexuality (e.g., girls should be "good" and set limits but they should also be sexual objects), thus no predictions were offered for girls who have higher amounts of exposure to sexual television messages. In total, 387 boys and 454 girls from two diverse suburban school districts in the Northeastern United States completed a questionnaire. Results show that girls' viewing was in some ways related to the heterosexual script: girls who had higher exposure to objectified female characters exhibited less sexual agency and had more sexual experience than girls with lower exposure.

Summary and Hypotheses. This section reviewed literature regarding the sexual double standard, the mediated sexual double standard, and the impact of the mediated sexual double standard. Overall, research suggests that the cultural sexual double standard does exist, and is relevant and applicable to adolescents (Crawford & Popp, 2010; Kaeager & Staff, 2009). Television is ripe with the sexual double standard. Male characters on television have been identified as being sex driven and always ready for sex (Hust et al., 2008; Ward, 1995), and sexual behaviors are more likely to be initiated by male characters than female characters (Aubrey, 2004). In comparison, female characters receive more negative consequences than male characters on television (Aubrey, 2004), girls should be "good" (Kim et al. 2008), and are responsible for contraception, teen pregnancy, and STI prevention (Hust et al., 2008). Furthermore, viewers are impacted by

these messages. Heavier and more involved viewing of sexual television is related to the endorsement of these sexual stereotypes (Ward, 2002), and girls with higher exposure to objectified female characters is associated with having less sexual agency and more sexual experience (Tolman et al., 2007).

In light of this research, in the context of the current study, it seems that there could be different sets of expectations for girls and boys when it comes to sexting. For example, it may be taboo for girls to request nude or sexy photos, because the sexual double standard suggests that girls should be “good”. Conversely, it may be expected that boys request nude or sexy photos because the sexual double standard suggests that boys should be enthusiastic about sex and work toward getting it. Furthermore, there could be different consequences for boys and girls participation in sexting. When considering the sexual double standard, one might surmise that girls may have more and worse consequences for sexting. For example, boys may gain social capital and status when collecting sexy images of girls, but girls may be shamed and called names like “slut” for sending sexy photos. Moreover, girls and boys may endorse these standards for sexting if they buy into the cultural sexual double standards themselves. Aubrey’s (2004) findings suggest that viewers may come to see men’s sexuality as proactive and women’s sexuality as reactive, due to the finding that males are more likely to initiate sex. An implication of Aubrey’s study is that adolescents might support stricter peer and legal sanctions for girls who sext than for boys who sext.

Thus, the following research questions are posed:

RQ3: Will there be gender differences in sexting intentions, attitudes, behaviors, and subjective norms?

RQ4: Will there be gender differences in sending, receiving, and requesting sexts?

RQ5: Will there be gender differences regarding the positive and negative consequences of sexting?

RQ6a: Will adolescents support stricter peer and legal sanctions for girls who sext rather than boys who sext?

RQ6b: Are there gender differences in adolescents' support of peer and legal sanctions?

Objectification Theory

Fredrickson and Roberts' (1997) objectification theory posits that women have a shared experience of living in a culture that sexually objectifies the female body. Women encounter sexual objectification in three main ways: (1) via an objectifying gaze experienced in interpersonal contexts, (2) via an objectifying gaze experienced vicariously through media exposure, and (3) via exposure to media that feature women's bodies and body parts and separate these body parts from their faces. Experiencing sexual objectification, or being treated as a body for consumption by others, can result in self-objectification, which occurs when one takes an observer's perspective on the self by treating one's self as an object to be evaluated by others (Bartky, 1990). In turn, self-objectification can lead to a myriad of negative issues such as body guilt (Calogero & Pina, 2011), body shame (Calogero, 2004; Harrison & Fredrickson, 2003), body dissatisfaction (Calogero, Herbozo & Thompson, 2009), diminished interoceptive awareness (Myers & Crowther, 2006), decreased cognitive abilities (Aubrey & Gerding, 2014; Fredrickson, Roberts, Noll, Quinn & Twenge, 1998; Quinn, Kallen, Twenge &

Fredrickson, 2006), restrained eating (Fredrickson et al., 1998; Hebl, King, & Lin, 2004), and depression (Harrison & Fredrickson, 2003; Mitchell & Mazzeo, 2009).

Objectification theory is meant to serve as a framework with which to understand the consequences of the experience of living in a culture that sexually objectifies women. This theory has social psychological roots and was not created with media effects research specifically in mind, but is nevertheless an ideal framework for studying the effects of mediated sexual objectification. There is considerable research that explores the aforementioned areas, but this literature review will focus on studies that investigate objectification in a mediated context.

Mediated sexual objectification. First, there is considerable research exploring the content of various media that feature sexually objectified women. This research is important because it demonstrates that that women are indeed sexually objectified in our media, and also because it documents the specific ways in which women are objectified. This research importantly serves as the foundation and inspiration for the studies that examine the effects of such objectification. Thus, content analytic research will be reviewed first.

Content analytic research of mediated sexual objectification has focused mostly on music videos, but other media have been examined as well. Music videos have been examined because of their popularity among adolescents (Ward, Hansborough, & Walker, 2005) and because they gratuitously feature women as sex objects that exist for the viewers' pleasure. Aubrey and Frisby (2011) argue that because music videos are the most potent examples of mediated sexual objectification they are "fertile grounds for examining how gender and sexuality are portrayed in the media" (p. 476).

Sommers-Flanagan, Sommers-Flanagan, and Davis (1993) conducted a content analysis of gender roles in 40 music videos that appeared on MTV and found that men outnumbered women by about two to one, that women engaged in more sexual behavior, and that women were more likely to be the object of sexual advances. They also found that globally, the music video primarily featured sexuality and sexual objectification, along with dominance and physical aggression. Similarly, Vincent, Davis, and Boruszkowski (1987) analyzed sex roles and the routine presentation of women in music videos. A random cluster sample from MTV weekday programming in the summer of 1985 that included 300 music videos was selected. The majority of the videos (56.9 %) were rated as portraying women in the “condescending” category of their instrument, which was defined as “. . . being less than a person, a two-dimensional image. Includes the dumb blonde, the sex object and the whimpering victim . . . here women are used as sexual objects, or are presented in roles where others do her thinking” (p. 752). The next most prominent category (17.1%) that the videos were placed in was “keep her place”, defined as “some strengths, skills, and capacities of women are acknowledged, but tradition also dictates ‘womanly’ roles. The tradition also dictates emphasis on subservience in romantic or secondary relations. A high emphasis on sexual attributes is still found here” (p. 752). Only 13.8% of the videos portrayed women as “fully equal” or non-stereotypical. The findings support the idea that women are sexually objectified in music videos, yet sexual objectification was measured globally and the coding categories do not appear to be completely mutually exclusive. Instead of placing each video into an umbrella category, it would have been more nuanced to consider each category as a variable with different levels. Thus, while this pioneering study importantly paved the

way for work on objectification in music videos, it is not without issues and offers a somewhat murky snapshot of how women are objectified in music videos.

In addition to these two studies, there are other studies that explore music videos and conclude that objectification of women is commonplace in music videos (e.g., Gow, 1996; Conrad, Dixon, & Zhang, 2009). An update and expansion of this line of research is offered by Aubrey and Frisby (2011), who deliver a more refined analysis of sexual objectification in music videos. Rather than focusing on the larger system of gender roles, they specifically investigated sexual objectification, appearance, and sexuality in music videos, in the context of the gender of the artist and the genre of the music video. Keeping with objectification theory (Fredrickson & Roberts, 1997), sexual objectification was operationalized in three ways: body exposure, the presence of gaze (i.e. being checked out by a spectator), and functioning as a decorative object/role (as opposed to an instrumental role). The analysis included three genres (pop, R&B/hip-hop, country), and the sample was composed of top 10 “Hot 100” Billboard charts from March 2007 – September 2008. The researchers utilized a rigorous sampling approach that included a mixture of stratified sampling and simple random sampling and resulted in 50 music videos from each genre. Results showed that female artists were likely to have more body exposure and be gazed at than male artists, and that female characters in music videos were more likely to be shown in a decorative role than male characters; in fact, *no* male characters were featured in this role. Additionally, country music videos were the least likely to feature sexually objectified women. Another analysis of this dataset focused on race and genre in the use of sexual objectification (Frisby & Aubrey, 2011). This analysis operationalized sexual objectification even more precisely by measuring

body exposure, gaze, dance, and dress. Body exposure was measured by the extent to which artists were segmented into body parts and whether they were partially or fully exposed body parts. Gaze was measured by recording whether the artist was being “checked out” (i.e. looked at or touched) by male spectators. Sexualized dancing was measured by recording movement meant to accentuate sexual body parts, to imply sexual acts, or to self-touch in sexually inviting ways. Provocative dress was measured by recording clothing that was sexually alluring. Results revealed only one racial difference: that black artists were nearly twice as likely to wear sexually provocative attire. Along with an update of past research, these studies provide theoretically precise measurements for sexual objectification and a strong argument for the importance of studying music videos.

Sexual objectification has also been analyzed in the mediated contexts of television, video games, and advertising in magazines, but many of these studies utilize a more global measurement of sexual objectification. For example, Kim, Sorsoli, Collins, Collins, Zylbergold, Schooler, and Tolman (2007) examine sexual content in primetime network television from the theoretical lens of the heterosexual script. Drawing from scripting theory (Gagnon & Simon, 1973) and the theory of compulsory heterosexuality (Rich, 1980), they identify the heterosexual script as entitling boys and men to “prioritize their own sexual desire, to act on their sexual needs, to perceive their hormones to be ‘out of control’, and to promise power and status to women in return for sex”, and compelling girls and women to “deny or devalue their own sexual desire, to seek to please boys/men, to ‘wish and wait’ to be chosen, and to trade their own sexuality as a commodity” (p. 146). These scholars developed a qualitative categorical coding system to reveal how the

heterosexual script is enacted in network programming. As the larger goal of the study was to expose the enactment of the heterosexual script on television, sexual objectification was only measured as a part of the code of feminine courting strategies, and was not examined in great detail. Results showed that sexually objectifying themselves was an important way for female characters to attract male suitors, and that women are valued primarily for their physical appearance rather than for their personality or intelligence. This study only briefly cites objectification theory (Fredrickson & Roberts, 1997) and does not go in to detail about how they measured objectification.

Downs and Smith (2010) analyzed the sexuality of 489 video game characters featured in 60 video games. The sample was drawn from the top 20 best-selling games for Nintendo GameCube, Sony PlayStation2, and Microsoft Xbox (60 total video games). These researchers coded for eight different variables that assessed “overt sexuality and objectification”, among other demographic based variables. The specific variables included sexually revealing clothing, nudity (skin exposure), body proportion, sex talk, sexual behavior, appropriateness of attire (for the situation that the character was in), breast size (only assessed for female characters), and waist size. The analysis showed that males outnumbered female by more than four to one, and that female characters were more likely to be shown as nude, wearing sexually revealing clothing, have unrealistic body proportions, have a small waist, and inappropriate attire. Thus, the researchers concluded that female characters are shown in an overtly sexualized context. They do not discuss their findings in the context of sexual objectification, and often conflate the terms sexualization/sexualized with the terms sexual/sexuality. Despite these shortcomings, this

study demonstrates that female video game characters do seem to be sexually objectified more often than male characters through some of the objectification-related findings.

There is also evidence of the sexual objectification of women's bodies in print advertising. Baker (2005) analyzed 626 images of women in advertisements drawn from Black- and White-oriented men's and women's magazines (i.e. *King*, *Maxim*, *Essence*, *Vogue*). The images were coded for function/role, relative authority/function to a man, physical position, size/height compared to a man, character traits, facial/body view, and physical traits. Results show that images of women in advertisements targeted to White audience show women as being submissive to or dependent on men, whereas images of women in advertisements targeted to Black audience show women as being independent and dominant of men. White women were more likely to be portrayed as a decorative object than Black women, and women were more likely to be portrayed as an object in men's magazines than in women's magazines (although some women did appear as decorative objects in all four types of magazines). In another study, Stankiewicz and Rosselli (2008) analyzed images of women in 1,988 advertisements from 58 different magazines that covered a variety of topics and audiences. Women were coded for whether they appeared as sex objects, and this was determined by whether they had a sexual facial expression or posture, sexual activity, sexy makeup (e.g., bright red lipstick), a camera angle that emphasized their sexual parts, and the amount of skin shown. Coders considered these criteria and the overall impression of the coder determined whether the woman was coded as being a sex object. Coders also indicated if the women were portrayed as victims or aggressors. Results show that 51.8% of the images featured women as sex objects, but when just considering men's magazines, this number rises to

75%. Men's, women's, and female adolescent's magazines were the most likely to portray women as sex objects. Finally, women appeared as victims in 9.5% of magazines.

These studies demonstrate that women are sexually objectified across media. Although more content analytic work is needed to provide a clearer image of how women are objectified across media, these studies provide justification for research on the effects of objectification, and for the present study.

Mediated sexual objectification effects. As demonstrated, women's bodies are sexually objectified across media. The proposed result of consuming such media is self-objectification (Fredrickson & Roberts, 1997). Here literature that documents these effects and others will be reviewed. For organizational purposes, the review will be split into two sections: the effects on women, and the effects on men.

Effects on women. Monro and Huon (2005) and Aubrey (2006a) were the first scholars to examine media self-objectification. Monro and Huon (2005) explored the impact of viewing images of idealized body types on women. Participants completed a pre-test that measured their appearance anxiety, body shame, self-objectification, and self-monitoring. In the experiment, 37 college-age women viewed 24 images each. In this within-subjects design, each woman viewed six advertisements for a body-related product featuring an idealized body, six of the same advertisements featuring no body (they were photoshopped out), six advertisements for a non-body related product featuring an idealized body, and six of the same advertisements featuring no body. The images were viewed in 4 blocks of like images, and participants completed measures for appearance anxiety and body shame after viewing each block. Results indicate that body shame increased and appearance anxiety increased after viewing images with idealized

bodies. To further probe these results, high self-objectifiers and low-objectifiers (based on the pre-test) were split into two groups. For appearance anxiety, there was a significant two-way interaction between self-objectification level and idealized body condition (present vs. absent), such that high self-objectifiers experienced significantly more appearance anxiety in the body present condition than in the body absent condition than the low self-objectifiers (although the low self-objectifiers did show an increase in appearance anxiety). This study provides evidence of the negative impact of idealized body images, and that high self-objectification amplifies these negative effects, but these findings should be viewed with caution due to the small sample size.

Aubrey (2006a) was the first scholar to examine the proposed impact of sexually objectifying media on self-objectification. The two-year panel design allowed for the examination of non-manipulated media consumption and the determination of the temporal order in the relationship between self-objectification and media exposure. The study included females ($n = 149$) and males ($n = 77$), but the results for males will be discussed in the next section. Data were collected at two time points, and participants completed measures for exposure to objectifying media, trait self-objectification, body surveillance (body monitoring), internalization of sociocultural beliefs of attractiveness, global self-esteem, and demographic variables. Results show that exposure to sexually objectifying television at Time 1 predicted an increase in trait self-objectification at Time 2, as expected, and that trait self-objectification at Time 1 predicted a decrease in exposure to objectifying television at Time 2. This lends support to the selective exposure hypothesis, which is the idea that individuals select media messages that support their outlook or agenda and avoid discrepant messages (Zillman & Bryant, 1985).

In this case, Aubrey argues that the results suggest that “women high in self-esteem might also avoid the ‘risk’ of exposing themselves to sexually objectifying media” (p. 170). Exposure to objectifying television predicted an increase in body surveillance for men only, while women were more likely to self-objectify. Overall, these findings held even after controlling for other variables (i.e. global self-esteem and demographics). This study deepened the understanding of media exposure as an antecedent to self-objectification, as first proposed by objectification theory (Fredrickson & Roberts, 1997).

After Aubrey (2006a) established that exposure to objectifying media sparks an increase in self-objectification, Aubrey (2006b) explored the directionality of the relationship between exposure to sexually objectifying media and body self-perceptions with the same dataset. With the selective exposure hypothesis in mind, specifically Aubrey wanted to determine whether exposure to objectifying media caused women to self-objectify or the tendency to self-objectify led women avoid or selectively expose themselves to objectifying media. Additionally, variables that could moderate the relationship between exposure to objectifying media and body self-perceptions were explored, such as the internalization of the thin-ideal, global self-esteem, and BMI. Results do show evidence for the selective exposure hypothesis; the time one measure of trait self-objectification, body shame, and appearance anxiety negatively predict the time two exposure to objectifying media. In other words, women who had a tendency to self-objectify protected themselves by avoiding sexually objectifying media. As for the moderating variables, the results indicate that exposure to sexually objectifying media predicted a slight increase in self-objectification, but this effect was much stronger for women who had low global self-esteem.

In another study, Aubrey (2007) expanded her earlier studies by exploring the role of body self-consciousness in the relationship between exposure to sexually objectifying media and negative body emotions and sexual self-perceptions. In this study, body self-consciousness encompassed self-objectification and body surveillance. For this study, 384 undergraduates (227 women, 157 men) completed a questionnaire. First, results showed a main effect that exposure to sexually objectifying media predicted body surveillance, but not self-objectification. Aubrey reasoned that body surveillance is a more superficial concern, whereas self-objectification is internalized and thus more serious and dehumanizing. In this case, sexually objectifying media exposure had an impact on superficial concerns about how the body looks to others, but did not spark self-objectification. Results also showed that body surveillance partially mediated the relationship between sexually objectifying media and negative body emotions such as body shame, appearance anxiety, and body image self-consciousness during physical intimacy. Another important finding was that there were surprisingly few gender differences for the relationships between variables, although women did exhibit higher levels of trait self-objectification and body surveillance than men.

Continuing on with this line of research, Aubrey, Henson, Hopper, and Smith (2009) conducted an experiment in order to test the priming influence of visual sexual objectification on women's self-objectification. Thus, this study measured the short-term influence of viewing sexually objectifying images of women. Another goal of the study was to test two operationalizations of sexual objectification: body exposure (body display) and collections of body parts, with the intent to determine what exactly it is about the media's use of objectification that prompts women to self-objectify. The

images for the experiment came from women's magazines (i.e. *Glamour*), women's apparel catalogues (i.e. *Victoria's Secret*), and male lifestyle magazines (i.e. *Maxim*), and were pre-tested to ensure that they were sexually objectifying. The experiment included 154 female college students who were invited to participate in a "magazine study". Participants were assigned to either the body-parts condition, the body-display condition, or the control group. After viewing the stimuli, they completed the 20-statements test as a measure of state self-objectification and the Objectified Body Consciousness Scale. Results revealed that participants in the body-display condition exhibited higher levels of self-objectification and negativity about their appearance than those in the body-parts condition and the control group. The authors reasoned that perhaps the body-display condition elicited self-objectification over the body-parts condition because these images feature a "total package" that women could more easily relate to and provides more cues about their own body image. This study gives support to the idea that self-objectification can be primed in the short term; in our culture women may experience objectification many times a day, so short term effects should not be overlooked.

Other researchers have studied the short-term impact of media on self-objectification. Harper and Tiggemann (2008) consider the effect of thin-ideal images on women's self-objectification, mood, and body image. These authors focus on thin-ideal images because they reason that Western women are pressured to conform to a thin ideal of feminine beauty, and because of this women may experience body dissatisfaction and seek to lose weight. It is not fully clear why they chose to focus on the impact of the thin-ideal on self-objectification, rather than the impact of sexually objectifying images on self-objectification. They conducted an experiment in which 90 women were assigned

to one of three conditions: viewing magazine advertisements featuring a thin woman, viewing magazine advertisements featuring a thin woman with at least one attractive man, and viewing magazine advertisement in which no people were featured. In addition to responding to measures that were included solely to keep up the guise of the study, after viewing the images participants completed the Twenty Statements Test (Fredrickson et al., 1998) as a measure of self-objectification, and measures for appearance anxiety, negative mood, body dissatisfaction, and trait self-objectification. Results show that women who viewed the thin-ideal images had higher levels of state self-objectification than women in the control group, giving support to objectification theory (Fredrickson & Roberts, 1997) and short-term media effects literature. Women who viewed the thin-ideal images also had a more negative mood, more body dissatisfaction, and an increase in weight anxiety.

Other types of sexually objectifying media in other contexts have been examined as well. For example, Hopper and Aubrey (2011) explored the impact of celebrity gossip magazine coverage of pregnant celebrities on pregnant women's self-objectification. The authors argue that most pregnant women do not conform to the cultural thin ideal, but that recently magazines have featured sexualized pregnant celebrities that function as an object of gaze similar to non-pregnant female bodies. Thus, 301 pregnant women were randomly assigned to one of three conditions in an online experiment: highly sexually objectifying full-body images of pregnant celebrities and accompanying text, low sexually objectifying headshot-only images of pregnant celebrities and accompanying text, and a control group featuring baby products and no people. Before exposure to stimuli, participants completed measures for body surveillance, body esteem,

demographics, and other information about their pregnancy. After exposure to the stimuli, participants completed measures for self-objectification and weight and height. Results show that women in the headshots-only low sexual objectification condition were higher in self-objectification than women in the control group, but this was not true for women in the full-body high sexual objectification condition. Furthermore, trimester of pregnancy moderated this relationship such that those in their first trimester in the headshot-only condition predicted self-objectification, whereas those in their third trimester in the full-body condition marginally predicted self-objectification. Age moderated the relationship in a similar manner; for younger women those in the headshot-only condition predicted self-objectification whereas those in the middle age group in the full-body condition predicted self-objectification. The researchers speculate that the head-shot only low sexual objectification condition may have sparked higher self-objectification than the full-body high sexual objectification group because women may have imagined the fuller image of the celebrity being thin and sexy as they are frequently shown in magazines. This study is an interesting example of how objectification theory (Fredrickson & Roberts, 1997) might be applied to various and more specific contexts, as in the present study.

Effects on men. Aubrey (2006a) was the first scholar to examine the proposed impact of sexually objectifying media on self-objectification for men, as well. The two-year panel design allowed for the examination of non-manipulated media consumption and the determination of the temporal order in the relationship between self-objectification and media exposure, and was previously described in the last section. The study included 77 males. Data were collected at two time points one year apart, and

participants completed measures for exposure to objectifying media, trait self-objectification, body surveillance (body monitoring), internalization of sociocultural beliefs of attractiveness, global self-esteem, and demographic variables. Results show that exposure to sexually objectifying television predicted an increase in trait self-objectification and an increase in body surveillance for men, and that exposure to objectifying magazines predicted an increase in body surveillance. Additionally, trait self-objectification predicted an avoidance of sexually objectifying television. Thus, there are surprisingly few gender differences between women and men in the relationship between exposure to sexually objectifying media and self-objectification. Fredrickson and Robert's (1997) objectification theory contends that *women* experience sexual objectification and the resulting impact of it in our culture, but this study shows that men may experience self-objectification as well, although at a smaller magnitude than women.

Daniel and Bridges (2010) conducted an online survey on men about the internalization of media ideals and body image concerns including self-objectification. These researchers review literature that broadly examines body image concerns in men, including the drive for muscularity. Through their review, they show that media representations of ideal male bodies have become more restrictive over time; many of the male bodies portrayed in media are so extremely muscular that the majority of men could never naturally attain the look (e.g., Schooler & Ward, 2006). They argue that there are inconsistencies in the literature, and specifically aim to explore the relationship between the internalization of media ideals and the drive for muscularity. Thus, they conducted a survey of 244 college-aged men. Participants completed measures for demographics, sociocultural attitudes toward appearance, self-objectification, body surveillance, body

shame, beliefs about body control, and drive for muscularity. These researchers operationalized the internalization of media ideals as the sociocultural attitudes toward appearance scale. Results show that the strongest predictors of the drive for muscularity were the internalization of media ideals and body mass index. Additionally, body surveillance mediated the relationship between the internalization of media ideals and body shame. Strangely, there was a negative relationship between internalization of media ideals and self-objectification, and a negative relationship between self-objectification and body surveillance. The authors reason that the measure of self-objectification, the Self-Objectification Questionnaire (Noll & Fredrickson, 1998) was intended for use with women, thus it may not accurately measure self-objectification for men. Furthermore, I must question their measure of the internalization of media ideals, and their generalizations about media influences. Sociocultural attitudes toward appearances and the internalization of media are likely related constructs, but this measurement is more broadly conceived and does not focus specifically on media. A better measure than the internalization of media ideals about men would be to have men indicate what types of media they consume and have separate “judges” decide which of these media adhere to the ideal male body type, similar to what Aubrey has done for measuring exposure to objectifying media because this would have tapped into what the researchers wanted to measure more accurately. In the end, these researchers conclude that objectification theory (Fredrickson & Roberts, 1997) may not be applicable to men. An important finding is that the sociocultural attitudes about appearance measure predicted the drive for muscularity, but the objectification variables did not. Thus, in the

context of the present study, it is not reasonable to predict that self-objectification is related to boys' participation in sexting.

Another area of research focuses on the way that media that sexually objectifies women impacts male viewers' treatment of women (Aubrey, Hopper, & Mbure, 2011; Galdi, Maass, & Cadinu, 2013). Aubrey et al. (2011) measured the short-term effects of sexually objectifying music videos on male undergraduates' sexual beliefs and aggression-related attitudes about women. These researchers were interested in music videos because they portray women as sexual objects, they are available on demand, and they are popular among adolescents and young adults who may be refining ideas about sexuality. A priming framework (Roskos-Ewoldsen & Roskos-Ewoldsen, 2009) was utilized to help elucidate how the short-term exposure to the music videos could be linked to semantically related constructs of adversarial sexual beliefs. For this post-test only experiment with two conditions, 85 college-aged men viewed music videos that were either high or low in sexual objectification, and the guise of the study was that they were assessing the production value of the videos. Afterward, they were asked to participate in a "College Student Concerns Questionnaire" administered by another faculty member. This is the survey that assessed their sexual beliefs, acceptance of interpersonal violence, acceptance of rape myth, and attitudes toward sexual harassment. The results show that men who viewed the music videos featuring the sexually objectified women were primed to report adversarial sexual beliefs, acceptance of interpersonal violence, and disbelief in the legitimacy of sexual harassment (at a marginal level). In other words, viewing females that were sexually objectified sparked other related cultural beliefs and thoughts about women's sexuality. This study examined the short-term priming effects of sexual

objectification, but the authors point out that it is important to consider *how often* these sexual beliefs could be primed; sexual objectification of women is commonplace in our culture, so although these effects are short-term they could be frequently, or chronically, primed.

Similarly, Galdi, Maas, and Cadinu (2013) examined the effect of exposure to sexually objectifying television on gender role norms and attitudes about the sexual harassment of women. This paper includes two studies. In the first study, 141 men were assigned to view either television clips that featured sexually objectified women, women in professional roles, or a neutral nature documentary. After viewing the clip, participants filled out a survey and then participated in an alleged distracter task in which they could exchange jokes with a fictitious female partner through an online chat. Results show that men in the sexually objectifying group had a greater intention to engage in sexual coercion than in the other two conditions. Furthermore, the men in the objectifying condition were more likely to send sexual/sexist jokes to a fictitious woman in an online chat, and to perceive the woman in the online chat as less competent than men in the other conditions. In the second study, participants (120 men) were assigned to one of three groups, and watched the same television clips shown in the first study, and then completed measures to assess their endorsement of traditional masculinity ideology (participants were told that this was a “distracter task”). Next they chatted on the computer and then completed another survey. Results showed that men in the sexually objectifying condition were more likely to sexually harass women through jokes in the chat than men in the other groups, replicating the findings from Study 1. Men in the objectifying condition also exhibited increased levels of conformity to traditional

masculinity norms, and the authors reason that conformity to these norms is a driver of sexual harassment.

Applicability of objectification theory to adolescents. In addition to the previously described literature, there is also a small body of literature that explores the impact of sexually objectifying media on female adolescents. An additional study exploring the general applicability of objectification theory (Fredrickson & Roberts, 1997) to adolescent girls and boys is discussed in this section as well.

Harrison and Fredrickson (2003) explored how sports media exposure was related to adolescent girls' body perceptions by conducting two studies, in the context of objectification theory (Fredrickson & Roberts, 1997). Study 1 was a survey administered to 374 adolescent girls aged 10 to 19. The survey included measures for trait self-objectification, mental health risks, sports magazine exposure, participation in sports, and demographic variables. Results showed that trait self-objectification increased significantly with grade, but there were no differences by race. In other words, girls from different racial groups are equally likely to self-objectify, and adolescent girls self-objectify more as they grow older. Additionally, results show that for older adolescent girls, exposure to sports media was actually related to *decreased* body shame and disordered eating, but there was no relationship between exposure to sports media and self-objectification. Study 2 was an experiment that included 153 of the original group of adolescent girls. The experiment was a 2 X 3 factorial design, with two racial groups (white and participants of color) and three video conditions (men's sports, women's lean sports, women's non-lean sports). Participants viewed eight 1-minute clips in one of the three video conditions, and then completed a 20-statements test measuring state self-

objectification. Results indicate that for white participants, state self-objectification was higher for those in the lean female athletes condition but not for those in the non-lean condition. However, participants of color showed higher scores on self-objectification in the non-lean condition than in the lean sports condition. The researchers reasoned that participants of color identified more with the non-lean body types, and this comparison resulted in self-objectification. This study suggests that adolescent females experience self-objectification regardless of racial group, but that sports media featuring different body types spark self-objectification for girls in varying racial groups.

Gordon (2008) focused specifically on African American adolescent girls in her study about the consequences of sexually objectifying media. Specifically, exposure to and identification with images of women in television, music, and music videos were measured, as well as media identification, the importance of being attractive, appearance attitudes, and racial identity. Participants were 176 African American girls ranging in age from 13-17. Results show that black media exposure and identification with objectified characters was positively related to attitudes about the increased importance of being attractive for the self and others. Regression analyses show that identification with characters, regardless of whether the characters were more or less objectified, was the strongest predictor of the endorsement of attitudes emphasizing the importance of appearance for girls. The author deems that more research is necessary in order to understand why this occurred. Although this study would have been stronger if objectification theory (Fredrickson & Roberts, 1997) and its main components had been used as a guiding framework, it still importantly shows that increased media exposure

and identification with characters is related to the idea that appearance is important for women and girls.

Vandenbosch and Eggermont (2012) explored how exposure to sexually objectifying music television, primetime television programs, fashion magazines, and social networking sites is related to the internalization of beauty ideals, self-objectification, and body surveillance in adolescent girls. A survey was administered to 558 adolescent girls aged 13-18. The researchers hypothesized a path model based on previous literature, and the data largely fit the model. There were direct relationships between sexually objectifying media and the internalization of beauty ideals, and there were indirect relationships between sexually objectifying media and self-objectification and body surveillance via internalization of beauty ideals. Interestingly, all types of sexually objectifying media were directly related to the internalization of beauty ideals, except for sexually objectifying television exposure. The authors surmise that because television provides more comprehensive narrative content along with the images, this may serve as a type of protection against internalization (music videos and advertisements in magazines have context that is congruent with the visual sexual objectification). The authors conclude that objectification theory (Fredrickson & Roberts, 1997) is relevant to adolescent girls, but that longitudinal and experimental research is needed to supplement this research and establish causal relationships.

Finally, Slater and Tiggemann (2010) tested the main components of objectification theory (Fredrickson & Roberts, 1997) on a large sample of adolescent girls and boys. Although this study did not focus on media exposure as one of the components, it is described here because it gives support for the applicability of

objectification theory in general to adolescent boys and girls. These researchers argue that the theory should be relevant for adolescents because they tend to be preoccupied with image and care about what others think while they undergo many physical, cognitive, and social changes. Thus, 725 Australian adolescents (382 boys, 332 girls) ranging in age from 12 to 16 completed a questionnaire. Measures included self-objectification, body shame, appearance anxiety, and disordered eating. A structural equation model was created based on the tenets of objectification theory, and multiple group analysis was used to examine whether the model was similar for girls and boys. Results show that the model was largely supported for girls and boys and that self-objectification was significantly related to body shame, appearance anxiety, and disordered eating. However, as hypothesized, girls exhibited higher levels of self-objectification, body shame, and appearance anxiety than boys. These results suggest that objectification theory is a relevant explanatory mechanism for both girls and boys, although more so for girls.

Sexualization. Sexualization is closely related to sexual objectification, yet it is a distinct concept. According to the report of the APA's Task Force on the Sexualization of Girls, sexualization is set apart from healthy sexuality and occurs when

“(a) a person's value comes only from his or her sexual appeal or behavior, to the exclusion of other characteristics, (b) a person is held to a standard that equates physical attractiveness (narrowly defined) with being sexy, (c) a person is sexually objectified – that is made into a thing for others' sexual use, rather than seen as a person with the capacity for independent action and decision making, and/or (d) sexuality is inappropriately imposed upon a person.” (p. 2)

Thus, sexual objectification is one manifestation of sexualization. The report goes into detail about different cultural contributions to sexualization, the main contributors being various types of media (television, music videos, music lyrics, movies, cartoons and animation, magazines, sports media, video games, internet, advertising) and products (toys, clothing, cosmetics). The report details interpersonal and intrapsychic contributions as well, and then describes the many negative effects of sexualization.

In response to the aforementioned APA Task Force Report's (2007) call for investigation of sexualization among adolescent girls, McKenney and Bigler (2014) developed an internalized sexualization scale. These researchers define internalized sexualization as "the personal endorsement of the belief that sexual attractiveness is an important aspect of one's identity" (p. 2). McKenney's dissertation research shows that higher levels of internalized sexualization were associated with higher levels of body surveillance, body shame, and pubertal development, and were negatively associated with body satisfaction, self-worth, and cognitive perceived self-competence, among girls aged 11-15. This research will aid in the present study by allowing the testing of the relationship between internalized sexualization, self-objectification, and sexting dependent variables.

Internalized sexualization is of interest to the present study because it is likely a precursor to self-objectification. Keeping in mind that sexual objectification is considered to be one type of sexualization, living in a culture that repeatedly sexualizes and sexually objectifies women could lead to women internalizing this sexualization. It follows that this internalization of sexualization could lead to one taking an observers perspective on their self by treating oneself as an object to be evaluated by others.

Finally, I am arguing that participating in sexting is a manifestation of self-objectification, particularly in the case of girls. Testing each of these constructs together would allow us to see if this process of internalized sexualization, self-objectification, and one possible manifestation of self-objectification is really occurring like I am predicting. Zooming out to look at this process would give more support Objectification Theory (Fredrickson & Roberts, 1997) overall than if just self-objectification and sexting were considered, because it considers the step prior to self-objectification: the internalization of ideals about women in our culture.

Sociocultural attitudes toward appearance. Another useful related construct is sociocultural attitudes toward appearance. Past research has demonstrated the importance of societal standards of beauty in the development of body image and body image disturbance (e.g. Thompson, 1990). The sociocultural attitudes toward appearance subscale was developed to assess women's recognition and endorsement of socially sanctioned standards of appearance (Heinberg, Thompson, & Stormer, 1995), and the scale has been revised and validated (SATAQ-3) through an extension and update of the scale (Thompson, Van den berg, Roehrig, Guarda, Heinberg, 2004).

Researchers studying the effects of sexually objectifying media have utilized the media use subscale of the SATAQ in order to measure the internalization of sociocultural beliefs of attractiveness portrayed in the media. For example, Aubrey (2006) employed this measure as a control in her 2-year panel study of the effects of sexually objectifying media on self-objectification. The media use subscale of the SATAQ will be used in the present study to test the relationship between internalization of the sociocultural beliefs of attractiveness portrayed in the media, self-objectification, and participation. Specifically,

it is predicted that internalization of sociocultural beliefs of attractiveness portrayed in the media will predict self-objectification, which in turn will predict participating in sexting. In other words, self-objectification will mediate the relationship between internalization of the sociocultural beliefs of attractiveness portrayed in the media and the sexting variables.

Summary and Hypotheses

In this section, literature on Fredrickson and Roberts' (1997) objectification theory was reviewed. First, content analytic work was reviewed that demonstrated that women are sexually objectified across media, and these studies provide justification for research on the effects of sexual objectification.

Next, the effects of mediated sexual objectification were reviewed. For women, existing literature suggests that viewing sexually objectifying media results in body surveillance (Aubrey, 2007) and self-objectification, or taking an observers perspective on the (physical) self, both in the long term (Aubrey, 2006a) and short term (Aubrey et al., 2009). Furthermore, women who have a tendency to self-objectify, have appearance anxiety, and body shame protect themselves by selectively avoiding objectifying media (Aubrey, 2006b). Additionally, global self-esteem moderates the relationship between objectifying media exposure and self-objectification such that the relationship is strongest among women who are low in global self-esteem. Research also suggests that body surveillance partially mediates the relationship between sexually objectifying media and negative body emotions such as body shame, appearance anxiety, and body image self-consciousness during physical intimacy (Aubrey, 2007). Research shows that thin-ideal media exposure can cause self-objectification as well (Harper & Tiggemann, 2008).

Finally, research suggests that objectification theory is applicable to adolescent girls (Vandenbosch & Eggermont, 2012; Slater & Tiggemann, 2010), and specifically that exposure to sexually objectifying media is related to self-objectification and body surveillance by way of the internalization of beauty ideals. Additionally, literature on the internalization of sexualization was briefly reviewed, and McKenney and Bigler's (2014) internalized sexualization scale will be utilized to test how this construct is related to sexting and self-objectification.

Self-objectification processes may be at work when one is creating a sexy or nude photograph for someone. In other words, girls who have a tendency to self-objectify are used to thinking of themselves as objects for others' sexual pleasure. Thus, they will be more open to participating in sexting because it is one behavioral manifestation of this self-perception. Furthermore, I argue that internalized sexualization is a precursor to self-objectification. Thus, self-objectification should fully mediate the relationship between internalized sexualization and participation in sexting. This first set of hypotheses focuses on adolescent girls:

H3a-d: Higher levels of trait self-objectification will predict favorable attitudes toward sexting for girls, sexting intentions, sexting subjective norms, and sexting behavior.

RQ7a-d: Does gender moderate the relationship between self-objectification and sexting attitudes, intentions, subjective norms, and behaviors?

H4: Self-objectification will mediate the relationship between internalization of sexualization and sexting behaviors, attitudes, intentions, and subjective norms.

RQ8: Does the internalization of the sociocultural beliefs about attractiveness portrayed in the media predict sexting?

RQ9: Does self-objectification mediate the relationship between sociocultural beliefs about attractiveness portrayed in the media and sexting?

Literature on the effects of sexually objectifying media on boys and men was also reviewed. Research shows that similar to women, exposure to sexually objectifying media predicts an increase in trait self-objectification and an increase in body surveillance for men, and that trait self-objectification predicts an avoidance of sexually objectifying television (Aubrey, 2006a). However, other research questions the applicability of objectification theory (Fredrickson & Roberts, 1997) to men. For example, results from Daniel and Bridges' (2010) study show that there is a negative relationship between internalization of media ideals and self-objectification, and a negative relationship between self-objectification and body surveillance. Slater and Tiggemann (2010) argue that objectification theory is applicable to adolescent boys, although not as much so as it is for adolescent girls, because boys have lower levels of self-objectification, and Aubrey (2007) also found that men exhibited lower levels of self-objectification and body surveillance. Because of the discrepancies in the literature, research questions will be asked here:

RQ10a-d: Will higher levels of trait self-objectification predict sexting attitudes, intentions, subjective norms, and behaviors for boys?

Next, literature focused on how sexually objectifying media impacts male viewers' treatment of women was reviewed. In summary, research shows that viewing media that sexually objectifies women causes men to report adversarial sexual beliefs, acceptance of

interpersonal violence, and possibly a disbelief in the legitimacy of sexual harassment (Aubrey, et al. 2011), as well as adhere strongly to traditional masculinity norms, intend to engage in sexual coercion and sexually harass women (Caldi et al., 2013), in the short term. In the previous section, Ward's (2002) work was reviewed, which suggests that males and females exposed to sexual television will support the notion that women are sexual objects whose value resides in their physical appearance. In light of this research and in the context of the present study, it is reasonable to assume that men who believe that it is okay to treat women and girls as sex objects will be more likely to solicit nude or sexy photos, think it is acceptable to participate in, and have more experience with sexting. Thus, the following research questions are posed:

H5a: Acceptance of women as sex objects will predict sexting attitudes, intentions, subjective norms, and behaviors.

H5b: The relationship between acceptance of women as sex objects and sexting attitudes, intentions, subjective norms, and behaviors will be moderated by gender.

Chapter 3: Method

Design

To address the questions and test the hypotheses previously posed, a cross-sectional survey was conducted. The focus of this study is to measure non-manipulated, naturalistic sexting habits and to obtain a representative sample of adolescents, thus a survey is ideal. A main goal of this study was to identify attitudes and perceptions about sexting, and the survey method was appropriate to measure this. The research questions and predictions that I have posed are all best tested by data collected via questionnaire. Furthermore, an experiment involving adolescents and sexting may not be ethical or possible. For example, it would be unethical and illegal to ask adolescents to send nude photos of themselves in order to measure the effects.

Sample

The sample consisted of adolescent Missouri and Illinois high school students aged 14-17. This study focuses on adolescents' participation in sexting, and this narrower facet of adolescence has been selected because of the low participation in sexting in younger age groups suggested by prior research (e.g., Mitchell et al., 2012). In other words, individuals under the age of 14 are not likely to have experience with sexting, and thus they would not be ideal to survey. Surveying this age group would likely result in not having enough statistical power to test the predictions posed. Participants were recruited by contacting school administrators across the state of Missouri and Illinois. Administrators were informed about the goals of the study and expectations for participation, and then they opened up the opportunity to their students

and passed along the recruitment letter and parental consent forms to parents. As an incentive to participate, students were entered into a drawing for an iPad.

An appropriate sample size was determined through a power analysis (Cohen, 1988). G*Power was utilized for this calculation (Faul, Erdfelder, Lang, & Buchner, 2007). The power analysis showed that 84 boys and 84 girls were needed in order to answer the research questions. These results were from running an a priori power analysis for linear multiple regressions, with an effect size of .2, with an error probability of .05, with a power size of .80 and with eight tested predictors.

A total of 93 boys, 107 girls, and 1 person who identified as “other” completed the survey, for a total of 201 participants. A little over half of these students (56.7%, $n = 114$) attended a private Catholic high school in a suburban town, while 34.8% ($n = 70$) attended a rural public high school, and 8.5% ($n = 17$) attended a suburban public high school. Regarding age, 11% ($n = 22$) were age 14, 19.5% ($n = 39$) were age 15, 27% ($n = 54$) were 16, 42% ($n = 84$) were 17, and one individual did not disclose his or her age. The mean age of the sample was 16.01 ($SD = 1.03$). The majority of the participants identified as White (89.6%, $n = 180$), followed by mixed race (4%, $n = 8$), then Hispanic (2%, $n = 4$), then Asian (1.5%, $n = 3$), then Black (1%, $n = 2$), and Native (.5%, $n = 1$). Three individuals declined to answer (1.5%). The majority of the sample identified as heterosexual (93%, $n = 187$), followed by bisexual (3%, $n = 6$) and questioning (2%, $n = 4$), and four individuals declined to answer. No individuals identified as homosexual. Differences in the hypotheses based on sexual orientation were not expected, so all participants were retained in the final sample. Most of the participants indicated that they were sexually active (70.1%, $n = 141$), while 29.4% ($n = 59$) were not and one individual

declined to answer this question. Regarding relationship status, 54.2% ($n = 109$) were not in a relationship, 38.3% ($n = 77$) were in a committed relationship, 6.5% ($n = 13$) were in a non-committed relationship, and two individuals declined to indicate their relationship status.

Procedures

The survey was administered by paper and pencil in person, during school hours, for the majority of the participants. There was a small portion ($n = 17$) that completed the survey outside of school hours at a neutral location. The location and survey mode was selected with the idea that participants may answer more honestly on an anonymous paper and pencil survey in a classroom as compared to an online survey in which there may be perceived potential for their survey to be recorded and parents may be nearby. Furthermore, while research comparing online versus paper and pencil questionnaires focused on adolescents and health yields mixed results, there are several studies that show that there is little to no difference between these modes of administration (e.g. Mangunkusumo, Moorman, Ruiters, Lei, Koning, & Raat, 2005; Looij-Jansen & Wilde, 2008).

Because the sample consisted of adolescents, parental consent and participants' assent was attained prior to administering the survey. School administrators gave potential participants a flier describing the study along with a parental consent form that the parents signed if they agreed to let their child participate. The researcher coordinated with the school administrators to schedule a time for data collection, and students were instructed to bring their parental consent forms on that date if they wished to participate. Students were motivated to take the survey because they got out of class to take it, and as

an extra incentive, participants were entered into a drawing for an iPad upon completion of the survey.

Pre-test

There was a pre-test with a sample of college-age participants to determine what the various potential positive and negative consequences of sexting are. The results of the pre-test helped to create a list of potential positive and negative consequences that were used in the main study. The pre-test was necessary in order to create an exhaustive list of consequences for sexting. Extant research discusses various consequences of sexting, but there is currently no comprehensive list of positive and negative consequences. A college-age sample was ideal for this pre-test because they are likely to have a more complete understanding of the consequences of sexting than other age groups; college students likely have more direct and indirect experience with sexting and its consequences to draw from than adolescents or older adults.

The pre-test included a brainstorming session with a group of 24 students (13 women, 11 men), and an online open-ended survey that will allowed participants to write down ideas in private. The online survey was completed by 196 individuals (110 women, 86 men). The age of the participants ranged from 18-23 ($M = 19.69$, $SD = 1.22$). An exhaustive list was generated from these results to use for the main study. These consequences can be found in the survey on pages 169-172.

Measures

Control variables. There are several variables that correlate with sexting that needed to be controlled for in the present study: age, need for popularity, sexual activeness, parental control, and access to mobile technology.

Past research has shown a correlation between age and sexting such that sexting prevalence grows with age (Dake, et al., 2012; Mitchell, et al., 2012; Rice et al., 2012; Strassberg, et al., 2013). Additionally, Abeele et al. (2014) found in their methodologically rigorous study that teens who had a greater need for popularity were more likely to send and receive sexts, thus need for popularity was measured and controlled. Several studies have also shown a correlation between sexual activity and sexting, such that those who are more sexually active are more likely to have participated in sexting (Benotsch et al.; Dake et al., 2012; 2013; Gordon-Messer et al.; 2013 Rice et al., 2012), thus this was controlled. Parental mediation may also be an important variable to control for because if parents monitor Internet and cell phone use, adolescents are probably less likely to engage in any online sexual activities. Finally, it was important to control for access to mobile technology because sexting typically occurs with mobile devices.

Age. Participants were asked to indicate their age in years.

Need for popularity. Adolescents' need for popularity was measured by employing five items from Santor et al.'s (2000) popularity scale as Abeele et al. (2014) did. This assesses to what extent adolescents "act in certain ways out of a desire to be popular with others" (p. 165). Sample items include "It's important that people think I'm popular" and "I've been friends with some people, just because others liked them." Participants indicated on a scale of 1 (*completely disagree*) to 5 (*completely agree*) how much they agreed with these statements. These scores were summed and divided by 5 to create a total NFP score that ranged from a possible 1 to 5. Cronbach's α was acceptable at .85.

Sexual activeness experience. To measure whether participants are sexually active, a version of the approach Gordon-Messer et al. (2013) employed was utilized. Participants were asked to indicate whether or not they are sexually active (yes or no).

Parental mediation. Parental mediation was measured in the same fashion as Kerstens and Stol (2014). Adolescents' perception of their parental mediation was measured by four items based on the strategies of parental mediation: supervision (parent is present while using the Internet), restrictive mediation (parent sets rules), monitoring (parent checks records afterwards), and active mediation (parent communicates on Internet use and safety). Individuals indicated on a 5-point Likert scale from 1 (*almost always*) to 5 (*never*). These four items were combined to measure parental mediation. Cronbach's α was acceptable at .80.

Access to mobile technology. Individuals indicated how often they have access to mobile technology on a 5-point Likert scale from 1 (*almost always*) to 5 (*never*).

Criterion variables.

There are several aspects of sexting that are important to consider. For example, the actual behavior of sending and receiving of sexts is of interest, as well as a request for a nude or sexy photo or video. It is also important to consider adolescents' attitudes and intentions about sexting, as this may be predictive of future behavior. The theory of reasoned action (TRA, Ajzen & Fishbein, 1975) is an ideal theoretical and organizational tool in this instance. This theory provides a model for predicting behavior, and posits that attitudes and subjective norms lead to a behavioral intention, which, in turn, leads to a behavior. In other words, if a person has a favorable attitude about a behavior, and there are perceived social pressures to perform a behavior, the person is likely to intend to

carry out said behavior and thus eventually actually perform the act. Attitudes and intentions are especially important in the case of adolescent sexting because individuals from this group may be contemplating whether or not they want to sext. Thus, the sexting dependent variables will be organized by TRA, and thus will include sexting behaviors, sexting attitudes, sexting intentions, and sexting subjective norms.

Sexting behaviors. Sexting was defined liberally in this study, as previously described. Using the Pew Internet and American Life Project's definition of sexting (Lenhart, 2009), participants were asked if they have ever sent, received, or requested sexually suggestive nude or nearly nude photos or videos. Participants were be asked to answer either yes or no to each question, and if they answered yes they were be prompted to estimate the frequency of their behavior on a Likert scale of 1 (*not at all often*) to 10 (*very often*),

Sexting attitudes. Sexting attitudes were measured using the same definition of sexting provided by Pew Internet and American Life Project's definition of sexting (Lenhart, 2009). This measurement was created with the theory of reasoned action (Ajzen & Fishbein, 1975) in mind. According to Ajzen (1991), attitudes are "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (p. 188). Sexting attitudes were measured by using part of Hudson's (2011) adaptation of the sexting instrument used by The National Campaign to Prevent Teen and Unplanned Pregnancy. Hudson considered images and sexual talk in her definition of sexting; for the present study only items referring to images were used. There are 16 items in the attitudes subscale. Participants were asked to indicate on a 5-point scale from strongly disagree to strongly agree with descriptors of sexting (e.g.,

fun/exciting/gross/immoral), and statements about sexting such as “personal sexy pictures/videos usually end up being seen by more than just those to whom they were sent”. These points were combined to create an attitudes subscale, and the mean of the combined scores were used for data analysis. Cronbach’s α was acceptable at .85 for this scale.

Sexting intentions. Sexting intentions were measured using the same definition of sexting provided by Pew Internet and American Life Project’s definition of sexting (Lenhart, 2009). This measurement is in line with theory of reasoned action (Ajzen & Fishbein, 1975) in mind, which describes intentions as an individual’s intention to perform a behavior. Sexting intentions were measured by using part of Hudson’s (2011) adaptation of the sexting instrument used by The National Campaign to Prevent Teen and Unplanned Pregnancy. There are 17 items, and participants will be asked to indicate on a 5-point scale from strongly disagree to strongly agree. For some items participants will indicate whether they agree with statements such as “I am likely to be more forward/aggressive using sexy pictures/videos than I am in real life”, and for others participants will indicate how much they agree with statements that describe how likely they are to sext in the given situation (e.g., “If I trust the receiver,” “If I find the right person,” “If someone I like asks me”). These points were combined to create an intentions subscale, and the mean of the combined scores were used for data analysis. Cronbach’s α was acceptable at .93.

Sexting subjective norms. Sexting subjective norms were measured using the same definition of sexting provided by Pew Internet and American Life Project’s definition of sexting (Lenhart, 2009). According to Ajzen (1991), subjective norms are

“the perceived social pressure to perform or not perform the behavior” (p. 188). Sexting subjective norms were measured by using part of Hudson’s (2011) adaptation of the sexting instrument used by The National Campaign to Prevent Teen and Unplanned Pregnancy. There are 11 items, and participants were asked to indicate on a 5-point scale (from strongly disagree to strongly agree) whether or not they agree with statements such as “to my knowledge, all of my close friends have sent sexy pictures/videos to someone” or “there is pressure among people my age to post sexy pictures/videos in their social networking site profiles (like MySpace, Facebook, etc.)”. These points were combined to create a subjective norms subscale, and the mean of the combined scores were used for data analysis. Cronbach’s α was acceptable at .76.

Perceived negative/positive risks/consequences. The pre-test determined what the specific risks/consequences are for participating in sexting. Then, perceived risks/consequences were measured by asking participants to indicate whether or not (yes or no) they *personally* are at risk for each item on the exhaustive list of positive and negative consequences. There were 50 negative consequences and 35 positive consequences from which to choose; thus, possible scores on this measure could range from 0-50 for negative consequences, and 0-35 for positive consequences.

Predictor variables.

Online disinhibition. Udris’s (2014) Online Disinhibition Scale (ODS) was used to measure how disinhibited online participants are. This scale was developed using Suler’s (2004) theoretical framework, and was tested on Japanese adolescents and validated using EFA and CFA. ODS is an 11-item scale that includes two subscales: benign disinhibition and toxic disinhibition. Example benign disinhibition items include

“it is easier to write things online that would be hard to say in real life because you don’t see the other’s face”, and “I feel like a different person online”, and examples of toxic disinhibition items include “ it is easy to write insulting things online because there are no repercussions” and “there are no rules online therefore you can do whatever you want”. Participants indicated their agreement with these items on a 4-point scale ranging from 0 (*disagree*) to 3 (*agree*). A total score for OD was calculated by calculating the mean of each of the items. Cronbach’s α was acceptable for this measure at .78.

Calculating a total score of OD rather than focusing on the two subscales is consistent both with what Suler (2004) theorized, and with the results of Udris’ study; Suler theorized disinhibition to have two dimensions while also acknowledging that no clear line of demarcation could be drawn between the two, and Udris’ CFA and EFA analyses show that the subscales can be separated but other results of the study suggests that the subscales are not fully independent of each other (e.g. both toxic and benign disinhibition predicted cyberbullying). Thus, it is acceptable to combine the subscales to create a total OD score.

Personal fable beliefs. Personal fable beliefs were measured using the Personal Fable (PF) scale (Alberts, Elkind, & Ginsberg, 2007). This scale is a 12-item Likert-type scale that includes two subscales, invulnerability and specialty. Examples of items include “some kids believe that even if they try drugs they will never get hooked on them” (invulnerability), and “although I know that many other people may never realize their goals and ambitions I am sure that I will” (specialty). Participants were instructed to indicate the degree to which they regard each statement as true for them, ranging from 1 (*this is never true for me*) to 5 (*this is always true for me*). A total score for PF was

calculated by taking a mean of the combined scores. Cronbach's α approached acceptability at .57. This is comparable to the reliability scores that Alberts et al. (2007) found (.60).

Imaginary audience beliefs. The Imaginary Audience Scale (IAS) was utilized to measure imaginary audience beliefs. This scale was created by Elkind and Bowen (1979), has been shown to have acceptable reliability and construct validity, and has been used by a number of other researchers (e.g., Gray & Hudson, 1984; Ryan & Kuczkowski, 1994). As the scale assesses willingness to reveal different facets of the self to an audience, the measure includes 12 different items that describe embarrassing scenarios, and participants were instructed to indicate what they would do or how they would feel in each scenario. Examples of items include "If you went to a party where you did not know most of the kids, would you wonder what they were thinking about you?" (options for answers are "I wouldn't think about it", "I would wonder about that a lot", and "I would wonder about that a little") and "when someone watches me work . . ." (options for answers are "I get very nervous", "I don't mind at all", and "I get a little nervous"). Participants will choose one of three proposed ways of dealing with the scenarios. For data analysis, each of the choices was coded as an un-willingness to participate (scored as 2), indifference (scored as 1), or a willingness to participate (scored as 0), per Elkind and Bowen's (1979) instructions. The mean of the total scores were used to comprise the IAS measure; a higher score reflects an unwillingness to expose the self to an audience. Cronbach's α was acceptable for this measure at .76.

Support of legal/social sanctions for girls and boys who sext. The pre-test determined the social sanctions (risks/negative consequences) of participating in sexting.

In the main study, participants were asked whether or not they agree that people deserve the social sanctions they experience. They indicated on a sliding scale whether they think girls or boys more deserve the sanctions; boys were on one side of the scale and girls were on the other (1 = girls, 5.5 = neutral, 10 = boys). For the legal sanctions, participants were asked who they feel deserves to be held legally responsible for sexting (boys or girls), and again indicated their answers on a similar sliding scale.

Acceptance of women as sex objects. A subscale from the Attitudes about Dating and Sexual Relationships scale by Ward (2002) was used. There are eight items in this subscale, and examples are “women should spend a lot of time trying to be pretty; no one wants to date a woman who has ‘let herself go’”, and “there’s nothing wrong with men whistling at shapely women”. Participants were asked to rate their level of agreement with each statement on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The scores were averaged to create a possible score of 1 to 6. Cronbach’s α for this measure was acceptable at .77.

Trait self-objectification. Trait self-objectification (SO) was measured using the Trait Self-Objectification Questionnaire. Noll and Fredrickson (1998) developed this scale in order to determine the extent to which people view their bodies in observable, appearance-based/objectified terms or non-observable, competence-based/non-objectified terms. Half of the attributes listed are appearance based (physical attractiveness, coloring, weight, sex appeal, measurements, and muscle tone) and the other half are competence based (muscular strength, physical coordination, stamina, health, physical fitness, and physical energy level). Following Vandebosch and Eggermont’s (2012) procedure, participants rated the importance of 12 body attributes on a 10-point scale ranging from 1

(*not at all important*) to 10 (*very important*). This method of rating, rather than order-ranking, has been used with young people because it is less confusing. Then, mean scores were calculated for both the appearance-based and competence-based attributes, and the difference between the mean scores estimated each individual's level of self-objectification. Scores ranged from -9 to 9, and higher scores indicate a higher level of self-objectification.

Sociocultural attitudes toward appearance/media beliefs. This was measured by using the media subscale of the Sociocultural Attitudes Toward Appearance Scale (SATAQ) (Cusumano & Thompson, 1997). SATAQ assesses women's and men's recognition and endorsement of socially sanctioned standards of appearance. The scale has been shown to be applicable to middle-school aged girls and boys (Smolak, Levine, & Thompson, 2001). Only items from the media use subscale were included, which included eight items. Examples of items were "I would like my body to look like the men who appear in TV shows and movies," and "Music videos that show women who are in good physical shape make me wish that I were in better physical shape". Participants were asked to indicate the number that best reflects their agreement with each statement, on a scale of 1-5 (1 = *completely disagree* to 5 = *completely agree*). The scores were summed and divided by eight to create a possible range of scores from 1-5. Cronbach's α for this measure was acceptable at .89 for both the women's and men's SATAQ scales.

Internalization of sexualization. This was measured with the Internalized Sexualization Scale, which was a scale created to measure the internalization of sexualization on pre- and early adolescent girls (McKenney & Bigler, 2014). Only female participants completed this measure as it was created for the internalization of

sexualization for adolescent girls. The entire scale represents a single construct, but includes six subscales that represent different domains of the internalized sexualization construct. Two of the six subscales were employed in the current study; the Body subscale, which assesses girls' endorsement of sexualized beliefs about their own and other females' bodies, and the Power subscale, which assesses girls' endorsement of the idea that being sexually attractive gives them power. These subscales were chosen in consultation with McKenney based on the predictions made in the present study, and these two subscales together resulted in 14 items.

For these measures, participants read a list of statements and indicated on a scale of 1 to 5 how much they agreed or disagreed with each statement (1 = *strongly disagree*, 5 = *strongly agree*). Examples of statements are "I have wanted to look hot so that I can be popular" from the body subscale, and "I can get boys to do what I want when I flirt with them" from the power subscale. The 14 items were summed and divided by 14 to create a possible range of 1 to 5. Cronbach's α was acceptable at .90.

Data Analysis

A variety of statistical analyses were utilized to answer the research questions and hypotheses. For H1a-d, H3a-d, RQ7, RQ9a-d, and H5a-b, hierarchical regression models with controls on the first block and the predictor variables entered on the second block were used. For RQ1a-c, H2a-d, and RQ2a-d, regression-based moderation analyses were used. For RQ3-RQ6, *t*-tests were conducted to compare the means of sexting intentions, attitudes, subjective norms, and behaviors for boys and girls. For H4 and RQ8, regression-based mediation analyses were used.

Chapter 4: Results

Descriptive Statistics

As previously described, 201 individuals completed the survey ($n = 93$ boys, $n = 107$ girls, and one person who identified as other). Overall, 32.3% ($n = 65$) indicated that they have sent a sext message, 58.7% ($n = 118$) indicated that they had received a sext message, and 18.9% ($n = 38$) indicated that they had requested a sext message.

Participation did vary somewhat according to gender; 28% ($n = 26$) of boys indicated that they had sent a sext message, 58.1% ($n = 54$) of boys indicated that they had received a sext message, and 30.1% ($n = 28$) of boys indicated that they had requested a sext message, compared to 36.4% ($n = 39$) of girls who had sent, 59.8% ($n = 64$) of girls who had received, and 9.3% ($n = 10$) of girls who had requested a sext message. Three independent samples t -tests revealed that there were no significant differences between boys and girl concerning sending ($t(198) = -1.28, p = .20$) or receiving ($t(198) = -.25, p = .80$) sext messages, but that boys requested significantly more sexts than girls did ($t(198) = 3.85, p < .001$).

On average, individuals who indicated that they have sent a sext message did so at an average level of 3.25 ($SD = 2.30$) on a scale of 1-10 (1 = very infrequently, 10 = very frequently). Individuals who have received a sext message did so at an average level of 3.70 ($SD = 2.57$) on a scale of 1-10. Individuals who have requested a sext message did so at an average level of 2.50 ($SD = 2.31$) on a scale of 1-10. All of the means are below the mid-point which indicates a low amount of frequency.

There were some gender differences for the other sexting variables. For example, on a scale of 1-5 (1 = *strongly disagree*, 5 = *strongly agree*), boys ($M = 2.88$, $SD = .63$) had significantly more positive attitudes about sexting than girls ($M = 2.32$, $SD = .58$), $t(198) = -6.48$, $p < .001$), and girls ($M = 2.81$, $SD = .67$) perceived higher levels of subjective norms than boys ($M = 2.53$, $SD = .57$), $t(198) = 3.15$, $p < .001$. However, there was no difference between boys ($M = 2.66$, $SD = .92$) and girls ($M = 2.46$, $SD = .85$) regarding sexting intentions $t(198) = -1.64$, $p = .37$.

Regarding online disinhibition levels (possible scores could range from 0 = *lowest level of disinhibition*, 3 = highest level of disinhibition), participants experienced low to moderate levels of disinhibition online overall ($M = 1.27$, $SD = .53$), and boys ($M = 1.32$, $SD = .53$) and girls ($M = 1.22$, $SD = .53$) did not significantly differ, $t(198) = 1.37$, $p = .68$. However, on a scale of 1-5 (1 = this is never true for me, 5 = this is always true for me), boys ($M = 3.37$, $SD = .45$) had higher levels of personal fable beliefs than girls ($M = 3.09$, $SD = .50$), $t(198) = -4.03$, $p < .001$. For imaginary audience beliefs, which was measured on a scale of 0-2 (answers varied depending on the question, but were later coded as ranging from 0 = willingness to participate, 2 = un-willingness to participate), girls ($M = 1.08$, $SD = .35$) had higher levels of imaginary audience beliefs than boys ($M = .76$, $SD = .32$), $t(198) = 6.60$, $p < .001$.

Regarding positive consequences and negative consequences, the average participant reported 27.41 ($SD = 12.92$) negative consequences that they could see being risks of sexting out of a possible 50 negative consequences. The average participant reported 9.89 ($SD = 8.08$) positive consequences that they could see being benefits of sexting out of a possible 35 positive consequences. Regarding who deserves the social

consequences of sexting (possible scores could range from 0 = girls, 10 = boys), the average participant leaned toward girls deserving the social consequences ($M = 4.88$, $SD = 2.16$). Regarding who deserves the legal consequences of sexting (possible scores could range from 0 = girls, 10 = boys), the average participant leaned toward boys receiving the legal consequences ($M = 6.21$, $SD = 2.06$). A comparison of boys and girls for these variables will be explored later for RQ5 and RQ6.

Regarding self-objectification (possible scores could range from -9 = low levels of self-objectification, 9 = high levels of self-objectification), participants experienced low levels of self-objectification overall ($M = -1.01$, $SD = 1.98$), and boys ($M = -1.22$, $SD = 1.98$) and girls ($M = -.81$, $SD = 1.96$) did not significantly differ. However, regarding acceptance of women as sexual objects (possible scores could range from 1 = strongly disagree to 6 = strongly agree) boys ($M = 3.30$, $SD = .98$) had higher levels of acceptance of women as sexual objects than girls ($M = 2.68$, $SD = .83$), $t(198) = -4.87$, $p < .001$.

See Table 1 for descriptive statistics, displayed according to gender, Table 2 for correlations between predictor and criterion variables, and Table 3 for correlations between control and criterion variables.

Research Questions and Hypotheses

H1a-d: Higher levels of online disinhibition will positively predict sexting attitudes, intentions, subjective norms, and behaviors. Hierarchical regression models (HRMs) were employed to test the prediction that higher levels of online disinhibition predict sexting attitudes, intentions, subjective norms, and behaviors. An empirical approach to entering control variables in the models was used; only control variables that

were correlated with the criterion variables were used in these analyses. See Table 4 for the HRMs testing H1.

For H1a, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and online disinhibition was entered into the second step. Results showed that the model did not significantly explain variance in sexting attitudes, $F(3, 197) = 9.97, p = .25$, thus H1a was not supported.

For H1b, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and online disinhibition was entered into the second step. Results showed that the model significantly explained variance in sexting intentions, $F(3, 197) = 13.39, p < .05$, adjusted $R^2 = .20$, $\beta = .14, p < .05$, and online disinhibition explained an additional 2% of the variance in sexting intentions above and beyond the control variables. Thus, H1b was supported; higher levels of online disinhibition positively predicted sexting intentions.

For H1c, need for popularity was entered into the first step as a control variable, and online disinhibition was entered on the second step. Results showed that the model significantly explained variance in sexting subjective norms, $F(2, 198) = 9.72, p < .05$, adjusted $R^2 = .08$, $\beta = .25, p < .05$ and that online disinhibition explained an additional 6% of the variance in sexting subjective norms above and beyond the control variables. Thus, H1c was supported; higher levels of online disinhibition positively predicted sexting subjective norms.

For H1d, sexual activeness was entered as a control variable in the first step, and online disinhibition was entered into the second step. Results showed that the model significantly explained variance in sexting behaviors, $F(2, 199) = 25.85, p < .01$, adjusted

$R^2 = .20$, $\beta = .18$, $p < .05$ and that online disinhibition explained an additional 3% of the variance in sexting behaviors above and beyond the control variables. Thus, H1d was supported; higher levels of online disinhibition positively predicted sexting behaviors.

After these analyses were run, it was deemed necessary to do some post hoc analysis to further probe the relationships predicted. Thus, Andrew Hayes's (2013a) procedures were used to examine mediation between online disinhibition and the various sexting variables. Hayes' (2013b) PROCESS macro Model 6 was used for these analyses. The model included online disinhibition as the predictor variable, sexting behaviors as the criterion variable, and sexting attitudes, sexting subjective norms, and sexting intentions as mediating variables. Parental mediation, need for popularity, and sexual activeness were entered as control variables. Results showed that the model was significant $F(4, 193) = 12.59$, $p < .001$ ($R^2 = .21$), and that mediation occurred (indirect effect = 0.159, SE = 0.07, LLCI = 0.036, ULCI = 0.309). Please see Figure 1 for a visual depiction of this mediation and coefficients for each variable. Results show that there is no direct effect of online disinhibition on attitudes, in concert with the hierarchical regression models. The model shows that higher levels of online disinhibition do not have a direct effect on sexting behaviors, but that this relationship is mediated by sexting subjective norms and intentions. In other words, higher levels of online disinhibition predict sexting behaviors via subjective norms and intentions.

RQ1a-c: Will online disinhibition predict each type of sexting activity (sending, receiving, requesting)? A series of HRMs were conducted to investigate this research question. An empirical approach was used; only control variables that were

correlated with the criterion variables were used in these analyses. Please see Table 5 for the HRMs for RQ1.

When testing if online disinhibition predicted sending sext messages, sexual activeness was entered into Step 1 as a control variable. Results showed that the model did not significantly explain variance in sending sext messages, $F(2,195) = 17.98, p = .14$. In answer to RQ1a, then, it appears that online disinhibition did not predict the sending of sext messages.

When testing if online disinhibition predicted the receiving of sext messages, need for popularity and sexual activeness were entered into Step 1 as control variables. Results showed that the model significantly explained variance in the receiving of sext messages, $F(3, 194) = 9.72, p < .05$, adjusted $R^2 = .12, \beta = .15, p =$ and that online disinhibition explained an additional 2% of the variance in the receiving of sext messages above and beyond the control variables. In answer to RQ1b, then, it appears that higher levels of online disinhibition positively predicted the receiving of sext messages.

When testing if online disinhibition predicted the requesting of sext messages, need for popularity and sexual activeness were entered as control variables. Results showed that the model significantly explained variance in the requesting of sext messages, $F(3, 194) = 6.26, p < .05$, adjusted R^2 was .07, $\beta = .17$, and online disinhibition explained an additional 3% of the variance in the requesting of sext messages above and beyond the control variables. Thus, in answer to RQ1c, it appears that higher levels of online disinhibition positively predicted the requesting of sext messages.

H2a-d: The relationships predicted in H1a-d are moderated by personal fable beliefs. Andrew Hayes's (2013a) procedures were used to examine these

moderation models. Hayes' (2013b) PROCESS macro Model 1 was used for these analyses. To test this hypothesis, four models were created, one for each sexting criterion variable examined in H1.

The first model included online disinhibition as the predictor variable, sexting attitudes as the criterion variable, and personal fable beliefs as the moderating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was significant $F(6, 191) = 11.35, p < .001 (R^2 = .21)$, but that the interaction was not significant, $(\Delta R^2 = 0.00, \beta = .01, p = .92)$. Thus, H2a was not supported; personal fable beliefs did not moderate the relationship between online disinhibition and sexting attitudes.

The second model included online disinhibition as the predictor variable, sexting intentions as the criterion variable, and personal fable beliefs as the moderating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting intentions. Results indicated that the model was significant, $F(6, 191) = 11.91, p < .001 (R^2 = .23)$, but that the interaction was not significant, $(\Delta R^2 = 0.00, \beta = .04, p = .84)$. Thus, H2b was not supported; personal fable beliefs did not moderate the relationship between online disinhibition and sexting intentions.

The third model included online disinhibition as the predictor variable, sexting subjective norms as the criterion variable, and personal fable beliefs as the moderating variable. Need for popularity was entered as a control variable because it was significantly correlated with sexting subjective norms. Results indicated that the model

was significant, $F(4, 194) = 4.52, p < .01 (R^2 = .10)$, but that the interaction was not significant, ($\Delta R^2 = 0.00, \beta = .04, p = .79$). Thus H2c was not supported; personal fable beliefs did not moderate the relationship between online disinhibition and sexting subjective norms.

The fourth model included online disinhibition as the predictor variable, sexting behaviors as the criterion variable, and personal fable beliefs as the moderating variable. Sexual activeness was entered as a control variable because it was significantly correlated with sexting behaviors. Results indicated that the model was significant $F(4, 195) = 16.45, p < .001 (R^2 = .21)$, but that the interaction was not significant, ($\Delta R^2 = 0.01, \beta = -.29, p = .26$). Thus, H2d was not supported; personal fable beliefs did not moderate the relationship between online disinhibition and sexting behaviors.

Thus, in total, H2 was not supported. The relationship between online disinhibition and sexting attitudes, intentions, norms, and behavior appeared not to be contingent on participants' personal fable beliefs.

RQ2a-d: Are the relationships predicted in H1a-d moderated by imaginary audience beliefs? Andrew Hayes's (2013a) PROCESS procedure for SPSS was used to examine these moderation models. PROCESS Model 1 was used for these analyses. To test this research question, four models were created, one for each hypothesis.

The first model included online disinhibition as the predictor variable, sexting attitudes as the criterion variable, and imaginary audience beliefs as the moderating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was significant, $F(6, 191) = 13.46, p < .001 (R^2 = .23)$,

but that the interaction was not significant ($\Delta R^2 = 0.01$, $\beta = -.30$, $p = .16$). Thus, in response to RQ2a, imaginary audience beliefs did not moderate the relationship between online disinhibition and sexting attitudes.

The second model included online disinhibition as the predictor variable, sexting intentions as the criterion variable, and imaginary audience beliefs as the moderating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting intentions. Results indicated that the model was significant, $F(6, 191) = 10.13$, $p < .001$ ($R^2 = .23$), but that the interaction was not significant, ($\Delta R^2 = 0.00$, $\beta = .08$, $p = .81$). Thus, in response to RQ2b, imaginary audience beliefs did not moderate the relationship between online disinhibition and sexting intentions.

The third model included online disinhibition as the predictor variable, sexting subjective norms as the criterion variable, and imaginary audience beliefs as the moderating variable. Need for popularity was entered as a control variable because it was significantly correlated with sexting subjective norms. Results indicated that the model was significant, $F(4, 194) = 3.26$, $p < .05$ ($R^2 = .09$), but that the interaction was not significant, ($\Delta R^2 = 0.00$, $\beta = .19$, $p = .54$). Thus, in response to RQ2c, imaginary audience beliefs did not moderate the relationship between online disinhibition and sexting subjective norms.

The fourth model included online disinhibition as the predictor variable, sexting behaviors as the criterion variable, and imaginary audience beliefs as the moderating variable. Sexual activeness was entered as a control variable because it was significantly correlated with sexting behaviors. Results indicated that the model was significant, $F(4,$

195) = 18.57, $p < .001$ ($R^2 = .23$), but that the interaction was not significant, ($\Delta R^2 = 0.01$, $\beta = .44$, $p = .19$). Thus, in response to RQ2d, imaginary audience beliefs did not moderate the relationship between online disinhibition and sexting subjective norms.

Thus, based on the models, it appears that imaginary audience beliefs do not moderate the relationship between online disinhibition and sexting (attitudes, intentions, subjective norms, and behaviors).

RQ3: Will there be gender differences in sexting intentions, attitudes, behaviors, and subjective norms? To investigate this research question, four independent samples t -tests were conducted, one for each sexting variable. The first t -test revealed that boys ($M = 2.88$, $SD = .63$) had significantly more favorable attitudes about sexting than girls ($M = 2.32$, $SD = .58$), $t(198) = 6.48$, $p < .001$. The second t -test revealed that there was no significant difference between boys ($M = 2.66$, $SD = .92$) and girls ($M = 2.46$, $SD = .85$) concerning their intentions to sext, $t(198) = 1.64$, $p = .10$. The third t -test revealed that boys ($M = 2.53$, $SD = .57$) scored significantly lower on subjective norms than girls ($M = 2.81$, $SD = .67$), $t(198) = -3.15$, $p < .01$. The fourth t -test revealed that there was no significant difference between boys ($M = 1.16$, $SD = 1.12$) and girls ($M = 1.06$, $SD = .99$) concerning sexting behaviors. Thus, in response to RQ3, there were gender differences regarding sexting attitudes and sexting subjective norms, whereby boys had more positive attitudes and girls had more permissive subjective norms about sexting. However, there were no gender differences regarding sexting intentions and sexting behaviors.

RQ4: Will there be gender differences in sending, receiving, and requesting sexts? To investigate this research question, three independent samples t -tests were conducted. The first t -test revealed that there was no difference between how many sext

message sent between boys ($M = 1.96$, $SD = 1.99$) and girls ($M = 2.09$, $SD = 1.90$), $t(197) = -.50$, $p = .62$. The second t -test revealed that there was no difference between how many sext messages were received between boys ($M = 3.38$, $SD = 2.78$) and girls ($M = 3.08$, $SD = 2.54$), $t(198) = .78$, $p = .44$. The third t -test revealed that boys ($M = 1.83$, $SD = 1.85$) requested more sext messages than girls ($M = 1.21$, $SD = .74$), and there was a significant difference between groups, $t(198) = 3.21$, $p < .01$. Thus, in response to RQ4, there were no gender differences in the sending or receiving of sext messages, but there were gender differences in the requesting of sext messages wherein boys requested more sext messages than girls.

RQ5: Will there be gender differences regarding the positive and negative consequences of sexting? To investigate this research question, two independent samples t -tests were conducted; one to compare girls and boys' perceptions of negative consequences of sexting that they are at risk for, and one to compare girls and boys' perceptions of positive consequences that they could benefit from sexting. The first t -test revealed that girls ($M = 30.82$, $SD = 12.53$) perceived that they could receive significantly more negative consequences of sexting than boys ($M = 23.47$, $SD = 12.29$), $t(198) = 4.17$, $p < .001$. The second t -test revealed that girls ($M = 8.01$, $SD = 7.04$) perceived that they could receive significantly fewer positive consequences than boys ($M = 12.05$, $SD = 8.68$), $t(198) = -3.88$, $p < .001$. Thus, in response to RQ5, girls perceive that they are at risk for more negative consequences regarding sexting, while boys perceive that they will receive more positive consequences regarding sexting.

RQ6a: Will adolescents support stricter peer and legal sanctions for girls who sext rather than boys who sext? To investigate this research question, two one-sample

t-tests were conducted. When asked about who deserved the negative consequences of sexting (peer sanctions), participants rated their answers on a scale of 1-10 (1 = *girls*, 5.5 = *neutral*, and 10 = *boys*), and on average indicated 4.88 (*SD* = 2.16) on the sliding scale, which significantly differed from the test value (=5.5), $t(192) = -4.02, p < .001$. This means that participants reported that girls were significantly more deserving of peer sanctions for sexting than boys. When asked who should be held legally responsible for sexting, participants indicated on a scale of 1-10 (1 = *girls*, 5.5 = *neutral*, and 10 = *boys*), and on average indicated 6.21 (*SD* = 2.06) on the sliding scale, which significantly differed from the test value (5.5), $t(198) = 4.83, p < .001$. Thus, in response to RQ6a, it appears that adolescents support stricter peer sanctions for girls who sext and stricter legal sanctions for boys who sext.

RQ6b: Are there gender differences in adolescents' support of peer and legal sanctions? To investigate this research question, two independent samples *t*-tests were conducted. For peer sanctions, on average boys indicated 4.52 (*SD* = 2.16) on a scale of 1-10 (1 = *girls*, 5.5 = *neutral*, and 10 = *boys*), and on average girls indicated 5.18 (*SD* = 2.12) on the 10-point scale, and these means significantly differed from each other $t(191) = -2.15, p < .05$. Thus, boys felt more strongly that girls should receive the negative consequences of sexting than girls did. For legal sanctions, on average boys indicated 6.38 (*SD* = 2.22) on the 10-point scale and on average girls indicated 6.05 (*SD* = 1.91), but these means did not significantly differ from each other $t(197) = 1.13, p = .27$. In other words, boys and girls felt similarly that boys should be slightly more legally responsible for sexting than girls. Thus, in response to RQ6b, boys felt more strongly that girls should receive the negative consequences of sexting, and there was no gender

difference between boys and girls in how they feel about who should be legally responsible for sexting.

H3a-d: Higher levels of trait self-objectification will predict favorable attitudes toward sexting for girls, sexting intentions, sexting subjective norms, and sexting behavior. HRMs were employed to test the prediction that higher levels of trait self-objectification predict sexting attitudes, intentions, subjective norms, and behaviors. These models were only run for girls, in accordance with the hypothesis ($n = 107$). An empirical approach to entering the control variables into the models was used; only control variables that were correlated with the criterion variables were entered in the first step of the models.. Table 6 displays the results of the HRMs for H3.

For H3a, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and self-objectification was entered into the second step. Results showed that the model significantly predicted sexting attitudes, $F(1, 100) = 6.89$, $p < .01$, $\beta = .32$, adjusted $R^2 = .19$, and self-objectification explained an additional 9% of the variance in sexting attitudes, above and beyond the control variables. Thus, H3a was supported; higher levels of self-objectification predicted more favorable attitudes about sexting.

For H3b, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and self-objectification was entered into the second step. Results showed that the model significantly predicted sexting intentions, $F(1,100) = 9.49$, $p < .05$, $\beta = .20$, adjusted $R^2 = .25$, and self-objectification explained an additional 4% of the variance in sexting intentions above and beyond the control variables. Thus, H3b was supported; higher levels of self-objectification predicted intention to sext.

For H1c, need for popularity was entered into the first step as a control variable, and self-objectification was entered into the second step. Results showed that the model significantly predicted sexting subjective norms, $F(1, 103) = 4.25, p < .05, \beta = .21$, adjusted $R^2 = .06$, and self-objectification explained an additional 4% of the variance in sexting subjective norms above and beyond the control variables. Thus, H3c was supported; higher levels of self-objectification predicted sexting subjective norms.

For H1d, sexual activeness was entered into the first step as a control variable, and self-objectification was entered into the second step. Results showed that the model did not predict sexting behaviors, $F(1, 104) = 10.56, p = .26$. Thus, H3d was not supported; higher levels of self-objectification did not predict sexting behaviors.

After these analyses were run, it was deemed necessary to do some post hoc analysis to further probe the relationships predicted. Thus, Andrew Hayes's (2013a) procedures were used to examine mediation between self-objectification and the various sexting variables. Hayes' (2013b) PROCESS macro Model 6 was used for these analyses. The model included self-objectification as the predictor variable, sexting behaviors as the criterion variable, and sexting attitudes, sexting subjective norms, and sexting intentions as mediating variables. Parental mediation, need for popularity, and sexual activeness were entered as control variables. Results showed that the model was significant $F(4, 100) = 5.36, p < .001 (R^2 = .18)$, and that mediation occurred (indirect effect = 0.09, SE = 0.03, LLCI = 0.041, ULCI = 0.148). Please see Figure 2 for a visual depiction of this mediation and coefficients for each variable. Results show that self-objectification has no direct effect on sexting behaviors, in concert with the prior analysis. However, self-objectification does predict sexting behaviors via sexting attitudes and sexting intentions.

Thus, the relationship between self-objectification and sexting intentions is mediated by sexting attitudes and sexting intentions.

RQ7a-d: Does gender moderate the relationship between self-objectification and sexting attitudes, intentions, subjective norms, and behaviors?

Because these results showed that self-objectification predicted the sexting variables, an additional test was conducted to examine whether gender moderates these relationships. Hayes's (2013a) PROCESS procedure for SPSS was used to examine these moderation models. PROCESS Model 1 was used for these analyses. To test this research question, four models were created, one for each sexting variable.

The first model included self-objectification as the predictor variable, sexting attitudes as the criterion variable, and gender as the moderating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was significant $F(6, 190) = 25.94, p < .001 (R^2 = .37)$, but that the interaction was not significant, $\Delta R^2 = 0.00, \beta = .04, p = .36$. Thus, in response to RQ7a, gender did not moderate the relationship between self-objectification and sexting attitudes.

The second model included self-objectification as the predictor variable, sexting intentions as the criterion variable, and gender as the moderating variable. Need for popularity, sexual activeness, and parental mediation were entered as control variables because they were significantly correlated with sexting intentions. Results indicated that the model was significant, $F(6, 190) = 11.84, p < .001 (R^2 = .23)$, but that the interaction was not significant, $\Delta R^2 = 0.00, \beta = .06, p = .29$. Thus, in response to RQ7b, gender did not moderate the relationship between self-objectification and sexting intentions.

The third model included self-objectification as the predictor variable, sexting subjective norms as the criterion variable, and gender as the moderating variable. Need for popularity was entered as a control variable because it was significantly correlated with sexting subjective norms. Results indicated that the model was significant, $F(4, 193) = 4.55, p < .01 (R^2 = .12)$, but that the interaction was not significant, $\Delta R^2 = 0.00, \beta = .04, p = .47$. Thus, in response to RQ7c, gender did not moderate the relationship between self-objectification and sexting subjective norms.

The fourth model included self-objectification as the predictor variable, sexting behaviors as the criterion variable, and gender as the moderating variable. Sexual activeness was entered as a control variable because it was significantly correlated with sexting behaviors. Results indicated that the model was significant, $F(4, 194) = 11.60, p < .001 (R^2 = .18)$, but that the interaction was not significant, $\Delta R^2 = 0.00, \beta = .03, p = .70$. Thus, in response to RQ7d, gender did not moderate the relationship between self-objectification and sexting behaviors.

Based on the analyses to address RQ7a-d, gender did not significantly moderate the relationship between self-objectification and sexting attitudes, intentions, subjective norms, and behaviors. Thus, to confirm that the pattern of findings for H3 was indeed similar to female participants, the HRMs between self-objectification and the sexting variables were run separately for boys. These results are reported below, in response to RQ10a-d.

H4: Self-objectification will mediate the relationship between internalization of sexualization and sexting behaviors, attitudes, intentions, and subjective norms.

This hypothesis investigated whether self-objectification mediates the relationship

between internalization of sexualization (ISS) and the sexting variables. These analyses focused on girls, as boys did not complete the ISS measure. Hayes's (2013a) PROCESS procedure for SPSS was used to examine these moderation models. PROCESS Model 4 was used for these analyses.

To test this hypothesis, four models were created, one for each sexting criterion variable. The first model included ISS as the predictor variable, sexting attitudes as the criterion variable, and self-objectification as the mediating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was significant, $F(4, 99) = 10.12, p < .001 (R^2 = .29)$, and that mediation occurred (indirect effect = 0.051, SE = 0.029, LLCI = 0.006, ULCI = 0.126). Please see Figure 3 for a visual depiction of this mediation and coefficients for each variable. As predicted, ISS positively predicted self-objectification, which, in turn, predicted favorable sexting attitudes.

The second model included ISS as the predictor variable, sexting intentions as the criterion variable, and self-objectification as the mediating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables. Results indicated that the model was significant, $F(4, 99) = 15.03, p < .001 (R^2 = .38)$, but that mediation did not occur (indirect effect = 0.037, SE = 0.039, LLCI = -0.019, ULCI = 0.143).

The third model included ISS as the predictor variable, sexting subjective norms as the criterion variable, and self-objectification as the mediating variable. Need for popularity was entered as a control variable. Results indicated that the model was

significant, $F(2, 102) = 13.33, p < .001 (R^2 = .21)$, but that mediation did not occur (indirect effect = 0.022, SE = 0.037, LLCI = -0.040, ULCI = 0.118).

The fourth model included ISS as the predictor variable, sexting behaviors as the criterion variable, and self-objectification as the mediating variable. Sexual activeness was entered as a control variable. Results indicated that the model was significant, $F(2, 102) = 10.02, p < .001 (R^2 = .16)$, but that mediation did not occur (indirect effect = 0.025, SE = 0.055, LLCI = -0.084, ULCI = 0.139).

Thus, H4 was partially supported; the results indicated that self-objectification did mediate the relationship between internalization of sexualization and sexting attitudes, but self-objectification did not mediate the relationship between internalization of sexualization and sexting intentions, subjective norms, and behaviors.

RQ8: Does the internalization of the sociocultural beliefs about attractiveness portrayed in the media predict sexting? HRMs were employed to test the prediction that the internalization of sociocultural attitudes about appearance will predict sexting attitudes, intentions, subjective norms, and behaviors. In total, eight regressions were run: four for girls and four for boys. These analyses were run separately by gender because there are different versions of the Sociocultural Attitudes toward Appearance Questionnaires (SATAQ) for boys and girls. An empirical approach to entering control variables into the HRMs was used; only control variables that were correlated with the criterion variables were used in these analyses. The results for the HRMs for RQ8 are displayed in Table 7.

To test whether SATAQ predicts sexting attitudes for girls, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and

SATAQ was entered into the second step. Results show that the model did not significantly explain variance in sexting attitudes, $F(4, 99) = 5.01, p = .58$. For sexting intentions, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls. Results showed that the model did not predict sexting intentions, $F(4, 99) = 7.18, p = .08$. For sexting subjective norms, need for popularity was entered as a control variable. Results showed that the model did not predict sexting subjective norms, $F(2, 102) = 3.64, p = .07$. For sexting behaviors, sexual activeness was entered as a control variable. Results showed that the model did not predict sexting behaviors, $F(2, 102) = 10.89, p = .64$.

To test whether SATAQ predicts sexting attitudes for boys, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and SATAQ was entered into the second step. Results show that the model significantly explained variance in sexting attitudes, $F(4, 88) = 5.73, p < .05$, adjusted $R^2 = .17$, $\beta = .23$, , and that SATAQ explained an additional 4% of the variance in sexting attitudes for boys above and beyond the control variables.

For sexting intentions, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls variables. Results showed that the model significantly explained variance in sexting intentions, $F(4, 88) = 5.72, p < .001$, adjusted $R^2 = .28$, $\beta = .38$, and that SATAQ explained an additional 12% of the variance in sexting intentions above and beyond the control variables.

For sexting subjective norms, need for popularity was entered as a control variable. Results showed that the model significantly explained variance in sexting subjective norms, $F(2, 90) = 4.22, p < .05$, adjusted $R^2 = .07$, $\beta = .24$, and that SATAQ

explained an additional 5% of the variance in sexting subjective norms above and beyond the control variable.

For sexting behaviors, sexual activeness was entered as a control variable. Results show that the model did not predict sexting behaviors, $F(2, 91) = 10.71, p = .18$. Thus, in response to RQ8, the results suggest that SATAQ did not predict sexting variables for girls, and SATAQ did predict sexting attitudes, intentions, and subjective norms for boys, but it did not predict sexting behaviors.

RQ9: Does self-objectification mediate the relationship between sociocultural beliefs about attractiveness portrayed in the media and sexting? This research question investigated whether self-objectification mediates the relationship between beliefs about the media and sexting only for male participants, as there was no direct effect of beliefs about the media and the sexting variables for female participants. Hayes's (2013a) PROCESS procedure for SPSS was used to examine these moderation models. PROCESS Model 4 was used for these analyses. To test this hypothesis, three mediation models were conducted for the male participants, one for each sexting criterion variable that exhibited a statistically significant direct link between SATAQ and sexting as tested in RQ8. That is, because there was no direct effect of SATAQ on sexting behaviors for boys, no mediation analysis was conducted for that variable.

The first model included SATAQ as the predictor variable, sexting attitudes as the criterion variable, and self-objectification as the mediating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was

significant, $F(4, 88) = 9.45, p < .001 (R^2 = .30)$, but that no mediation occurred (indirect effect = 0.012, SE = 0.021, LLCI = -0.011, ULCI = 0.077).

The second model included SATAQ as the predictor variable, sexting intentions as the criterion variable, and self-objectification as the mediating variable. Parental mediation, need for popularity, and sexual activeness were entered as control variables. Results indicated that the model was significant, $F(4, 88) = 10.22, p < .001 (R^2 = .32)$, but no mediation occurred (indirect effect = 0.008, SE = 0.021, LLCI = -0.020, ULCI = 0.065).

The third model included SATAQ as the predictor variable, sexting subjective norms as the criterion variable, and self-objectification as the mediating variable. Need for popularity was entered as a control variable. Results indicated that the model was significant, $F(2, 90) = 5.12, p < .01 (R^2 = .10)$, but no mediation occurred (indirect effect = 0.013, SE = 0.020, LLCI = -0.015, ULCI = 0.062).

Thus, overall, these results suggest that self-objectification did not mediate the relationship between SATAQ and sexting variables for male participants.

RQ10a-d: Will higher levels of trait self-objectification predict sexting attitudes, intentions, subjective norms, and behaviors for boys? HRMs were employed to test the prediction that higher levels of trait self-objectification predicted sexting attitudes, intentions, subjective norms, and behaviors for boys. An empirical approach to entering control variables was used; only control variables that were correlated with the criterion variables were used in these analyses. Thus, for RQ9a, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and self-objectification was entered into the second step. Results showed that

the model did not significantly explain variance in sexting attitudes, $F(4, 87) = 7.72, p = .20$. For RQ9b, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and self-objectification was entered into the second step. Results showed that the model did not significantly explain variance in sexting intentions, $F(4, 87) = 5.53, p = .29$. For RQ9c, need for popularity was entered into the first step as a control variable, and self-objectification was entered into the second step. Results showed that the model did not significantly explain variance in sexting subjective norms, $F(2, 90) = 2.10, p = .29$. For RQ9d, sexual activeness was entered into the first step as a control variable, and self-objectification was entered into the second step. Results showed that the model did not significantly explain variance in sexting behaviors, $F(2, 90) = 10.44, p = .73$. Thus, to answer RQ10a-d, for boys, higher levels of self-objectification did not predict sexting attitudes, intentions, subjective norms, and behaviors.

H5a: Acceptance of women as sex objects will predict sexting attitudes, intentions, subjective norms, and behaviors. HRMs were employed to test the prediction that higher acceptance of women as sex objects predicts sexting attitudes, intentions, subjective norms, and behaviors. An empirical approach to entering control variables into the models was used; only control variables that were correlated with the criterion variables were used in these analyses. The results of the HRMs for H5a are in Table 8.

For sexting attitudes, need for popularity, sexual activeness, and parental mediation were entered into the first step as controls, and the acceptance of women as sex objects was entered into the second step. Results showed that the model significantly

explained variance in sexting attitudes, $F(3, 193) = 28.95, p < .001, \beta = .37$, adjusted $R^2 = .27$, and acceptance of women as sex objects explained an additional 12% of the variance in sexting attitudes, above and beyond the control variables.

For sexting intentions, need for popularity, sexual activeness, and parental mediation were entered as control variables. Results showed that the model significantly explained variance in sexting intentions, $F(3, 193) = 16.16, p < .001, \beta = .25$, adjusted $R^2 = .24$, and acceptance of women as sex objects explained an additional 6% of the variance in sexting intentions, above and beyond the control variables.

For sexting subjective norms, need for popularity was entered as a control variable. Results showed that the model did not significantly explain variance in sexting subjective norms, $F(1, 195) = 4.30, p = .23$.

For sexting behaviors, sexual activeness was entered as a control variable. Results showed that the model did not significantly explain variance in sexting behaviors, even though the model did approach significance, $F(1, 195) = 22.36, p = .06$. Thus, there is partial support for H5a. Acceptance of women as sex objects predicted sexting attitudes and intentions, yet it did not predict sexting subjective norms and behaviors.

H5b: The relationship between acceptance of women as sex objects and sexting attitudes, intentions, subjective norms, and behaviors will be moderated by gender. Hayes's (2013a) PROCESS procedure for SPSS was used to examine these moderation models; PROCESS Model 1 was used for these analyses. To test this hypothesis, four models were created, one for each sexting variable.

The first model included acceptance of women as sex objects as the predictor variable, sexting attitudes as the criterion variable, and gender as the moderating variable.

Parental mediation, need for popularity, and sexual activeness were entered as control variables because they were significantly correlated with sexting attitudes. Results indicated that the model was significant, $F(6, 189) = 29.56, p < .001 (R^2 = .38)$, but that the interaction was not significant, $\Delta R^2 = 0.00, \beta = -.07, p = .46$.

The second model included acceptance of women as sex objects as the predictor variable, sexting intentions as the criterion variable, gender as the moderating variable, and parental mediation, need for popularity, and sexual activeness as covariates. Results indicated that the model was significant, $F(6, 189) = 12.65, p < .001 (R^2 = .25)$, but the interaction was not significant, $\Delta R^2 = 0.00, \beta = .04, p = .76$.

The third model included acceptance of women as sex objects as the predictor variable, sexting subjective norms as the criterion variable, gender as the moderating variable, and need for popularity as a covariate. Results indicated that the model was significant, $F(4, 192) = 5.01, p < .001 (R^2 = .11)$, but the interaction was not significant, $\Delta R^2 = 0.00, \beta = -.04, p = .69$.

The fourth model included acceptance of women as sex objects as the predictor variable, sexting behaviors as the criterion variable, gender as the moderating variable, and sexual activeness as a covariate. Results indicated the model was significant, $F(4, 192) = 11.20, p < .001 (R^2 = .18)$, but the interaction was not significant, $\Delta R^2 = 0.00, \beta = .04, p = .79$.

Overall, the results suggested that gender did not moderate the relationship between the acceptance of women as sex objects and the sexting variables, and thus H5b was not supported.

Chapter 5: Discussion

In this chapter, I will summarize the results of my hypotheses and research questions and suggest theoretical and practical implications of the findings. Next, limitations and future directions for research will be discussed. Finally, I will conclude with the overall significance of this study.

Review of findings

The goal of the present study was to identify various predictors of sexting, and the analyses focused on three main areas: online disinhibition, gender differences and the consequences of sexting, and self-objectification.

Online disinhibition. Several hypotheses and research questions centered on the idea that people present themselves differently online, such as self-disclose more easily, and say and do things that they would not ordinarily say and do in face-to-face (f-t-f) situations. This notion is known as the online disinhibition effect (Suler, 2004), a useful theoretical concept that helps to explain why one would take the risk of creating and sending a sext. The first set of hypotheses posited that higher levels of online disinhibition would positively predict sexting attitudes, intentions, subjective norms, and behaviors among adolescents. Results showed that online disinhibition did not predict sexting attitudes, but it did predict sexting intentions, subjective norms, and behaviors. These results suggest that one's attitudes about sexting are not influenced by his or her propensity to open up online; his or her feelings about whether sexting would be good or bad is not impacted by online disinhibition. However, whether or not one intends to participate, their perceptions of social pressures to participate, and whether they actually participate in sexting is explained, at least in part, by a propensity to feel disinhibited

while communicating online/via smartphone. It is notable that being able to loosen up and express the self online does not influence how one feels about whether sexting is good or bad, but it does influence whether one intends to sext, performs the act of sexting, and perceptions about social pressure to sext. This is in concert with the theory; the tendency to be disinhibited online propels one to intend to sext, participate in sexting, and perceive social pressure to sext. However, the tendency to be disinhibited online does not predict attitudes about sexting; attitudes are stable and are not impacted by being disinhibited online.

The post hoc analyses bolster and elucidate the prior conclusions. The mediation model shows that online disinhibition predicts sexting behaviors via sexting subjective norms and sexting intentions. We could reason that perhaps those who have a propensity to be disinhibited online are seeking out sexual content online, then perceive that many others are displaying their bodies sexually online, and thus feel a social pressure to sext, intend to sext, and sext. Thus, although disinhibition has no impact of sexting attitudes, it directly predicts subjective norms, which in turn predicts sexting intentions and sexting behaviors. From these results, we can reason that perhaps sexual arousal naturally disinhibits rational thought processes; that impulsivity outweighs rational decision making skills. Future research should consider the roles of arousal and impulsivity in processes regarding sexting.

These findings replicate and build on what Kerstens and Stol (2014) found from their survey of Dutch adolescents; creating photos and videos of intimate body parts is associated with a higher level of online disinhibition. It appears that U.S. adolescents with higher levels of online disinhibition are also more likely to create sexual images and

that it impacts their intentions to sext and perceptions of others' involvement with sexting as well. In their study, Schouten et al. (2007) found that online disinhibition predicted online self-disclosure. The findings from the present study can be considered an extension of their finding; disinhibition predicted sexting, which could be considered sexual self-disclosure.

As previously stated, empirical research examining the online disinhibition effect is rather scant. The findings from the present study give further support to Suler's (2004) online disinhibition effect; individuals who scored higher on the online disinhibition scale are more likely to open up and express themselves online in a sexual context. Suler's theorizing can help to explain the results of the present study as well. Suler suggested six factors that impact online disinhibition, and three are particularly relevant to the present situation: dissociative imagination, invisibility, and asynchronicity. For example, when sexting, adolescents may feel that because it is online, they are not responsible for their actions. They also do not have to deal with the receiver's immediate reactions, and they can take time to edit the images that they create. These explanatory mechanisms are useful in thinking through the results of the present study, and future research should aim to probe these six factors in order to identify which are most impactful, as we can only make speculations currently.

For RQ1 I asked if online disinhibition would predict each type of sexting activity. In the prior hypothesis, sexting behaviors included sending, receiving, and requesting, thus the current research question aimed to parse out these individual behaviors. Results showed that online disinhibition did not predict sending sext messages, but that it did predict the requesting and receiving of sext messages. The null finding that online

disinhibition did not predict sext messages was somewhat unexpected; it seems that those who open up more online would be compelled to send sext messages. It is important to note that online disinhibition was correlated with the frequency of sending sexual images, and that only 65 out of 201 participants in this sample reported that they had sent a sexual image before, so the null finding here may be because there may not be enough statistical power in this particular analysis.

However, the findings that higher levels of online disinhibition predicted the requesting and receiving of sexting messages were expected. First, it makes logical sense that those who are able to express themselves openly online would feel more comfortable asking for sexy pictures than those who are not disinhibited online. Considering Suler's (2004) six factors that cause disinhibition, invisibility may be particularly relevant here. Suler explains that the invisibility afforded in online communication gives individuals the courage to do things that they otherwise would not. Although an individual may not ask a person to strip and pose in a sexual manner in a f-t-f situation, he or she may have the courage to ask for a sexual photo online. There may be less perceived risk involved with being turned down online because, as Suler points out, the reduced-cues environment allows people to conceal facial expressions of embarrassment, and do not have to deal with the others' facial expressions. Valkenburg and Peter (2011) also theorize based on existing research (e.g., Schouten et al., 2007; Walther, 1992) that adolescents feel freer in their interpersonal online communication as compared to f-t-f situations. Thus, an individual that may feel shy or self-conscious in f-t-f situations may be able to overcome these hindrances in online communication. Regarding receiving sext messages, we can

reason that perhaps those who are more disinhibited may communicate online in general more often and may be perceived as being open to such requests.

The remaining hypothesis and research question involving online disinhibition helped to examine the relationship between disinhibition and sexting in a more nuanced way. H2 predicted that the personal fable beliefs would moderate the relationship between online disinhibition and sexting attitudes, intentions, subjective norms, and behaviors. In other words, if one believes that he or she is invincible and that the rules do not really apply to him or her, then the relationship between online disinhibition and sexting would be even stronger for those individuals. This hypothesis was not supported. Although the full models were each significant, personal fable beliefs did not moderate the relationship between online disinhibition and the sexting variables. In other words, it does not matter whether someone buys into the idea that they are invincible; this has no bearing on the relationship between online disinhibition and sexting. A possible explanation for this finding is that because the mean level of personal fable beliefs was low for the entire sample, there may be a floor effect; the lack of variance made it difficult to detect moderation. The low levels of personal fable beliefs overall may be due to the higher age of the sample. Perhaps this sample had already grown out of personal fable beliefs, which typically are stronger in early adolescence. Another explanation for a null finding here is that the personal fable scale is not a reliable measure of how much one buys into the personal fable in the present study; this scale yielded low levels of reliability in the present sample.

Finally, for RQ2, I examined whether the relationship between online disinhibition and the sexting variables was moderated by imaginary audience beliefs. The

idea of an imaginary audience is that adolescents continually react to what they anticipate others may think of their behavior or appearance, and I anticipated that whether one buys into the idea that there is an audience waiting with bated breath to see what they will do next could amplify *or* minimize the relationship between online disinhibition and sexting. For example, the idea that one has an audience awaiting them could encourage an individual to create the perfect sexy photo and send it to someone. Conversely, the idea that one has an audience could discourage one from sending a sext because of the fear of many people viewing an image intended for just one person.

Results showed that imaginary audience beliefs did not moderate the relationship between online disinhibition and sexting attitudes, intentions, subjective norms, or behaviors. One possible explanation for the null finding is that because sexting assumes an *actual* audience, as opposed to an imaginary one, imaginary audience beliefs are not relevant here. Recent research showed a positive relationship between Facebook use and imaginary audience beliefs and a positive relationship between imaginary audience beliefs and Facebook self-disclosure (Cingel & Krcmar, 2014). Thus, we can reason that when the audience is somewhat unknown, as in the case of social media, that imaginary audience beliefs are particularly relevant, but that when the (intended) audience is known, imaginary audience beliefs are less relevant as a moderating factor. Another possible explanation is that the imaginary audience scale utilized in the present study (Elkind & Bowen, 1979) may no longer be relevant to contemporary youth. Recent research has employed more updated measurements of these beliefs: Lapsley, Fitzgerald, Rice, and Jackson's (1989) have created a 42-item "New Imaginary Audience Scale," and Krcmar et al. (2015) have created an abbreviated 21-item version of this scale. Future research

should consider using one of these newer scales. Finally, as was the case with personal fable beliefs, another explanation is that this sample may have already aged out of imaginary audience beliefs; these beliefs are stronger during early adolescence.

Gender differences and the consequences of sexting. Several research questions and one hypothesis dealt with gender differences regarding sexting and the gender differences regarding the consequences of sexting. The overarching idea for this group of analyses was to investigate a possible sexual double standard regarding sexting, or the idea that there are differing standards for sexual permissiveness for girls and boys (Reiss, 1967). The idea that recreational sexual activity for men is laudable whereas such activity for women is discouraged and restricted is of concern because if boys and girls buy into this double standard neither party may act with sexual agency. For example, boys may be engaging in sexual activity before they feel ready and girls may feel shameful for engaging in sexual activity that they do feel ready for. Furthermore, it seems that there could be different sets of expectations and consequences for girls and boys when it comes to sexting. For example, it may be expected that boys request nude or sexy photos because the sexual double standard suggests that boys should be enthusiastic about sex and work toward getting it, and boys may gain social capital and status when collecting sexy images of girls. Conversely, girls may be shamed and called names like “slut” for sending sexy photos. Thus, these analyses investigated a possible sexual double standard regarding sexting.

For RQ3 I asked if there would be gender differences in sexting attitudes, intentions, subjective norms, and behaviors. Results revealed that boys had more favorable attitudes about sexting, yet interestingly, there was no difference between

sexting intentions or behaviors between boys and girls. Girls also perceived higher levels of subjective norms of sexting than boys. If girls have less favorable attitudes about sexting, why are they just as likely as boys to intend to sext and participate in sexting behaviors? Higher levels of subjective norms suggest that girls perceive a stronger social pressure for girls to participate in sexting than for boys; so perhaps even though girls have less favorable attitudes about sexting, they know how important it is for them to be sexy, and thus intend to do so. In other words, boys like sexting and girls feel social pressure to sext, so they both intend to sext and participate in sexting behaviors. This finding is in line with existing research about sexting; Walker, Sancu, and Temple-Smith (2013) found through their interviews with teenagers that girls often felt pressured and in some instances were even coerced to send sext messages.

It is also important to consider that sexting may function on a system of heteronormativity, particularly in adolescence. Work by Kim et al. (2007) on the heterosexual script in television is especially relevant here. They found that for men/boys on television, accumulating sexual experience was all-important and that they should work to get it by all means possible. Conversely, girls/women sexually objectified themselves to get the attention of men. However, the portrayals of girls/women were more complicated than this. While they had to work to make themselves sexually viable to men they also had to work to be gatekeepers of their sexuality (set limits) or passively acquiesce to men's sexual needs; it was a fine line that they had to navigate. Applying this idea to the present study, it is socially important for teenage boys to attain sexual images and socially important for girls to be asked to send sexy photos/for others to want to see their sexy photos. Yet girls must also police themselves by navigating decisions

about whether to send the photos; they lose either way because if they don't send the photos they are not fulfilling boys' sexual needs and if they do they will likely be punished for their own sexual impropriety. Thus, even though girls have less positive attitudes regarding sexting, they might passively acquiesce to boys' requests for sext messages because they feel that it is flattering to be sexually admired by male spectators.

For RQ4, I asked if there would be gender differences in sending, receiving, and requesting sexting messages. Results revealed that boys requested sext messages more than girls, but that boys and girls are equally likely to send and receive sext messages. This is in line with existing research. Most extant research suggests that boys and girls are equally likely to send sext messages (Dake et al., 2012; Lenhart, 2009; Rice, Rhoades, Winetrobe, Sanchez, & Plant, 2012), while some research finds that girls are more likely to send sext messages (e.g. Mitchell et al., 2012). Similarly, most research suggests that boys and girls are equally likely to receive sext messages (Dake et al., 2012; Lenhart, 2009; Rice et al., 2012) while one study finds that boys are more likely to receive sext messages (Strassberg et al., 2013). When only considering the finding that girls are equally likely to send or receive sext messages, it is understandable that some prior research has concluded that there are no gender differences regarding sexting. Thus, it is critical to remember the findings previously discussed: that girls have less favorable attitudes about sexting and perceive more social pressure regarding sexting. This new finding provides critical context for why girls and boys are sending and receiving sext messages at equal rates. Finally, the current study found that boys are more likely to request others to send sext messages, but there is no other known research study to which to compare this finding. This is a key finding because it further implies the pressure felt

by girls to produce sexy photos; boys are the ones requesting the images be sent. It also speaks to pressure that boys may feel to request the photos; they know that they can gain status if they collect more photos, and they may perceive that they are better enacting masculinity when they are asking for nudes (or perhaps more importantly, not enacting ideal masculinity when they do not ask for sexting messages). In other words, boys may feel that attaining sexual images is an important part of the rite of passage in becoming men, and this pressure is greater than any shyness they may have regarding asking girls for the images. These findings exhibit the sexual double standard; girls should be “good”, so it is taboo for girls to request sexts, while boys should be enthusiastic about sex and should work toward getting it, thus boys are the ones who request sexts.

For RQ5 I asked if there would be more or different consequences for sexting for boys as compared to girls. Results showed that girls receive more negative consequences for sexting, while boys receive more positive consequences regarding sexting. This finding points to a clear-cut case of a sexual double standard: girls experience negative consequences of sexting (e.g. feeling shame or regret, being bullied, being labeled a slut), and meanwhile boys reap the rewards of sexting (e.g. feeling turned on, increased self-esteem, gaining popularity). Furthermore, for RQ6a I asked if adolescents support stricter peer and legal sanctions for girls who sext rather than boys who sext, and for RQ6b I asked if there were gender differences in this relationship. Results showed that participants felt that girls were more deserving of peer sanctions for sexting than boys, but that boys were more deserving of legal sanctions than girls. These results further uncover a sexual double standard; it seems that there were differing standards for sexual

permissiveness for girls and boys (Reiss, 1967) in this sample because participants agreed that girls deserved the social sanctions more than boys.

These findings are similar to Kaeager and Staff's (2009) study that found that more sexual partners for boys resulted in peer acceptance, while more sexual partners for girls was negatively associated with girls' peer acceptance. However, in this sample participants indicated that boys were more deserving of legal sanctions than girls. Perhaps this is simply a way of doling out different types of consequences (peer sanctions for girls, legal sanctions for boys), but it is also likely to be an example of benevolent sexism, or the idea that men should be protectors and providers who are willing to sacrifice their own needs for women (Glick & Fiske, 2001). In other words, participants' feeling that boys should be held legally responsible for sexting may be yet another manifestation of the sexual double standard. This finding could also be in reference to the idea that boys are the ones who share the photos with unintended audience, so they should be held legally responsible for distributing child pornography.

RQ6b provides more evidence for the sexual double standard as boys felt more strongly that girls should receive the negative consequences of sexting compared to girls. Finally, boys and girls felt similarly that boys should be slightly more legally responsible for sexting. This finding is important; while boys and girls were in agreement that boys should be legally responsible for sexting, boys *especially* felt that girls should suffer the social consequences for sexting. It is important to note that while boys and girls both agree that the social burden falls to girls, that girls are less likely to reify the sexual double standard in this case.

Finally, for H5a I posited that acceptance of women as sex objects would predict sexting attitudes, intentions, subjective norms, and behaviors, and H5b predicted that this relationship would be moderated by gender. There was partial support for H5a as the acceptance of women as sex objects predicted sexting attitudes and intentions. In other words, the more that one buys into the idea that women and girls are sexual objects that exist for men and boys' pleasure, the more likely one is have favorable attitudes regarding sexting and intentions to sext. Regarding H5b, these relationships were not moderated by gender. In other words, being male or female had no bearing on these relationships, contrary to the hypothesis. This was surprising because I anticipated that the relationship would varying according to gender such that the relationship between acceptance of women as sex objects and the sexting variables would be stronger for boys. So in this sample, it seems that sexting is a way of living up to the expectation that women and girls should serve men's sexual needs, and both boys and girls buy into the idea that sexting is a system that is based on the objectification of women's bodies.

Self-objectification. For H3a-d, I posited that higher levels of trait self-objectification would predict favorable attitudes toward sexting, sexting intentions, sexting subjective norms, and sexting behavior, for girls. H3a-c were supported; higher levels of trait self-objectification did predict favorable attitudes about sexting, sexting intentions, and sexting subjective norms for girls. This makes both theoretical and practical sense; girls who have a tendency to self-objectify are used to thinking of themselves as objects for others' sexual pleasure (Bartky, 1990; Fredrickson & Roberts, 1997). Thus, it follows that they should more open to participating in sexting because it can be considered a behavioral manifestation of this self-perception. In other words, girls

who are strong self-objectifiers are putting other's sexual needs before their own; they think about what would be perceived as sexy to the other person, rather than what might feel sexy to themselves. This is in line with the tenets of objectification theory; Fredrickson & Roberts (1997) posit that women who self-objectify have a harder time experiencing sexual satisfaction (e.g. orgasm, feeling pleasure) because they are so focused on how they appear to the other. In the current case then, sexting is a performative symptom of self-objectification, in contrast with sexually agentic decisions that focus on the needs of the self.

In this discussion, it is also important to consider that causality cannot be determined in the present study, thus it could be that the sexting variables actually cause girls to see themselves as sexual objects. For example, having more favorable attitudes about sexting could lead to one beginning to view themselves as a sexual object for others, rather than self-objectification leading to favorable attitudes about sexting. Future research should focus on this issue of causality.

H3d was not supported; higher levels of self-objectification did not predict actual sexting behaviors for girls, and the reason for this is somewhat unclear. It may be that girls who are high self-objectifiers have more favorable attitudes about sexting and intend to sext, but do not actually have the opportunity to send a sext message (e.g. perhaps they are not receiving requests for sexts or they do not have a partner with whom to sext).

Another plausible explanation is that girls who self-objectify are too self-conscious about their appearance to follow through with the behavior of sexting. Indeed, Fredrickson and Roberts (1997) theorized that self-objectification would lead to feelings of shame, and extant research has demonstrated that self-objectification leads to body

shame (Calogero, 2004; Harrison & Fredrickson, 2003) and body dissatisfaction (Calogero, Herbozo & Thompson, 2009). Self-objectification could lead to more positive attitudes about sexting, a feeling of social pressure to sext, and an intention to sext, but it could also lead to feelings of shame and embarrassment about one's body that could be so strong that they overcome the social pressure to sext. Future research will need to further explore this finding,

The post hoc analyses bolster and elucidate the prior conclusions. The mediation model shows that self-objectification has no direct effect on sexting behaviors, similar to the prior analyses. However, self-objectification predicts sexting attitudes, which in turn predicts sexting behaviors. The model also shows that self-objectification predicts sexting attitudes, which in turn predicts sexting intentions, yet sexting intentions do not predict sexting behaviors. Thus, taking an observers perspective on the self predicts positive attitudes about sexting, and these attitudes predict sexting behaviors, even if one does not actually intend to sext. In contrast with the findings regarding online disinhibition that suggested more impulsive processes at work, the findings regarding self-objectification suggest more rational processes at work in accordance with the theory of reasoned action; that girls who self-objectify know that the way that they can be valued is by using their bodies for others' pleasure, and thus they act on this attitude by sexting.

RQ7 asked if gender moderates the relationship between self-objectification and the sexting variables, and results revealed that gender does not moderate the relationships between self-objectification and sexting attitudes, intentions, subjective norms, or behaviors. Previous literature concerning self-objectification and gender presents a mixed bag of findings. Some research suggests that objectification theory is not applicable to

men and boys (e.g., Daniel & Bridges, 2010) and some research suggests that men and boys can experience self-objectification but that they experience it at lesser levels than women and girls (e.g., Aubrey 2007; Slater & Tiggemann, 2010;). Thus, it was somewhat unclear how self-objectification would work in the present sample, and it appears from this research question that boys and girls have similar experiences regarding self-objectification and sexting. However, this finding is complicated by the results regarding RQ10a-d, in which I asked if higher levels of trait self-objectification would predict sexting attitudes, intentions, subjective norms, and behaviors for boys. Although self-objectification did predict most of the sexting variables for girls, and gender did not moderate the relationship between self-objectification and the sexting variables, the results for RQ10a-d show that self-objectification did not predict sexting attitudes, intentions, subjective norms, and behaviors for boys. In this sample, boys have more favorable attitudes about sexting than girls and participate in sexting at rates similar to girls, and have lower rates of self-objectification than girls. The finding that there are lower rates of self-objectification amongst boys as compared to girls is consistent with previous research (e.g. Slater & Tiggemann, 2010). It appears that self-objectification is not a significant motivator for sexting attitudes and behaviors as it is for girls; there might be different motivations for sexting for boys (such as reaping the positive consequences of sexting). In other words, in this situation, self-objectification is less consequential for boys than it is for girls.

H4 predicted that self-objectification would mediate the relationship between internalization of sexualization and sexting attitudes, intentions, subjective norms, and behaviors. This hypothesis only pertains to girls as the internalization of sexualization

scale was created for girls (McKenney & Bigler, 2014). H4 was partially supported, as self-objectification did mediate the relationship between internalization of sexualization and sexting attitudes. Thus, internalization of sexualization predicts favorable sexting attitudes, via self-objectification. This finding is important because it suggests a cognitive processes at work regarding sexting; that girls internalize the belief that sexual attractiveness (in the eyes of men and boys) is a central aspect of their identity, and this in turn leads to a state of coming to view themselves as objects to be looked at. The resultant self-objectification further leads to favorable attitudes about sexting. Although self-objectification did not mediate the relationship between internalization of sexualization and sexting intentions, subjective norms, and behaviors, it is important to note that there was a strong positive relationship between the internalization of sexualization and all of the sexting variables. Thus, the internalization of sexualization and self-objectification are both strong predictors of the sexting variables for girls, even though some of the mediation models were not significant. If one holds the belief that being perceived as sexy in the eyes of men and boys is highly important, and actually comes to view the self from the perspective of potential male spectators, it stands to reason that one would consider creating a sexy photo for those spectators. These results point to something deeper than just teenagers being teenagers; they point to a culturally learned self-perception that is expressed via sexting.

For RQ8, I asked if the internalization of sociocultural beliefs about attractiveness portrayed in the media predicted sexting. Sociocultural beliefs about attractiveness portrayed in the media predicted sexting attitudes, intentions, and subjective norms for boys. When considering the larger set of findings in this study, these findings somewhat

mirror what Daniel and Bridges (2010) found in their study about men about the internalization of media ideals and self-objectification; they found that the internalization of media ideals predicted the drive for muscularity, but that self-objectification did not. In the present study, sociocultural beliefs about attractiveness portrayed in the media predicted sexting variables for boys, yet self-objectification did not. It seems that, media ideals of attractiveness are important, and the internalization of these ideals predicts sexting, but the internalization of these ideals is not so central to boys' identities that it causes one to value appearance over other attributes of the self. Perhaps, boys make upward comparisons to attractive male bodies in the media, and it inspires them to behave in a way (participate in sexting) that will make them seem more attractive. For example, research shows that media messages suggest that more sexual experience for men is of primary importance; having more sex ensures one's masculinity (Kim, Sorsoli, Collins, Zylbergold, Schooler, & Tolman, 2007). In the present case, it is possible that boys are internalizing beliefs about attractiveness portrayed in the media, and that the behavior of sexting is a way of acting on these internalized beliefs.

Internalization of sociocultural beliefs about attractiveness portrayed in the media did not predict any of the sexting variables for girls. In the context of other findings in this study, it appears that for girls self-objectification is the main predictor of sexting and that what girls internalized about what is attractive from the media is not a predictor of sexting. In other words, girls do not have to believe that they need to be as attractive as the women who appear on TV or models who appear in magazines in order to participate in sexting. Instead, believing that their bodies are for the enjoyment and pleasure of others predicts sexting.

Finally, For RQ9, I asked if self-objectification mediates the relationship between the internalization of sociocultural beliefs about attractiveness portrayed in the media and sexting. This research question pertains to boys only, because there was no direct effect of beliefs about the media and the sexting variables for girls. Results showed that there was no mediation for sexting attitudes, intentions, or subjective norms, and no mediation analysis was conducted for sexting behaviors because there was no direct effect of beliefs about the media on sexting behaviors. It is somewhat unsurprising that self-objectification did not act as a mediator because self-objectification did not predict the sexting variables for boys as prior analyses show.

In conclusion, self-objectification predicted sexting for girls and sociocultural beliefs about attractiveness portrayed in the media predicted sexting for boys, and self-objectification mediates the relationship between internalization of sexualization and sexting attitudes for girls.

Implications

Theoretical implications. The results of this study have several theoretical implications. First, the results suggest that those who are generally more disinhibited when communicating online are more likely to have intentions to sext, higher levels of subjective norms, and sext. However, the tendency to be disinhibited online does not predict attitudes about sexting. This further demonstrates the theory: attitudes are stable and are not impacted by being disinhibited online. These findings broaden both the explanatory and predictive power of Suler's (2004) online disinhibition effect; the application of this theoretical perspective to a computer-mediated communication (CMC) sexual context among a population of adolescents provides a useful explanation of the

sexting phenomenon. In the present study, I consider that sexting could be an example of benign (rather than toxic) disinhibition, in that one is sharing something about the self rather than doing something malicious. Furthermore, in this study I theorize that three of the factors that Suler offered to help explain why disinhibition occurs are most relevant to sexting: dissociative imagination, invisibility, and asynchronicity. Thinking more deeply about what actually sparks disinhibition in sexting moves beyond employing the online disinhibition effect on a surface level and begins to utilize this theoretical orientation more wholly. Researchers interested in sexting should consider taking this theoretical perspective when predicting sexting phenomena, they should build on these findings by investigating what factors with which disinhibition works in conjunction.

Second, the results of this study show gender differences concerning sexting attitudes, intentions, subjective norms, and behaviors, and reveal a sexual double standard concerning sexting such that girls receive the negative consequences of sexting while boys reap the benefits of sexting. While some researchers report that there are no gender differences for sexting (e.g., Lenhart, 2009), qualitative researchers have argued that there are gender differences and a sexual double standard regarding sexting (Ringrose et al. 2013; Walker et al. 2013), and the results from this study confirm this. Future research should take the perspective that there are gender differences and be designed accordingly; it may appear that there are no gender differences if the right questions are not asked. For example, if only sexting *behavior* is considered (i.e. who is actually sending a sext message), then it may appear that there are no gender differences, yet it is significant that boys have more positive attitudes about sexting and that girls feel more social pressure to participate in sexting.

The results of the present study build on the work of Kim et al. (2007) by showing that girls and boys involved in sexting may be enacting a heterosexual script. I considered that it is socially important for boys to receive sexual images and socially important for girls to be asked to send sexy photos/for others to want to see their sexy photos. Yet girls navigate a complex scenario, because if they don't send the photos they are not fulfilling boys' sexual needs and if they do they could be punished; the results of this study show that girls are more likely to receive the negative consequences of sexting. We can theorize that even though girls have less positive attitudes regarding sexting in this sample, they might passively acquiesce to boys' requests for sext messages because they feel that it is flattering to be sexually admired by male spectators. Thus, the results of this study contribute to a growing body of research that show strong evidence for the existence and endorsement of heteronormativity in our media and culture.

Third, it is theoretically significant that objectification theory (Fredrickson & Roberts, 1997) has been applied to sexting; it bolsters the explanatory and predictive power of the theory. The results of this study also contribute to extant literature regarding gender differences and self-objectification by showing that the theory is more applicable to girls than boys as there are other motivations for boys to participate in sexting, whereas for girls, taking an observer's perspective on the self is a predictor of sexting. Perhaps what is more significant is that this study has employed objectification theory to help explain media production by individuals, rather than focusing on how the media cause a state of self-objectification. Successfully applying this theoretical orientation to the capacity of new media technology for adolescents' personal media production opens up myriad opportunities for how objectification theory can be applied. For example, it would

be useful to examine the effect of online self-presentation on girls' self-objectification, as de Vries and Peter (2013) have done with a sample of women, or to explore how viewing friend's sexualized self-presentation affects adolescents' own self-concepts. It would also be fruitful to explore what personality traits and situational factors may shield girls from online-induced self-objectification.

Additionally, the results of this study showed that self-objectification mediates the relationship between the internalization of sexualization and sexting attitudes. This helps to paint a clearer picture of self-objectification processes at work, while utilizing self-objectification as a mediator rather than as a predictor variables or outcome variable as existing research has done. On a cultural level, girls and women are valued for their appearance and sexiness. Through receiving cultural messages, girls learn what they are most valued for, and this learning is the process of the internalization of sexualization. This internalization leads to coming to view the self from an observers perspective; girls are motivated to understand what others think could be attractive/sexy about them in order to fit the cultural standard. Finally, coming to take an observer's perspective on the self leads to the attitude that sexting is a good idea. Future research regarding adolescents and sexualization should consider incorporating this useful variable to continue to elucidate the complex system of cultural pressures and self-objectification processes at work for adolescents today.

Finally, it is important that sexting was considered as a consequence of sociopsychological variables in the present study. In this dissertation, I have theorized that sexting can be an inevitable consequence of living in a culture that sexualizes the female body, rather than a shortcoming of one's own personality or circumstances or a

misunderstanding of the risks involved with sexting. These results have strong implications for how we as a society might conceptualize teenage sexting and how we may approach this issue.

Practical implications. The results of this study also have several practical implications. First, the results suggest that sexting is not simply two parties wanting to be intimate. Unfortunately, they paint a more complex picture of adolescent sexting: even though girls feel more negatively about sexting than boys, they understand the strong sociocultural pressure to be sexy and thus intend to sext and sext. Internalizing sociocultural attitudes about appearance predicted sexting for boys, and boys may be motivated to collect sexy images of girls in order to gain social status. Girls are more likely to experience the negative consequences of sexting, while boys are more likely to enjoy the positive consequences of sexting. Sexting attitudes was associated with the acceptance of women as sexual objects and online disinhibition for both boys and girls. Taken together, these results suggest that simply explaining the risks of sexting to teenagers is not enough to stop risky sexting behaviors; teenagers are aware of the risks (the average teen selected 26 risks that they felt applied to them), but the pressure for girls to be sexy and for boys to treat girls as sexual objects is much stronger. Thus, intervention programs in high schools need to incorporate discussions about these cultural and social pressures, and parents should discuss these complicated issues with their teens as well. A media literacy approach, or more broadly a social literacy approach, may be appropriate; understanding why girls feel pressured to be sexy may help them to overcome the issue. For example, such a program could include identifying the various pressures on girls to be sexy in our society, including media, and girls discussing their

experiences with these pressures. Then these pressures could be connected more specifically to sexting. This type of approach could inform and empower girls to understand sexting from a new perspective, as opposed to informing them of risks that they are well aware of.

Additionally, higher levels of online disinhibition predicted most of the sexting variables. Again, a media literacy approach may be useful in helping teenagers to understand why they feel more comfortable opening up and being sexual in CMC situations than in f-t-f situations. Intervention programs involving a discussion about online disinhibition may be tricky as they may need to involve an approach that contradicts the abstinence approach. For example, the abstinence approach encourages teenagers to not have sex, and this may inadvertently promote sexting because some teens may see sexting as a way to be intimate while maintaining their virginity; 16% ($n = 32$) of participants in this study perceived this to be a positive benefit of sexting. In contrast, an intervention program that focuses on disinhibited behavior online (specifically focusing on the invisibility, asynchronicity, and dissociative imagination as the most relevant factors to sexting) may not only explain the phenomenon that many people feel compelled to share more via CMC than they do in f-t-f situations, but it may also encourage teenagers to consider communicating f-t-f about issues in which they might feel compelled to “overshare” in CMC communication. In other words, it is in some ways safer to have a sexual conversation or provide a sexual “image” to some one in person, because there would be no online record of the exchange. This strategy may be particularly useful for parents that are open to having frank conversations about sexuality.

Either way, it would be useful for teenagers to understand why they might feel disinhibited when communicating via CMC.

Finally, another intervention strategy would be to target boys as this study showed that boys are more likely to request nudes and that girls have more negative attitudes about sexting. Similar to contemporary campaigns that focus helping boys and men to understand that “no means no” in terms of consensual sex, one strategy is to focus on helping boys to understand that it is unethical to pressure or coerce girls into sending nude images. A program aimed at consensual and ethical sexual communication may be effective.

Limitations and Future Directions

There are several limitations of the present study that must be addressed. First, the sample included mostly high school students from rural and suburban areas in the Midwest. While significant efforts were made to attain participation of students from high schools in urban areas, these efforts were unsuccessful. Future research should include participants from each of these areas and from different locations around the country in order to make accurate generalizations to the population of American teenagers.

Second, this data is cross-sectional in nature. Although predictive statistical analyses were conducted, temporal sequence and causality cannot truly be investigated with this data set. Although it may be quite difficult to attain such data, it would be ideal if future research included longitudinal data as it would give stronger support for the findings in the present study.

Third, the personal fable scale yielded a low level of reliability in the present sample, similar to the levels found in other samples of adolescents (e.g., Elkind, Fallon, Maynard, Pisano, Schwartz, & Murray-Cohen, 2005; Alberts, Elkind, & Ginsberg, 2007). While recent research has employed the PFS with acceptable reliability levels and have found significant results (e.g. Cingel, Krcmar, & Olsen, 2015), it may be prudent to work toward a more reliable scale for future research concerning the personal fable and adolescents.

Fourth, it would be useful to know how often individuals in this sample received requests for sexting, as Kerstens and Stol (2014) and others have identified. The present study focused on sexting attitudes, intentions, and subjective norms, and three behaviors regarding sexting: the sending of sexts, the receiving of sexts, and the requesting of sexts (requesting others to send sexting messages). It would also be useful to know how often/whether these individuals were solicited by others for sexting messages, because then I could identify whether individuals that are/are not sending sexting messages are doing so/not doing so because of requests/lack of requests. It would also be useful to see if there is a relationship between receiving request and some of the main variables in this study such as self-objectification, acceptance of women as sex objects, and online disinhibition. Future research should be sure to include this variable.

Fifth, the present study did not take participants' media use into account. While variables such as SATAQ were used to measure internalization of the sociocultural beliefs of attractiveness portrayed in the media, I do not know what specific media use or how much media use impacts the relationships explored in this study. Other research has started to explore how media use impacts sexting. For example, Ouytsel, Ponnet, and

Walrave (2014) explored Internet use, music video consumption, and pornography and its relationship with sexting, and found that pornography use was associated with sexting behaviors, and that music video consumption was associated with requesting and receiving sexts. It would be enlightening to explore what other types of media are related to sexting (e.g., romance films, reality television), and to see if the link between pornography use and sexting is the internalization of sexualization. Future research should consider the various media that may play a role in the process of adolescent sexting.

Sixth, this project focused on adolescent sexting behaviors, and no participants identified as homosexual. Thus, the project examined heterosexual sexting behaviors. It is critical to examine sexting behaviors in gay/lesbian populations as well, and future research could purposively sample individuals who identify as gay and lesbian; it may require sampling adults to yield the numbers necessary to run analyses. Existing research shows that both homosexual men and women experience self-objectification (Haines, Erchull, Liss, Turner, Nelson, Ramsey, & Hurt, 2008; Martins, Tiggemann, & Kirkbride, 2007), yet it is reasonable to consider that the processes involved in self-objectification and sexting may differ in homosexual populations as compared to heterosexual populations; gay adult relationships may not function on a system of heteronormativity as adolescent heterosexual relationships do. Future research should work to examine gay and lesbian populations and to document the self-objectification processes involved (if any) in sexting.

Finally, the present study focused on the predictors of sexting, involving sexting attitudes, intentions, subjective norms, and behaviors, and various psychosocial

predictors of sexting. It would be fruitful to examine parent-child communication patterns regarding sexting and posting sexy photos online in order to identify which strategies result in safer behaviors. Additionally, it would be beneficial to examine how school administrators and other authority figures communicate with their students and teenagers about sexting. In my casual conversations with school administrators I learned that there is pressure by parents for schools to deal with these issues, while others feel that parents are responsible for dealing with issues regarding sexting. Interestingly, neither party has first-hand experience with sexting as a teen, and have expressed anxiety in casual conversations with me about not knowing the best way to deal with issues involving sexting. Identifying which communication strategies are successful in communicating the risks of sexting and curbing risky sexting behaviors would be practically useful. For example, previous research by Whitaker, Miller, May, and Levin (1999) focused on parent-teenager discussions about sexual risk and condom-use, and found that parents who were able to discuss these issues openly, comfortably, and skillfully resulted in teenager-partner discussions about risks and greater condom use. Research regarding parent-teenager discussions about sexting may yield similarly useful results.

Conclusion

This study examined the social-psychological predictors of adolescent sexting, focusing specifically on developmental, gendered, and technological explanations. Overall, results point to a strong cultural pressure for girls to be sexy by creating and sharing sexual images, suggest that boys and girls who have a propensity to feel disinhibited when communicating online are more likely to sext, and that girls experience more negative consequences of sexting while boys reap the benefits of sexting. These

results suggest that there is more to sexting than just teenagers being teenagers and wanting and needing to have sexual experiences that are essential to healthy development; they point to a more insidious system of pressures for girls to be sexy and a sexual double standard for girls who acquiesce to these pressures. While these pressures and punishments for girls are certainly nothing new, technology complicates the situation by creating more permanent punishments for a new phenomenon that adults struggle to understand. The results of the present study can usefully inform educational and targeted intervention programs regarding sexting risks. These findings are a small piece in a larger puzzle of knowledge that will eventually spark a change in the status quo.

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Table 1. Descriptive Statistics of Variables, by Gender

	Female Participants		Male Participants		<i>t</i>
	<i>M</i> (<i>SD</i>)	Range	<i>M</i> (<i>SD</i>)	Range	
Criterion Variables					
Sexting Attitudes	2.32 (.58)	1.31- 4.06	2.88 (.63)	1.38- 4.19	-6.48**
Sexting Intentions	2.46 (.85)	1.00- 4.44	2.66 (.92)	1.00- 4.39	-1.64
Sexting Subjective Norms	2.81 (.67)	1.18- 4.73	2.53 (.57)	1.00- 3.91	3.15**
Sexting Behaviors	1.06 (.99)	0.00- 3.00	1.16 (1.12)	0.00- 3.00	-.71
Sent Sexts	.36 (.48)	0.00- 1.00	.28 (.45)	0.00- 1.00	1.28
Received Sexts	.60 (.49)	0.00- 1.00	.58 (.50)	0.00- 1.00	.25
Requested Sexts	.09 (.29)	0.00- 1.00	.30 (.46)	0.00- 1.00	-3.85**
Sexting Frequency	2.95 (1.86)	1.00- 9.00	3.28 (2.16)	1.00- 10.00	-.93
Sent Frequency	2.09 (1.90)	1.00- 10.00	1.96 (1.99)	1.00- 10.00	-.72
Received Frequency	3.08 (2.53)	1.00- 10.00	3.38 (2.78)	1.00- 10.00	-1.08
Requested Frequency	1.21 (.74)	1.00- 4.00	1.83 (1.85)	1.00- 10.00	-1.20
Total Negative Consequences	30.82 (12.53)	1.00- 58.00	23.47 (12.29)	0.00- 50.00	4.17**
Total Positive Consequences	8.01 (7.04)	0.00- 31.00	12.05 (8.68)	0.00- 35.00	-3.64**
Predictor Variables					
Online Disinhibition	1.22 (.53)	.09- 3.18	1.32 (.53)	0.00- 3.00	-1.37
Personal Fable Beliefs	3.09 (.50)	1.33- 4.17	3.37 (.45)	2.33- 4.42	-4.03**
Imaginary Audience Beliefs	1.08 (.35)	.17- 1.83	.76 (.32)	0.00- 1.67	6.60**
Deserves Social Consequences	5.18 (2.12)	1.00- 10.00	4.52 (2.15)	1.00- 10.00	2.15*
Deserves Legal Consequences	6.05 (1.91)	1.00- 10.00	6.38 (2.22)	1.00- 10.00	-1.13

Acceptance of Women as Sex Objects	2.68 (.83)	1.00- 4.63	3.30 (.98)	1.38- 5.75	-4.87**
Trait Self-Objectification	-.81 (1.96)	-5.5- 4.5	-1.22 (1.98)	-6.33- 3.00	1.47
SATAQ	3.61 (.92)	1.5- 5.0	2.67 (.92)	1.00- 4.75	—
Internalization of Sexualization	2.61 (.77)	1.0- 4.71	—	—	—
Control Variables					
Need for Popularity	2.55 (.99)	1.00- 5.00	2.71 (.99)	1.00- 5.00	-1.19
Sexually Active	1.29 (.46)	1.00- 2.00	1.30 .46	1.00- 2.00	-.13
Parental Mediation	4.02 (.98)	1.00- 5.00	4.12 (.84)	1.00- 5.00	-.78
Access to Mobile Technology	4.94 (.59)	1.00- 5.00	4.67 (.88)	2.00- 5.00	-2.50*

Note. SATAQ = internalization of sociocultural attitudes toward appearance. Where the comparisons between male and female participants could not be tested, “—” were entered into the table. * $p < .05$, ** $p < .001$

Table 2. Zero-Order Correlations between Predictor and Criterion Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.ODE	—																
2.PFS	.29**	—															
3.IAS	.16*	-.20**	—														
4.AWSO	.21**	.30**	-.10	—													
5.SO	.16*	.07	.09	.21**	—												
6.FSATAQ	.24*	.15	.29**	.27**	.29**	—											
7.MSATAQ	.15	.30**	-.09	.40**	.26*	—	—										
8.ISS	.27**	.22*	.17	.51**	.42**	.46**	—	—									
9.SextBeh	.17*	.07	-.13	.17*	.12	.03	.21*	.17	—								
10.SextFreq	.18*	.12	.09	.23*	.05	-.04	.10	.39**	.28**	—							
11.SextAtt	.12	.21**	-.22**	.42**	.22**	.13	.33**	.45**	.42**	.34**	—						
12.SextInt	.25**	.24**	.03	.35**	.24**	.31**	.50**	.54**	.39**	.33**	.55**	—					
13.SextSN	.28**	.18**	.08	.13	.22**	.24*	.28**	.45**	.24**	.22*	.11	.28**	—				
14.ToPosCon	.26**	.22**	-.11	.30**	.18**	.27**	.38**	.39**	.35**	.26**	.45**	.52**	.33**	—			
15.ToNegCon	.02	-.12	.21**	-.30**	-.03	.09	.07	-.14	-.21**	-.13	-.43**	-.21**	.18*	.10	—		
16.DesCons	-.02	.00	.06	-.22**	.11	.07	-.13	.08	.04	-.12	-.01	-.01	.06	-.07	.10	—	
17.DesLegal	-.02	-.01	.06	.05	.00	-.27**	.02	.00	.09	-.04	.15*	.10	.01	.15*	-.01	-.07	—
Mean	1.27	3.22	.93	2.97	-1.01	3.61	2.67	2.61	1.10	3.10	2.58	2.55	2.68	9.84	27.51	4.88	6.20
SD	.53	.50	.37	.95	1.98	.92	.92	.77	1.05	2.00	.67	.89	.64	8.09	12.97	2.15	2.06

Note. * $p < .05$, ** $p < .01$. ODE = Online disinhibition effect, PFS = Personal fable scale, IAS = Imaginary audience scale, AWSO = Acceptance of women as sexual objects, SO = Self-objectification, FSATAQ = Females' sociocultural attitudes toward appearance, MSATAQ = Males' sociocultural attitudes towards appearance, ISS = Internalization of sexualization, ToPosCon = Total positive consequences, ToNegCon = Total negative consequences, DesCons = Deserves social consequences, DesLegal = Deserves legal consequences

Table 3. Zero-Order Correlations between Control and Criterion Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1.Age	—											
2.NFP	.06	—										
3.SexualActiveness	.25**	.00	—									
4.ParentalMed	.24**	.09	.07	—								
5.TechAccess	-.02	-.12	-.02	-.05	—							
6.SextBeh	.13	.11	.03	.03	.06	—						
7.SextFreq	-.10	.22*	.06	-.02	-.02	.28**	—					
8.SextAtt	.05	.18*	.35**	.15*	.05	.42**	.34**	—				
9.SextInt	.08	.39**	.20**	.15*	.00	.39**	.33**	.55**	—			
10.SextSN	-.05	.19**	.06	.03	-.12	.24**	.22*	.11	.28**	—		
11.TotPosCon	.01	.31**	.16*	.11	-.04	.35**	.26**	.45**	.52**	.33**	—	
12.TotNegCon	-.07	.02	-.13	-.06	-.14*	-.21**	-.13	-.43**	-.21**	.18*	.09	—
Mean	3.01	2.62	1.30	4.05	1.29	1.10	3.10	2.58	2.55	2.68	9.84	27.51
SD	1.03	.99	.46	.93	.75	1.05	2.00	.67	.89	.64	8.09	12.97

Note: * $p < .05$, ** $p < .01$, NFP = Need for popularity, Parental Med = parental mediation, TotPosCon = Total positive consequences, TotNegCon = Total negative consequences

Table 4. Hierarchical Multiple Regression Analyses Predicting Sexting Variables from Online Disinhibition

	Type of sexting variable			
	Attitudes	Intentions	Subjective norms	Behaviors
Step 1				
Need for popularity	.17*	.38**	.19*	---
Parental mediation	.11	.10	---	---
Sexual activeness	.34**	.19*	---	.42**
Adjusted R ²	.15**	.19**	.03**	.17**
Step 2				
Disinhibition	.08	.14*	.25*	.18*
Adjusted R ²	.15	.20*	.08**	.20*
ΔR^2	.01	.02*	.06**	.03*
<i>n</i>	198	198	199	200

Note: Coefficients are standardized betas (β).

$p < .05$, ** $p < .001$

--- indicates that this variable was not included as a control for this test

Table 5. Hierarchical Multiple Regression Analyses Predicting Sexting Activities from Online Disinhibition

	Type of sexting activity		
	Sending	Receiving	Requesting
Step 1			
Sexual activeness	.38**	.27**	.18*
Need for popularity	---	.20*	.18*
Adjusted R ²	.14**	.10**	.05*
Step 2			
Disinhibition	.01	.15*	.17*
Adjusted R ²	.15	.12*	.07*
ΔR^2	.01	.02*	.03*
<i>n</i>	199	198	198

Note: Coefficients are standardized betas (β).

$p < .05$, ** $p < .001$

--- indicates that this variable was not included as a control for this test

Table 6. Hierarchical Multiple Regression Analyses Predicting Sexting Variables from Self-Objectification for Female Participants

	Type of sexting variable			
	Attitudes	Intentions	Subjective norms	Behaviors
Step 1				
Need for popularity	.08	.35**	.19*	---
Parental mediation	.08	.24*	---	---
Sexual activeness	.34**	.21*	---	.40**
Adjusted R ²	.10*	.22**	.03*	.15**
Step 2				
Self-objectification	.32**	.20*	.21*	.10
Adjusted R ²	.19**	.25*	.06*	.15
Δ R ²	.09**	.04*	.04*	.01
<i>n</i>	105	105	106	106

Note: Coefficients are standardized betas (β).

$p < .05$, ** $p < .001$

--- indicates that this variable was not included as a control for this test

Table 7. Hierarchical Multiple Regression Analyses Predicting Sexting Variables from SATAQ

	Type of sexting variable							
	Attitudes		Intentions		Subjective norms		Behaviors	
	Female	Male	Female	Male	Female	Male	Female	Male
Step 1								
NFP	.17	.17	.38**	.38**	.19*	.19	---	---
PM	.11	.11	.10	.10	---	---	---	---
Sex activeness	.34**	.34**	.19*	.19*	---	---	.42**	.42**
Adjusted R ²	.14**	.14**	.18**	.17**	.03*	.03	.17**	.17**
Step 2								
SATAQ	.06	.23*	.18	.38**	.19	.24*	.04	.13
Adjusted R ²	.14	.17*	.19	.28**	.05	.07*	.16	.17
Δ R ²	.00	.04*	.03	.12**	.03	.05*	.00	.01
<i>n</i>	106	93	106	93	106	93	106	94

Note: Coefficients are standardized betas (β). NFP = Need for popularity, PM = Parental Mediation, SATAQ = Sociocultural attitudes toward appearance

$p < .05$, ** $p < .001$

--- indicates that this variable was not included as a control for this test

Table 8. Hierarchical Multiple Regression Analyses Predicting Sexting Variables from Acceptance of Women as Sexual Objects

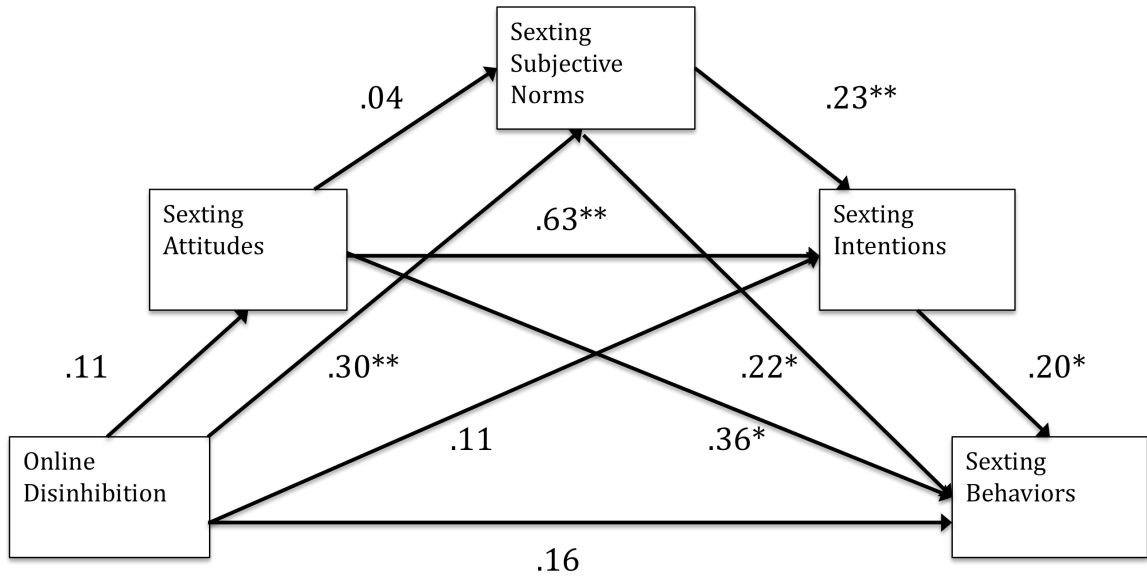
	Type of sexting variable			
	Attitudes	Intentions	Subjective norms	Behaviors
Step 1				
Need for popularity	.17*	.38**	.19*	---
Parental mediation	.10	.09	---	---
Sexual activeness	.34**	.19*	---	.42**
Adjusted R ²	.15**	.18**	.03*	.17**
Step 2				
Acceptance of Women as Sexual Objects	.37*	.25**	.09	.12
Adjusted R ²	.27**	.24**	.03	.18
ΔR^2	.12**	.06**	.01	.02
<i>n</i>	196	196	197	197

Note: Coefficients are standardized betas (β).

$p < .05$, ** $p < .001$

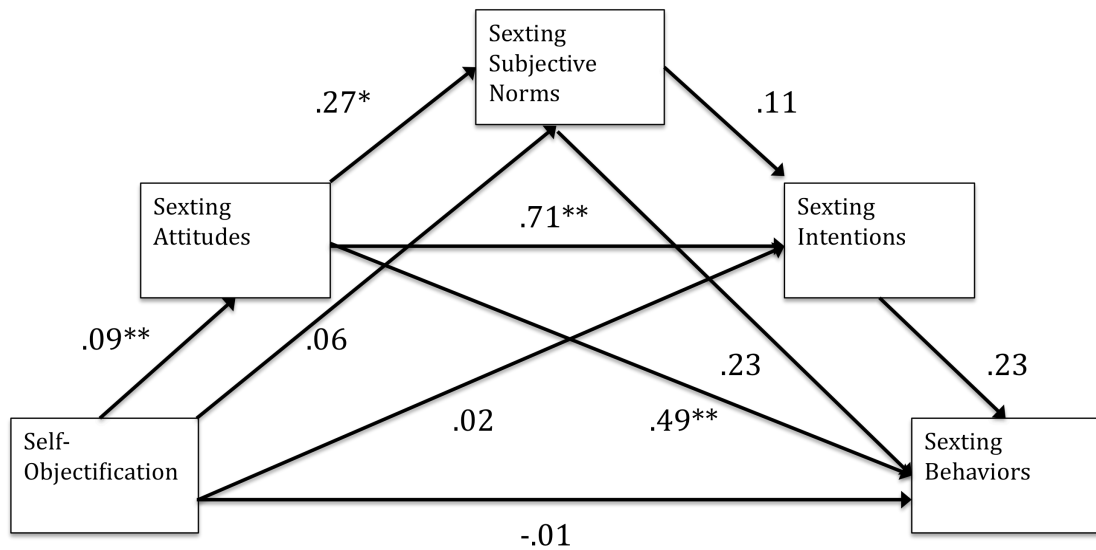
--- indicates that this variable was not included as a control for this test

Figure 1. Results of H1a-d post hoc analysis



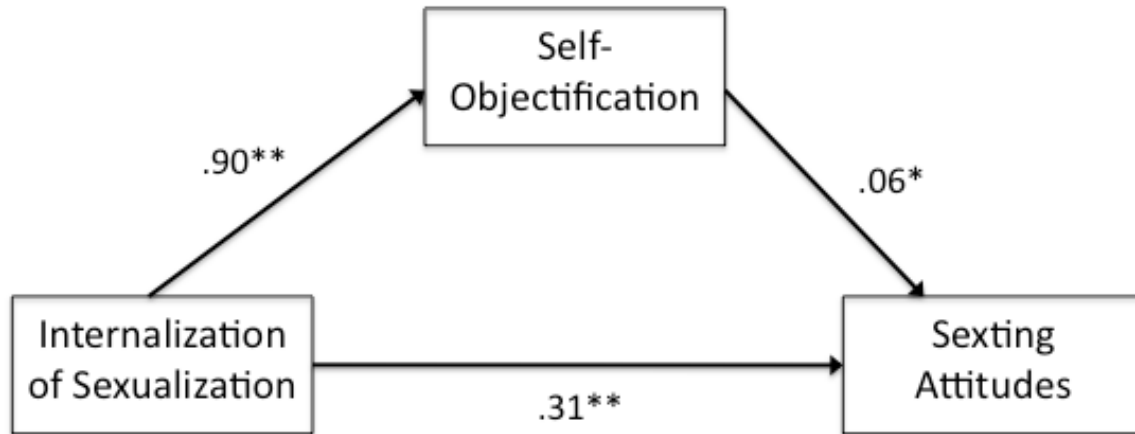
Note: * $p < .05$, ** $p < .001$

Figure 1. Results of H4 post hoc analysis



Note: * $p < .05$, ** $p < .001$

Figure 3. Results of H4 mediation model, for female participants



*Note: * $p < .05$, ** $p < .001$*

Appendix A: Questionnaire

Have you ever **sent** sexually suggestive nude or nearly nude photos or videos of yourself to another individual through your cell phone or another electronic device?

yes

no

If you answered yes, please estimate the frequency of your behavior on a scale of 1 to 10 (*1 being very infrequently, 10 being very frequently*).

1 -- 2 -- 3 -- 4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10

Have you ever **received** sexually suggestive nude or nearly nude photos or videos of another individual through your cell phone or another electronic device?

yes

no

If you answered yes, please estimate the frequency of your behavior on a scale of 1 to 10 (*1 being very infrequently, 10 being very frequently*).

1 -- 2 -- 3 -- 4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10

Have you ever **requested** that another individual send you sexually suggestive nude or nearly nude photos or videos through your cell phone or another electronic device?

yes

no

If you answered yes, please estimate the frequency of your behavior on a scale of 1 to 10 (*1 being very infrequently, 10 being very frequently*).

1 -- 2 -- 3 -- 4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10

Sexting Attitudes

How much do you agree or disagree that each of the following describes sending sexually suggestive images or nude/semi-nude pictures or videos via smart phone or other electronic device? Please indicate on a 5-point scale from (1) *strongly disagree* to (5) *strongly agree* (3 is neutral).

1. Flirty	1	2	3	4	5
2. Gross	1	2	3	4	5
3. Hot	1	2	3	4	5
4. Lamé	1	2	3	4	5
5. Fun	1	2	3	4	5
6. Exciting	1	2	3	4	5
7. Dangerous	1	2	3	4	5
8. Harmless	1	2	3	4	5
9. Immoral	1	2	3	4	5
10. Healthy	1	2	3	4	5
11. Arousing	1	2	3	4	5

How much do you agree or disagree with each of the following statements about sexually suggestive images or nude/semi-nude sexy pictures/videos, sent via smartphone or other device? Please indicate on a 5-point scale from (1) *strongly disagree* to (5) *strongly agree*.

12. Personal sexy pictures/videos usually end up being seen by more than just those to whom they were sent

(*strongly disagree*) 1 2 3 4 5 (*strongly agree*)

13. Girls have to worry about privacy of sexy pictures/videos more than guys do

(*strongly disagree*) 1 2 3 4 5 (*strongly agree*)

14. People my age are more forward/aggressive using sexy pictures/videos than they are in real life

(*strongly disagree*) 1 2 3 4 5 (*strongly agree*)
15. Sending personal sexy pictures/videos is no big deal

(*strongly disagree*) 1 2 3 4 5 (*strongly agree*)

16. Sending personal sexy pictures/videos can have serious negative consequences

(*strongly disagree*) 1 2 3 4 5 (*strongly agree*)

Sexting Intentions

Please indicate on a 5-point scale from (1) *strongly disagree* to (5) *strongly agree*.
How much do you agree or disagree with each of the following statements about sexually suggestive nude/semi-nude pictures/videos?

17. I am likely to be more forward/aggressive using sexy pictures/videos than I am in real life

1 2 3 4 5

18. I am likely to be more forward/aggressive using sexy pictures/videos than I would be if the technology were not available

1 2 3 4 5

Which of the following answers describes how likely you are to sext in the given situation? Please indicate on a 5-point scale from (1) *strongly disagree* to (5) *strongly agree*.

19. If I trust the receiver 1 2 3 4 5

20. If I find the right person 1 2 3 4 5

21. If someone I like asks me 1 2 3 4 5

22. If I am married 1 2 3 4 5

23. If people who are important to me approve 1 2 3 4 5

24. If I receive a sexy message from someone I like 1 2 3 4 5

25. If I am drunk 1 2 3 4 5

26. If I am high	1	2	3	4	5
27. If my self-esteem is higher	1	2	3	4	5
28. If my face is more attractive	1	2	3	4	5
29. If my body is in better physical shape	1	2	3	4	5
30. If I am in a relationship	1	2	3	4	5
31. If someone pressures me	1	2	3	4	5
32. If I am sole owner of my cell phone or computer	1	2	3	4	5
33. If I am 100% sure it would be remain private	1	2	3	4	5
34. Other reason not listed	1	2	3	4	5

Sexting Perceptions

Indicate on a 5-point scale from (1) *not common at all* to (5) *very common*.

How common would you say each of the following is among GIRLS your age?

35. Sending of sexy pictures/videos of oneself to someone else

(*not common at all*) 1 2 3 4 5 (*very common*)

36. Posting sexy pictures/videos of oneself online

(*not common at all*) 1 2 3 4 5 (*very common*)

37. Sharing sexy pictures/videos with people other than the one(s) they were meant for

(*not common at all*) 1 2 3 4 5 (*very common*)

How common would you say each of the following is among GUYS your age?

38. Sending of sexy pictures/videos of oneself to someone else

(*not common at all*) 1 2 3 4 5 (*very common*)

39. Posting sexy pictures/videos of oneself online

(*not common at all*) 1 2 3 4 5 (*very common*)

40. Sharing sexy pictures/videos with people other than the one(s) they were meant for

(not common at all) 1 2 3 4 5 (very common)

How much do you agree or disagree with each of the following statements about sexually suggestive images or nude/semi-nude sexy pictures/videos, sent via smartphone or other device? Please indicate on a 5-point scale from (1) *strongly disagree* to (5) *strongly agree*.

42. To my knowledge, all of my close friends have sent sexy pictures/videos to someone

(strongly disagree) 1 2 3 4 5 (strongly agree)

43. To my knowledge, all of my close friends have posted sexy pictures/videos on the Internet

(strongly disagree) 1 2 3 4 5 (strongly agree)

44. There is pressure among people my age to post sexy pictures/videos in their social networking site profiles (like MySpace, Facebook, etc)

(strongly disagree) 1 2 3 4 5 (strongly agree)

45. People who exchange sexy pictures/videos are more likely to date or hook up with each other in real life

(strongly disagree) 1 2 3 4 5 (strongly agree)

46. People who exchange sexy pictures/videos are expected to date or hook up with each other in real life

(strongly disagree) 1 2 3 4 5 (strongly agree)

Risks/Consequences of sexting

Which of the following **risks/negative** consequences have you received or could see yourself being at risk for due to sexting? **Please circle each one that applies/could apply to you:**

Feeling embarrassed

Feeling shameful

Feeling guilty

Feeling humiliated

Suicidal thoughts	Feeling or being depressed
Reduced self-respect	Feeling uncomfortable with self
Feelings of regret	Reduced self-esteem
You could get a bad reputation/image	
Awkwardness in real life with person who received your sext	
Lowers possibility of meaningful relationship with receiver of sext	
Having feelings hurt by the receiver/receiver doesn't like the photo	
Receiver begins to see you as a sexual object rather than as a person	
Being seen or labeled as a tease if you don't later hook up with the person	
Risk of being turned down	
The sext being used against you later (like if they are mad at you or to get back at you if you broke up); blackmail	
Receiver can be disappointed when they see your real body because the image you previously sent was so edited/perfected	
Image seen as slutty instead of sexy	
Receiver of sext shows it to others	
Parents seeing the sext	Being judged by others
Being called names by others	Being bullied
Reduced respect from others	Others being disappointed in you
Being labeled a slut/whore	Being made fun of
Being called a player	Rumors spread about you
Others wont take you seriously	Cyberbullying/harassment online
Possibility of everyone knowing that you send the sext	

Could ruin chances for future employment

The image goes viral

Losing friends

There could be a permanent copy of sext somewhere

You could get into legal trouble

Getting in trouble at school

The image could accidentally get sent to the wrong person

There could be damage to future relationships

Pictures go public (phone gets hacked, others on your phone)

People try to use you for sex because they think you are easy

Others bashing or critiquing your body when it gets leaked to them

Picture stays on Internet forever

Images end up on a porn site

Someone takes a screen shot of the photo

Could lead to other sexual activity when you are not really ready

Sets up expectation that you are ready to have sex/creates unrealistic sexual standards

Thinking about the list you just read about risks/consequences for sexting, who do you think deserves these consequences more? Please indicate your response on this sliding scale (for example, maybe you are leaning toward one or the other, or for neutrality select neutral):

Girls - - - - neutral - - - - Guys

Who do you think should be held more responsible for sexting?

Girls - - - - neutral - - - - Guys

Explain your reasoning here in your own words:

If a girl and a guy were sexting and they got in to legal trouble (ex: charged with distribution of child pornography), who do you think is likely to be the one who should be in trouble with the law?

Girls - - - - neutral - - - - Guys

Which of the following **positive** consequences have you received or could you see your self benefiting from for participating in sexting? **Please circle each one that applies/could apply to you:**

- | | |
|---------------------|-------------------------------|
| Feeling turned on | Feeling of excitement |
| Feeling of pleasure | Feeling sexual |
| Feeling sexy | You feel good about yourself. |

Feeling a moment of fame/it could potentially lead to fame

- | | |
|--|---------------------|
| Feeling like you can express yourself sexually | Feeling empowered |
| Feeling like you are having fun | Feeling entertained |

Feeling good because you are doing something that is dangerous

Feeling more confident or increased self-esteem

- | | |
|-----------------------------------|-----------------------|
| Forming a connection with someone | Pleasing the receiver |
|-----------------------------------|-----------------------|

- | | |
|-----------------------------------|-------------------------|
| Increased trust with the receiver | It arouses the receiver |
|-----------------------------------|-------------------------|

Keeps your girlfriend/boyfriend interested in you

It could increase the receiver's attraction to you

Boyfriend/girlfriend will want you more

You could become more popular.

You get attention and that feels good.

Increased intimacy with another person/the chance to express intimacy

Increased self-confidence

It fulfills a sexual desire

It gives you an adrenaline rush

A way to be sexy/sexual without the risks that come with hooking up, like sexually transmitted diseases or pregnancy

It could lead to a hook-up

It's a way to flirt with someone

Help to create more open/relaxed future sexual experiences

If you send a nude pic, you may get one in return

It could allow you to stay abstinent but still partially participate in sexy activities

Being sexy/sexual without having to touch another person

Getting praised for the pictures that you send

It could lead to a potential relationship

General Life Questions

Now we want to ask you some questions relating to different aspects of life in general.

Instructions: Please read the below statements and indicate how true for you each statement is, from a 1 (*this is never true for me*) to 5 (*this is always true for me*).

1. Even though other kids, besides me, got A's on their papers, I feel that the teacher liked mine the best.

(*never true*) 1 2 3 4 5 (*always true*)

2. I know that I get away with a lot of stuff other kids get in trouble for.

(*never true*) 1 2 3 4 5 (*always true*)

3. When I realize I have said or done something really hurtful to a good friend it seems to me that no one else has ever done anything quite so bad.

(*never true*) 1 2 3 4 5 (*always true*)

4. Some kids don't worry about getting injured when they play sports.

(never true) 1 2 3 4 5 (always true)

5. Although I know that many other people may never realize their goals and ambitions I am sure that I will.

(never true) 1 2 3 4 5 (always true)

6. Some kids believe that even if they try drugs they will never get hooked on them.

(never true) 1 2 3 4 5 (always true)

7. When teams are picked in gym or at recess, I know I will never be the one picked last.

(never true) 1 2 3 4 5 (always true)

8. I don't worry about what I eat because I know I won't get fat.

(never true) 1 2 3 4 5 (always true)

9. When my parents or friends tell me that they know how I feel, I don't believe that they really do.

(never true) 1 2 3 4 5 (always true)

10. Some kids believe that they don't need to put on their seatbelt every time they get in a car.

(never true) 1 2 3 4 5 (always true)

11. Sometimes when I see a good-looking girl/boy, I think that they are looking at me in a very admiring way.

(never true) 1 2 3 4 5 (always true)

12. Some kids think that wearing a helmet while skateboarding, biking, or rollerblading is unnecessary because nothing is going to happen to them.

(never true) 1 2 3 4 5 (always true)

Instructions: Please read the following stories carefully and assume that the events actually happened to you. Place a check next to the answer that best describes what you would do or feel in the real situation.

1. You have looked forward to the most exciting dress up party of the year. You arrive

after an hour's drive from home. Just as the party is beginning, you notice a grease spot on your trousers or skirt. (There is no way to borrow clothes from anyone.) Would you stay or go home?

- Go home.
- Stay, even though I'd feel uncomfortable.
- Stay, because the grease spot wouldn't bother me.

2. Let's say some adult visitors came to your school and you were asked to tell them a little bit about yourself.

- I would like that.
- I would not like that.
- I wouldn't care.

3. It is Friday afternoon and you have just had your hair cut in preparation for the wedding of a relative that weekend. The barber or hairdresser did a terrible job and your hair looks awful. To make it worse, that night is the most important basketball game of the season and you really want to see it, but there is no way you can keep your head covered without people asking questions. Would you stay home or go to the game anyway?

- Go to the game and not worry about my hair.
- Go to the game and sit where people won't notice me very much.
- Stay home.

4. If you went to a party where you did not know most of the kids, would you wonder what they were thinking about you?

- I wouldn't think about it.
- I would wonder about that a lot.
- I would wonder about that a little.

5. You are sitting in class and have discovered that your jeans have a small but noticeable split along the side seam. Your teacher has offered extra credit toward his/her course grade to anyone who can write the correct answer to a question on the blackboard. Would you get up in front of the class and go to the blackboard, or would you remain seated?

- Go to the blackboard as though nothing had happened.
- Go to the blackboard and try to hide the split.
- Remain seated.

6. When someone watches me work . . .

- I get very nervous.

- I don't mind at all.
- I get a little nervous.

7. Your class is supposed to have their picture taken, but you fell the day before and scraped your face. You would like to be in the picture but your cheek is red and swollen. Would you have your picture taken anyway or stay out of the picture?

- Get your picture taken even though you'd be embarrassed.
- Stay out of the picture.
- Get your picture taken and not worry about it.

8. One young person said, "When I'm with people I get nervous because I worry about how much they like me."

- I feel like this often.
- I never feel like this.
- I feel like this sometimes.

9. You have been looking forward to your friend's party for weeks, but just before you leave for the party your mother tells you that she accidentally washed all your good clothes with a red shirt. Now all your jeans are pink in spots. The only thing left to wear are your jeans that are too big and too baggy. Would you go to the party or would you stay home?

- Go to the party, but buy a new pair of jeans to wear.
- Stay home.
- Go to the party in either the pink or baggy jeans.

10. Suppose you went to a party that you thought was a costume party but when you got there you were the only person wearing a costume. You'd like to stay and have fun with your friends but your costume is very noticeable. Would you stay or go home?

- Go home.
- Stay and have fun joking about your costume.
- Stay, but try to borrow some clothes to wear.

11. Let's say you wrote a story for an assignment your teacher gave you, and she asked you to read it aloud to the rest of the class.

- I would not like that at all.
- I would like that but I would be nervous.
- I would like that.

12. If you were asked to get up in front of the class and talk a little bit about your hobby

- I wouldn't be nervous at all.

- ___ I would be a little nervous.
- ___ I would be very nervous.

Instructions: Please consider the following list of body attributes in order of how important they are to your physical self-concept. Rate each attribute on a scale of 1 to 10 (1 being not at all important, 10 being very important; each item should have a number next to it that is between 1-10).

- ___ Physical attractiveness
- ___ Coloring
- ___ Weight
- ___ Sex appeal
- ___ Measurements
- ___ Muscle tone
- ___ Muscular strength
- ___ Physical coordination
- ___ Stamina
- ___ Health
- ___ Physical fitness
- ___ Physical energy level

FEMALES ONLY! (complete the parts below only if you are female; males skip to page 16)

Instructions: Please read each of the following items, and indicate the number that best reflects your agreement with the statement, on a scale of 1-5, (1) *being completely disagree* to (5) *completely agree*.

1. I would like my body to look like the women who appear in TV shows and movies.

(completely disagree) 1 2 3 4 5 (completely agree)

2. Music videos that show women who are in good physical shape make me wish that I were in better physical shape.

(completely disagree) 1 2 3 4 5 (completely agree)

3. I do not wish to look like the female models who appear in magazines.

(completely disagree) 1 2 3 4 5 (completely agree)

4. I tend to compare my body to TV and movie stars.

(completely disagree) 1 2 3 4 5 (completely agree)

5. Photographs of physically fit women make me wish that I had a better muscle tone.

(completely disagree) 1 2 3 4 5 (completely agree)

6. I wish I looked like the women picture in magazines who model underwear.

(completely disagree) 1 2 3 4 5 (completely agree)

7. I often read magazines and compare my appearance to the female models.

(completely disagree) 1 2 3 4 5 (completely agree)

8. I often find myself comparing my physique to that of athletes pictured in magazines.

(completely disagree) 1 2 3 4 5 (completely agree)

Instructions: Below is a list of statements. Please tell us how much you agree with each statement by circling a number. If you strong disagree with a statement, circle 1; if you disagree with a statement, circle 2; if you feel neutral about a statement, circle 3; if you agree with a statement, circle 4; if you strongly agree with a statement, circle 5. Remember, there are no right or wrong answers.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The best way to get a boy to like you is to flirt with him.	1	2	3	4	5
2. It is important to me to look hot everyday,	1	2	3	4	5
3. It can be good to have large breasts to get boys to do what you want.	1	2	3	4	5
4. I have wanted to look hot so that I can be popular.	1	2	3	4	5
5. How a girl looks is one of the most important things about her.	1	2	3	4	5
6. The best way to get a boy to like you is to look hot.	1	2	3	4	5
7. I like to wear clothing that makes me look hot.	1	2	3	4	5
8. I have used my looks to get people's attention.	1	2	3	4	5
9. I think that wearing make-up can improve the way a girl looks.	1	2	3	4	5
10. If I could, I would consider getting surgery to improve my body.	1	2	3	4	5
11. If a woman had small breasts, I would understand why she would want surgery to make them bigger.	1	2	3	4	5
12. I can get boys to do what I want when I flirt with them.	1	2	3	4	5

13. I can get boys to do what I want when I look hot.	1	2	3	4
14. If a girl has large breasts, she should wear clothing that shows them off.	1	2	3	4

MALES ONLY! (complete the part below only if you are male; females skip to page 17)

Instructions: Please read each of the following items, and indicate the number that best reflects your agreement with the statement, on a scale of 1-5, (1) *being completely disagree* to (5) *completely agree*.

1. I would like my body to look like the men who appear in TV shows and movies.
(completely disagree) 1 2 3 4 5 (completely agree)
2. Music videos that show women who are in good physical shape make me wish that I were in better physical shape.
(completely disagree) 1 2 3 4 5 (completely agree)
3. I do not wish to look like the male models who appear in magazines.
(completely disagree) 1 2 3 4 5 (completely agree)
4. I tend to compare my body to TV and movie stars.
(completely disagree) 1 2 3 4 5 (completely agree)
5. Photographs of physically fit men make me wish that I had a better muscle tone.
(completely disagree) 1 2 3 4 5 (completely agree)
6. I wish I looked like the men picture in magazines who model underwear.
(completely disagree) 1 2 3 4 5 (completely agree)
7. I often read magazines and compare my appearance to the male models.
(completely disagree) 1 2 3 4 5 (completely agree)

8. I often find myself comparing my physique to that of athletes pictured in magazines.

(completely disagree) 1 2 3 4 5 *(completely agree)*

Males & Females Complete rest of the survey

Instructions:

Please read each of the following items, and indicate the number that best reflects your agreement with the statement, on a scale of 0-3, 0 being disagree, 1 being somewhat disagree, 2 being somewhat agree, and 3 being agree.

1. It is easier to connect with others through texting or the Internet than talking in person.

(disagree) 0 1 2 3 *(agree)*

2. The Internet is anonymous so it is easier for me to express my true feelings or thoughts.

(disagree) 0 1 2 3 *(agree)*

3. It is easier to write things online that would be hard to say in real life because you don't see the other's face.

(disagree) 0 1 2 3 *(agree)*

4. It is easier to communicate online because you can reply anytime you like.

(disagree) 0 1 2 3 *(agree)*

5. I have an image of the other person in my head when I read their email or messages online.

(disagree) 0 1 2 3 *(agree)*

6. I feel like a different person online.

(disagree) 0 1 2 3 *(agree)*

7. I feel that online I can communicate on the same level with others who are older or who have higher status.

(disagree) 0 1 2 3 *(agree)*

8. I don't mind writing insulting things about others online, because it's anonymous.

(disagree) 0 1 2 3 (agree)

9. It is easy to write insulting things online because there are no repercussions.

(disagree) 0 1 2 3 (agree)

10. There are no rules online therefore you can do whatever you want.

(disagree) 0 1 2 3 (agree)

11. Writing insulting things online is not bullying.

(disagree) 0 1 2 3 (agree)

Instructions: Please read the following statements and indicate your level of agreement with each statement, on a scale of from 1 (*strongly disagree*) to 6 (*strongly agree*).

1. An attractive woman should expect sexual advances and should learn how to handle them.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

2. Women should be more concerned about their appearance than men.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

3. Using her body and looks is the best way for a woman to attract a man.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

4. Women should spend a lot of time trying to be pretty; no one wants to date a woman who has “let herself go.”

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

5. There’s nothing wrong with men whistling at shapely women.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

6. It bothers me when a man is interested in a woman only because she is pretty.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

7. There is nothing wrong with men being primarily interested in a woman’s body.

(strongly disagree) 1 2 3 4 5 6 (strongly agree)

8. Being with an attractive woman gives a man prestige.

(*strongly disagree*) 1 2 3 4 5 6 (*strongly agree*)

Instructions: Please indicate on a scale of 1 to 5 how much you agree with the following statements (*1 being completely disagree, 5 being completely agree*).

1. It's important that people think I'm popular.

(*completely disagree*) 1 2 3 4 5 (*completely agree*)

2. At times, I've changed the way I dress, in order to be more popular.

(*completely disagree*) 1 2 3 4 5 (*completely agree*)

3. I've been friends with some people, just because others liked them.

(*completely disagree*) 1 2 3 4 5 (*completely agree*)

4. At times, I've ignored some people in order to be more popular with others.

(*completely disagree*) 1 2 3 4 5 (*completely agree*)

5. I'd do almost anything to avoid being seen as a "loser".

(*completely disagree*) 1 2 3 4 5 (*completely agree*)

Instructions: Please indicate how often you experience the following on a 5-point scale from 1 (*almost always*) to 5 (*never*).

1. A parent is present while I use the Internet.

(*almost always*) 1 2 3 4 5 (*never*)

2. My parent(s) set(s) rules about the Internet (i.e. how often I can use it).

(*almost always*) 1 2 3 4 5 (*never*)

3. My parent(s) check(s) my technological devices (i.e. cell phone, computer) after I use them.

(almost always) 1 2 3 4 5 (never)

4. My parent(s) discuss(es) issues of Internet use and safety with me.

(almost always) 1 2 3 4 5 (never)

Instructions: Please indicate how often you have access to mobile technology on a scale from 1 (*almost always*) to 5 (*never*).

(almost always) 1 2 3 4 5 (never)

Instructions: Please estimate how much time you spend on the Internet or on your mobile device. Circle the correct answer.

0-2 hours a day

2-3 hours a day

3-4 hours a day

4-5 hours a day

More than 5 hours a day

Instructions: Please indicate whether or not you are sexually active:

yes

no

Instructions: Please circle the best answer for you.

1. What is your age?

a. 14

b. 15

c. 16

d. 17

e. 18

2. What is your gender?

a. Female

b. Male

c. Other

3. What is your current year in school?

a. Freshman

b. Sophomore

c. Junior

d. Senior

4. What is your current relationship status?

a. Single (not in a relationship)

b. Committed relationship (only dating one person)

c. Non-committed relationship(s) (casual)

5. Which of the following terms describes you?

a. Heterosexual

b. Gay or lesbian

c. Bisexual

d. Questioning

6. Which of the following describes you?
- a. White
 - b. Black
 - c. Hispanic
 - d. Asian
 - e. Native
 - f. Mixture
 - g. Decline to answer

Appendix B: Schools Recruitment Packet

Dear _____,

We are researchers at the **University of Missouri** seeking participants for our study on adolescent sexting. Specifically, we are interested in what predicts adolescents' attitudes and intentions to participate in sexting. This research will help us to understand why adolescents choose to sext and will suggest ways to intervene in these processes. Ultimately, the proposed project will inform educators, researchers, health professionals, and parents in helping to prevent the negative impacts of risky mobile media communication among adolescents. This research is funded by the Rebecca Verser Grant from the Department of Communication at the University of Missouri.

Sexting is a growing issue that schools must learn to deal with, and the results of this study will help you to do this. Furthermore, we believe this project will benefit your school by giving students the opportunity to participate in a scientific research study and by helping parents and educators in our community to understand the prevalence and effects of teen sexting. Additionally, the lead researcher is willing to offer any services that may be useful to your school (i.e. facilitating a media literacy workshop, volunteering time), and up to \$500 will be provided to your district as compensation for your assistance.

We have enclosed materials detailing the goals and purposes of the proposed project: (1) a one-page memo providing more detail on our project; (2) short biography statements of the lead investigators; and (3) a template for a letter of commitment that you might use to express your commitment to participate in this project.

If you are interested in participating in this project, **we would like to request a letter or email of commitment from you.** This letter does *not obligate* your school district to participate in this study, rather it is an intention to participate in the project. The study will take place in the fall of 2015 (at your convenience).

We very much appreciate your attention to this memo. We will follow up in the next week to see if we can answer any questions and to determine if we can count on your support.

Sincerely,

Ashton Gerding Speno
Doctoral Candidate
University of Missouri

Dr. Elizabeth Behm-Morawitz
Associate Professor of Communication
University of Missouri

What are we doing?

Researchers from the Department of Communication at the University of Missouri will be examining adolescents' risky mobile media use. Our goal is to work with your community to understand why adolescents participate in risky texting, and eventually to intervene in this process. We will investigate attitudes and intentions to engage in risky mobile media use by administering an online survey to students. Students and their parents must first provide consent to participate in the study, and then a link to the survey will be emailed to them. After the data is analyzed, a brief report of the findings will be provided for your district.

Why should your school district be involved?

Adolescents spend ten hours a day with media, on average. About two hours is spent on cell phones, and teens are sending about 100 texts per day. Adolescents spend a great deal of time with media, yet relatively little is known about the predictors of risky texting behavior and impacts on well-being. Participating in this study would provide a great service for parents, school districts, and policy makers across the nation, as the results of the study will help us to understand why adolescents participate in risky mobile media communication. Once we understand the processes involved, we would be able to intervene on and hopefully prevent the negative impacts of risky mobile media communication.

Benefits to your school district:

Participating in this study will benefit you and your students in three main ways. First, it will give students the opportunity to participate in a scientific research study. This will be a hands-on experience in participating in the research process, and they will be contributing to the advancement of science. Second, on a local level, participation in this study will help parents and educators in our community to understand the prevalence and effects of risky mobile media communication by adolescents. Finally, the district would be compensated by up to \$500 for their efforts by a University of Missouri grant, and the lead researcher is willing and enthusiastic to contribute back to the district by providing informational resources or facilitating a media literacy workshop.

Researcher Bios



Ashton Gerding Speno (MA)
Doctoral Candidate, Communication
University of Missouri-Columbia

Ashton Gerding Speno's research focuses on the representations of gender in the media, new media technologies, and media's effects on body image and psychological self-concept. Her research examines tweens' and adolescents' experiences with media, and the impact of such media on attitudes, behaviors, and self-concept. Ashton Gerding has published her research in *Sex Roles* and *The Journal of Media Psychology*.



Elizabeth Behm-Morawitz (PhD)
Assistant Professor, Communication
University of Missouri-Columbia

Dr. Behm-Morawitz's research centers on the media's effects on stereotyping, identity, and body image, in relation to gender, race, and sexuality. Her research contributes to the understanding of the media's influence on the socio-cultural and health-related development of young people. Dr. Behm-Morawitz's research has been published in journals such as *Journalism and Mass Communication Quarterly*, *Human Communication Research*, *Sex Roles*, and *Media Psychology*.

COMMITMENT LETTER TEMPLATE:

PLEASE NOTE: We offer this as a template for a letter of commitment. You may revise the language as you wish.

Please send this letter to:

Ashton Gerding Speno
108 Switzler Hall
Columbia, MO 65211

or email Ashton Gerding: algtf3@mail.missouri.edu

Ashton Gerding Speno & Dr. Lissa Behm-Morawitz:

As the Superintendent of SCHOOL DISTRICT NAME, I am writing this letter of commitment to participate in the study about adolescent's use of texting.

SCHOOL DISTRICT NAME supports the project's goals of understanding why adolescents participate in risky mobile media communication. We will encourage students to consider participating in this study.

I believe this project is worthwhile and would be beneficial to our high school, and we intend to participate in the project that will commence in the fall of 2015.

Sincerely,

Appendix C: Teens Recruitment Script

Dear interested individual,

I am writing to let you know about an opportunity to participate in a research study about teenagers' attitudes and behaviors regarding sexting. This study is being conducted by Ashton Gerding Speno and Dr. Lissa Behm-Morawitz from the **University of Missouri-Columbia**. This study will help us to understand attitudes about sexting and will ultimately help to prevent some of the negative impacts of risky mobile media communication.

We are contacting you for this study because your principal agreed to allow us to recruit participants at _____ High School. The study will take about 30 minutes to complete and will happen during one of your classes on _____. As an incentive, participants will be entered into a drawing to win an iPad air (or an apple gift card worth the same value).

To participate in this study, you will need to obtain a consent letter from your parents. The consent will be emailed to your parents. If you wish to participate, ask your parents to read, print, and sign the form, and bring the signed form with you back to school and turn it in to the main office.

Please contact Ashton Gerding Speno at algtf3@mail.missouri.edu with any questions that you might have.

Sincerely,

Ashton Gerding Speno
Doctoral Candidate
University of Missouri

Elizabeth Behm-Morawitz
Associate Professor of Communication
University of Missouri

Appendix D: Parental Consent Form

Adolescent sexting: An examination of the psychosocial contributions to the creation and sharing of sexually suggestive images

We are a group of media researchers at the University of Missouri-Columbia who are interested in researching teenagers' experiences with and attitudes about sexting: the creation and sharing of sexually suggestive images via smartphone or online device.

We invite your teenager (between the ages of 14-17) to participate in a study in which we examine the predictors of sexting. Your teen will take a survey about their experiences with and attitudes about sexting. The survey will be completely confidential and will take about 30 minutes to complete. This paper and pencil survey will be taken during school hours at a time set aside by the school's administration.

Your teen's participation in our research project is voluntary. Their refusal to participate will involve no penalty or loss of benefits to which your teen is otherwise entitled. She/he can withdraw at any time or skip questions that make her feel uncomfortable.

We expect that the risks to participating in this study are no greater than those encountered in everyday life. The benefits include getting exposure to the research process and contributing to the understanding of the predictors of and the consequences of sexting. The data from this study will be confidential. Your teen's personal information will not be connected to her responses.

If your teen completes our study, she/he will be entered into a drawing for an ipad. If their name is drawn we will contact the school to notify them that they have won. We will not use their name for ANY other purpose. The data from this study will be kept confidential. Your teen's personal information, including his/her name, will not be connected to the data.

If you agree to allow your teen to take part in this study, please sign and date on the lines below.

If you have any questions or concerns regarding the study, please contact us at algtf@mail.missouri.edu. If you have any questions about your teen's rights as a research participant, contact University of Missouri Campus Institutional Review Board at (573)882-9585. Thank you for your consideration!

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Elizabeth Behm-Morawitz PhD)
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Sign name _____

Date _____

Print name _____

Appendix E: Assent Form

Adolescent sexting: An examination of the psychosocial contributions to the creation and sharing of sexually suggestive images

Dear Interested Individual:

Thank you for considering participating in this research study. We are a group of media researchers at the University of Missouri-Columbia who are interested in researching teenagers' experiences with the creation and sharing of sexually suggestive images via smartphone or online device.

We invite teens (between the ages of 14-17) to participate in a study in which we examine the predictors of sexting. If you consent to the study, you will take a survey that will take about thirty minutes to complete.

Your participation in our research project is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You can withdraw at any time or skip questions with which you are uncomfortable. The risks to participating in this research study are expected to be no greater than those encountered in everyday life. The benefits are the opportunity to get exposure to the research process and to take part in an academic study that will contribute to the understanding of teenage sexting.

For the favor of filling out our survey, you will be entered into a drawing for an iPad air. Please sign the sign-in sheet if you would like to be entered in the drawing. We will not use your name for any other purpose. Your name will not be connected to the data in any way. The data from this study will be kept confidential.

If you have any questions or concerns regarding the study, please contact us at algtf3@mail.missouri.edu. If you have any questions about your rights as a research participant, contact University of Missouri Campus Institutional Review Board at (573)882-9585. Thanks for your consideration!

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If you agree to take part in this study, please sign and date below:

Sign name _____ Date _____

Print name _____

VITA

Ashton Gerding Speno was born in Tulsa, Oklahoma. In 2009 she graduated with honors from the University of Missouri with a Bachelor of Arts in Communication, a minor in Psychology, and a certificate in Multicultural Studies. In 2011 she graduated from the University of Delaware with a Master of Arts in Communication. She completed her Doctoral degree in Communication at the University of Missouri in 2016. Her primary research interests focus on issues of gender and sexualization in the media, adolescents' experiences with new technologies, and the impact of media on attitudes, behaviors, and self-concept.