WOMEN'S ONLINE EXPERIENCES OF SEXUAL OBJECTIFICATION:
MEASUREMENT DEVELOPMENT AND ASSOCIATIONS WITH
BODY IMAGE AND MENTAL HEALTH

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Human Development and Family Studies – Doctor of Philosophy

2023

ABSTRACT

The sexual objectification of girls and women is ubiquitous in patriarchal American culture (Gervais et al., 2020). When girls and women are sexually objectified, their bodies are reduced to sexual objects to be observed and evaluated by others, without the consideration of personal character or dignity (Fredrickson & Roberts, 1997). Objectification theory posits that sexual objectification is experienced both within interpersonal social interactions and via exposure to the objectification of others (Fredrickson & Roberts, 1997). Indeed, women report experiencing exposure to the sexual objectification of other women 1.35 times daily and experience being sexually objectified themselves at least every-other-day (Holland et al., 2017). As a result of these repeated experiences of sexual objectification, girls and women face a plethora of negative outcomes (for reviews see: Daniels et al., 2020; Moradi & Huang, 2008). More specifically, sexual objectification experiences result in self-objectification, or internalization of objectification in which one begins to think of themselves as an object to be evaluated and used by others (Fredrickson & Roberts, 1997). It is this self-objectification that serves as a mediator between experiences of sexual objectification and subsequent outcomes within the areas of body image and mental health, with prior research supporting this pathway of outcomes (Calogero, 2004; Moradi & Huang, 2008; Tiggemann & Slater, 2002). However, sexual objectification and resultant outcomes were originally conceptualized as occurring solely within offline, interpersonal interactions and exposure to objectification within traditional media (i.e., print, movies, television). Little is known about how sexual objectification is experienced by women within online contexts via interpersonal interactions and exposure to objectification of others online.

The present study aims to address this gap in the literature by (1) using psychometric methods to develop and validate an instrument to capture emerging adult women's online sexual

objectification experiences and (2) explore associations between online sexual objectification, self-objectification, body image, and mental health. Study 1 (presented in Chapter 2) reports on the development and psychometric evaluation of the Online Sexual Objectification Experiences Scale (OSOES). Data from 898 emerging adult college women were collected in two studies. Exploratory factor analyses revealed three factors: Appearance-based Harassment, Unwanted Sexual Solicitations, and Indirect Sexual Objectification. OSOES scores were internally consistent and were strongly associated with scores of self-objectification, body surveillance, and body shame. OSOES subscale scores also provided evidence of incremental validity in predicting scores of self-objectification above and beyond offline, interpersonal sexual objectification. Study 2 (presented in Chapter 3) explores associations between online sexual objectification experiences, self-objectification, body image, and mental health, controlling for offline sexual objectification, among emerging adult women. A structural equation model was tested in which self-objectification mediated the associations between online sexual objectification experiences and latent factors of body image (comprised of internalization of the thin ideal, body surveillance, and body shame) and mental health (comprised of depression, anxiety, and satisfaction with life). Indirect paths between online sexual objectification, body image, and mental health through the mediating variable of self-objectification were significant, indicating that sexual objectification experienced within the online context is associated with a similar pathway of outcomes to that of offline sexual objectification. Educators and clinicians should be made aware of the prevalence of women's experiences of online sexual objectification and the potential consequences associated with online objectification such as self-objectification, poor body image and mental health.

ACKNOWLEDGEMENTS

Finally, to my parents, Angela Wrench and Troy Cary, thank you for your unconditional support throughout my life.

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CHAPTER 1: INTRODUCTION

Although today's girls and women are spending increasingly more time online, experiences and outcomes of sexual objectification within the online context remain understudied within the literature. The sexual objectification of girls and women is ubiquitous in patriarchal American culture (Gervais et al., 2020). When girls and women are sexually objectified, their bodies are reduced to sexual objects to be observed and evaluated by others, without the consideration of personal character or dignity (Fredrickson & Roberts, 1997). As originally posited by objectification theory, such experiences of sexual objectification may occur through (1) exposure to sexualized imagery of feminine bodies within traditional media (e.g., advertisements, television, print media), and (2) within interpersonal interactions with others (Fredrickson & Roberts, 1997). Women report experiencing exposure to the sexual objectification of other women 1.35 times daily and experiencing interpersonal sexual objectification on an every-other-day basis (E. Holland et al., 2017). As a result of these repeated experiences of sexual objectification, girls and women face a plethora of negative outcomes. Decades of cross-sectional, experimental, and longitudinal research have drawn associations between sexual objectification and outcomes including internalization of unhealthy beauty ideals, body dissatisfaction, and poor psychological well-being (for reviews see: Daniels et al., 2020; Moradi & Huang, 2008). In addition, as is perhaps the most insidious outcome of pervasive sexual objectification, girls and women internalize objectifying experiences and begin to think of themselves as objects, a process called self-objectification (Fredrickson & Roberts, 1997). It is this self-objectification that often serves as a mediator between experiencing sexual objectification and a variety of negative outcomes such as poor body image and harmful mental health outcomes.

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Sexual objectification and self-objectification were originally conceptualized before the online context emerged as a dominant social space. However, today's girls and women are spending increasingly more of their daily lives within online spaces and interacting with new forms of media. In order to prevent the detrimental consequences of sexual objectification and self-objectification, there is a need to explore how the online context facilitates and perpetuates these processes. Online media has become an all-encompassing aspect of life for American adolescents and young adults, with a large majority of these populations spending hours a day online. Thus, exploration of women's experiences within the online spaces they frequently navigate is a crucial next step in research exploring sexual objectification experiences and outcomes.

Although sexual objectification and self-objectification have been well-documented as occurring offline (E. Holland et al., 2017), there is emerging evidence to support that these processes are also occurring within online spaces, such as social media (Megarry, 2014). However, no psychometric instrument to capture these experiences has been developed. Additionally, associations between online experiences of sexual objectification, internalization of objectification or self-objectification, and outcomes such as women's body image and mental health have yet to be explored. The present research addresses these gaps in the literature through development of an instrument to capture online experiences of sexual objectification (Chapter 2) and exploration of associations between online sexual objectification, self-objectification, body image, and mental health (Chapter 3). Without knowledge of the online processes of sexual objectification and self-objectification, targeted interventions cannot address these processes and mitigate harmful effects.

Theoretical and Conceptual Frameworks

The present research is guided by an intersectional feminist framework to contextualize the sexist and degrading nature of sexual objectification experienced by women. Created within this feminist framework, objectification theory is the central theory of the proposed research and will inform measurement creation and understanding of sexual objectification outcomes. Finally, the present research draws upon an understanding of the importance of the online context in shaping women's experiences.

Intersectional Feminist Framework

The present research follows an intersectional feminist framework as it is rooted in feminist theory, aims to explore and understand the experiences of women, and findings can inform intervention work that will improve the lives of girls and women. This research is grounded in objectification theory which was developed with feminist and sociocultural perspectives in mind. The theory highlights the ways in which women's bodies and how women's bodies are viewed by others are situated within gendered and social traditions, Thus, sexual objectification and resultant self-objectification are products of the patriarchal society in which women live their lives (Fredrickson & Roberts, 1997). This sexual objectification and self-objectification then reinforce patriarchal hierarchies as there is research to support that sexual objectification is used by men as a mechanism to assert dominance over women (Bareket & Shnabel, 2020) and to justify violence against women (Cheeseborough et al., 2020). Additionally, an intersectional understanding of sexual objectification informs the present research in understanding differential outcomes between women of varying identities. Intersectionality theory states that patriarchal oppression cannot be disentangled from additional dominant power structures such as White nationalism, colonialism, and cisheteronormativity

(Crenshaw, 1989). As such, women who hold multiple minoritized identities can experience sexual objectification differently than their cisgender, white counterparts (Flores et al., 2018; Tebbe et al., 2018; Watson et al., 2012).

Objectification Theory

Fredrickson and Roberts (1997) first proposed objectification theory as a theoretical framework defining the sexual objectification women experience in their daily lives and the intrapersonal, psychological consequences that arise from sexual objectification experiences. The theory draws upon feminist and sociocultural perspectives which argue that female bodies should be considered within the sociocultural context that provides differential socialization based on gender identity. This includes socialization of meanings associated with feminine bodies, such as the sexualization and objectification of women. Sexual objectification occurs, "Whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments, or regarded as if they were capable of representing her" (Bartky, 1990, p. 35). Thus, women are effectively reduced to objects to be used and consumed by others, with the primary process being a focus on women's appearance and sexuality rather than personality, ability, or intelligence.

Objectification theory posits that there are two primary contexts through which girls and women may experience sexual objectification: (1) exposure to objectifying media and (2) the interpersonal context. Regarding exposure to objectifying media, years of research have supported that women are increasingly depicted as sexual objects in traditional media (Kunkel et al., 2005; Stankiewicz & Rosselli, 2008). These media depictions are especially harmful due to the process of sexual socialization that engrains and perpetuates the sexual objectification of women (Ward et al., 2019; Ward & Grower, 2020). In the interpersonal context, women are

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observed and evaluated by men often and for extended periods of time (Gervais et al., 2013). Often these interpersonal interactions are accompanied by derogatory words or evaluative conversation.

Objectification theory also posits several potential outcomes that result from ubiquitous experiences of sexual objectification. According to the theory, self-objectification is the primary outcome of sexual objectification as well as the precursor to additional negative consequences. Self-objectification is the process through which a woman internalizes her repeated experiences of sexual objectification and begins to adopt an observers' perspective of her own body, effectively beginning to think of herself as a mere sexual object to be used and manipulated by others (Fredrickson & Roberts, 1997). This self-objectification physically manifests in habitual body monitoring to ensure compliance with cultural standards of beauty and garner positive evaluations of one's body. These internalizing states then facilitate further body shame and anxiety as well as disrupt cognitive performance, self-concept, and psychological well-being.

Though in its conception objectification theory considered only women's offline, interpersonal experiences of sexual objectification and exposure to traditional media, core concepts of the theory such as self-objectification and the mechanisms that lead to negative outcomes of sexual objectification can be applied to women's experiences within the online context. Thus, it is crucial to acknowledge the process of sexual objectification and resultant outcomes posited by objectification theory to expand on existent objectification research to include online contexts.

Understanding of the Online Context

The present research is informed by an understanding of the importance of the online context, especially within the lives of young women. The vast majority (88%) of American

emerging adults use at least one form of social media daily (Pew Research Center, 2019b), and

45% of adolescents report being online nearly constantly (Pew Research Center, 2019a). As

such, exposure to online media and interpersonal interactions within these contexts are a regular

part of women's social environments. Considering exposure to online media, the online context

provides a wide variety of opportunities for girls and women to be exposed to the objectification

of feminine bodies. To provide several examples, online advertisements present sexualized

imagery of girls and women; highly visual social media platforms such as Instagram provide a

plethora of unrealistic, sexually objectified imagery; and internet pornography represents perhaps

the most blatant example of sexual objectification with women performers quite literally being

used as objects of sexual pleasure. Girls and women are also engaging in regular interpersonal

interactions with others within the online context. While the majority of these interactions are

likely positive (Dedkova, 2015), there is evidence that girls and women are also experiencing

negative interactions online such as gender-based harassment and even sexual objectification

(Barak, 2005; Ybarra & Mitchell, 2008).

These online experiences of sexual objectification may be especially salient to adolescent

girls and emerging adult women. American youth are spending increasingly longer periods of

time immersed within online contexts via smartphones, tablets, and laptops. As a result, concerns

of adolescent and emerging adult internet and social media addiction have been rising over the

past three decades (Cheng et al., 2021). Despite negative online experiences (Ybarra & Mitchell,

2008) and problematic internet use resulting in detriments to academic performance (Al-

Menayes, 2015), mental health (Keles et al., 2020; Raudsepp & Kais, 2019), and well-being

(Kross et al., 2013), youth cannot seem to reduce their need to exist online. Given the importance

of online media in the lives of American youth, researchers must begin considering the online

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context as a new and salient landscape in which girls and women can experience sexual objectification.

In addition to being highly salient, online sexual objectification experiences may also be heightened in intensity due to the online disinhibition effect, a phenomenon in which individuals act out more frequently or intensely online than they would in person (Suler, 2004). One facet of the online disinhibition effect is toxic disinhibition, a process in which internet users are more aggressive towards others online than they would be in-person. This process is driven by dissociative anonymity and minimization of authority, which can contribute to a separation of online actions from in-person characteristics and a lack of consequences for inappropriate behavior, respectively (Suler, 2004). These aspects contributing to online disinhibition may contribute to increased perpetration of online harassment, and by extension, sexual objectification within online interpersonal interactions. Indeed, toxic disinhibition has been associated with online aggression and deviant behaviors (Cheung et al., 2016).

As a whole, this understanding of the online context provides a framework through which to consider online experiences of sexual objectification and subsequent outcomes. The online context serves as an additional, unique avenue through which girls and women can experience sexual objectification. Online experiences are especially salient for today's youth given their increased time spent online, and compounding this, the online context allows a certain amount of anonymity which may further encourage users to sexually objectify and harass girls and women. Thus, this understanding of the online context along with an intersectional feminist framework and consideration of objectification theory will serve as the theoretical basis for the following summary of existing research and defined research methods.

Literature Review

The following defining of terms and review of the literature expand on the significance of exploring women's experiences of offline sexual objectification, the outcomes of such experiences, and the importance of considering online spaces as contexts in which women experience further sexual objectification. First, definitions of key variables and the online context will be offered. Then, a synthesis of literature on offline sexual objectification and immediate impacts on women's lives will then be provided, followed by a discussion of self-objectification as a mediator for subsequent outcomes of sexual objectification. Next, a discussion of current forms of measurement of sexual objectification experiences will be presented. Finally, emergent evidence of sexual objectification occurring online will be outlined and research questions developed to fill gaps in the present understanding of online sexual objectification will be identified.

Definition of Variables and Online Context

Sexual Objectification

Sexual objectification occurs, "Whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments, or regarded as if they were capable of representing her" (Bartky, 1990, p. 35). Thus, women are effectively relegated to mere objects to be used and consumed by others, with the primary process being a focus on women's appearance and sexuality. This sexual objectification is perpetrated by others of any identity through a variety of behaviors, including sexual evaluation, and more seriously, sexual violence. The most common mediums through which women experience sexual objectification are (1) depictions of objectified women within media and (2) from others observing and commenting on their bodies as sexual objects in interpersonal interactions (Fredrickson & Roberts, 1997).

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Experiences of sexual objectification regularly occur through exposure to sexualized depictions of women in visual media (Galdi & Guizzo, 2020). Years of research have supported that women are increasingly depicted as sexual objects in traditional media (Kunkel et al., 2005; Stankiewicz & Rosselli, 2008) with women being overtly objectified within movies (Smith et al., 2019), television (McDade-Montez et al., 2017), and music videos (Ward et al., 2013). The second context in which sexual objectification occurs is via interpersonal interactions with others. Perhaps the most common, yet insidious, medium through which sexual objectification occurs is the "sexualized gaze" of others. This sexualized gaze is virtually unavoidable for women of any age and can be experienced within a variety of contexts (Fredrickson & Roberts, 1997). In the interpersonal context, women are observed and evaluated by men often and for extended periods of time. For example, eye-tracking research has shown that, when viewing women, men will initially focus on a woman's chest and waist, a practice that occurs regardless of perceived attractiveness of the woman (Gervais et al., 2013). These experiences of being leered at or ogled are often accompanied by verbal objectification as well by way of sexually evaluative commentary such as catcalls or whistling. The term "offline sexual objectification" will be used throughout to identify sexual objectification experienced via these interpersonal, offline occurrences of sexual evaluation and objectified depictions within traditional, visual media.

Self-objectification

Due to repeated experiences of sexual objectification, women begin to adopt an observer's perspective of themselves. Thus, women effectively internalize the sexual objectification they experience and begin to view themselves as objects to be evaluated and used by others, a process termed self-objectification. As women self-objectify, they see others'

evaluations of themselves as depending solely on their physical appearance. Because of this focus on personal appearance, women are constantly monitoring their bodies to ensure compliance with cultural beauty standards and avoid negative evaluations. Therefore, self-objectification is manifested behaviorally through habitual body monitoring, or self-surveillance (Fredrickson & Roberts, 1997). Thus, the construct of self-objectification is commonly measured through the proxies of self-surveillance behaviors (McKinley & Hyde, 1996) or a valuing of the body's appearance over ability (Noll & Fredrickson, 1998). When considering the harmful impact of sexual objectification experiences, it is the pathway from cultural and interpersonal sexual objectification experiences to internalized self-objectification that is the precursor to a plethora of negative outcomes for women; thus, self-objectification serves a mediating role between sexual objectification experiences and subsequent outcomes.

The Online Context

The online context refers broadly to the online spaces in which today's emerging adults spend a strikingly large amount of time. This includes online spaces such as social media platforms, video streaming platforms, online message boards and forums, and any other online platform that allows for sharing of personal information and direct interactions between users. The salience of the online context, especially to young women, is evidenced by the sheer amount of time emerging adults spend online. Recent surveys by the Pew Research Center report steady increases of social media use in all U.S. adults in the last five years. Currently, 88% Americans ages 18 to 29 indicate that they use at least one form of social media regularly (Pew Research Center, 2019b). Among teenagers, 95% report access to a smartphone with 45% reporting they are online nearly constantly (Pew Research Center, 2019a). Given the amount of time that adolescents and emerging adults spend navigating the online context, it is critical to consider the

developmental implications of experiences within this context. However, past conceptualizations of sexual objectification and self-objectification have been largely limited to offline contexts. The online context presents a unique, highly salient environment through which girls and women can experience sexual objectification through the mediums of exposure to sexualized imagery and objectification of other women, as well as interpersonal interactions with other internet users. The term "online sexual objectification" will be used throughout to identify women's experiences of sexual objectification occurring within the online context. Given the important role the online context plays in young women's lives, further exploration of the online context as an opportune space for women to experience sexual objectification is warranted.

Prevalence of Offline Sexual Objectification

As discussed in the previous section, girls and women experience sexual objectification within two situational contexts, media depictions and interpersonal interactions. Such experiences are unavoidable and perpetual for girls and women of any age and have deleterious effects across multiple developmental time periods. Experiences of sexual objectification have been shown to be common from childhood to adulthood, beginning as early as age five. To combat these experiences, in 2005, the American Psychological Association (APA) created the Task Force on the Sexualization of Girls. Resultant research and a more recent review have identified that American girls experience sexual objectification through cultural, interpersonal, and intrapsychic contributions which have a number of well-researched negative outcomes on health and well-being (APA, 2007; Lamb & Koven, 2019). These experiences that begin in childhood and adolescence then persist into adulthood, with experiences of sexual objectification being well-documented among women. Early research identified interpersonal sexual objectification experiences, such as unwanted staring, flirting, and touching from men, as

incidents of everyday sexism experienced by college women (Swim et al., 2001). More recent research conducted with adults using ecological momentary assessment reports that women experience interpersonal sexual objectification on an every-other-day basis (E. Holland et al., 2017). In addition to these interpersonal experiences, women observe the sexual objectification of other women an average of 1.35 times daily (E. Holland et al., 2017). Thus, sexual objectification is a persistent experience for young women. However, these experiences have been found to vary in intensity among women of differing identities.

Current literature supports that sexual objectification may be experienced differentially for women who hold additional minoritized identities. This is due to the heterosexual and white underpinnings of the patriarchal culture that drives the socialization of sexual objectification (Tebbe et al., 2018; Watson et al., 2015). Sexual minority women report that their experiences are shaped by the intersection of multiple identities (i.e., sexual, gender, racial, and ethnic identities). For example, in a qualitative study of sexual minority women, participants stated that they were fetishized or made into a spectacle through sexual objectification due to their same-sex attractions (Tebbe et al., 2018). Research has also shown unique experiences of sexual objectification within a population of transgender people of color, including genital- and gender-based comments and body policing, or commentary regarding physical appearance not meeting societal standards (Flores et al., 2018).

Racial and ethnic identity also play a role in the scope and nature of sexual objectification experiences. Qualitative interviews with Black women reveal the racialized nature of their sexual objectification experiences, with women stating that factors such as the historical influence of slavery and socialized stereotypes of women of color contribute to their sexual objectification (Watson et al., 2012). For example, the Jezebel stereotype, or socially the constructed myth that

Black women are hypersexual and hypomoral, has historically been placed upon Black women and continues to perpetuate a objectified image of women of color (Bay-Cheng et al., 2020), resulting in higher rates of sexual objectification. Experimental research has shown that American adults observe more often, and for longer durations, the sexual body parts of Black women, as well as associate Black women with objects more often compared to White women (Anderson et al., 2018). Sexual objectification is ubiquitous and unavoidable for women of any age and can occur at heightened frequencies among minoritized women. As a result of these repeated experiences of objectification, girls and women in turn experience a plethora of negative direct consequences.

Outcomes of Offline Sexual Objectification

Sexual objectification experiences can begin as early as childhood, thus research of the effects of sexual objectification has been conducted with girls as young as six years old. These lines of research typically focus on outcomes related to the context of exposure to objectified images of women. Research conducted with girls ages six to nine years has found that exposure to objectifying media is associated with girls' internalization of such messages, which in turn is associated with negative body image (Slater & Tiggemann, 2016). Researchers have also identified exposure to objectifying media (i.e., teen magazines, music videos) and engagement in objectifying beauty behaviors as predictors of appearance concerns in girls ages four to ten years (Tiggemann & Slater, 2014). Finally, exposure to sexual objectification can even impact girls' perceptions of their abilities. One study of adolescent girls revealed that exposure to sexualization (i.e., playing with a Barbie doll) impacted future career orientation among girls. Specifically, girls who played with a Barbie doll reported having fewer future career options

compared to boys in comparison to girls in a control condition who played with a Mrs. Potato Head doll (Sherman & Zurbriggen, 2014).

Research has demonstrated consistent detrimental effects of sexual objectification among adolescent girls and emerging adult women, with research among these populations incorporating interpersonal experiences of sexual objectification. Because sexual objectification as a process draws attention to girls' and women's bodies, a large body of literature has identified associations between sexually objectifying experiences and body image concerns. For example, among adolescent girls, interpersonal sexual objectification is directly associated with internalized appearance ideals, or preoccupation with meeting cultural standards of beauty (Ching & Xu, 2019). Similarly, women who experience sexual objectification within their workplace have reported higher rates of body dissatisfaction (Szymanski & Mikorski, 2017b) and disordered eating (Szymanski & Mikorski, 2017a) as a result of repeated objectification. With sexual objectification experiences leading women to focus on their appearance, researchers have identified that this preoccupation with appearance takes women's mental focus away from important tasks. As evidence of this process, among young women, sexual objectification has been associated with decreased cognitive performance (Guizzo & Cadinu, 2017). Beyond leading women to be preoccupied with appearance, researchers have also argued that sexual objectification is in fact a form of insidious trauma. In a study of adult women, sexually objectifying experiences of body evaluation and unwanted sexual advances were each predictive of trauma symptomology such as nightmares, sexual problems, and out-of-body feelings (Miles-McLean et al., 2015).

It is clear from many years of research that experiencing sexual objectification results in a plethora of negative consequences for girls and women. However, it is rare that such associations

are direct effects. Most commonly, sexual objectification results in negative outcomes through the mediating variable of self-objectification. By far the most researched consequence of sexual objectification is the internalization of experiences through which women begin to think of themselves as objects, or self-objectification (Fredrickson & Roberts, 1997). As posited by objectification theory and supported by decades of research, this self-objectification is then associated with deleterious outcomes for women. Thus, self-objectification serves as mediator between women's sexual objectification experiences and subsequent outcomes.

Internalized Sexual Objectification: Self-Objectification

Fredrickson and Roberts (1997) first proposed objectification theory as a theoretical framework to understand the sexual objectification of women and the intrapersonal, psychological consequences that arise from sexual objectification experiences. According to this theory, self-objectification is the primary outcome of sexual objectification as well as the precursor to several other negative consequences experienced by women. Fredrickson and Roberts also identified major outcomes of self-objectification as increases in shame and anxiety, and disruptions in peak motivational states and awareness of internal bodily states (Fredrickson & Roberts, 1997). These early identified outcomes have been expanded upon and heavily researched in the last two decades (Moradi & Huang, 2008), with researchers identifying additional areas that are impacted by self-objectification including body image and mental health.

Impact on Body Image

In one of the earliest studies of self-objectification outcomes, researchers identified poor body image as an outcome of self-objectification. Women participants in this study were asked to either try on a sweater or a swimsuit in front of a full-length mirror, with women in the swimsuit

condition thus having the opportunity to engage in self-objectification. In comparison to the sweater condition, women who tried on a swimsuit reported higher levels of self-objectification and in turn, higher levels of body shame as a result (Fredrickson et al., 1998). This study has since been replicated with a diverse sample comprised of White, Black, Hispanic, and Asian women with similar findings across racial/ethnic identities, revealing the universality of this self-objectification and negative body image association (Hebl et al., 2004). Longitudinal research also supports the continued association between self-objectification and poor body image across time. In a four-wave, six-year longitudinal panel study, baseline data was collected from adolescents aged 13-18 years with follow-ups being conducted at six months, 12 months, and five years after baseline. Findings revealed a cycle in which body surveillance, an aspect of self-objectification, in adolescence predicted a greater internalization of appearance ideals and stronger valuing of appearance over competence in emerging adulthood (Vangeel et al., 2018).

The impact of self-objectification on women's body image has also been found to be predictive of disordered eating. For example, in a diverse sample of White, Black, and Hispanic women, researchers tested a mediation model in which self-objectification is predictive of increased body shame which is in turn associated with increased disordered eating symptomology (Schaefer et al., 2018). A recent meta-analysis also revealed a significant moderate overall effect ($r = .39$) of self-objectification on disordered eating, with effect sizes being highest among women in comparison to men (Schaefer & Thompson, 2018).

Impact on Mental Health

Objectification theory posits that self-objectification will cause increased feelings of shame and anxiety which in turn will result in decreased psychological well-being (Fredrickson & Roberts, 1997). Indeed, these associations have been supported by many years of research. To

begin, self-objectification results in feelings of anxiety about the potential for appearance evaluation by others (Fredrickson & Roberts, 1997). Research has shown that mere anticipation of the objectifying male gaze greatly increased college women's social physique anxiety (Calogero, 2004). Self-objectification has also been linked to increases in appearance anxiety (D. Adams et al., 2017; Monro & Huon, 2005) and personal safety anxiety, or persistent worry over physical safety (Calogero et al., 2020).

Self-objectification has also been associated with depression symptomology in women. A systematic review of self-objectification literature revealed consistent direct associations between self-objectification and depression symptoms (Jones & Griffiths, 2015). Among adolescent girls, longitudinal research has found that self-objectification predicts later depression (Grabe et al., 2007) and that increases in self-objectification over time correspond to similar increases in depression (Impett et al., 2010). In a study of emerging adult women, experiences of sexual objectification led to increased self-objectification, which in turn led to increased depression, with the mediation being moderated by body shame (Szymanski, 2020).

In addition to outcomes of anxiety and depression, self-objectification has also been found to decrease psychological well-being. Early research tested and confirmed a mediation model in which self-objectification was negatively associated with self-esteem and satisfaction with life through the mediating variable of body shame (Mercurio & Landry, 2008). More recently, additional research has reported similar negative associations between self-objectification and subjective well-being as measured by satisfaction with life (Jarrar, 2017).

In sum, the literature supports that sexual objectification is experienced at high rates by women who then internalize such experiences and objectify themselves, leading to a multitude of negative consequences as a result. It is important to note, however, that sexual objectification and

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self-objectification processes were originally conceptualized before the emergence of the online context, and are measured through assessing offline experiences, as will be discussed shortly. The online context has expanded the scope of sexual objectification experiences as smartphones in particular enable near constant engagement with entertainment media and peers via social media. Today's young women spend much of their lives within online spaces, warranting a need to explore how sexual objectification and self-objectification are experienced within the online context.

The Online Context: A New Environment for Sexual Objectification & Self-Objectification

While self-objectification peaks in adolescence and emerging adulthood (Tiggemann & Lynch, 2001), so too does social media use (Pew Research Center, 2019b, 2019a). Thus, these age groups are most susceptible to media influence. Emergent research is beginning to consider how online media use impacts adolescent girls' and emerging adult women's experiences of sexual objectification, self-objectification, and related outcomes. In a meta-analysis investigating the relationship between exposure to sexualized media and women's self-objectification, data revealed a moderate positive effect of sexualized media on self-objectification. However, the type of media played a large role in this relationship, with online media showing the greatest effects (Karsay et al., 2018), thus providing evidence for the increased salience of online media among young women. Specific to adolescents, research examining exposure to a comprehensive list of sexually objectifying media including social networking sites found that adolescents who were exposed to these types of media were more likely to internalize beauty ideals (Vandenbosch & Eggermont, 2012). Additional research also demonstrates the harmful consequences of online sexualized imagery, with exposure to sexualized images of women in videogames being found to lead to increased online sexual harassment of women (Burnay et al., 2019).

Similar to exposure to sexualized media, researchers have been especially rigorous in considering the occurrence of online sexual behaviors (e.g., sexting, viewing pornography, online relationships) among adolescents and communication around these behaviors that may be harmful (Widman et al., 2014). Such online behaviors include engaging with internet pornography with blatant portrayals of sexual objectification in which women literally become objects of sexual pleasure to be viewed and utilized by others. Indeed, internet pornography perpetuates the sexual objectification of and sexual aggression towards women, with repeated exposure being associated with increased sexual advances towards women (Mikorski & Szymanski, 2016). Research also supports that exposure to sexualized imagery of women within pornography is associated with self-objectification and poor body image among adolescent girls (Maheux et al., 2021).

In addition to exposure effects, emerging evidence demonstrates that sexual objectification is experienced through interpersonal online interactions, though no published measure currently exists. These experiences of online sexual objectification are rarely called out for being objectifying despite their dehumanizing nature. For example, research has identified that objectifying experiences such as unwanted sexual advances and gender-based harassment are occurring within online spaces. Specific to adolescents, results from the Growing up With Media Survey, a national survey of 1,588 youth ages 10 to 15 years, revealed that the majority of online gender harassment is occurring through instant messaging and chatrooms, and adolescents are experiencing unwanted sexual solicitation and harassment on social networking sites (Ybarra & Mitchell, 2008).While these online unwanted sexual advances occur similarly to the way they would in the offline context, there are other, less obvious examples of sexual objectification which occur online. For example, posted comments such as "go back to the kitchen where you

belong" or solicitation of nude pictures are also objectifying experiences women face that are unique to online contexts (Barak, 2005).

Finally, just as women experience their bodies being evaluated by others offline, such experiences are also occurring within online spaces. Offline, women can experience over-hearing sexual comments made about their bodies; however, online, such comments are more direct and are posted to photos of women's bodies. Highly visual forms of social media, such as Instagram and Snapchat, can be especially facilitative of evaluation of women's bodies (Marengo et al., 2018). Social media research reveals that women perceive their appearances as being evaluated by others online, which in turn is associated with internalization of beauty standards (Luo et al., 2019). One group of researchers has even termed this phenomenon of monitoring online presence as appearance-related social media consciousness, an ongoing awareness of potential attractiveness to an online audience (Choukas-Bradley et al., 2018). There is also evidence that these overt evaluations may be perpetrated online at higher rates due to increased anonymity and lack of consequences for perpetrators (Suler, 2004). For example, female adolescents who received more sexual attention from others, such as online sexual advances and more comments about their looks, were more likely to experience sexual assault one year later (Maas et al., 2019).

Taken together, it is clear that girls and women are being exposed to sexually objectifying content within online spaces including social media, video games, and pornography. Additionally, online spaces present a unique context in which interpersonal sexual objectification can occur. Research of online harassment and online sexual experiences indicates that girls and women experience sexually objectifying interactions online which then result in offline consequences. Finally, the online context provides endless opportunities for girls' and women's

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appearances to be evaluated by others and even themselves. Despite this research, there is still need for a better understanding of how women experience sexual objectification differentially online in comparison to offline interactions. The first step to meeting this need is the development of an instrument to capture such experiences.

Current Sexual Objectification Instruments

In discussing the need for a development and validation of an instrument to capture online sexual objectification experiences, a review of current measures of offline sexual objectification is warranted. Current measurements of sexual objectification reflect the contexts originally posited by objectification theory in which women may experience sexual objectification: media depictions and interpersonal experiences (Fredrickson & Roberts, 1997). Regarding media depictions of sexual objectification, researchers have examined exposure to sexually objectifying images of women in traditional media. Often, such studies intentionally expose participants to objectified imagery as an experimental manipulation, then assess for differential outcomes between exposure and control groups (e.g., Koval et al., 2019; Vance et al., 2015). Considering the interpersonal context, the most commonly used measure of sexual objectification experiences within offline interactions is the Interpersonal Sexual Objectification Scale (ISOS; Kozee et al., 2007). The ISOS is comprised of two subscales, body evaluation and unwanted explicit sexual advances. Items assess for frequency of experiences such as hearing sexual comments made about one's body, observing another person staring at one's body, and experiencing interpersonal sexual harassment. The ISOS has displayed excellent internal consistency among emerging adult women and has been shown to be predictive of self-objectification (Kozee et al., 2007). Additionally, the ISOS has been modified to create a

perpetration version, the ISOS-P, which has been validated among emerging adults, with scores being associated with sexism and sexual violence perpetration (Gervais et al., 2018).

These present measures of sexual objectification are only capable of capturing women's experiences in offline contexts. Currently, no validated measure of online sexual objectification exists. After a thorough search of the literature, only one study could be found in which researchers attempted to assess for online experiences of interpersonal sexual objectification (Luo et al., 2019). While the measure displayed good internal consistency and a single-factor structure, several critiques can be made. First, the study was conducted in China with Chinese adolescents, thus any findings may not be generalizable to American women. Second, items asked participants specifically about interpersonal sexual objectification experienced only on the social networking website Q-zone, a popular site available only in China. Finally, the measure only captures experiences of body evaluation, disregarding experiences of sexual solicitation, gender harassment, and exposure to objectified images. Thus, the development of a comprehensive measure of online sexual objectification assessing for multiple types of sexually objectifying experiences is needed. Once a validated measure of women's online sexual objectification experiences has been established, further research can then examine associations between online sexual objectification and resultant outcomes, including self-objectification, body image concerns, and mental health impacts. This will allow us to more comprehensively understand the similarities and differences of online and offline sexual objectification experiences, and how they contribute to larger body image and mental health issues in need of prevention and treatment.

Summary

      The sexual objectification of girls and women is pervasive and problematic, with experiences of sexual objectification beginning as early as childhood (American Psychological Association, 2007b; Sharon Lamb & Koven, 2019) and persisting throughout adolescence and adulthood (E. Holland et al., 2017). As a result, women face a multitude of negative outcomes including self-objectification, wherein women internalize their experienced sexual objectification. Nearly two decades of research has revealed consistent associations between offline sexual objectification and self-objectification, poor body image, and negative mental health outcomes (Daniels et al., 2020; Moradi & Huang, 2008). However, the present body of sexual objectification literature considers only *offline* experiences of sexual objectification. Researchers are only beginning to explore how processes of sexual objectification and self-objectification are occurring within *online* contexts. It is crucial to understand this online context as girls and young women are living a large portion of their lives within online spaces. There is emergent evidence to support that women are indeed experiencing sexual objectification within online contexts, both through exposure to sexualized imagery and interpersonal online interactions. While connections have been drawn between social media use and self-objectification, researchers have yet to consider connections between online experiences of sexual objectification and women's body image and mental health. Despite the burgeoning area of research examining online sexual objectification, there is a lack of a valid instrument to measure such experiences, and a dearth of research examining potential outcomes of online sexual objectification, effectively creating a barrier to understanding the variety of women's online sexual objectification experiences and the subsequent outcomes of such experiences.

A better understanding of how sexual objectification and self-objectification processes are occurring online can allow for targeted interventions to be modified and created. Current intervention strategies aim to mitigate the harmful effects of exposure to sexually objectifying content, with programs focusing on media literacy and awareness of sexual objectification to decrease self-objectification in women (Vandenbosch & van Oosten, 2017) and gender harassment and hostile sexism in men (Guizzo & Cadinu, 2020). Though such prevention strategies are effective in protecting against outcomes of exposure to sexually objectifying imagery, curriculum has not been developed to target online experiences of interpersonal sexual objectification. There is also a lack of effective strategies aimed at decreasing self-objectification as facilitated by social media use. A review of research on exposure to body positivity on social media reports that, while exposure to body positivity messaging can encourage positive statements about appearance, such messages themselves can be objectifying and encourage self-objectification (Cohen et al., 2020). Thus, there is a thin line between encouraging positive thinking about appearance and further inciting women's preoccupation with their physical appearance.

Future research must further explore women's experiences of online sexual objectification through measurement development and also examine how such online experiences affect women's body image and mental health. Such research can help in creating effective prevention and intervention strategies that will improve the lives of adolescent girls and emerging adult women.

Overview of Present Research

The objective of the present research was to validate a measure of women's online sexual objectification experiences as well as examine associations between online sexual objectification

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and a variety of psychological consequences. Findings from this research can inform the creation of targeted interventions through which educators and practitioners can aim to reduce the harmful effects of online sexual objectification. The present research is significant because it will allow for the creation and validation of a much-needed measure of online sexual objectification experiences and will test for associations between online sexual objectification and a variety of potential outcomes. Thus, the aims of the present research were to (1) validate a measure of online sexual objectification experiences, and (2) explore associations between online sexual objectification, self-objectification, and women's body image and mental health.

Study Design & Research Questions

The present research includes two studies both using cross-sectional survey methods among large samples of emerging adult women. These methods allowed for both the assessment of multiple types of validity evidence of a novel measure of online sexual objectification and the examination consequences of online sexual objectification experiences through structural equation modeling.

Study 1 included development and validation of the Online Sexual Objectification Experiences Scale (OSOES). This included item development via cognitive interviewing and discussions with experts, testing structure of the scale, and testing reliability and validity of the instrument. Additional constructs such as interpersonal (offline) sexual objectification, self-objectification, and online victimization were also assessed. The primary research questions for this study were:

1) *How can women's online experiences of sexual objectification be accurately captured through measurement?*

2) *Are women's online experiences of sexual objectification associated with self-objectification and online victimization?*

3) *Are women's online experiences of sexual objectification predictive of self-objectification above and beyond interpersonal sexual objectification?*

Study 2 involved a cross-sectional survey study of a separate large sample of emerging adult women to further explore associations between online sexual objectification experiences and women's body image concerns and mental health. The primary research questions for this study were:

1) *How are online experiences of sexual objectification associated with women's body image concerns?*

2) *How are online experiences of sexual objectification associated with women's mental health outcomes?*

CHAPTER 2: DEVELOPMENT AND VALIDATION OF THE ONLINE SEXUAL OBJECTIFICATION EXPERIENCES SCALE

Introduction

Although today's girls and women are spending increasingly more time online, experiences of sexual objectification within the online context remain understudied. The sexual objectification of girls and women is ubiquitous in patriarchal American culture (Gervais et al., 2020). When girls and women are sexually objectified, their bodies are reduced to sexual objects to be observed and evaluated by others, without consideration of personal character or dignity (Fredrickson & Roberts, 1997). Women report experiencing exposure to the sexual objectification of other women 1.35 times daily and experience being sexually objectified themselves at least every-other-day (Holland et al., 2017). As a result of these repeated experiences of sexual objectification, girls and women face a plethora of negative outcomes (for reviews see: Daniels et al., 2020; Moradi & Huang, 2008). In addition, as is perhaps the most insidious outcome of pervasive sexual objectification, girls and women internalize objectifying experiences and begin to think of themselves as objects, a process termed self-objectification (Fredrickson & Roberts, 1997).

Sexual objectification and self-objectification were originally conceptualized as occurring within offline contexts; however, the online context has become a large part of the contemporary social environment, with interactions now facilitated by forms of new media, such as social media, video sharing platforms, and online communication forums. Engagement with online media has become an all-encompassing aspect of life for American adolescents and young adults, with a large majority of these populations spending hours a day online (M. Anderson & Jiang, 2018; Pew Research Center, 2021). In order to prevent the detrimental consequences of sexual

objectification and self-objectification, there is a need to explore how the online context facilitates and perpetuates these processes. Thus, exploration of women's experiences within the online spaces they frequently navigate is a crucial next step in research examining sexual objectification experiences and outcomes.

Objectification Theory

Sexual objectification occurs, "whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments, or regarded as if they were capable of representing her" (Bartky, 1990, p. 35). Thus, women are effectively reduced to objects to be used and consumed by others, with the primary process being a focus on a woman's appearance and sexuality rather than personality, ability, or intelligence. Objectification theory serves as a theoretical framework to contextualize sexual objectification experiences and outline subsequent consequences (Fredrickson & Roberts, 1997).

Objectification theory posits that there are two primary contexts through which girls and women may experience sexual objectification: (1) interpersonal interactions and (2) exposure to objectifying media. These experiences then lead to a variety of deleterious outcomes such as body shame and anxiety about one's appearance (Fredrickson & Roberts, 1997; Kozee et al., 2007). According to the theory, self-objectification is the primary outcome of sexual objectification as well as the precursor to several other negative consequences experienced by women. Self-objectification is the process through which a woman internalizes her repeated experiences of sexual objectification and begins to adopt an observers' perspective of her own body, effectively beginning to think of herself as a mere sexual object to be used and manipulated by others (Fredrickson & Roberts, 1997). This self-objectification physically manifests in habitual body monitoring to ensure compliance with cultural standards of beauty

and garner positive evaluations of one's body. These internalizing states then facilitate further body shame and anxiety as well as disrupt cognitive performance, self-concept, and psychological well-being (Baldissarri & Andrighetto, 2021; Calogero et al., 2020).

In its conception, objectification theory considered only women's offline, interpersonal experiences of sexual objectification and exposure to traditional media (i.e., print advertising, television, magazines). Given the new media landscape girls and women are now navigating, there is a need for core concepts of the theory, such as avenues for sexual objectification, self-objectification, and the mechanisms that lead to negative outcomes to be applied to women's experiences within the online context.

The Online Context as a New Environment for Sexual Objectification

American youth are spending increasingly longer periods of time immersed within online contexts via smartphones, tablets, and laptops. The vast majority (84%) of American emerging adults use at least one form of social media daily (Pew Research Center, 2021), and 45% of American adolescents report being online nearly constantly (M. Anderson & Jiang, 2018). Thus, these age groups are highly susceptible to media influence as they meet developmental needs by utilizing the online context as a relationship maintenance tool, means for identity exploration, and vehicle to engage in social comparison. As such, online media is now a regular part of girls' and women's social environments in which sexual objectification may occur, including via interpersonal interactions and via exposure effects.

Just as women experience their bodies being evaluated by others offline, emerging evidence suggests that such experiences are also occurring within online spaces (Marengo et al., 2018; Megarry, 2014). Offline, women may experience over-hearing sexual comments made about their bodies; however, online, such comments are more direct and are often posted to

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photos of women's bodies. Highly visual forms of social media, such as Instagram and Snapchat, create social contexts in which women are highly likely to experience their bodies being evaluated, as users regularly share images of their own bodies within these platforms (Marengo et al., 2018). Indeed, women commonly experience evaluative comments on photos of their bodies posted to social media, and research reveals that women perceive their appearances as being evaluated by others online, with these experiences in turn being associated with internalization of beauty standards (Luo et al., 2019) and monitoring of one's online appearance (Hawes et al., 2020). This phenomenon of monitoring online presence has been termed appearance-related social media consciousness, or an ongoing awareness of potential attractiveness to an online audience (Choukas-Bradley et al., 2018). Online body evaluation is distinct from offline as, while offline evaluative experiences may be fleeting, online experiences of evaluation are more enduring, with such comments being viewable by users permanently, or until the user deletes the comment (if they are able to do so). There is also evidence that these online evaluations may be perpetrated at higher rates within the online context due to increased anonymity and lack of consequences for perpetrators, termed the online disinhibition effect (Suler, 2004).

In addition to passively receiving evaluative comments, girls and women are also engaging in active, bidirectional interpersonal interactions with others within the online context. While the majority of online social interactions are likely positive (Dedkova, 2015), there is evidence that girls and women are also experiencing negative interactions online, such as gender-based harassment and even sexual objectification (Barak, 2005; Ybarra & Mitchell, 2008). Negative online interactions, including sexual objectification experiences, can also be attributed to the online disinhibition effect, with individuals acting out more frequently or intensely online

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than they would in person (Suler, 2004). Indeed, toxic disinhibition has been associated with online aggression and deviant behaviors (Cheung et al., 2016), and this may extend to perpetration of online harassment and sexual objectification.

Within the present literature, women's experiences of online sexual objectification are rarely acknowledged as being objectifying despite their dehumanizing nature. For example, there is evidence that objectifying experiences such as unwanted sexual advances and gender-based harassment are occurring within online spaces; however, such experiences are often unreported, as victims of online sexual harassment are hesitant to label such experiences as sexual victimization (Henry et al., 2020). Specific to adolescents, a national survey of 1,588 youth ages 10 to 15 years revealed that the majority of online gender harassment is occurring through instant messaging and chatrooms, and adolescents are experiencing unwanted sexual solicitation on social networking sites (Ybarra & Mitchell, 2008). In a more recent sample of Australian adolescents and emerging adults ages 15-29 years, 34% of participants reported experiencing sexual harassment via social media, with a large proportion experiencing sexual harassment while using dating apps (Douglass et al., 2018). In addition to harassment, there are other less obvious examples of sexual objectification which occur online. For example, posted comments such as "go back to the kitchen where you belong" or solicitation of nude images are objectifying experiences women face that are unique to online contexts (Barak, 2005). More broadly, research of online sexual experiences indicates that adolescent girls engaging in behaviors that attract sexual attention from strangers online are more likely to experience sexual assault one year later, than girls who engage in online sexual experiences that are primarily comprised of viewing sexual imagery (Maas et al., 2019). Despite the tendency for researchers to aggregate online

experiences as a homogenous phenomenon, online sexual experiences are multidimensional in nature, vary in terms of sexual intensity, and are differentially associated with offline outcomes.

Finally, considering exposure to online media, the online context provides a wide variety of opportunities for girls and women to be exposed to the objectification of other women (Davis, 2018; Kavanagh et al., 2019). The objectification of women is rampant within online media via advertising, self-promotion, and internet pornography. Online advertisements present sexualized imagery of women whose bodies are modified using photo editing software to meet otherwise unobtainable standards of beauty (Gramazio et al., 2021). In addition, image-focused social media platforms such as Instagram provide a plethora of unrealistic, sexually objectified imagery of Instagram models and influencers who promote their bodies as the ideal. Such exposure to others' objectification has implications for girls' and women's well-being. For example, specific to adolescents, research examining exposure to sexually objectifying media, including social networking sites, found that adolescents who were exposed to these types of media were more likely to be preoccupied with their own appearance (Skowronski et al., 2022) and with looking like the models and actresses they see within media (Vandenbosch & Eggermont, 2012). Researchers have also been especially rigorous in considering the occurrence of online sexual behaviors (e.g., sexting, viewing pornography, online relationships) among youth and communication around these behaviors that may be harmful (Widman et al., 2014). Such online behaviors include engaging with internet pornography, online content which contains perhaps the most overt and blatant portrayals of sexual objectification in which women literally become objects of sexual pleasure to be utilized and viewed by others (Fritz et al., 2021; Seabrook et al., 2019). Indeed, research supports that exposure to sexualized imagery of women within pornography is associated with self-objectification and poor body image among adolescent girls

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(Maheux et al., 2021), as well as increased negative attitudes towards women and increased body monitoring among emerging adult women (Maas & Dewey, 2018).

Given the importance of internet and social media in the lives of American youth, researchers must begin considering the online context as a salient landscape in which girls and women can experience sexual objectification. The toxic combination of ubiquitous sexualization of women and increased anonymity created within the online context facilitate a social sphere rife with sexual objectification and harassment. The online context provides endless opportunities for girls' and women's appearances to be evaluated by others and even themselves, and research of online harassment and online sexual experiences indicates that girls and women experience sexually objectifying interactions online, resulting in offline consequences. Compounding these interpersonal experiences, girls and women are being exposed to sexually objectifying content within online spaces including social media, video games, and pornography. Despite this research, there is still a need for a more holistic understanding of how women experience sexual objectification differentially online in comparison to offline interactions. The first step to meeting this need is the development of an instrument to capture such experiences.

Current Sexual Objectification Instruments

Current measures of sexual objectification reflect the contexts posited by objectification theory in which women experience sexual objectification: interpersonal experiences and media depictions (Fredrickson & Roberts, 1997). Regarding media depictions of sexual objectification, researchers have examined exposure to sexually objectifying images of women in traditional media (e.g., print, television, movies). Often, such studies intentionally expose participants to objectified imagery as an experimental manipulation, then assess for differential outcomes between exposure and control groups (e.g., Koval et al., 2019; Vance et al., 2015). Considering

the interpersonal context, the most commonly used instrument of sexual objectification experiences within offline interactions is the Interpersonal Sexual Objectification Scale (ISOS; Kozee et al., 2007). The ISOS is comprised of two subscales, body evaluation and unwanted explicit sexual advances. Items assess for frequency of experiences such as hearing sexual comments made about one's body, observing another person staring at one's body, and experiencing interpersonal sexual harassment. The ISOS displays excellent internal consistency among emerging adult women and is predictive of self-objectification (Kozee et al., 2007).

Present instruments are only capable of capturing women's sexual objectification experiences in real-world, offline contexts. Currently, no well-validated measure of online sexual objectification exists. After a thorough search of the literature, only one study was found in which researchers attempted to assess online experiences of interpersonal sexual objectification (Luo et al., 2019). While the instrument displayed good internal consistency and a single-factor structure, several critiques can be made. First, the study was conducted in China with Chinese adolescents, thus any findings may not be generalizable to women in the U.S. Second, items asked participants specifically about interpersonal sexual objectification experienced on the social networking website Q-zone, a popular site available only in China. Finally, the instrument only captures experiences of body evaluation, disregarding experiences of sexual solicitation, gender-based harassment, and exposure to objectified images. Thus, there is still a need for the development of a comprehensive instrument of online sexual objectification accounting for multiple types of sexually objectifying experiences. Once an instrument of women's online sexual objectification experiences has been developed and assessed for validity, further research can then examine associations with outcomes such as self-objectification, body image concerns, and mental health.

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The Present Study

Sexual objectification is a pervasive problem experienced disproportionately by girls and women. As such, girls and women experience a plethora of resulting negative consequences via direct outcomes of sexual objectification and via the mediating variable of self-objectification. Despite this, research examining how these processes occur within online spaces is only just emerging. Currently, there is not a validated, comprehensive instrument of online experiences of sexual objectification, thus researchers have been unable to systematically assess such experiences. A better understanding of how sexual objectification and self-objectification processes are occurring online can allow for targeted interventions to be modified and created. In the present study, our first aim was to develop the Online Sexual Objectification Experiences Scale to measure the frequency in which women experience sexual objectification of themselves and exposure to sexual objectification of others within the online context. Following initial scale development, we collected cross-sectional, survey data from two independent samples of emerging adult women to assess the factor structure, reliability, and validity of the instrument. In the following sections, we report further on scale development and psychometric properties.

Method

Participants

Participants in Sample 1 were 218 emerging adult women ages 18 to 26 years attending a large Midwestern university. Participants had a mean age of 20.31 years ($SD = 1.50$). Participants were 66.1% White/Caucasian, 7.8% Asian or Asian American, 4.1% Black or African American, 3.6% Hispanic or Latino, 2.3% American Indian or Alaskan Native, 1.4% had another racial identity, and 21.6% did not respond to race/ethnicity items. Participants were allowed to select more than one ethnic/racial identity, thus percentages total greater than 100%.

Participants in Sample 2 were emerging adult women ages 18 to 26 years attending the same large Midwestern university as participants in Sample 1. Of 721 participants who completed the online survey, 41 failed one or both attention check questions and were removed from analyses, thus resulting in a final sample of 680 participants. The final sample of participants had a mean age of 20.71 years ($SD = 2.34$). Participants were 87.8% White/Caucasian, 7.9% Asian, 6.5% Hispanic or Latino, 2.9% Black or African American, 2.5% Middle Eastern or North African, 1.0% American Indian or Alaskan Native, and 2.3% had another racial identity or preferred not to say. Participants were allowed to select more than one ethnic/racial identity, thus percentages total greater than 100%.

Procedure

After obtaining an exempt determination from the university's internal ethics review board (see Appendix A for exempt determination for Sample 1 and Appendix E for exempt determination for Sample 2), the study was advertised using emails distributed by the university Registrar. Emails were sent to women undergraduate students ages 18 to 26 years, with Sample 1 recruited in spring of 2019 and Sample 2 recruited in fall of 2022. The recruitment email described the purpose of the study, informed participants that their responses were anonymous, and emphasized that participation was voluntary with no compensation offered (see Appendix B for the recruitment email distributed to Sample 1 and Appendix F for the recruitment email distributed to Sample 2). Interested participants selected a link to complete informed consent (see Appendix C for Sample 1 informed consent and Appendix G for Sample 2 informed consent) and, if they consented to participate, an online survey. Participants in Sample 1 completed an online survey comprised of measures of online sexual objectification experiences, offline sexual objectification, objectified body consciousness, and online harassment (Appendix D).

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Participants in Sample 2 completed an online survey comprised of measures of online sexual objectification experiences, offline sexual objectification, and objectified body consciousness (Appendix H). Survey measures were counterbalanced to control for order effects.

Measures

Development of the Online Sexual Objectification Experiences Scale

In developing the OSOES, we drew upon objectification theory and emergent research exploring women's online experiences of objectification and gender-based harassment. Here we outline the process of ensuring content validity of the scale through initial item development, cognitive interviewing, and discussion with an expert in sexual objectification and feminist theory.

Objectification theory posits that a common experience of sexual objectification is visual inspection of one's body, or body evaluation from others (Fredrickson & Roberts, 1997). While experiences of body evaluation are commonly felt by women in the offline context (e.g., noticing another staring at one's chest, sexually evaluative verbal commentary), such experiences also manifest in distinct and unique ways within the online context. Thus, we generated items to capture these experiences of online body evaluation, with some items from the Body Evaluation subscale of the ISOS being modified to reflect the online context. For example, *"How often have you heard a rude, sexual remark made about your body?"* was modified for the online context to *"How often have you received a public comment that was sexual on a posted photo of your body?"*. We also created additional items capturing body evaluation experiences that are unique to the online context. For example, in a study examining negative comments women receive online, a specific theme of sexual objectification emerged in which women were evaluated negatively on their appearance via degrading comments (Megarry, 2014). Thus, we generated

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items assessing for frequency of receiving degrading online comments based on appearance such as *"How often has another person insulted you by calling you unattractive online?"*.

Next, we generated items to capture experiences of online sexual solicitation. With the ubiquity of social media and other online platforms that facilitate direct communication between individuals, sexual solicitation and harassment are common objectifying experiences felt by women online. To capture online sexual solicitation, some items from the Unwanted Sexual Advances subscale of the ISOS were again able to be modified to the online context. For example, *"How often have you experienced sexual harassment (on the job, in school, etc.)?"* was modified for the online context as *"How often have you experienced sexual harassment online?"*. We also generated additional items capturing sexual solicitation experiences unique to the online context, such as "*How often have you received unwanted messages online asking about your sexual experience?*"

Finally, we generated items to capture women's experiences of sexual objectification that are directed towards others rather than themselves. The online context presents a unique environment in which women can frequently experience other women being objectified through degrading and sexual comments on images of other women's bodies, thus we generated items such as, "*How often have you read a sexual comment posted to a photo of another woman's body?*". We also created items to capture experiences such as viewing types of violent pornography in which women are literally treated like objects of sexual pleasure (e.g., "*How often do you view pornographic images or videos that depict women engaging in **unwanted** sexual activity?*").

In order to capture how often women experience online sexual objectification, we used a 5-point frequency scale (i.e., 1 = never, 2 = rarely, 3 = occasionally, 4 = frequently, 5 = almost

always). Composite scores were created by averaging items, with higher scores indicating more frequent experiences of online sexual objectification. Participants were instructed to consider experiences within the last year that they have had while online (i.e., using social media, blogging, using dating apps, etc.) and to consider messages they have received through any online medium (i.e., Facebook messenger, chatrooms, direct messages on any app, comments on posts/photos/videos). Participants were asked to consider only experiences within the last year to best capture online objectification experiences occurring within recent history.

All original items were then presented to a graduate student during a cognitive interview. A student unfamiliar with sexual objectification literature was selected to assess the clarity of items for a layperson. During this process, each item was read aloud, and the participant was asked to respond using the frequency response scale. Following this, the participant and the first author engaged in discussion of wording and understanding of item concepts. This led to the splitting of items to avoid double barreled questions (e.g., *"How often have you felt like or known that someone was evaluating your physical appearance online?"*) and deletion of items that were confusing or redundant. The cognitive interview process also led to the bolding of terms such as "unwanted" throughout the scale, as sexual communications online may be invited if an individual is actively seeking out such interactions. The scale was then reviewed by the second author to assess content validity of the items. Throughout continued discussions, items were added and edited to better encompass the variety of women's online experiences and improve clarity. For example, while the scale contained an item to capture experiences of being exposed to objectification of other women through pop-up advertisements, the item *"How often has pornographic content, a sexually explicit meme, or something similar shown up in your*

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social media feed/email/etc.?" was added to capture exposure to objectification of other women occurring outside of advertising such as via posts or messages from other internet users.

Offline Sexual Objectification Experiences

Offline sexual objectification experiences were assessed using the Interpersonal Sexual Objectification Scale (ISOS; Kozee et al., 2007). The ISOS consists of two subscales: Body Evaluation (11 items; example item, *"How often have you noticed someone staring at your breasts when you are talking to them?"*) and Unwanted Explicit Sexual Advances (4 items; example item, *"How often have you experienced sexual harassment (on the job, in school, etc.)?"*). Participants were asked to respond to items considering experiences within the last year. Scale items were responded to using a 5-point frequency scale (1 = *never*, 2 = *rarely*, 3 = *occasionally*, 4 = *frequently*, 5 = *almost always*). Item scores were averaged to create a scale score with higher scores indicating higher levels of interpersonal sexual objectification. The ISOS has been determined to be a reliable and valid measure of interpersonal sexual objectification among emerging adult women (Kozee et al., 2007). In present samples, the Body Evaluation (α = .93, .93) and Unwanted Sexual Advances (α = .86, .87) subscales demonstrated good internal consistency.

Self-Objectification

Self-objectification was measured using the Self-Objectification Questionnaire (SOQ; Fredrickson et al., 1998). The SOQ asks respondents to rank a list of body attributes in order of importance to their self-concept. Items are ranked from most important (rank = 1) to least important (rank = 10). Of the ten attributes listed, five pertain to appearance (physical attractiveness, weight, sex appeal, measurements, muscle tone), and five pertain to physical competence (strength, physical coordination, health, physical fitness, physical energy level).

Ranks for both the appearance and competence attributes were summed and used to compute a difference score which can range from -25 to 25. Higher scores reveal a greater emphasis on physical appearance and, therefore, a higher level of self-objectification. Noll and Fredrickson (1998) found scores on the Self-Objectification Questionnaire to demonstrate convergent validity with measures of appearance anxiety and body image among women.

Self-surveillance and Body Shame

Self-surveillance and body shame were assessed using the Body Surveillance and Body Shame subscales of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 2016). Each subscale consists of 8 items. The Body Surveillance subscale evaluates the extent to which an individual values how their body looks compared to how it feels or functions (example item: *"During the day, I think about how I look many times"*). The Body Shame subscale evaluates individuals' feelings of shame resulting from failure to meet internalized beauty standards (example item: *"When I can't control my weight, I feel like something must be wrong with me"*). Participants responded to each item using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Subscale means were calculated with higher scores indicating higher levels of self-surveillance and body shame. In present samples, the Body Surveillance (α = .83, .85) and Body Shame (α = .84, .84) subscales demonstrated good internal consistency.

Online Harassment

Online harassment experiences were assessed using the 8-item General Online Victimization subscale of the Online Victimization Scale for Adolescents (Tynes et al., 2013). Participants were asked to think of experiences within the last year and respond to each item using a 6-point frequency scale (1 = *never*, 2 = *less than a few times per year*, 3 = *a few times per year*, 4 = *once or twice a month*, 5 = *once or twice a week*, 6 = *every day/almost every day*);

example item: *"People have posted mean or rude things about me on the internet."* Item scores were averaged to create a scale score, with higher scores indicating greater frequency of experiencing online harassment. In the present study, items demonstrated good internal consistency ($\alpha = .89$).

<div align="center">**Results**</div>

Exploratory Factor Analyses

To evaluate the structure of the OSOES, data from Sample 1 ($N = 218$) was analyzed using exploratory factor analysis (EFA) with maximum likelihood estimation and geomin rotation, treating OSOES items as categorical as implemented in Mplus (Muthén & Muthén, 1998-2018). Analysis of the scree plot suggested three factors, while the Kaiser rule (eigenvalues greater than one) suggested four factors. Next, fit statistics were examined using conventional cut-off values of 0.95 for the CFI and TLI, 0.06 for the RMSEA and 0.08 for the SRMR (Hu & Bentler, 1999). Of note regarding the cut-off for RMSEA, published literature has evidenced the RMSEA to be an unreliable indicator of fit within samples using categorical variables (Clark & Bowles, 2018; Garrido et al., 2016). Fit statistics indicated adequate fit for a model with at least two factors. The rotated factor structure was uninterpretable for both two- and four-factor models; thus, we concluded that a three-factor structure provided the best description of the OSOES.

We removed two items that had problematic factor loadings. The item "*How often have you felt like someone was evaluating your physical appearance online?*" loaded highly (>.05) on all factors and was thus removed from further analyses. This item may have been difficult for participants to recall experiences of, as it is difficult to detect evaluation of appearance online in comparison to offline where one can observe another's gaze upon their bodies. The item "*How*

<div align="center">42</div>

*often do you view pornographic images or videos that depict women engaging in **unwanted***

sexual activity?" did not load highly (> .03) on any factor and was also removed. This experience

may have been difficult for participants to identify as it is difficult to determine whether women

porn performers are engaging in unwanted sex or merely acting as such.

The final 21 items displayed a three-factor structure, $\chi2$ = 180.96, *p* = .04; CFI = .99; TLI

= .99; RMSEA = .03; SRMR = .04. The first factor, termed Unwanted Sexual Advances (11

items), captured experiences of receiving unwanted sexual messages or comments online (α =

.95). This factor included items generated to reflect women's online experiences of sexual

solicitation. The second factor, termed Appearance Based Harassment (4 items), captured

experiences of receiving insulting comments online based on appearance or sexuality (α = .82).

Although the item content was originally intended to capture women's experiences of online

body evaluation (e.g., removed item assessing perception of physical appearance being evaluated

online), examination of items clustering together within this factor instead revealed common

content of women experiencing being insulted or harassed based on their physical appearance

(e.g., being called unattractive via an online comment, receiving a negative comment about

physical appearance). Thus, the title Appearance Based Harassment was deemed most

appropriate to describe the content of items within this factor. The third and final factor, termed

Indirect Sexual Objectification (6 items), captured experiences of viewing other women being

objectified, or not directly experiencing objectification oneself, but rather indirectly experiencing

objectification via exposure to other women being objectified online (α = .79). OSOES items and

factor loadings can be found in Table 2.1.

Table 2.1

Item Factor Loadings of OSOES Scale from EFA with Study 1 Dataset

Item	Factor 1	Factor 2	Factor 3
9. How often have you received **unwanted** messages online asking you to send nude photos or videos or to engage in camming?	**.95**	-.06	-.04
10. How often have you received **unwanted** messages online telling you what sexual behaviors they want to do to you?	**.95**	-.06	-.02
13. How often have you received **unwanted** messages online asking you to describe your body or sex organs?	**.92**	.05	-.10
11. How often have you received **unwanted** messages online asking you to do sexual behaviors offline?	**.88**	.02	-.03
7. How often have you received **unwanted** messages online asking about your sexual experience?	**.83**	.002	.04
8. How often have you received **unwanted** messages online asking about what sexual behaviors you like?	**.83**	-.02	.13
12. How often have you received **unwanted** nude or partially nude photos or videos of someone else?	**.78**	-.07	.09
2. How often have you received a private message that was sexual discussing your body?	**.78**	.06	.04
14. How often have you received **unwanted** sexual messages from someone online even after you have asked them to stop?	**.77**	.04	.05
15. How often have you experienced sexual harassment online?	**.62**	.22	.10
1. How often have you received a public comment that was sexual on a posted photo of your body?	**.50**	.21	.12
5. How often has another person insulted you by calling you unattractive online?	-.10	**.93**	.01
6. How often has another person made a negative comment about your physical appearance online?	.003	**.81**	.09
3. How often has someone made a rude or hurtful comment that was sexual about your body online?	.39	**.65**	-.07
16. How often has another person called you a "slut", "whore", or something similar in a message or comment online?	.35	**.40**	.09
19. How often have you read a sexual comment posted to a photo of another woman's body?	.01	-.10	**.82**
18. How often has pornographic content, a sexually explicit meme, or something similar shown up in your social media feed/email/etc.?	-.10	.001	**.80**
17. How often have you viewed **unwanted** sexual or pornographic images online due to pop-ups or advertisements?	-.17	.01	**.75**
20. How often have you seen another person call a woman a "slut", "whore", or something similar in a message or comment online?	.04	.10	**.59**
21. How often have you experienced sexual or offensive screennames online?	.17	.07	**.47**
22. How often have you experienced sexual personal information posted by another person online?	.04	.30	**.35**

Note. N = 185; factor loadings sorted by size, retained factor loadings bolded; χ^2 = 180.96, *p* = .04; CFI = .99; TLI = .99; RMSEA = .03; SRMR = .04.

Confirmatory Factor Analysis

To confirm the factor structure of the OSOES, data from Sample 2 ($N = 680$) was analyzed using confirmatory factor analysis (CFA) in Mplus treating OSOES variables as categorical. The 21 OSOES items served as indicators of their respective latent factors as identified in the EFA with Sample 1 (i.e., Unwanted Sexual Advances, Appearance Based Harassment, or Indirect Sexual Objectification). The same three factor model was an acceptable fit to the data, $\chi^2 = 56,141$, $df = 210$, $p < .001$, CFI = .98, TLI = .98, RMSEA = .09, SRMR = .05. All items loaded significantly on their respective latent factor.

Internal Consistency Reliability

Using data combined from Sample 1 and Sample 2 ($N = 898$), coefficient alphas were calculated using composite scores for the total scale and each subscale to establish internal consistency reliability of OSOES. Alphas were .95 for the total OSOES scale, .88 for the Appearance-Based Harassment subscale, .96 for the Unwanted Sexual Solicitation subscale, and .87 for the Indirect Sexual Objectification subscale.

Relations to Other Measures Validity Evidence

Additional validity analyses were conducted using a combined dataset comprised of all participants from both Sample 1 and Sample 2 ($N = 898$). Table 2.2 provides descriptive statistics for all variables and correlations between the OSOES subscales and additional validity measures. Evidence of convergent validity was examined by comparing scores on the OSOES with scores on a measure of online harassment. While online harassment is a distinct construct separate of sexual objectification, online sexual objectification is harassing in nature, and thus it was hypothesized that scores on these measures would be strongly positively correlated.

Table 2.2

Bivariate Correlations and Descriptive Statistics Variables in Combined Dataset

Scale	1	2	3	4	5	6	7	8	9	10
1. OSOES Unwanted Sexual Solicitation	--									
2. OSOES Appearance Based Harassment	.68	--								
3. OSOES Indirect Sexual Objectification	.51	.45	--							
4. ISOS Body Evaluation	.66	.52	.45	--						
5. ISOS Sexual Advances	.70	.55	.46	.84	--					
6. ISOS Full Scale	.69	.54	.47	.99	.91	--				
7. Self-Objectification Questionnaire	.18	.19	.22	.17	.16	.17	--			
8. OBCS Surveillance	.24	.21	.26	.27	.22	.27	.59	--		
9. OBCS Body Shame	.26	.25	.26	.29	.26	.29	.44	.61	--	
10. Online Harassment	.59	.73	.43	.46	.50	.50	.22	.25	.30	--
M	1.96	1.66	3.07	2.53	1.96	2.38	1.87	4.97	3.95	1.58
SD	0.96	0.78	0.94	0.82	0.83	0.79	14.30	1.02	1.25	0.58

Note. For all correlations, $p < .01$; *OSOES* = Online Sexual Objectification Experiences Scale; *ISOS* = Interpersonal Sexual Objectification Scale; *OBCS* = Objectified Body Consciousness Scale.

This hypothesis was partially supported. OSOES subscales of Unwanted Sexual Solicitation ($r =$ .59) and Appearance Based Harassment were indeed strongly positively correlated with online harassment ($r = .73$), while the Indirect Sexual Objectification subscale was moderately positively correlated with online harassment ($r = .43$).

Evidence of discriminant validity was examined by comparing scores of the OSOES with offline sexual objectification measured by the Interpersonal Sexual Objectification Scale (ISOS), as both scales capture sexual objectification experiences, but within distinct contexts. Additionally, the ISOS captures offline body evaluation and sexual harassment as aspects of sexual objectification, while the OSOES considers appearance-based harassment, sexual solicitation, and observing other women being objectified. Thus, it was hypothesized that these scores would be moderately positively correlated. This hypothesis was also partially supported. OSOES subscales of Appearance Based Harassment ($r = .54$) and Indirect Sexual Objectification ($r = .47$) were indeed moderately positively associated with offline sexual objectification, while the Unwanted Sexual Solicitation subscale was strongly positively correlated with ISOS subscales ($r = .69$).

As self-objectification is the major outcome of sexual objectification experiences (Fredrickson & Roberts, 1997), it was also hypothesized that OSOES scores would be moderately positive associated with scores on a measure of self-objectification (SOQ). This hypothesis was supported with OSOES subscales being small to moderately positively correlated with scores on the SOQ ($r = .18-.22$). Additionally, given previous research linking sexual objectification experiences to the behavioral manifestation of self-objectification, self-surveillance, and the commonly reported outcome of self-objectification, body shame (E. Holland et al., 2017; Kozee et al., 2007; Noll & Fredrickson, 1998), it was hypothesized that

OSOES subscales also be moderately positively associated with OBCS subscales of Body

Surveillance and Body Shame. This hypothesis was supported with OSOES subscales being

small to moderately positively correlated with OBCS subscales of Self Surveillance ($r = .21$-$.26$)

and Body Shame ($r = .25$-$.26$).

Finally, it was hypothesized that OSOES scores would provide incremental validity by

explaining the variance in self-objectification above and beyond experiences of offline,

interpersonal sexual objectification. These findings were expected as online experiences are

more salient for emerging adult women due to the amount of time regularly spent navigating

online spaces. Because young women are spending much of their lives within the online context,

we expected that online sexual objectification would be more strongly associated with self-

objectification outcomes compared to offline, interpersonal sexual objectification. We expected

that scores on the OSOES would predict self-objectification as measured by the SOQ above and

beyond the variance accounted for by the ISOS. To test this hypothesis, a hierarchical multiple

linear regression model was tested using OSOES subscale composite scores. ISOS full scale

scores were entered as the predictor variable in Step 1 of the model, and the OSOES subscales

were added as predictors in Step 2. This hypothesis was supported. In Step 1 of the model, ISOS

scores accounted for 3% of the variance in self-objectification $R^2 = .029$, $F(1, 850) = 25.41$, $p <$

$.001$. ISOS scores significantly predicted self-objectification, $\beta = .17$, $p < .001$. Addition of the

OSOES subscale scores in Step 2 of the model contributed a significant proportion of variance

above and beyond scores on the ISOS, $R^2 = .06$, $\Delta R^2 = .03$, $F(3, 847) = 9.40$, $p < .001$. In Step 2,

ISOS scores ($\beta = .05$, $p = .34$) and OSOES Unwanted Sexual Solicitation ($\beta = .002$, $p = .97$) did

not significantly predict self-objectification, while OSOES Appearance-based Harassment ($\beta =$

$.10$ $p = .04$) and Indirect Sexual Objectification ($\beta = .16$, $p < .001$) significantly predicted self-

objectification. To confirm this result, we repeated the analysis treating OSOES subscales as factors using nested models in Mplus version 8.1. Conclusions were the same.

Discussion

We developed an instrument of women's online experiences of sexual objectification, accounting for both interpersonal sexual objectification and exposure to objectification of other women. We evaluated and cross-validated the scale factor structure across two samples of emerging adult women and determined that it yielded reliable scores among college women. The items formed three conceptually meaningful factors of (1) Appearance-based Harassment, (2) Unwanted Sexual Solicitation, and (3) Indirect Sexual Objectification. These factors support that sexual objectification occurring within online spaces is unique and distinct from offline sexual objectification. First, body evaluation and sexual harassment within interpersonal contexts are considered to be key aspects of offline sexual objectification (Kozee et al., 2007). Given the findings of the present study, online interpersonal objectification occurs via different mediums, such as appearance-based harassment. Online, it is difficult for women to perceive their bodies being evaluated by others' gaze, as there is no viable way to know how often and for how long users are viewing posts of one's body online. Rather, such evaluation is made known via derogatory comments about one's appearance, which imply that a user has evaluated one's body and deemed it unattractive or failing to meet conventional standards of beauty. Additionally, sexual solicitation and harassment are indeed key aspects of online objectification as well as offline; however, these experiences are more permanent within the online context, as soliciting chats and comments remain within inboxes and posted to images until if and when the user is able to delete them. Finally, the OSOES is novel in its inclusion of experiences in which women are exposed to the objectification of others online. Sexualized imagery of women is pervasive

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within online media, including in advertising and image-based social media applications such as Instagram and TikTok. For example, Instagram users are ubiquitously exposed to objectified imagery of peers, Instagram models, and celebrities, and appearance-based hashtags are commonly used on the platform (Skowronski et al., 2022). Content analyses of appearance-focused Instagram posts have revealed that such posts set unhealthy expectations of appearance and body proportions (Tiggemann & Zaccardo, 2018). Given the plethora of research evidencing negative impacts of social media use on body image (Holland & Tiggemann, 2016), a measurement capturing exposure to objectification of other women, or indirect sexual objectification, can be used to better understand how online experiences impact offline body image concerns.

The OSOES subscales were internally consistent and demonstrated evidence of convergent and discriminant validity via associations with other variables including online harassment, self-objectification, body image concerns. Decades of research have evidenced that offline experiences of sexual objectification impact women negatively by inducing self-objectification and body image concerns (Daniels et al., 2020). In addition, research has frequently documented similar negative outcomes of social media use and time spent within the online context (Skowronski et al., 2022), yet there has been scant research exploring specific aspects of media use that lead to negative outcomes. The present study addresses this gap in understanding by evidencing that specific online experiences of sexual objectification may serve as a mechanism through with outcomes of self-objectification and poor body image are elicited.

OSOES subscales also demonstrated incremental validity in predicting unique variance in self-objectification above that predicted by offline interpersonal sexual objectification. These findings indicate that women's experiences of online sexual objectification are at least as salient

in predicting self-objectification as offline objectification. Indeed, today's emerging adult women find themselves regularly immersed in online contexts such as social media sites, dating applications, and video sharing platforms (Auxier & Anderson, 2021). These online environments facilitate interpersonal objectification due to increased anonymity and disinhibition (Suler, 2004). Thus, users can easily engage in directed gender-based harassment such as sexual objectification online. In addition, offline exposure to objectification of other women may be easily avoided by refusing to interact with objectifying traditional media (i.e., sexualized print advertising, objectifying visual media such as television and movies); however, online exposure to others' objectification is less easily avoidable. Online pop-up advertisements and objectifying imagery are pervasive and virtually unavoidable (Harmer & Lewis, 2022; Hsu & Pann, 2017), thus leading to increased exposure to objectification of other women within online spaces.

Limitations and Future Directions

The present study and findings should be considered in light of several limitations. The present samples were comprised of primarily white and heterosexual women attending a four-year university. This lack of diversity in identities and contextual situations limits our full understanding of experiences of online sexual objectification women of diverse sexual, gender, and ethnic/racial identities. Future research should explore the impact of online sexual objectification in girls and women of diverse racial/ethnic and sexual identities. Additionally, given the cross-sectional nature of the present study, there is a need for further research exploring causal associations between online sexual objectification and additional outcomes including body image concerns and mental health outcomes among women. Finally, the present study was limited to convenience samples of emerging adult women, limiting our understanding of how online experiences of objectification impact adolescent girls and older women. However,

previous research indicates that emerging adult women experience the highest frequencies of self-objectification within this developmental period compared to adolescence or late adulthood (Tiggemann & Lynch, 2001), evidencing that sexual objectification experiences are likely occurring at higher rates among emerging adult women. Additionally, given that emerging adults comprise the majority of social media users and spend large amounts of time online daily (Pew Research Center, 2021), it was important to explore online objectification within this particular developmental time period. With the development of the OSOES, future research should also explore prevalence and outcomes of online sexual objectification experiences among adolescent girls and women in late adulthood.

Conclusions

The OSOES is a novel instrument capturing interpersonal sexual objectification and exposure to objectification of other women in online contexts. This instrument can be implemented in future research investigations and clinical applications to understand outcomes of women's online sexual objectification. Research has consistently identified associations between internet and social media use and girl's and women's negative body image and poor mental health outcomes, with specific factors such as social media's focus on appearance and body image playing a mediating role driving mental health outcomes (Choukas-Bradley et al., 2022). The present research expands upon this by identifying online sexual objectification experiences as an additional potential mechanism driving such negative consequences. As such, when addressing presenting problems, clinicians should develop an understanding of clients' internet and social media use, including the specific aspects of this use such as online sexual objectification and harassment, to gain a more well-rounded understanding of how such experiences may be driving negative body image and mental health outcomes.

An understanding of women's online sexual objectification can also be used to inform media literacy, intervention/prevention, and women's empowerment programs. Given the ubiquity of social media and internet use, merely limiting media use is not a viable solution to preventing online sexual objectification. Rather, media literacy and educational programming should be modified to include discussions of online sexual objectification, including how to identify such experiences and guidelines for navigating harmful interpersonal and exposure experiences. For example, interventions focusing on drawing attention to sexualization of women and discussion of unattainable standards of beauty have been shown to be successful in mitigating self-objectification (Baker et al., 2016). Such programming can be expanded to be applicable to the online context and online experiences of sexual objectification. Providing an extension to objectification theory (Fredrickson & Roberts, 1997), future research should focus on exploring how women's online experiences of sexual objectification impact other areas of the self, including body image, mental health, and sexual functioning.

CHAPTER 3: ASSOCIATIONS BETWEEN ONLINE SEXUAL OBJECTIFICATION EXPERIENCES, SELF-OBJECTIFICATION, BODY IMAGE, AND MENTAL HEALTH AMONG EMERGING ADULT WOMEN

Introduction

Sexual objectification is a ubiquitous experience faced by girls and women across the lifespan. Sexual objectification occurs when a woman's body is reduced to a sexual object to be observed and evaluated by others, denying consideration of personal characteristics or dignity (Fredrickson & Roberts, 1997), often emerging as evaluative commentary from others and depictions of objectified women within media. As evidence of the pervasive nature of objectification, previous research has shown that women experience sexual objectification within offline contexts on an every-other-day basis (E. Holland et al., 2017). Due to these repeated objectification experiences, girls and women encounter a wide range of direct negative outcomes, such as internalization of unhealthy beauty standards and disordered eating (for reviews see: Daniels et al., 2020; Moradi & Huang, 2008). Additionally, one of the most pervasive yet subtle outcomes of sexual objectification is self-objectification, a process by which women internalize their experiences and begin to think of themselves as objects (Fredrickson & Roberts, 1997). It is this self-objectification which then impacts women's perceptions of their bodies, or body image, and mental health outcomes.

Decades of research have identified the pervasiveness of women's offline sexual objectification experiences and associations with self-objectification, body image, and mental health, yet researchers are only beginning to consider the ways in which women may experience sexual objectification within online contexts and potential outcomes. Today's girls and women are spending increasingly more time navigating online spaces, with American youth spending

hours a day online (M. Anderson & Jiang, 2018; Auxier & Anderson, 2021). Compounding this time spent online, recent research has identified that young women do indeed regularly experience sexual objectification within online contexts, both interpersonally and through exposure to objectification of other women (Cary et al., under review). Thus, there is a need to explore potential outcomes of online sexual objectification and whether online sexual objectification outcomes emerge in a pattern similar to identified outcomes of offline objectification.

Objectification Theory

Objectification theory was developed as a theoretical framework to define and contextualize sexual objectification experiences, as well as outline subsequent outcomes of objectification (Fredrickson & Roberts, 1997). Sexual objectification is defined as occurring "whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments, or regarded as if they were capable of representing her" (Bartky, 1990, p. 35). Objectification theory posits that women internalize repeated experiences of sexual objectification and begin to think of themselves as objects, a process termed self-objectification. This self-objectification manifests behaviorally as habitual monitoring of one's body or appearance to ensure compliance with cultural standards of beauty and garner positive evaluations from others (Fredrickson & Roberts, 1997). This self-surveillance then facilitates further body shame and anxiety as well as disrupts cognitive performance, self-concept, and psychological well-being (Baldissarri & Andrighetto, 2021; Calogero et al., 2020). Self-objectification thus occurs as a primary outcome of sexual objectification as well as the precursor to several other negative consequences, such as negative feelings about one's appearance and mental health outcomes.

Indeed, several research studies have tested this model of sexual objectification outcomes in which self-objectification mediates relationships between sexual objectification experiences and outcomes such as poor body image and mental health (Calogero, 2004; Kozee & Tylka, 2006; Tiggemann & Slater, 2002; Tiggemann & Williams, 2012). However, given evidence that sexual objectification is occurring within online contexts, there is a need to test this model of objectification outcomes considering sexual objectification as it is experienced within online spaces.

Outcomes of Offline Sexual Objectification

Objectification theory identifies major outcomes of self-objectification as increases in shame and anxiety, and disruptions in peak motivational states and awareness of internal bodily states (Fredrickson & Roberts, 1997). Across the last two decades, these identified outcomes have been expanded upon and heavily researched (Moradi & Huang, 2008), with researchers identifying body image and mental health as additional areas that are impacted by self-objectification.

Body Image Outcomes

In one of the earliest studies of self-objectification outcomes, researchers identified poor body image, or negative thoughts and perceptions about one's appearance, as an outcome of self-objectification. Women participants in this study were asked to either try on a sweater (non-objectifying) or a swimsuit (objectifying) alone in front of a mirror, with women in the swimsuit condition being given the opportunity to engage in self-objectification. In comparison to the sweater condition, women who tried on a swimsuit reported higher levels of self-objectification and in turn, higher levels of body shame as a result (Fredrickson et al., 1998). This study has since been replicated with a diverse sample of women with similar findings across women of

differing racial/ethnic identities, revealing the universality of the association between self-objectification and negative body image (Hebl et al., 2004). Longitudinal research also supports the association between self-objectification and decreased body image across time. In a four-wave, six-year longitudinal panel study, baseline data was collected from adolescents aged 13-18 years with follow-ups being conducted at six months, 12 months, and five years after baseline. Findings revealed a cycle in which self-objectification in adolescence predicted a greater internalization of appearance ideals and stronger valuing of appearance over physical competence in emerging adulthood (Vangeel et al., 2018). Thus, self-objectification resulting from offline sexual objectification has been shown to be associated with several aspects of body image, including body surveillance, body shame, and internalization of appearance ideals.

Mental Health Outcomes

Objectification theory posits that self-objectification can decrease psychological well-being (Fredrickson & Roberts, 1997). Indeed, self-objectification results in feelings of anxiety due to the potential for appearance evaluation by others. For example, research has shown that mere anticipation of the objectifying male gaze greatly increased college women's social physique anxiety (Calogero, 2004). Self-objectification has also been linked to increases in appearance anxiety (K. Adams et al., 2017; Monro & Huon, 2005) and personal safety anxiety, or persistent worry over physical safety (Calogero et al., 2020). In addition to anxiety, self-objectification resulting from sexual objectification experiences has been associated with depression symptomology in women. In an integrated systematic review, authors identified 28 studies published before 2014 in which researchers explored associations between self-objectification and depression. Of the 28 studies, all but one identified a significant association between self-objectification and depression symptomology in female participants (Jones &

Griffiths, 2015). Among adolescent girls specifically, longitudinal research has found that self-objectification predicts later depression (Grabe et al., 2007) and that increases in self-objectification over time correspond to similar increases in depression (Impett et al., 2010). Most recently, in a study of emerging adult women, experiences of sexual objectification were associated with increased self-objectification, which in turn led to increased depression symptomology (Szymanski, 2020). In addition to outcomes of anxiety and depression, self-objectification has also been found to decrease psychological well-being. Early research tested and confirmed a mediation model in which self-objectification was negatively associated with self-esteem and satisfaction with life through the mediating variable of body shame (Mercurio & Landry, 2008). Additional research has reported direct negative associations between self-objectification and subjective well-being as measured by satisfaction with life (Jarrar, 2017). Thus, self-objectification resulting from offline sexual objectification has been found to be associated with aspects of mental health, including anxiety, depression, and subjective well-being.

Online Sexual Objectification Experiences

While objectification theory originally explored outcomes of sexual objectification as it is experienced by women in interpersonal, offline contexts (Fredrickson & Roberts, 1997), more recent research has identified how sexual objectification is occurring within online spaces and potential outcomes. Emergent research has identified that sexual objectification is experienced by girls and women online via unwanted sexual solicitation and harassment (Douglass et al., 2018; Ybarra & Mitchell, 2008), degrading commentary (Barak, 2005), and exposure to other women being objectified online (Davis, 2018; Kavanagh et al., 2019).

Most recently, an instrument capturing online sexual objectification experiences, the Online Sexual Objectification Experiences Scale (OSOES), has been developed, comprised of three factors of experiences including appearance-based harassment, unwanted sexual solicitation, and indirect sexual objectification (Cary et al., under review). These findings identified that sexual objectification experienced online manifests and is experienced differently than offline, interpersonal objectification. To begin, online objectification is text-based with evaluative commentary existing in direct messages and comments on photos, as evidenced by experiences of appearance-based harassment. Additionally, exposure to sexual objectification of other women is highly present within online spaces, with this aspect of objectification experiences being most frequently experienced by women. Finally, online objectification can be more permanent and salient to young women, given the lack of ability to remove oneself from objectifying situations or commentary and the prominence of online media use among this population (Cary et al., under review). Despite research findings evidencing the prevalence of online sexual objectification experiences among emerging adult women, exploration of potential outcomes of online objectification is needed.

Potential Outcomes of Online Sexual Objectification

Research exploring associations with online objectification has been minimal, yet there is evidence that a similar pathway to offline objectification may be present. For example, research has revealed that exposure to sexualized imagery of women within pornography is associated with self-objectification and poor body image among adolescent girls (Maheux et al., 2021). Additionally, research examining exposure to a comprehensive list of sexually objectifying media including social networking sites found that adolescents who were exposed to these types of media were more likely to internalize beauty ideals (Vandenbosch & Eggermont,

2012). Research utilizing the OSOES also identified associations between online sexual objectification experiences and self-objectification Cary et al., under review). Despite this research, there is a need to evaluate a potential pathway of online sexual objectification outcomes and whether this pathway mirrors what has been observed as resulting from offline sexual objectification.

In sum, the literature supports that sexual objectification is experienced at high rates by women who then internalize such experiences and objectify themselves, which is associated with a multitude of negative consequences, such as poor body image and poor mental health outcomes. However, this process through which self-objectification mediates the relationship between sexual objectification and subsequent outcomes has only been applied to offline, interpersonal experiences of sexual objectification. The contexts through which girls and women are experiencing sexual objectification are expanding as online media use is increasing. Today's young women spend much of their lives within online spaces, and there is a crucial need to explore how online sexual objectification may lead to a similar pathway of consequences to that of offline sexual objectification.

The Present Study

The aim of the present research was to explore associations between online sexual objectification and a variety of potential outcomes. Previous research has identified a pathway from *offline* sexual objectification to many negative outcomes for women including poor body image and poor mental health, associations which are mediated by self-objectification. Research has yet to test whether the same pathway will emerge as result of *online* sexual objectification experiences. A better understanding of outcomes of online sexual objectification can allow for targeted interventions to be modified and created to incorporate the importance of the online

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context as it impacts girls' and women's body image and mental health. To meet this aim, we surveyed a large sample of emerging adult women and tested a structural equation model in which online experiences of sexualization predict self-objectification which in turn is predictive of a latent factor of body image concerns (internalization of the thin ideal, body surveillance, body shame) and mental health outcomes (depression, anxiety, satisfaction with life), controlling for offline sexual objectification (see Figure 3.1).

Method

Participants

Participants were emerging adult women ages 18 to 26 years attending a large Midwestern university. Of 721 participants who completed the online survey, 41 failed one or both attention check questions and were removed from analyses. Additionally, in order to understand the effects of online sexual objectification among women specifically, participants who did not identify as women ($n = 30$) were also removed from analyses, thus resulting in a final sample of 650 participants. The final sample of participants had a mean age of 20.73 years ($SD = 2.34$). Participants were 87.5% White/Caucasian, 8.2% Asian, 6.5% Hispanic or Latino, 3.1% Black or African American, 2.6% Middle Eastern or North African, 1.1% American Indian or Alaskan Native, and 2.3% had another racial identity or preferred not to say. Participants were allowed to select more than one ethnic/racial identity, thus percentages total greater than 100%.

Procedure

After obtaining exempt determination from the university's internal ethics review board (Appendix E), the study was advertised within emails distributed to women undergraduate students ages 18 to 26 years via the University Registrar. The recruitment email described the purpose of the study, informed participants that their responses were anonymous, and

Figure 3.1

Hypothesized Structural Equation Model
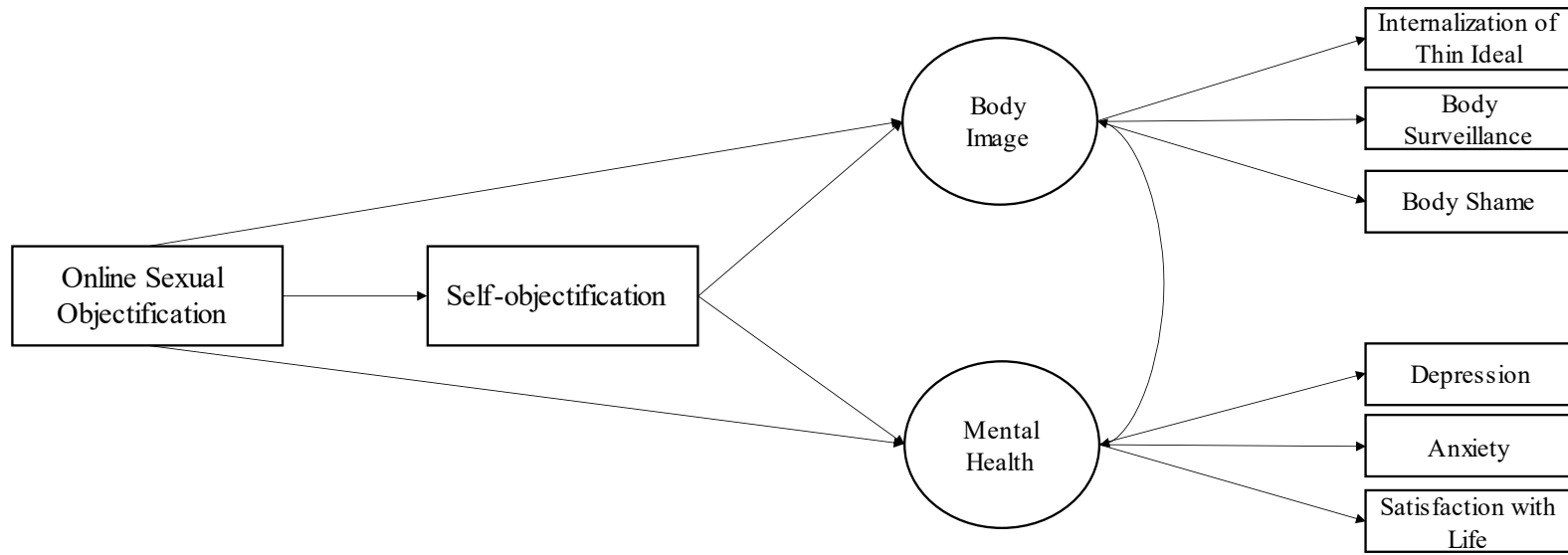
emphasized that participation was voluntary with no compensation offered (Appendix F). Interested participants selected a link to complete informed consent (Appendix G) and, if they consented to participate, an online survey (Appendix H). The online survey was comprised of measures of online sexual objectification experiences, offline sexual objectification, self-objectification, body image (i.e., internalization of the thin ideal, body surveillance, body shame), and mental health (i.e., depression, anxiety, satisfaction with life). Survey measures were counterbalanced to control for order effects.

Measures

Online Sexual Objectification Experiences

Online sexual objectification was assessed using the 21-item Online Sexual Objectification Experiences Scale (OSOES; Cary et al., under review). The OSOES is comprised of three subscales, Unwanted Sexual Solicitation (11 items, example item: *"How often have you received unwanted messages online asking about your sexual experience?"*), Appearance-based Harassment (4 items, example item: *"How often has another person insulted you by calling your unattractive online?"*), and Indirect Sexual Objectification (6 items, example item: *"How often have you read a sexual comment posted to a photo of another woman's body?"*). Participants were asked to consider their experiences occurring online within the past year and respond to each item using a five-point frequency scale (1 = *never*, 5 = *almost always*). Item responses were averaged to create a scale score, with higher scores indicating higher frequency of experiencing sexual objectification online. The OSOES has been found to have a three-factor structure, convergent validity with measures of self-objectification and body image, and good internal consistency among a sample of undergraduate women (Cary et al., under review). In the present sample, the scale demonstrated excellent internal consistency ($\alpha = .95$).

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Offline Sexual Objectification

Offline sexual objectification was assessed using the Interpersonal Sexual Objectification Scale (ISOS; Kozee et al., 2007). The ISOS consists of two subscales: Body Evaluation (11 items; example item, *"How often have you noticed someone staring at your breasts when you are talking to them?"*) and Unwanted Explicit Sexual Advances (4 items; example item, *"How often have you experienced sexual harassment (on the job, in school, etc.)?"*). Participants were asked to respond to items considering experiences within the last year. Participants responded to each item using a 5-point frequency scale (1 = *never*, 5 = *almost always*). Item scores were averaged to create a scale score with higher scores indicating great frequency of experiencing interpersonal sexual objectification. The ISOS has been determined to be a reliable and valid measure of interpersonal sexual objectification among emerging adult women (Kozee et al., 2007). In the present sample, the scale demonstrated excellent internal consistency ($\alpha = .93$).

Self-objectification

Self-objectification was measured using the Self-Objectification Questionnaire (SOQ; Fredrickson et al., 1998). The SOQ asks respondents to rank a list of ten body attributes in order of importance to their self-concept. Of the ten attributes listed, five pertain to appearance (physical attractiveness, weight, sex appeal, measurements, muscle tone), and five pertain to physical competence (strength, physical coordination, health, physical fitness, physical energy level). Participants ranked items from most important (rank = 1) to least important (rank = 10). Ranks for both the appearance and competence attributes were summed and used to compute a difference score ranging from -25 to 25. Higher scores indicate a greater emphasis on physical appearance over competence and, therefore, a higher level of self-objectification. Scores on the

SOQ have demonstrated convergent validity with measures of appearance anxiety and body image among women (Noll and Fredrickson, 1998).

Internalization of the Thin Ideal

The Thin/Low Body Fat subscale of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-4R; Schaefer et al., 2017) was used to assess for internalization of the thin ideal. The subscale is comprised of four items (example item: *"I think a lot about looking thin"*), and participants responded to items using a five-point scale of agreement (1 = *definitely disagree*, 5 = *definitely agree*). Responses were summed to create a scale score with higher scores indicating greater internalization of a thin ideal. The Thin/Low Body Fat subscale has been found to be well-suited to assess personal acceptance of a thin ideal and desire to have a thin body shape (Thompson et al., 2018). The subscale has also demonstrated good internal consistency among emerging adult women and good convergent validity with related measures of body image (Schaefer et al., 2017). In the present study, the subscale demonstrated good internal consistency (α = .85).

Body Surveillance

Body surveillance was assessed using the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 2016). The subscale consists of eight items and evaluates the extent to which an individual values how their body looks compared to how it feels or functions (example item: *"During the day, I think about how I look many times"*). Participants responded to items using a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). A subscale mean was calculated with higher scores indicating higher levels of self-surveillance. In the present sample, the Body Surveillance subscale demonstrated good internal consistency (α = .85).

Body Shame

Body shame was assessed using the Body Shame subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 2016). The subscale consists of eight items and evaluates individuals' feelings of shame resulting from failure to meet cultural standards of beauty (example item: *"When I can't control my weight, I feel like something must be wrong with me"*). Participants responded to each item using a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). A subscale mean was calculated with higher scores indicating higher levels of body shame. In present sample, the Body Shame subscale demonstrated good internal consistency (α = .84).

Depression

The Patient-Reported Outcomes Measurement Information System (PROMIS) Depression – Short Form 6a scale was used to assess for depression sympomology. The scale is comprised of six items assessing freqency of depression symtoms within the last seven days (example item: *"In the past 7 days, I felt hopeless"*). Participants responded to each item using a five-point frequency scale (1 = *never*, 5 = *always*). Total scores range from 6 – 30 with higher scores indicating higher levels of depression. PROMIS scales were developed by the National Institutes of Health Roadmap initiative and have been proven to be precise, valid, and reliable questionnaires for assessing mental health outcomes (Stone et al., 2016). In the present study, the scale demonstrated excellent internal consistency (α = .93).

Anxiety

The PROMIS Anxiety – Short Form 6a scale was used to assess for anxiety sympomology. The scale is comprised of six items assessing freqency of feelings of anxeity within the last seven days (example item: *"In the past 7 days, I felt I found it hard to focus on*

anything other than my anxiety"). Participants responded to each item using a five-point frequency scale (1 = *never*, 5 = *always*). Total scores range from 6 – 30 with higher scores indicating higher levels of anxiety. In the present study, the scale demonstrated excellent internal consistency (α = .91).

Satisfaction with Life

Satisfaction with life was assessed using the Satisfaction with Life Scale (SWLS; Diener et al., 1985). The scale consists of five items (example items: *"In most ways, my life is close to my ideal"* and *"I am satisfied with my life"*). Participants responded to each item using a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Participant responses were averaged to create a scale score with higher scores indicating greater satisfaction with life. The SWLS has been validated within many populations and across many languages as a measure of the life satisfaction component of subjective well-being (Pavot & Diener, 2008). In the present study, the scale demonstrated good internal consistency (α = .87).

Analytic Strategy

A structural equation model was tested to evaluate associations between online sexual objectification experiences, self-objectification, and latent factors of body image concerns and mental health, controlling for offline sexual objectification. The latent factor of body image concerns was comprised of measures of internalization of the thin ideal, body surveillance, and body shame. The latent factor of mental health was comprised of measures of depression, anxiety, and satisfaction with life. As seen in Figure 3.1, the model tested mediation via the following associations, (1) the direct association between online sexual objectification and self-objectification, (2) direct associations between self-objectification and latent factors of body image concerns and mental health, and (3) indirect associations between online sexual

objectification and body image concerns and mental health through the mediating variable of self-objectification. To control for offline experiences of sexual objectification, interpersonal sexual objectification was entered as a covariate in direct paths. Mediation was tested using the percentile bootstrap method with 1000 bootstrapped samples constructing 95% confidence intervals (Falk, 2018; Hayes & Scharkow, 2013).

Results

Descriptive statistics and bivariate correlations are reported in Table 3.1. As expected, more frequent experiences of online sexual objectification were associated with higher levels of self-objectification. Both online sexual objectification and self-objectification were associated with more internalization of the thin ideal, body surveillance, body shame, depression, and anxiety, as well as less satisfaction with life.

A structural equation model with self-objectification mediating the associations between online sexual objectification and latent factors of body image (comprised of internalization of the thin ideal, body surveillance, body shame) and mental health (comprised of depression, anxiety, satisfaction with life) controlling for offline sexual objectification was tested using Mplus (Muthén & Muthén, 1998-2018). Fit statistics were examined using conventional cut-off values of 0.90 for the CFI and TLI, 0.06 for the RMSEA and 0.08 for the SRMR (Hu & Bentler, 1999). Examination of fit statistics indicated that the hypothesized structural equation model was an acceptable to good fit to the data, $\chi2 = 142.44$, $p < .001$; CFI = .94; TLI = .89; RMSEA = .10; SRMR = .04.

Standardized path coefficients and factor loadings are presented in Figure 3.2. All measures of body image concerns and mental health significantly loaded on their respective factors.

Table 3.1

Correlations, Means, and Standard Deviations among Variables of Interest.

	1	2	3	4	5	6	7	8
1.OSOES	--							
2. SOQ	.20**	--						
3. Int. Thin Ideal	.22**	.42**	--					
4. Body Surveillance	.24**	.60**	.57**	--				
5. Body Shame	.29**	.40**	.61**	.58**	--			
6. Depression	.35**	.21**	.27**	.26**	.41**	--		
7. Anxiety	.35**	.18**	.29**	.28**	.34**	.72**	--	
8. SWLS	-.27**	-.24**	-.20**	-.29**	-.27**	-.57**	-.48**	--
M	2.24	1.98	14.49	5.02	4.02	15.47	17.51	4.45
SD	0.81	14.35	4.01	1.01	1.24	5.86	5.80	1.27

Note. ** $p < .01$; OSOES = Online Sexual Objectification Experiences Scale, SOQ = Self-objectification Questionnaire, SWLS = Satisfaction with Life Scale.

Internalization of the thin ideal, body surveillance, and body shame loaded positively on the latent factor of body image concerns. Depression and anxiety loaded positively, and satisfaction with life loaded negatively on the latent factor of mental health. Online sexual objectification experiences were positively associated with self-objectification and the latent factor of mental health. The direct association between online sexual objectification experiences and the latent factor of body image was not significant. Self-objectification was positively associated with the latent factors of body image concerns and mental health.

The indirect effect of online sexual objectification experiences on the latent factor of body image concerns through self-objectification was estimated to lie between 0.14 and 0.62 with 95% confidence, indicating a significant indirect effect. More frequent online sexual objectification was associated with higher levels of self-objectification, which was associated with more body image concerns, particularly internalization of the thin ideal, body surveillance, and body shame. The indirect effect of online sexual objectification experiences on the latent factor of mental health through self-objectification was estimated to lie between .06 and .37 with 95% confidence, indicating a significant indirect effect. More frequent online sexual objectification was associated with higher levels of self-objectification which was associated with higher levels of depression and anxiety and lower satisfaction with life.

Discussion

The present study explored associations between online sexual objectification experiences, self-objectification, body image, and mental health. A structural equation model was tested in which self-objectification mediated the association between online sexual

Figure 3.2

Structural Equation Model Depicting Relationships between Online Sexual Objectification, Self-objectification, and Latent Factors of Body Image Concerns and Mental Health Controlling for Offline Sexual Objectification
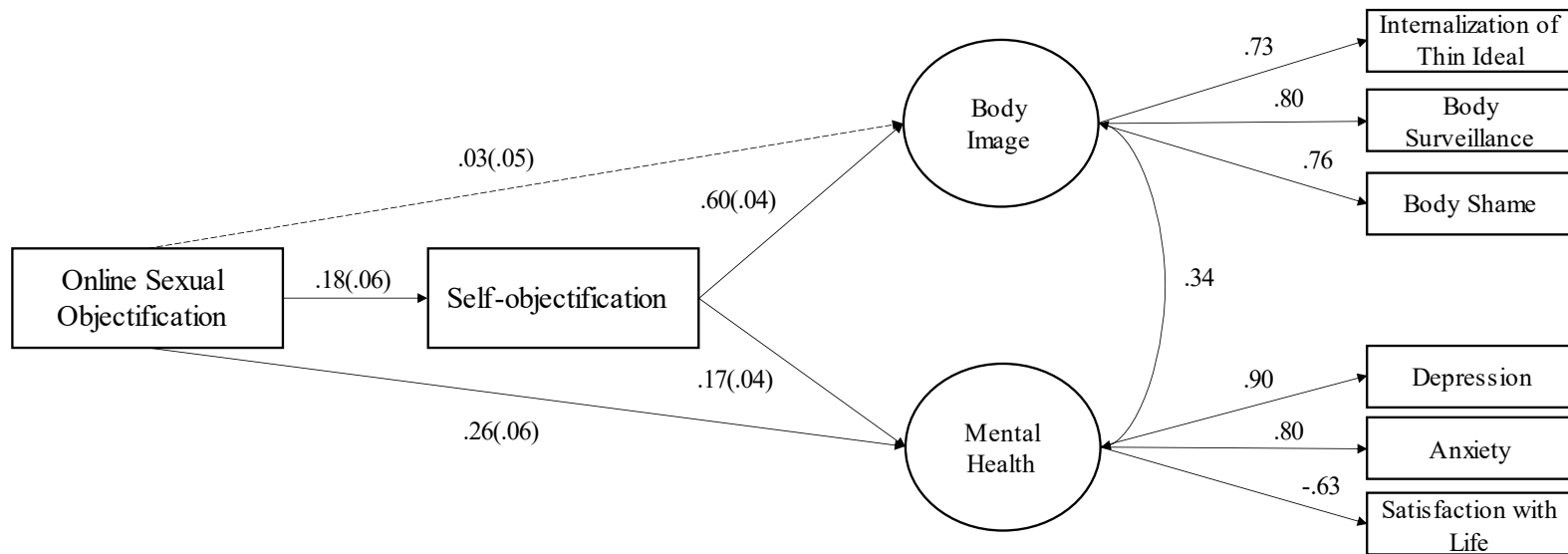
Note. Standardized coefficients presented, nonsignificant paths indicated with a dashed line, all significant paths significant at < .001.

objectification experiences and latent factors of body image and mental health, controlling for offline sexual objectification. The present research expands upon objectification theory and literature examining outcomes of sexual objectification by considering outcomes of women's sexual objectification experiences in the online context.

Decades of literature have identified the deleterious effects of offline sexual objectification on girls and women, a pathway of outcomes in which sexual objectification experiences incite self-objectification, which then negatively impacts body image perceptions and mental health (Calogero, 2004; Moradi & Huang, 2008; Tiggemann & Slater, 2002). Despite young women spending more of their daily lives in online contexts, researchers had yet to comprehensively explore how sexual objectification experienced online may impact women in similar or differential ways to offline objectification. Indeed, research findings have demonstrated that sexual objectification is experienced by women online both within interpersonal interactions and via exposure to objectification of other women, yet these processes are different and more salient than offline sexual objectification. For example, online sexual objectification is more direct, with comments and direct messages being sent directly to the individual being objectification. Additionally, such experiences have more permanence within the online context, and research has supported that online experiences of sexual objectification are more salient in predicting self-objectification in comparison to offline objectification (Cary et al., under review). Findings of the present research support that women experience a similar pathway of outcomes including self-objectification, negative body image, and poor mental health from experiences of sexual objectification online as previous research demonstrates for offline objectification.

As expected, having had more frequent experiences of online sexual objectification was associated with higher self-objectification within the present sample of emerging adult women. This finding confirms previous research that also found online objectification to be associated with increased self-objectification (Cary et al., under review). Taken together, these findings are in line with decades of research of offline sexual objectification in which repeated interpersonal objectification experiences cause women to internalize such experiences and begin to consider themselves as sexual objects (Daniels et al., 2020; E. Holland et al., 2017; Kozee et al., 2007; Moradi & Huang, 2008).

Self-objectification was associated with body image concerns, including greater body shame, body surveillance, and internalization of a thin ideal. As posited by objectification theory, internalized sexual objectification, or self-objectification, creates a heightened focus on one's appearance to assess for conformity to cultural standards of beauty. Thus, this finding supports previous research in which self-objectification manifests as monitoring of one's appearance as a way to ensure conformance to beauty standards and avoid negative evaluations from others, as well as feelings of shame about one's body due to failure to conform to cultural standards of beauty, as such standards are often unattainable (Calogero & Pina, 2011; Tiggemann & Lynch, 2001). Finally, the association between self-objectification and internalization of the thin ideal is in line with emerging research considering the impact of online presentations of women who conform to western standards of beauty which center whiteness and thinness (Anixiadis et al., 2019). Thus, this finding is in line with previous research reporting self-objectification incites an internalization of the thin ideal as most important to achieve (Robinson et al., 2017; Tiggemann & Slater, 2013).

Self-objectification was also associated with increased anxiety and depression symptomology and lower satisfaction with life. These findings are similar to that of previous research which has reported associations between self-objectification with poor mental health, specifically depression (Jones & Griffiths, 2015; Tiggemann & Kuring, 2004) and anxiety symptomology (Calogero et al., 2020). Additionally, findings also support a growing body of research in which self-objectification is associated with lower subjective well-being (Mercurio & Landry, 2008).

Finally, indirect associations were significant in that self-objectification mediated the associations between online sexual objectification experiences and body image and mental health outcomes. Previous research has identified a pathway of outcomes of offline sexual objectification experiences in which online objectification is associated with self-objectification which then functions as a mediator between objectification and further negative outcomes, specifically outcomes related to body image and mental health (Calogero & Pina, 2011; Moradi & Huang, 2008; Tiggemann & Slater, 2002). The present research expands upon this and original objectification theory by mirroring this pathway of outcomes resulting from online sexual objectification.

Limitations and Suggestions for Future Research

The present study and findings should be considered in light of several limitations. The sample was comprised of primarily white, heterosexual emerging adult women attending a four-year university. This lack of diversity in identities and contextual situations limits our full understanding of experiences of online sexual objectification among women of diverse sexual, gender, and ethnic/racial identities. For example, previous research has identified the pathway of sexual objectification outcomes differs between heterosexual women and lesbian women (Hill &

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Fischer, 2008; Kozee & Tylka, 2006), and that women of color experience sexual objectification outcomes differentially than white women (Watson et al., 2012, 2015). Specifically, within qualitative research, sexual minority women report experiencing sexual objectification that fetishizes and tokenizes their sexual identities (Tebbe et al., 2018), and Black women reported factors such as systemic racism and sexualized views of women of color contributing to sexual objectification experiences (Watson et al., 2012). Future research should explore outcomes of online sexual objectification in women of diverse racial/ethnic and sexual identities. Additionally, given the cross-sectional nature of the present study, there is a need for further research to longitudinally explore associations between online sexual objectification, self-objectification, body image, and mental health. For example, researchers can consider asking adolescent girls to complete daily diaries to capture day-to-day experiences of online sexual objectification and explore associations with self-objectification, body image, and mental health across an extended period of time.

Finally, the present study was limited to a convenience sample of emerging adult women attending a large university, limiting our understanding of how online experiences of objectification impact emerging adult women more broadly. Research examining prevalence of gender-based violence among college-aged women (ages 18-24) shows that women who do not attend college are in fact more likely to experience sexual violence in comparison to college-attending women (Sinozich & Langton, 2014). Thus, there is evidence that women who are not attending college may be more at risk for gender-based violence, and by extension online sexual objectification. Future research should also assess for prevalence of sexual objectification within the online context, as well as subsequent outcomes, among community samples of emerging adult women.

Conclusions

The present study expands upon objectification theory by applying a pathway of sexual objectification outcomes to experiences of sexual objectification occurring within the online context. The pathway of outcomes identified within the present research is in line with findings of offline objectification in which online sexual objectification experiences negatively impact body image and mental health through the mediating variable of self-objectification. A comprehensive understanding of the impact of online sexual objectification experiences on women's body image and mental health can inform education and intervention programs. Importantly, such programs should be developed and modified to include aspects of media literacy, or critical evaluation of information and images disseminated within online media, by drawing attention to the perpetuation of unhealthy standards of beauty and creating plans for navigating interpersonal online sexual objectification when it occurs. Mental health programming should be modified to include discussions of online sexual objectification and resources for improving body image perceptions and mental health outcomes. Future research should continue exploring outcomes of online sexual objectification, such as impacts on sexual functioning, and outcomes among ethnic/racially and sexually diverse women.

CHAPTER 4: INTEGRATED DISCUSSION

Introduction

Offline Sexual Objectification Experiences and Outcomes

Sexual objectification, experiences in which individuals are reduced to sexual objects, is experienced persistently and disproportionately by girls and women across the lifespan, but particularly within adolescence and emerging adulthood (E. Holland et al., 2017). Objectification theory posits that sexual objectification is experienced primarily within two contexts, the interpersonal context (e.g., a process between individuals) and via exposure effects (e.g., viewing objectified depictions of others) (Fredrickson & Roberts, 1997). Indeed, decades of research demonstrates that girls and women experience objectification within social interactions with others, including but not limited to experiences of catcalling, verbal sexual harassment, and sexist comments (Swim et al., 2001; Szymanski, Moffitt, et al., 2011; Watson et al., 2012). Additionally, content analyses of print and visual media have repeatedly identified rampant sexual objectification of girls and women (McDade-Montez et al., 2017; Stankiewicz & Rosselli, 2008). These repeated, pervasive experiences of sexual objectification then lead to a plethora of subsequent negative outcomes for girls and women.

Objectification theory suggests a variety of possible outcomes of objectification, including self-objectification, body image concerns, and disruption of cognitive and sexual functioning (Fredrickson & Roberts, 1997). The theory also situates self-objectification as a primary outcome of sexual objectification. Self-objectification is the internalization of repeated sexual objectification experiences in which an individual begins to think of themselves as an object to be evaluated, manipulated, and used by others (Fredrickson & Roberts, 1997). As identified by previous research, it is this internalized, self-objectification that then is associated

with a variety of behavioral and internalizing negative outcomes within the realms of body image and mental health, with multiple studies testing objectification theory and verifying a pathway in which sexual objectification incites self-objectification which is then associated with negative body image and poor mental health (Calogero, 2004; Moradi & Huang, 2008; Tiggemann & Slater, 2002). Objectification theory was originally conceptualized within the mid to late 1990s, considering sexual objectification as it occurs within offline interactions and media exposure (i.e., face-to-face social interactions and "traditional" media, including print, television, movies). Thus, previous research has focused on exploring experiences and outcomes of this offline objectification. However, the vast majority of today's girls and women are spending large amounts of their lives within online contexts, and online experiences of sexual objectification have remained largely unexplored.

Importance of Considering the Online Context

Despite a lack of comprehensive exploration of online sexual objectification experiences and outcomes, there is emergent evidence within the literature that sexual objectification is indeed being experienced by girls and women within the online context. Interpersonally, online objectification manifests in interpersonal interactions in online chatrooms, direct messages on social media and dating apps, and comments shared on social media platforms such as Instagram and Twitter (M. Adams et al., 2022; Barak, 2005; Oliver et al., 2023; Ybarra et al., 2015). Additionally, within the online context, feminine bodies are continuously objectified within online advertising (Gramazio et al., 2021), within images shared by social media users (Vendemia & DeAndrea, 2018), and perhaps most egregiously, within internet pornography (Vandenbosch & van Oosten, 2017). These online experiences with objectification differ drastically from offline sexual objectification.

In offline interactions, sexual objectification such as catcalling, verbal appearance evaluation, and verbal sexual harassment are fleeting, momentary experiences. Online, these experiences are more permanent and often engrained into online media. Evaluative and harassing comments and/or messages are sent via direct messages and comments posted to social media platforms, with these messages and comments being visible for many users to see and individuals to ruminate on until if and when they can be deleted. Additionally, the online disinhibition effect likely leads to increased sexual harassment and objectification within the online context given increased anonymity and decreased consequences for internet users when it comes to victimizing others (Cheung et al., 2016; Suler, 2004).

Regarding exposure to objectification of others, comments posted to images of other women are again permanent and available for all users to see, especially when posted to images of celebrities and influencers whose bodies are used as promotional materials for products. Indeed, critical evaluation of online advertising has revealed rampant objectification of women within advertisement images (Bayazıt, 2020), with mixed findings on the effectiveness of such sexual objectification on product attractiveness and purchase intentions (Gramazio et al., 2021; Vargas-Bianchi & Mensa, 2020; Wirtz et al., 2018). Finally, objectification of women within internet pornography is much more intense than within traditional media, with women's bodies being blatantly used for male sexual gratification. Cross-cultural research has revealed associations between more frequent internet pornography use and increased sexual objectification of women across German, Korean, Taiwanese, and American samples (Willis et al., 2022). Similarly, research among heterosexual partnered women shows that women whose male partners more frequently view pornography experienced greater interpersonal sexual objectification and body image concerns (Tylka & Kroon Van Diest, 2015).

Given that there is emerging evidence that sexual objectification is indeed occurring, perhaps more saliently, online, the present research aimed to capture women's online experiences of sexual objectification via measurement and assess for possible associations with self-objectification, body image, and mental health. This aim was met through two cross-sectional survey studies among separate samples of emerging adult women.

Summary of Findings

Study 1 aimed to address the lack of a validated instrument to capture women's online objectification experiences by developing and validating the Online Sexual Objectification Experiences Scale (OSOES). Only one previous research study could be found in which authors assessed for online sexual objectification experiences; however, the scale was specific to experiences on a single Chinese social media platform and did not assess for exposure to objectification of other women online (Luo et al., 2019). Using rigorous methods, the OSOES was developed, refined, and validated across two samples of emerging adult women. Results of an exploratory factor analysis and subsequent confirmatory factor analysis demonstrated a three-factor structure, comprised of the following three factors: (1) unwanted sexual solicitation, (2) appearance-based harassment, and (3) indirect objectification. The scale demonstrated good internal consistency reliability, discriminant and convergent validity, and incremental validity in predicting self-objectification above and beyond offline objectification. Greater frequency of online sexual objectification experiences as measured by the OSOES were also associated with higher self-objectification, body shame, and body surveillance.

In Study 2, a structural equation model demonstrated that online sexual objectification experiences result in a similar pathway of negative outcomes as offline sexual objectification. Frequency of online sexual objectification experiences was associated with self-objectification

which was in turn associated with poorer body image and mental health controlling for offline sexual objectification. Specifically, higher frequency of online sexual objectification experiences was associated with higher self-objectification. Online sexual objectification was also directly associated with a latent factor of mental health comprised of depression, anxiety, and satisfaction with life. The direct association between online sexual objectification and a latent factor of body image comprised of body surveillance, body shame, and internalization of the thin ideal was not significant. Finally, self-objectification mediated the associations between online sexual objectification and the factors of body image concerns and mental health outcomes.

Contribution to Theory

Findings of Study 1 expand upon objectification theory by applying principles of the theory to the online context and considering online experiences of sexual objectification. Consistent with objectification theory, women are indeed experiencing sexual objectification online within personal interactions and via exposure effects, yet online experiences are distinct from offline. First, body evaluation and sexual harassment within interpersonal contexts are considered to be key aspects of offline sexual objectification (Kozee et al., 2007); however, evaluative commentary as an aspect of sexual objectification occurs differently within the online context. For example, offline interpersonal objectification occurs via fleeting verbal harassment and comments evaluating one's body. In contrast, as previously discussed, online objectification is more permanent, existing within posted comments and direct messages. Additionally, where offline one can overhear someone discussing their body, online such commentary is more personal and direct in evaluating appearance, such as via appearance-based harassment, or using one's appearance as a basis for harassment and degradation.

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Additionally, the OSOES is novel in its inclusion of experiences in which women are exposed to the objectification of others online. Within the present research, exposure to the objectification of other women was highly prevalent online, being reported at the highest frequency in comparison to unwanted solicitation and appearance-based harassment. Sexualized imagery of women is pervasive within online media, including in advertising and image-based social media applications such as Instagram and TikTok. For example, Instagram users are ubiquitously exposed to objectified imagery of peers, Instagram models, and celebrities, and appearance-based hashtags are commonly used on the platform (Skowronski et al., 2022). Content analyses of appearance-focused Instagram posts have revealed that such posts set unhealthy expectations of appearance and body proportions (Tiggemann & Zaccardo, 2018). Observing other women being objectified online is especially salient for today's girls and women who often form parasocial relationships, or one-sided nonreciprocal relationships with an internet personae, with women celebrities and influencers who regularly post and share their bodies within online platforms.

Finally, online sexual objectification experiences were found to be more salient in predicting self-objectification than offline experiences. Indeed, today's emerging adult women find themselves regularly immersed in online contexts such as social media sites, dating applications, and video sharing platforms (Auxier & Anderson, 2021). These online environments facilitate interpersonal objectification due to increased anonymity and disinhibition (Suler, 2004). Thus, users can easily engage in directed gender-based harassment such as sexual objectification online. In addition, offline exposure to objectification of other women may be easily avoided by refusing to interact with objectifying traditional media (i.e., sexualized print advertising, objectifying visual media such as television and movies); however, online exposure

to others' objectification is less easily avoidable. Online pop-up advertisements and objectifying imagery are pervasive and virtually unavoidable (Harmer & Lewis, 2022; Hsu & Pann, 2017), thus leading to increased exposure to objectification of other women within online spaces.

Study 2 expands objectification theory by testing a pathway of outcomes of online objectification in which online sexual objectification experiences are associated with self-objectification which in turn are associated with increased body image concerns and poor mental health outcomes. This pathway in which self-objectification mediates the associations between objectification experiences and negative outcomes has been supported within the literature exploring outcomes of offline objectification (Calogero, 2004; Moradi & Huang, 2008; Tiggemann & Slater, 2002). Thus, findings that online objectification experiences result in a similar pathway of outcomes significantly contributes to understanding of the impact of repeated sexual objectification experiences on the lives of women.

Similar to offline objectification, online experiences of sexual objectification result in internalized self-objectification in which women begin to think of themselves as objects, with this internalization being carried over into behavioral and mental health outcomes. With regards to associations with body image, internalized self-objectification resulting from online objectification was associated with increased body shame and surveillance, as well as internalization of the thin ideal. This finding supports previous literature which has found that self-objectification incites a focus on appearance and striving to meet internalized standards of beauty to garner positive evaluations (Hebl et al., 2004; Vangeel et al., 2018). With regards to associations with mental health, internalized self-objectification resulting from online objectification was associated with increased depression and anxiety symptomology, as well as decreased satisfaction with life. This find also supports previous literature which has identified

associations between self-objectification and anxiety (K. Adams et al., 2017; Calogero et al., 2020), depression (Grabe et al., 2007; Szymanski, 2020), and psychological well-being (Mercurio & Landry, 2008). Confirmation of this pathway of outcomes associated with online sexual objectification adds to a large body of literature in which offline sexual objectification incites self-objectification which then detrimentally impacts girls' and women's body image and mental health.

Broader Implications of Findings

In recent years, public attention has been drawn to the need to better support youth in navigating the online context and potential harmful outcomes of online media use. In September 2021, Facebook whistleblower Frances Haugen revealed to the media that an internal study conducted by the social media giant revealed harmful effects of Instagram (also owned by Facebook) on adolescent girls' mental health (Wells et al., 2021). For social media researchers, findings of this internal study were not surprising, given the vast body of research across the last several decades also evidencing these harmful effects (Huang, 2022; Saiphoo & Vahedi, 2019). However, the leak of this internal study's findings demonstrates that owners of social media platforms themselves are aware of the harmful effects their platforms have on youth yet do nothing to address concerns. Also in 2021, the U.S. Surgeon General published the advisory on Protecting Youth Mental Health offering recommendations for supporting the mental health of children, adolescents, and young adults. The advisory includes an integrated focus on the impact of online media, particularly social media, and provides information on how parents, educators, and media companies themselves can support youth mental health and reduce harmful impacts. This includes the role of parents and educators in being attentive to social media use, promoting

positive relationships on social media, and being intentional in use or lack of use of social media (Murthy, 2021).

Both whistleblower accounts and the Surgeon General's advisory draw attention to the need to address how social media use and online experiences negatively impact girls and women. As researchers, we know that immersion within the online context is harmful, yet a focus on what particular aspects of social media use and the online context incite negative outcomes is needed. Specifically, researchers have identified that it is not mere time spent on social media alone that is associated with negative mental health outcomes (Coyne et al., 2020). As such, targeted intervention, prevention, and mental health services to address negative online experiences, such as sexual objectification, harassment, and gender-based violence, are key in mitigating the harmful effects of online media use among youth.

Implications for Intervention

Unfortunately, very few intervention programs exist which address sexual objectification and self-objectification. One such program, SPARK (sexualization protest, action, resistance, knowledge) was developed for use among adolescent girls. The program provides "SPARKits" to program leaders and participants which include media literacy tools and opportunities for activism. The program focuses on encouraging girls to identify and challenge sexualization while providing opportunities for social action, engaging critical thought and social change (Baker et al., 2016). Programs such as this and interventions aimed at drawing attention to the sexualization and objectification of feminine bodies have been shown to be successful in reducing self-objectification and body image concerns among adolescent girls and emerging adult women. For example, a study testing effectiveness of interventions that educate women to critically evaluate and challenge media images are effective in reducing body image disturbance

among emerging adult women following exposure to sexualized media images. Specifically, interventions discussing artificial beauty (understanding that media images present unrealistic standards of beauty by using deceiving editing techniques) and genetic realities (understanding that bodies presented in media do not reflect real-world diversity in body shape) were successful in reducing weight concerns among emerging adult women following exposure to images of professional fashion models in magazines (Posavac et al., 2001). Additional research utilizing a pre- post intervention design revealed that interventions centering media literacy techniques are effective in reducing negative body feelings and body surveillance among college women (Pentzien, 2019). Finally, there is also research evidence that supports body appreciation (practicing acceptance, respect, focus on bodily needs, and feeling good about one's body) serves as a protective factor against negative impacts of exposure to thin-ideal advertisements among emerging adult women (Andrew et al., 2015). Given these research findings, intervention efforts aimed at mitigating outcomes of online sexual objectification should be developed which focus on body appreciation, empowerment, and critical evaluation of media imagery via media literacy education.

Implications for Prevention

Findings from the present study highlight the need to incorporate discussions of online sexual objectification and sexual harassment within sexual health education programming and sexual violence prevention programming. This goal can be met through the inclusion of media literacy within such education programs. Porn and media literacy education have been shown to be effective in reducing the relationship between exposure to sexualized media and stereotypical sexual attitudes. For example, a longitudinal study of adolescents and emerging adults ages 13-25 years, revealed that the extent that adolescents and emerging adults learned about porn in

school-based sexual health education moderated the relationship between use of sexualized

media and notions of women as sex objects. Participants who had learned about porn within their

sex education showed no significant association between sexualized media use and notions of

women as sex objects, while the association was significant among those who had not learned

about porn in school-based sex education. This moderation relationship was similar among

boys/men and girls/women and among adolescents and emerging adults (Vandenbosch & van

Oosten, 2017). This is in contrast to prior research which found that viewing a media literacy

video demonstrating how women are sexually objectified in the media was effective in altering

women's responses to ads objectifying women, but not men's responses to the same ads

(Reichert et al., 2007). Finally, and most recently, experimental research has tested the impact of

exposure to a sensitizing web campaign against media sexual objectification on men's gender-

harassing conduct and sexism. Results revealed lower frequency of use of sexist jokes, lower

sexual coercion intention, and lower hostile sexism among men who viewed the web campaign

in comparison to men who watched a neutral nature documentary or video sexually objectifying

women (Guizzo & Cadinu, 2021). Thus, research evidences the importance of including

education on sexual objectification and sexualized media as components of media literacy within

sexual health education programming, as well as gender-based violence programming.

Suggestions for Mental Health Professionals

Relevant to impacts on mental health, clinicians and individuals providing mental health

services should receive training in centering feminist approaches and understanding

objectification theory. In 2007, the American Psychological Association (APA) published

Guidelines for Psychological Practice with Girls and Women, encouraging clinicians to consider

interactions of socialization and gender, including identifying and understanding the influence of

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power and structural inequities experienced by girls and women and how such experiences are brought into therapy (American Psychological Association, 2007a). A major component of these experiences is sexual objectification and resultant self-objectification, and as such, aspects of the APA guidelines have been applied to working with women clients in the context of navigating sexual objectification (Szymanski, Carr, et al., 2011). Suggestions for clinicians include first identifying aspects of socialization and existence within a patriarchal culture which impact women clients. This can be done by asking clients about how they are affected by the sociocultural context and power differentials between genders. Such questions should be followed by discussions of gender socialization as the underpinning of how women and men are differentially socialized and encouraging clients to consider how a culture of sexual objectification influences how they feel about their bodies. Second, clinicians should explore how sexual objectification may contribute to presenting problems among clients and develop therapeutic strategies to help girls and women struggling with sexual objectification. This begins with assessing for sexual objectification experiences clients have faced and how such experiences impact presenting problems. Clinicians can then learn to detect how self-objectification manifests to clients and link internalizing problems to the sexist context women find themselves in. Finally, clinicians should utilize therapeutic strategies that identify and challenge sexual objectification and internalization via comparison to others, striving to meet unattainable standards of beauty, and monitoring of appearance, and feeling shameful about one's body (Szymanski, Carr, et al., 2011).

Study Limitations & Future Directions for Research

There are several limitations for the present research that should be considered to contextualize findings, as well as guide directions for future research on online sexual

objectification experiences and outcomes. Both studies are limited in their generalizability by being comprised of predominantly white, heterosexual samples of college-attending emerging adult women. Exploration of sexual objectification across multiple age groups has found that self-objectification is experienced most frequently within the developmental period of emerging adulthood (Tiggemann & Lynch, 2001). However, recent attention has been drawn to the negative impacts of social media use on adolescent girls (Salomon & Brown, 2019), and thus research examining the frequency and outcomes of sexual objectification experiences among samples of adolescent girls is needed. Identifying specific aspects of social media use such as sexual objectification, sexual harassment, and gender-based violence, is key to informing prevention and intervention strategies aimed at reducing the harmful effects of social media use, particularly among teen girls.

Research has shown that interpersonal sexual objectification is experienced differentially among women of color and sexual minority women, with objectifying comments referencing sexual identity and race/ethnicity. For example, sexual minority women have shared through qualitative research that experiences of sexual objectification reflect intersections of inequality based on sexual orientation and feminine identities, with objectification experiences often referencing harmful stereotypes of sexual minority women as hypersexual (Tebbe et al., 2018). Additional qualitative research exploring experiences of sexual objectification among Black women revealed that cultural factors of oppression such as the historical influence of slavery, sexualized views of women of color, and patriarchal social structure contribute to different forms of sexual objectification experienced by women of color (Watson et al., 2012). Thus, future research should work to identify how online sexual objectification is experienced uniquely by sexual minority women and women of color.

Additionally, researchers should seek to explore how specific online contexts, such as particular social media platforms, dating apps, or online forums contribute differentially to the sexual objectification experiences of women. Within the present research, given that we were aiming to capture sexual objectification experiences occurring within a wide variety of online contexts, we did not assess for sexual objectification experiences occurring specifically within individual online contexts or platforms. Given the development of the OSOES, future research can aim to assess differences in prevalence of the differing types of online sexual objectification experiences (i.e., unwanted sexual solicitation, appearance-based harassment, and indirect sexual objectification) among various, specific online contexts. For example, prior research has identified highly-visual social media platforms, such as Instagram, as perpetuating the sexualization and objectification of women, particularly within appearance- or body-focused content (Tiggemann & Zaccardo, 2018). Thus, indirect sexual objectification may be experienced at higher levels while women are using Instagram. On the other hand, objectifying experiences of unwanted sexual solicitation may occur more frequently within dating applications, given the rampant sexual harassment researchers have identified as occurring within dating apps (Gewirtz-Meydan et al., 2023). Beyond prevalence of types of objectification within specific platforms, future research should also explore differential outcomes of sexual objectification experienced within social media versus online messaging forums, for example.

Finally, given the cross-sectional nature of the present research, causal inferences are limited. Researchers should work to develop longitudinal research designs to explore how frequency of online sexual objectification experiences impact body image and mental health outcomes across time. One particularly promising method would be to utilize ecological momentary assessment methods to capture daily or weekly experiences of online sexual

objectification to then explore how frequency of such experiences impact body image concerns and mental health outcomes such as depression and anxiety symptomatology across a longer period of time.

Conclusion

This dissertation both supports and expands upon the present body of literature by considering online media as a salient context in which women experience sexual objectification and examining outcomes of online sexual objectification experiences. The two studies resulted in the development and validation of the Online Sexual Objectification Experiences Scale and confirmation of a pathway of online sexual objectification outcomes in which self-objectification mediates the associations between online sexual objectification experiences, body image concerns, and mental health outcomes. These findings suggest that online sexual objectification is experienced uniquely within online spaces and is more salient in predicting self-objectification than offline sexual objectification. Additionally, online sexual objectification results in a similar pathway of outcomes which has been identified in prior research. Specifically, online sexual objectification experiences were associated with higher self-objectification which was in turn associated with increased body image concerns and poor mental health outcomes among emerging adult women. To mitigate the harmful impacts of online sexual objectification, intervention and prevention programs should be developed and modified to include media literacy education which draws attention to unrealistic standards of beauty presented within media and center a focus on body appreciation. Mental health professionals working with women should also center an understanding of the sociocultural structures which perpetuate the objectification of feminine bodies and consider how sexual objectification and self-objectification may contribute to presenting problems.

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APPENDIX A: STUDY 1 IRB EXEMPT DETERMINATION

Figure 5.1

Study 1 IRB Exempt Determination

MICHIGAN STATE
U N I V E R S I T Y

EXEMPT DETERMINATION
Revised Common Rule

February 7, 2019

To: Megan K Maas

Re: **MSU Study ID:** STUDY00002110
         Principal Investigator: Megan K Maas
         Category: Exempt 2i.
         Exempt Determination Date: 2/7/2019
         Limited IRB Review: Not Required.

Title: Reliability and Validity of the Online Sexual Objectification Experiences Scale

This study has been determined to be exempt under 45 CFR 46.104(d) 2i.

Principal Investigator (PI) Responsibilities: The PI assumes the responsibilities for the protection of human subjects in this study as outlined in Human Research Protection Program (HRPP) Manual Section 8-1, Exemptions.

Continuing Review: Exempt studies do not need to be renewed.

Modifications: In general, investigators are not required to submit changes to the Michigan State University (MSU) Institutional Review Board (IRB) once a research study is designated as exempt as long as those changes do not affect the exempt category or criteria for exempt determination (changing from exempt status to expedited or full review, changing exempt category) or that may substantially change the focus of the research study such as a change in hypothesis or study design. See HRPP Manual Section 8-1, Exemptions, for examples. If the study is modified to add additional sites for the research, please note that you may not begin the research at those sites until you receive the appropriate approvals/permissions from the sites.

Please contact the HRPP office if you have any questions about whether a change must be submitted for IRB review and approval.

New Funding: If new external funding is obtained for an active study that had been determined exempt, a new initial IRB submission will be required, with limited exceptions. If you are unsure if a new initial IRB submission is required, contact the HRPP office. IRB review of the new submission must be completed before new funds can be spent on human research activities, as the new funding source may have additional or different requirements.

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MSU is an affirmative-action,
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APPENDIX B: STUDY 1 RECRUITMENT EMAIL

You've been chosen to participate in the Online Sexual Experiences Study because you are a female undergraduate student at MSU.

We could use your help in a big way. There is not a lot of research on women's experiences of sexual objectification online. Hearing from you would help us to know more so that we can create better sexual education programs.

We are trying to make the world (and MSU) a better place for women. But we need information about YOUR experiences to do so.

Can you take this 15-30-minute survey about your experiences? Please use this link to access the survey: https://msu.co1.qualtrics.com/jfe/form/SV_bBMaqYd9KYJ4aTr

Your generation is the first to have grown up with smart phones and access to the internet all day long. Given how things have changed in the last couple of years since #MeToo, we think women's experiences online are likely complicated.

So that's why we're asking YOU to help us figure this stuff out!

All responses are completely anonymous. Your participation will have no effect on your grades or financial support from the university, as we have no way of tracking your participation. If you have any questions, please contact Kyla Cary or Dr. Megan Maas from the Media, Adolescence, and Sexuality (MAaS) lab at MSUMaasLab@gmail.com.

Informed Consent for Survey Research

Online Sexual Experiences

Purpose of Research
You are being asked to participate in a research study conducted by Dr. Megan Maas in the Department of Human Development and Family Studies at Michigan State University.
The purpose of this research is to explore how women in college think about themselves. The information that you provide will be used to examine the ways we educate and empower girls and women.

Eligibility for the Study

In order to be eligible for this study, you must identify as a woman and be 18-24 years old.

Explanation of Procedures
If you agree to participate in the research you will be asked to complete the survey instrument with questions about your online experiences. The survey should take no longer than thirty minutes to complete. There are no direct benefits for your participation in this study, although the information you provide will be used to assist in identifying factors to educate and empower girls and young women.

No one will have access to these data except for the researchers and the Michigan State University Human Research Protection Program. All information is anonymous and confidential.

Anonymity and Confidentiality
No one will be aware of your participation or have access to your responses other than the researchers and the Michigan State University Human Protection Program (HRPP). The following steps will be taken to provide your confidentiality:
You will not be asked to provide any identifying information such as dates of birth, street addresses. In addition, the information that you provide will be aggregated in subsequent research reports and publications.
The data collected for this research study will be maintained on a password protected computer on the campus of Michigan State University for a minimum of three years after the close of the project. Only the appointed researchers and the Human Research Protection Program (HRPP) will have access to the collected and anonymized data.

Voluntary Participation
As stated earlier, your participation is completely voluntary. It is your choice whether or not you consent to participate. If you do choose to participate you can withdraw from the study at any time. You may refuse to answer certain questions, to skip them, or to terminated the study at any point. The researcher may also choose to withdraw you from the study if it becomes necessary.

Payment for Participation
There will be no payment for your participation. However, if you need SONA credit, you will be able to receive credit for this project.

Risks and Benefits of Research
There are minimal risks associated with this research as the survey is anonymous and the data will not contain any information and will not be linked to you or your participation. Your participation is anonymous and your privacy will be maintained. All survey responses are confidential.

Questions
If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact Megan Maas, Ph.D., Human Development & Family Studies, 552 W. Circle Drive 13D Human Ecology, East Lansing, MI, 517-432-3325, email maasmeg1@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 1-517-355-2180, Fax 1-517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Road, Ste. 136, Lansing, MI 48910.
You indicate your voluntary agreement to participate in this research and have your answers included in the data set by continuing with this survey.

APPENDIX D: STUDY 1 SURVEY ITEMS

Demographic Information

1. What is your age?
2. What race do you consider yourself to be? (Check all that apply)
   - American Indian or Alaskan Native
   - Asian
   - Black or African American
   - White
   - Other, please specify
3. Are you of Spanish, Hispanic, or Latino origin or descent?
   - Yes
   - No
4. What is your gender identity?
   - Male
   - Female
   - Trans man
   - Trans woman
   - Genderqueer/Gender non-conforming
   - Not on the binary
   - Other, please specify
5. What genitalia do you have?
   - Vulva/vagina
   - Penis
   - Both/Neither
6. How do you describe your sexual identity?
   - Asexual
   - Bisexual
   - Gay or lesbian
   - Heterosexual/Straight
   - Mostly heterosexual/Straight
   - Queer
   - Questioning or unsure
   - Another sexual orientation, please specify
7. How would you describe your current romantic relationship status?
   - Newly single (Romaic relationship ended less than 3 months ago)
   - Single
   - Casually dating one partner
   - Casually dating multiple partners
   - In a monogamous relationship
   - In a polyamorous relationship or consensual non-monogamous relationship
   - Cohabitating
   - Married
   - Divorced
   - Widowed

Online Sexual Objectification Experiences Scale

Instructions: For this scale, think of experiences you have had while online (using social media, visiting blogs, using dating apps, etc.). Additionally, think of messages you have received through Facebook messenger, in direct messages on any app (e.g., Instagram, Twitter, Tinder), within a chat room, or comment section (from posted articles, status updates, photos, or videos). These experiences may have occurred while you were using apps on your smart phone or while using a tablet/laptop/desktop computer. Please respond to each question with how often you have experienced the item in the last year.

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = almost always

Body Evaluation
1. How often have you received a public comment that was sexual on a posted photo of your body?
2. How often have you received a private message that was sexual discussing your body?
3. How often has someone made a rude or hurtful comment that was sexual about your body online?
4. How often have you felt like or known that someone was evaluating your physical appearance online?
5. How often has another person insulted you by calling you unattractive online?
6. How often has another person made a negative comment about your physical appearance online?

Unwanted Sexual Solicitation
7. How often have you received **unwanted** messages online asking about your sexual experience?
8. How often have you received **unwanted** messages online asking about what sexual behaviors you like?
9. How often have you received **unwanted** messages online asking you to send nude photos or videos or to engage in camming?
10. How often have you received **unwanted** messages online telling you what sexual behaviors they want to do to you?
11. How often have you received **unwanted** messages online asking you to do sexual behaviors offline?
12. How often have you received **unwanted** nude or partially nude photos or videos of someone else?
13. How often have you received **unwanted** messages online asking you to describe your body or sex organs?
14. How often have you received **unwanted** sexual messages from someone online even after you have asked them to stop?
15. How often have you experienced sexual harassment online?
16. How often has another person called you a "slut", "whore", or something similar in a message or comment online?

In-direct Objectification
17. How often have you viewed **unwanted** sexual or pornographic images online due to pop-ups or advertisements?

18. How often has pornographic content, a sexually explicit meme, or something similar shown up in your social media feed/email/etc.?
19. How often have you read a sexual comment posted to a photo of another woman's body?
20. How often have you seen another person call a woman a "slut", "whore", or something similar in a message or comment online?
21. How often have you experienced sexual or offensive screennames online?
22. How often have you experienced sexual personal information posted by another person online?
23. How often do you view pornographic images or videos that depict women engaging in **unwanted** sexual activity?

Interpersonal Sexual Objectification Scale

Instructions: Please think carefully about your experiences in the past year as you answer the questions below.

1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Almost Always

1. How often have you been whistled at while walking down a street?

2. How often have you noticed someone staring at your breasts when you are talking to them?

3. How often have you felt like or known that someone was evaluating your physical appearance?

4. How often have you felt that someone was staring at your body?

5. How often have you noticed someone leering at your body?

6. How often have you heard a rude, sexual remark made about your body?

7. How often have you been touched or fondled against your will?

8. How often have you been the victim of sexual harassment (on the job, in school, etc.)?

9. How often have you been honked at when you were walking down the street?

10. How often have you seen someone stare at one or more of your body parts?

11. How often have you overheard inappropriate sexual comments made about your body?

12. How often have you noticed that someone was not listening to what you were saying, but instead gazing at your body or a body part?

13. How often have you heard someone make sexual comments or innuendos when noticing your body?

14. How often has someone grabbed or pinched one of your private body areas against your will?

15. How often has someone made a degrading sexual gesture towards you?

Self-Objectification Questionnaire

Instructions: We are interested in how people think about their bodies. The questions below identify 10 different body attributes. We would like you to *rank order* these body attributes from that which has the *greatest impact* on your view of your body (rank this as a "10"), to that which has the *least impact* on your view of your body (rank this as a "1").

Note: It does not matter *how* you describe yourself in terms of each attribute. For example, fitness level can have a great impact on your view of your body of whether you consider yourself to be physically fit, not physically fit, or any level in between.

Please consider all attributes simultaneously and record your rank ordering by writing the ranks in the rightmost column.

IMPORTANT: *Do not assign the same rank to more than one attribute.*
10 = greatest impact
9 = next greatest impact
.
.
2 = next to least impact
1 = least impact

When considering *how you view your body,* what rank do you assign to….

_____ physical coordination
_____ health
_____ weight
_____ strength
_____ sex appeal
_____ physical attractiveness
_____ energy level (e.g., stamina)
_____ firm/sculpted muscles
_____ physical fitness level
_____ measurements (e.g., chest, waist, hips)

Objectified Body Consciousness Scale

Instructions: Select the response that corresponds to how much you agree with each of the following statements.

1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neither agree nor disagree, 5 = Somewhat agree, 6 = Agree 7 = Strongly agree

1. I rarely think about how I look
2. When I can't control my weight, I feel like something must be wrong with me
3. I think it is more important that my clothes are comfortable than whether they look good on me
4. I feel ashamed of myself when I haven't made the effort to look my best
5. I think more about how my body feels than how my body looks
6. I feel like I must be a bad person when I don't look as good as I could
7. I rarely compare how I look with how other people look
8. I would be ashamed for people to know what I really weigh
9. Even when I can't control my weight, I think I'm an okay person
10. During the day, I think about how I look many times
11. I never worry that something is wrong with me when I am not exercising as much as I should
12. I often worry about whether the clothes I'm wearing make me look good
13. When I'm not exercising enough, I question whether I am a good person
14. I rarely worry about how I look to other people
15. I am more concerned with what my body can do than how it looks
16. When I'm not the size I think I should be, I feel ashamed

Online Harassment

Instructions: Please think carefully about your experiences in the past year as you answer the questions below.

1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Almost Always

1. People have said negative things (like rumors or name calling) about how I look, act, or dress online.
2. People have said mean or rude things about the way I talk (write) online.
3. People have posted mean or rude things about me on the internet.
4. I have been harassed or bothered online for no apparent reason.
5. I have been harassed or bothered online because of something that happened at school.
6. I have been embarrassed or humiliated online.
7. I have been bullied online.
8. I was threatened online because of the way I look, act, or dress.

APPENDIX E: STUDY 2 IRB EXEMPT DETERMINATION

Figure 5.2

Study 2 IRB Exempt Determination

MICHIGAN STATE
U N I V E R S I T Y

EXEMPT DETERMINATION
Revised Common Rule

December 22, 2021

To: Megan K Maas

Re: **MSU Study ID: STUDY00007118**
Principal Investigator: Megan K Maas
Category: Exempt 2ii
Exempt Determination Date: 12/22/2021
Limited IRB Review: Not Required.

Title: Women's Online Experiences of Sexual Objectification: Associations with
Body Image and Mental Health

This study has been determined to be exempt under 45 CFR 46.104(d) 2ii.

Principal Investigator (PI) Responsibilities: The PI assumes the responsibilities
for the protection of human subjects in this study as outlined in Human Research
Protection Program (HRPP) Manual Section 8-1, Exemptions.

Continuing Review: Exempt studies do not need to be renewed.

Modifications: In general, investigators are not required to submit changes to the
Michigan State University (MSU) Institutional Review Board (IRB) once a research
study is designated as exempt as long as those changes do not affect the exempt
category or criteria for exempt determination (changing from exempt status to
expedited or full review, changing exempt category) or that may substantially
change the focus of the research study such as a change in hypothesis or study
design. See HRPP Manual Section 8-1, Exemptions, for examples. If the study is
modified to add additional sites for the research, please note that you may not
begin the research at those sites until you receive the appropriate
approvals/permissions from the sites.

Please contact the HRPP office if you have any questions about whether a change
must be submitted for IRB review and approval.

New Funding: If new external funding is obtained for an active study that had been
determined exempt, a new initial IRB submission will be required, with limited
exceptions. If you are unsure if a new initial IRB submission is required, contact the
HRPP office. IRB review of the new submission must be completed before new
funds can be spent on human research activities, as the new funding source may
have additional or different requirements.

**Office of
Regulatory
Affairs**
**Human Research
Protection Program**

4000 Collins Road
Suite 136
Lansing, MI 48910

517-355-2180
Fax: 517-432-4503
Email: irb@msu.edu
www.hrpp.msu.edu

MSU is an affirmative-action,
equal-opportunity employer.

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APPENDIX F: STUDY 2 RECRUITMENT EMAIL

Dear MSU student,

You've been chosen to participate in the Women & Online Objectification Study because you are a female undergraduate student at MSU.

We could use your help in a big way. As you may have heard, researchers are now discovering that online social media use can be harmful to young women's ideas of their bodies and mental health. However, there is not a lot of research on how online experiences such as sexual objectification relate to these outcomes. Hearing from you would help us to know more so that we can create better programs to educate and empower girls and women.

We are trying to make the world, and MSU, a better place for women. But we need information about YOUR experiences to do so. If you are interested in participating in a research study about online experiences, body image, and mental health, please see the information below to complete informed consent and an anonymous online survey. You will not be asked to enter any identifying information, and all responses are completely anonymous. Your participation will have no effect on your grades or financial support from the university, as we have no way of tracking your participation.

Can you take this 15-30-minute survey that will ask about your experiences? Please use this link to access the informed consent information and the survey:
https://msu.co1.qualtrics.com/jfe/form/SV_bEkY8HFEFMGILbM

Your generation is the first to have grown up with smart phones and access to the internet all day long. Given how things have changed in the last couple of years since #MeToo, we think women's experiences online are likely complicated. ***So that's why we're asking YOU to help us figure this stuff out!***

If you have any questions, please contact Kyla Cary (carykyla@msu.edu) or Dr. Megan Maas (maasmeg1@msu.edu) from the Media, Adolescence, and Sexuality (MAaS) lab.

Thank you for your consideration.

Kyla Cary

Kyla Cary, MS
Pronouns: she/her/hers
Doctoral Candidate
Human Development and Family Studies
Michigan State University
Email: carykyla@msu.edu
Michigan State University occupies the ancestral, traditional, and contemporary lands of the Anishinaabeg, Oijbwe, Odawa, and Potawatomi peoples. The university resides on land ceded in the 1819 Treaty of Saginaw.

Research Participant Information and Consent Form

Study Title: Women & Online Objectification
Researcher: Megan Maas
Department and Institution: Human Development and Family Studies, Michigan State University
Contact Information: maasmeg1@msu.edu

BRIEF SUMMARY

You are being asked to participate in a research study conducted by Dr. Megan Maas in the Department of Human Development and Family Studies at Michigan State University. Your participation in this study is entirely voluntary and your consent is solely being recorded for the purpose of documenting the research you produce. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a study of the impact of online experiences. Your participation will take approximately 30 minutes. You will be asked to complete an online survey.

We are taking measures to keep your privacy secure. There will be no harm that can come to you, but if at any time you feel uncomfortable you may withdraw from the study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the understanding of how women's online experiences impact outcomes such as body image and mental health.

PURPOSE OF RESEARCH

The purpose of this research is to explore women's online experiences, body image, and mental health. Your participation in this study will take about 30 minutes, during which time you will be asked to complete an online survey. The information that you provide will be used to improve the ways we educate and empower girls and women. In order to be eligible for this study, you must be an MSU student, identify as a woman, and be between 18-26 years of age.

WHAT YOU WILL BE ASKED TO DO

If you agree to participate in the research, you will be asked to complete the survey instrument with questions about your online experiences. The survey should take no longer than thirty minutes to complete. You may skip over any questions that you do not feel comfortable answering, and you may withdraw from the study at any time by simply closing out of the survey website.

No one will have access to these data except for the researchers and the Michigan State University Human Research Protection Program. All information is anonymous and confidential.

POTENTIAL BENEFITS
You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the understanding of how women's online experiences impact outcomes such as body image and mental health.

POTENTIAL RISKS
There are minimal risks associated with this research. One reasonably foreseeable risk with survey research is loss of confidentiality. Given this is an anonymous, web-based survey, this likelihood of this risk is very minimal. Your participation is anonymous, and your privacy will be maintained. All survey responses are confidential, and you will not be asked to provide any potentially identifying information. Moreover, as the survey is web-based, you may complete the survey in whatever location is considered private to you. Data will be stored on secure password protected servers and will only be accessed by trained research staff.

A second foreseeable risk is that you will be asked to recall potentially distressing experiences of online sexual objectification (e.g., online harassment or solicitation). For example, one survey question asks, "How often have you received unwanted sexual messages from someone online even after you have asked them to stop?" Remember that you are able to skip over any survey items that you wish, and you may withdraw from the study at any time without penalty simply by closing out of the survey website window. Should you wish to speak with someone about your survey responses, please contact MSU counseling sources:

Counseling and Psychiatric Services crisis counseling: Call (517) 355-8270 and press 1 at the prompt to speak with a crisis counselor.
Center for Survivors Sexual Assault Healthcare Program**, online crisis chat, and crisis hotline:** Call (517) 372-6666 to reach the crisis hotline or visit centerforsurvivors.msu.edu for crisis chat.
Safe Place **relationship violence and stalking resources:** Call (517) 355-1100.

PRIVACY AND CONFIDENTIALITY
No one will be aware of your participation or have access to your responses other than the researchers and the Michigan State University Human Protection Program (HRPP). The following steps will be taken to provide your confidentiality:

You will not be asked to provide any identifying information such as your name, date of birth, street address, etc. In addition, the information that you provide will be aggregated in subsequent research reports and publications.

The data collected for this research study will be maintained on a password protected computer on the campus of Michigan State University for a minimum of three years after

the close of the project. Only the appointed researchers and the Human Research Protection Program (HRPP) will have access to the collected and anonymized data.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW
As stated earlier, your participation is completely voluntary. It is your choice whether or not you consent to participate. If you do choose to participate, you can withdraw from the study at any time. You may refuse to answer certain questions, to skip them, or to terminate the study at any point.

COSTS AND COMPENSATION FOR BEING IN THE STUDY
There are no costs of participating in this study. There will be no payment for your participation.

CONTACT INFORMATION
If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact Megan Maas, Ph.D., Human Development & Family Studies, 552 W. Circle Drive 13D Human Ecology, East Lansing, MI, 517-432-3325, email maasmeg1@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 1-517-355-2180, Fax 1-517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Road, Ste. 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT
By selecting, "I am over the age of 18 and agree to participate", you indicate your voluntary agreement to participate in this research and have your answers included in the data set.

APPENDIX H: STUDY 2 SURVEY ITEMS

Demographic Information

8. What is your age?
9. What race do you consider yourself to be? (Check all that apply)
   - American Indian or Alaskan Native
   - Asian
   - Black/African American
   - Middle Eastern/North African
   - White/Caucasian
   - Other, please specify
10. Are you of Spanish, Hispanic, or Latino origin or descent?
    - Yes
    - No
11. What is your gender identity?
    - Male
    - Female
    - Trans man
    - Trans woman
    - Genderqueer/Gender non-conforming
    - Not on the binary
    - Other, please specify
12. What is your sexual identity?
    - Asexual
    - Bisexual
    - Gay or lesbian
    - Heterosexual/Straight
    - Mostly heterosexual/Straight
    - Queer
    - Questioning or unsure
    - Other, please specify
13. How would you describe your current romantic relationship status?
    - Newly single (Romantic relationship ended less than 3 months ago)
    - Single
    - Casually dating one partner
    - Casually dating multiple partners
    - In a monogamous relationship
    - In a polyamorous relationship or consensual non-monogamous relationship
    - Cohabitating
    - Married
    - Divorced
    - Widowed

Online Sexual Objectification Experiences Scale

Instructions: For this scale, think of experiences you have had while online (using social media, visiting blogs, using dating apps, etc.). Additionally, think of messages you have received through Facebook messenger, in direct messages on any app (e.g., Instagram, Twitter, Tinder), within a chat room, or comment section (from posted articles, status updates, photos, or videos). These experiences may have occurred while you were using apps on your smart phone or while using a tablet/laptop/desktop computer. Please respond to each question with how often you have experienced the item in the last year.

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = almost always

Body Evaluation
1. How often have you received a public comment that was sexual on a posted photo of your body?
2. How often have you received a private message that was sexual discussing your body?
3. How often has someone made a rude or hurtful comment that was sexual about your body online?
4. How often has another person insulted you by calling you unattractive online?
5. How often has another person made a negative comment about your physical appearance online?

Unwanted Sexual Solicitation
6. How often have you received **unwanted** messages online asking about your sexual experience?
7. How often have you received **unwanted** messages online asking about what sexual behaviors you like?
8. How often have you received **unwanted** messages online asking you to send nude photos or videos or to engage in camming?
9. How often have you received **unwanted** messages online telling you what sexual behaviors they want to do to you?
10. How often have you received **unwanted** messages online asking you to do sexual behaviors offline?
11. How often have you received **unwanted** nude or partially nude photos or videos of someone else?
12. How often have you received **unwanted** messages online asking you to describe your body or sex organs?
13. How often have you received **unwanted** sexual messages from someone online even after you have asked them to stop?
14. How often have you experienced sexual harassment online?
15. How often has another person called you a "slut", "whore", or something similar in a message or comment online?

In-direct Objectification
16. How often have you viewed **unwanted** sexual or pornographic images online due to pop-ups or advertisements?
17. How often has pornographic content, a sexually explicit meme, or something similar shown up in your social media feed/email/etc.?

18. How often have you read a sexual comment posted to a photo of another woman's body?
19. How often have you seen another person call a woman a "slut", "whore", or something similar in a message or comment online?
20. How often have you experienced sexual or offensive screennames online?
21. How often have you experienced sexual personal information posted by another person online?

Interpersonal Sexual Objectification Scale

Instructions: Please think carefully about your experiences in the past year as you answer the questions below.

1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Almost Always

1. How often have you been whistled at while walking down a street?

2. How often have you noticed someone staring at your breasts when you are talking to them?

3. How often have you felt like or known that someone was evaluating your physical appearance?

4. How often have you felt that someone was staring at your body?

5. How often have you noticed someone leering at your body?

6. How often have you heard a rude, sexual remark made about your body?

7. How often have you been touched or fondled against your will?

8. How often have you been the victim of sexual harassment (on the job, in school, etc.)?

9. How often have you been honked at when you were walking down the street?

10. How often have you seen someone stare at one or more of your body parts?

11. How often have you overheard inappropriate sexual comments made about your body?

12. How often have you noticed that someone was not listening to what you were saying, but instead gazing at your body or a body part?

13. How often have you heard someone make sexual comments or innuendos when noticing your body?

14. How often has someone grabbed or pinched one of your private body areas against your will?

15. How often has someone made a degrading sexual gesture towards you?

Self-Objectification Questionnaire

          We are interested in how people think about their bodies. The questions below identify 10 different body attributes. We would like you to *rank order* these body attributes from that which has the *greatest impact* on your view of your body (rank this as a "10"), to that which has the *least impact* on your view of your body (rank this as a "1").

          Note: It does not matter *how* you describe yourself in terms of each attribute. For example, fitness level can have a great impact on your view of your body of whether you consider yourself to be physically fit, not physically fit, or any level in between.

          Please consider all attributes simultaneously, and record your rank ordering by writing the ranks in the rightmost column.

IMPORTANT: *Do not assign the same rank to more than one attribute.*

10 = greatest impact
9 = next greatest impact
.
.
.
2 = next to least impact
1 = least impact

When considering *how you view your body,* what rank do you assign to….

_____ physical coordination

_____ health

_____ weight

_____ strength

_____ sex appeal

_____ physical attractiveness

_____ energy level (e.g., stamina)

_____ firm/sculpted muscles

_____ physical fitness level

_____ measurements (e.g., chest, waist, hips)

Thin/Low Body Fat Subscale – SATAQ-4R

Instructions: How much do you agree with each of the following statements?

1 = definitely disagree, 2 = mostly disagree, 3 = neither agree nor disagree, 4 = mostly agree,

5= definitely agree

1. I want my body to look very thin
2. I think a lot about looking thin
3. I want my body to look very lean
4. I think a lot about having very little body fat

Objectified Body Consciousness Scale: Body Surveillance & Body Shame Subscales

Instructions: Select the response that corresponds to how much you agree with each of the following statements.

(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

1. I rarely think about how I look

2. When I can't control my weight, I feel like something must be wrong with me

3. I think it is more important that my clothes are comfortable than whether they look good on me

4. I feel ashamed of myself when I haven't made the effort to look my best

5. I think more about how my body feels than how my body looks

6. I feel like I must be a bad person when I don't look as good as I could

7. I rarely compare how I look with how other people look

8. I would be ashamed for people to know what I really weigh

9. Even when I can't control my weight, I think I'm an okay person

10. During the day, I think about how I look many times

11. I never worry that something is wrong with me when I am not exercising as much as I should

12. I often worry about whether the clothes I am wearing make me look good

13. When I'm not exercising enough, I question whether I am a good person

14. I rarely worry about how I look to other people

15. I am more concerned with what my body can do than how it looks

16. When I'm not the size I think I should be, I feel ashamed

PROMIS Depression – Short Form 6a

Instructions: Please respond to each question or statement by selecting one of the provided options.

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

In the past 7 days…

1. I felt worthless
2. I felt helpless
3. I felt depressed
4. I felt hopeless
5. I felt like a failure
6. I felt unhappy

PROMIS Anxiety – Short Form 6a

Instructions: Please respond to each question or statement by selecting one of the provided options.

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

In the past 7 days…

1. I felt fearful
2. I found it hard to focus on anything other than my anxiety
3. My worries overwhelmed me
4. I felt uneasy
5. I felt nervous
6. I felt like I needed help for my anxiety

Satisfaction with Life Scale

Instructions: Please rate how much you agree with the following statements.

(1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

1. In most ways, my life is close to ideal
2. The conditions of my life are excellent
3. I am satisfied with my life
4. So far, I have gotten the important things I want in life
5. If I could live my life over, I would change almost nothing