



The Relational Burden of Objectification: Exploring How Past Experiences of Interpersonal Sexual Objectification Are Related to Relationship Competencies

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Abstract

The present study examines the associations between past experiences of interpersonal sexual objectification (ISO) on relationship initiation, social withdrawal, and positive relationships (which we refer to as relationship competencies). Consistent with objectification theory, we predicted that ISO would be associated with self-objectification, which would then be associated with body shame, appearance anxiety, and stress. In turn, these negative affect variables would be negatively associated with relationship competencies. Data were collected from 392 U.S. college students ($M = 21.42$ years, $SD = 4.03$; 32.9% male, 66.8% female). Results show that men and women's ISO was consistently associated with self-objectification, which was associated with negative affect; direct effects revealed that men's and women's ISO was positively associated with relationship initiation. For women, self-objectification, appearance anxiety, and stress serially mediated the associations between ISO and all relationship competencies. For men, self-objectification and appearance anxiety serially mediated the associations between ISO and relationship initiation and social withdrawal whereas self-objectification and stress serially mediated the associations between ISO and social withdrawal and positive relationships. For both women and men, evidence did not support body shame being a link in the serial mediation from ISO to relationship competencies. Results are unpacked illustrating the relational burden of objectification.

Keywords Interpersonal sexual objectification · Self-objectification · Relationship competence · Gender

It could be argued that we live in a world where a woman's lived experience often means being evaluated by the physical self. These messages are often reinforced in our society through different outlets, such as the media (Aubrey and Frisby 2011), and through women's lived experiences, including sexist comments, whistling, catcalling (Swim et al. 1998), other's evaluations of their bodies, and explicit sexual advances against their will (Kozee et al. 2007). Aligning with society's expectations, many women come to view themselves based on the observer's perspective and focus on specific parts of their bodies, a term called *self-objectification*

(Fredrickson and Roberts 1997). Self-objectification is the main construct of objectification theory, which posits that women suffer negative consequences (e.g., unipolar depression, sexual dysfunction, and eating disorders) by living in a culture that objectifies their bodies (Fredrickson and Roberts 1997). Individuals can experience state and trait self-objectification. Specifically, state self-objectification is a situationally induced, fleeting experience that can be elicited in sexually objectifying situations, whereas trait self-objectification is an enduring trait in which individuals experience a chronic preoccupation with their bodies and appearance (Miner-Rubino et al. 2002). Both men and women have self-objectifying tendencies, yet women continue to self-objectify to a significantly greater degree (Oehlhof et al. 2009).

Decades of objectification research have shown consistent and negative effects from self-objectification. Much of this research has been based on correlational and experimental work that explores media use and self-objectification (see Karsay et al. 2018, for a review) as well as *intrapersonal* consequences (see Tiggemann 2011, for a review).

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However, scholars have recently begun to explore the *interpersonal* associations of self-objectification and validated the concept of *interpersonal sexual objectification* (ISO). ISO is defined as evaluation of one's body in interpersonal contexts and unwanted explicit sexual advances (Kozee et al. 2007). As objectification theory posits (Fredrickson and Roberts 1997), self-objectification, which can be elicited from experiences of ISO, plays a role in making women believe that their worth is based on their bodies. Therefore, ISO can be understood as a precursor to self-objectification (Roberts et al. 2018). Although state self-objectification could be amplified by sexually objectifying interactions, in the present study, we propose that one's past experiences with ISO contribute to one's trait levels of self-objectification.

In light of this reasoning, a deeper understanding of the relational associations of ISO is needed. Of interest to the present study are the associations between past experiences of ISO and three relationship competencies (e.g., relational initiation, social withdrawal, and having positive relationships with others). Consistent with objectification theory (Fredrickson and Roberts 1997), we test a serial mediation model, which predicts that past experiences of ISO are associated with self-objectification, which, in turn, is associated with negative affect (i.e., body shame, appearance anxiety, stress). We explore whether such underlying mechanisms explain the association between past experiences of ISO on relationship competencies.

Objectification Theory

Fredrickson and Roberts (1997, p. 174) define sexual objectification as “the experience of being treated as a body (or collection of body parts) valued predominantly for its use to (or consumption by) others.” Objectification embodies separating the person, with all their traits and personality, from the body, viewing them primarily as a physical instrument that is manipulated and used for one's own pleasure. Similarly, sexual objectification refers to separating a person's body parts from their person and ultimately viewing their sexual body parts as fully representing that person (Bartky 1990). The theory argues that women and girls are specifically socialized to anticipate an outsider's perspective of themselves.

Recent work has explored the context of sexual objectification interpersonally, with interpersonal sexual objectification (ISO). ISO can range from objectifying gazes of one's body parts and catcalling, which are body evaluations, to grabbing or pinching private body areas against one's will, which are unwanted explicit sexual advances (Kozee et al. 2007). Both men and women report experiencing forms of ISO (Kozee et al. 2007), but women experience it more frequently, almost on a daily basis (Holland et al. 2017), and experience greater consequences from ISO than men (Gervais et al.

2011). Indeed, Roberts et al. (2018) suggested that these interpersonal sexually objectifying experiences are linked to self-objectification as a constant state of mind. In other words, past experiences of ISO can predict a more chronic feeling of evaluating the self as an object for others to view.

Outcomes of Interpersonal Sexual Objectification

The existing research on the outcomes of ISO is rather sparse. Still, scholars have found that past experiences of ISO can lead to insidious trauma (Miles-McLean et al. 2015) and a justification of violence against women (Cheeseborough et al. 2020). Other scholars have found that ISO is related to body shame (Calogero et al. 2009; Moradi et al. 2005), body surveillance, and eating disorder symptoms via an internalization of beauty standards (Moradi et al. 2005).

These findings have a few important implications. First, ISO can make individuals evaluate themselves in the same manner that others seem to be evaluating them interpersonally. ISO may even make individuals grow concerned for their safety. Further, ISO makes individuals aware of their appearance and motivates them to seek ways that conform to a socially acceptable appearance. Despite these negative outcomes, little is known about how ISO can be associated with one's relationship competencies. Specifically, we suggest that ISO may be a precursor to self-objectification (Roberts et al. 2018), which could ultimately explain relationship competencies. Such an association is likely to unfold via intrapersonal processes.

Self-Objectification and Intrapersonal Outcomes

Compared to ISO, research on the intrapersonal outcomes of self-objectification is abundant and well-established. Some experimental studies focus on reduced cognitive capacity from self-objectification. Two foundational experiments are relevant to consider in this context. The first study had women come into a lab and put on a sweater or a swimsuit (Fredrickson et al. 1998). Women in the swimsuit condition reported higher levels of self-objectification which, in turn, diminished their performance on a math test. The second influential experiment found that female adolescents with higher trait levels of self-objectification had poorer throwing performance with a softball, thus indicating that self-objectification can even limit physical activity likely because girls and women can be too focused on their appearance (Fredrickson and Harrison 2005). Since these studies, more work has continued to demonstrate reduced flow states that can result from self-objectification (Quinn et al. 2011). Such studies demonstrate

the reduced cognitive resources from self-objectification that can transfer to other areas. Therefore, we posit that reduced relationship competencies can be another area that can result from these reduced cognitive capacities.

The second intrapersonal focus from self-objectification is related to mental health. Indeed, a meta-analysis demonstrated a positive and moderate association between self-objectification and disordered eating (Schaefer and Thompson 2018). Other cross-sectional work has demonstrated that self-objectification is associated with increased depressive symptoms, sexual dysfunction, and reduced life satisfaction (Mercurio and Landry 2008; Tiggemann 2011). Considering the disruptive effects of mental health issues on one's social interactions, social skills, and relationships (e.g., through generating interpersonal stressors; Segrin 2001), we posit that such experiences resulting from ISO and self-objectification can relate to negative relationship competencies.

Self-Objectification and Interpersonal Outcomes

A few noteworthy studies have provided evidence linking self-objectification as an antecedent to interpersonal outcomes. Garcia et al. (2016), for instance, conducted a study which found that men who reported having sexually objectified their female partner in an interpersonal scenario increased the female partners' state self-objectification, which led to the women feeling uncomfortable and less authentic in a conversation. A different study examined the consequences of sexual objectification on social interactions in an experimental setting (Saguy et al. 2010). Participants were first instructed to introduce themselves to a partner (male or female) with a recording that could include one of three conditions: a video recording from the neck down, a video recording from the neck up, or a simple audio recording. Women who were in the video recording from the neck down condition and who thought that they were being recorded for a man spent less time talking and also experienced the most discomfort compared to participants in the other conditions.

Other scholars have expanded on this area of objectification research by examining the role of self-objectification in romantic relationships. In their experiment, Sanchez and Broccoli (2008) found that when single women thought of a situation that involved some sort of interaction or romance, they were more likely to think of what their bodies looked like to other people. Indeed, regardless of gender, people who are in romantic relationships and also self-objectify experience decreased relational quality and increased distress (Sanchez and Broccoli 2008; Teng et al. 2019). For example, Strelan and Pagoudis (2018) found that the more people objectified

their partner, the more likely it was that their partner reported low relational quality.

Connecting ISO and Relationship Competencies

Despite the growing body of work on the interpersonal correlates of self-objectification, we believe there are a few important gaps to address. First, most studies reviewed thus far have focused on the effects of self-objectification or objectification in general, but more research is needed to understand the relational correlates of ISO. Second, objectification studies that explore interpersonal outcomes have mostly focused on romantic relationships and have not examined general relationships. It is likely that scholars have mostly focused on romantic relationships because they require significantly more relational maintenance, garner higher expectations among relational partners (Fuhrman et al. 2009), and include a sexual component (Hazan and Shaver 1987). Therefore, past experiences of ISO may be associated with more sexual outcomes relating to romantic partners, such as sexual dysfunction or less sexual agency within their romantic relationships (Steer and Tiggemann 2008).

Although individuals, college students especially, can experience different romantic relationships, friendships can be more constant, are constantly being formed, and are described as “need-fulfilling networks” across young adulthood (Carbery and Buhrmester 1998, p. 393). As such, ISO may be a completely different experience within friendships. Thus, we selected three outcomes to broadly capture one's general relationship competencies, including interpersonal initiation competence (i.e., competently pursuing new relationships), social withdrawal (i.e., constraining oneself from close relationships), and positive relationships (i.e., maintaining rewarding relationships). Together, these constructs conceptualize general competence in pursuing and maintaining healthy relationships.

We selected the three relationship competence variables as they relate to ISO for a few reasons. The first set of reasons is in line with objectification theory. First, ISO can be a cognitively taxing experience (Fredrickson and Roberts 1997), which could leave fewer resources to the establishment and maintenance of relationships. Second, objectification is also related to negative affect (Fredrickson and Roberts 1997), which could then transfer to relationships with others as well as relational initiation. We posit that ISO may relate to these three relational constructs because individuals could be overly focused on their appearance, which may relate to other related feelings about how individuals feel about themselves but could also be a barrier to having more positive relational experiences.

The second set of reasons is in accordance with previous findings about the interpersonal outcomes of ISO. First, ISO can often make individuals feel skeptical of others' intentions and become fearful for their safety (Fairchild and Rudman 2008). Similarly, other research has found that increased sexually objectifying experiences predict a higher probability of sexual victimization (Franz et al. 2016). Therefore, rather than feeling confident in developing and maintaining their own relationships, people could withdraw from relationships when they seek to feel a sense of stability and safety. Second, experimental work has demonstrated that when women anticipated an objectifying male gaze (compared to a female gaze or no gaze), this gaze not only increased their body shame, but also increased their social physique anxiety (Calogero 2004). That is, ISO can make individuals feel anxious about what they look like. To avoid this feeling of discomfort in the future, individuals could then choose to avoid relationships in general. Finally, experimental research has found that when women feel that they are objectified by men, they spend less time talking (Saguy et al. 2010) and when women are actually objectified by men in interpersonal scenarios, women perceive a lack of authenticity and feel uncomfortable (Garcia et al. 2016). Thus, ISO can be an experience that makes people become fixated on taking a third-person perspective of their bodies and increase levels of discomfort. In turn, the relationships these people have can become rather superficial or nonexistent.

The final set of reasons we selected the relationship competency variables from ISO is in accordance with the literature in the psychology of emotions. Consequences from anxiety, shame, and stress, which are outcomes from sexually objectifying experiences (Fredrickson and Roberts 1997; Roberts et al. 2018) include a desire to hide (Blum 2008), social anxiety (Rüsch et al. 2009), and a tendency to avoid contact with others (Ferguson et al. 1999).

Shame is experienced when an individual violates social conventions (e.g., does not have a socially desirable appearance; Lewis 2000). *Body shame* pertains to what the body looks like to others, and those who experience it consider their bodies to be a reflection of a bad self. Body shame has been consistently found to mediate the relationship between self-objectification and mental health outcomes, such as eating disorders and depression (see Moradi and Huang 2008, for a review), likely because individuals are constantly assessing aspects of their bodies with which they experience discontent. In turn, they can become shameful of their imperfections and fearful of other people shaming their bodies the way they do. Therefore, individuals could become distant in their relationships.

Individuals who are high in *appearance anxiety* have a “fear of situations in which one’s overall appearance, including but not limited to body shape, may be evaluated” (Hart et al. 2008, p. 49). This anxiety may occur when individuals

think about how others with whom they will interact will evaluate their appearance. As such, appearance anxiety could serve as the mechanism behind ISO and the relational outcomes examined because ISO makes people aware that others are paying attention to their appearances through body evaluation and sexual advances, which can make individuals feel anxious that their appearances are constantly under watch.

Finally, similar to anxiety is the idea of *stress*. Objectification itself is already a stressful process (Watson et al. 2015). General stress, rather than stress relating to the body, could make people want to avoid more stressful situations that could stem from their relationships. In fact, stress could come to make people more antisocial in nature (Vaske and Boisvert 2014). Past experiences of ISO could make individuals feel stressed because they feel that their appearance is not constantly under control or that they are being looked at when their appearance is not what they want it to be. Therefore, we propose that these three negative affect variables—body shame, appearance anxiety, and stress—can explain the connections between ISO and relationship competencies.

The Present Study

In the present study, we test a model that is in line with objectification theory's (Fredrickson and Roberts 1997) predictions but adds relationship competencies to the model. In our four-stage hypothesized model, we predict that past experiences of ISO will be associated with trait self-objectification. In turn, self-objectification will be associated with negative affect (i.e., body shame, appearance anxiety, and stress). A main contribution of the present study is that we add relationship competencies (e.g., relationship initiation, social withdrawal, and positive relationships) as the fourth stage of the model, thus testing the direct effects of the negative affect variables on relationship competencies, but central to objectification theory, testing the indirect effects of both ISO and self-objectification on relationship competencies. In line with Fredrickson and Roberts (1997), then, we propose that ISO can be associated with relationship competencies in a negative way that makes people more distant.

Although both men and women can suffer from such consequences, women report higher levels of self-objectification with more long-lasting and severe outcomes than men do (Oehlhof et al. 2009), and women also report experiencing more frequent ISO than men (Gervais et al. 2011). Thus, we predict that the hypothesized model will be moderated by gender, such that the association between ISO and relationship competencies will be stronger for women than men (Hypothesis 1).

Our other set of hypotheses proposes that the associations between ISO and relationship competencies will be serially mediated by self-objectification and the negative affect

variables. We first test the component paths of the 4-stage model, and then we test the relevant serial mediation paths. The hypothesized model is shown in Fig. 1. We predict that the associations between ISO and relationship competencies will be serially mediated by self-objectification and body shame (Hypothesis 2), self-objectification and appearance anxiety (Hypothesis 3), and self-objectification and stress (Hypothesis 4).

Method

Participants

Upon approval from the university's Institutional Review Board, data were collected from 392 college students. They had a mean age of 21.42 years ($SD = 4.03$, range = 18–49). In total, 66.8% ($n = 262$) were female and 32.9% ($n = 129$), male; one individual indicated their gender as “other” (.3%). In terms of grade level, the sample was 4.8% ($n = 19$) first-year students, 26.0% ($n = 102$) sophomores, 34.2% ($n = 134$) juniors, 33.2% ($n = 130$) seniors, .3% ($n = 1$) non-degree seeking, and 1.5% ($n = 6$) other. The sample was 61.5% ($n = 241$) White, 16.6% ($n = 65$) Hispanic, 5.1% ($n = 20$) Asian, 4.6% ($n = 18$) African American, .5% ($n = 2$) Pacific Islander, .3% ($n = 1$) Native American, .8% ($n = 3$) other; 10.7% ($n = 42$) indicated more than one racial or ethnic background.

Procedures and Measures

Participants were recruited from Communication courses at a large U.S. university in exchange for course credit. Communication instructors informed students of the research participation opportunity, and students received a link to access the online survey. In total, 468 participants completed the survey. Responses from 76 participants were removed because they failed the attention check question(s). Thus, data from 392 participants were used for analyses. Participants completed the survey measures in the following order: self-objectification, relationship initiation competence, social withdrawal, positive relationships with others, ISO, body shame, appearance anxiety, stress, and demographic questions.

Self-Objectification Participants completed the 14-item Self-Objectification Beliefs and Behaviors Scale (SOBBS; Lindner and Tantleff-Dunn 2017) which assesses two dimensions of self-objectification: the observer's perspective (e.g., “I often think about how my body must look to others”) and body as self (e.g., “My physical appearance is more important than my physical abilities”). Participants were asked to rate their agreement with each statement on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All scores were averaged, with higher overall scores denoting a greater level of trait self-objectification ($\alpha = .90$).

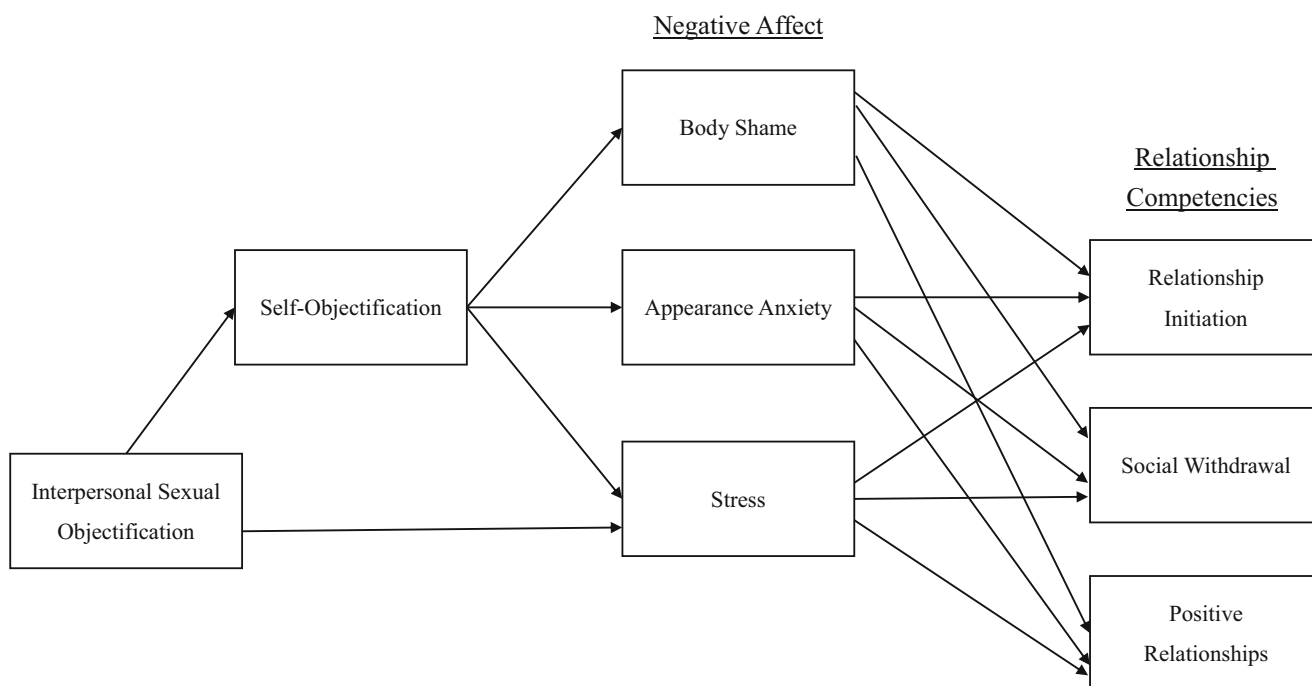


Fig. 1 Hypothesized model linking interpersonal sexual objectification, self-objectification, negative affect, and relationship competencies. We predicted that that the hypothesized model will fit female participants differently than male participants (hypothesis 1) and that the

associations between ISO and relationship competencies will be serially mediated by: Self-objectification and body shame (hypothesis 2), self-objectification and appearance anxiety (hypothesis 3), and self-objectification and stress (hypothesis 4)

Relational Initiation Competence Participants completed the eight-item Initiation subscale of the Interpersonal Competence Questionnaire (Buhrmester et al. 1988), which assesses individuals' competence in initiating interactions and relationships. Participants rated their competence and comfort level in dealing with the interpersonal situations (e.g., "Asking or suggesting to someone new that you get together and do something, e.g., go out together") on Levenson and Gottman's (1978) 5-point rating scale from 1 (*I'm poor at this; I'd feel so uncomfortable and unable to handle this situation, I'd avoid it if possible*) to 5 (*I'm EXTREMELY good at this; I'd feel very comfortable and could handle this situation very well*). All scores were averaged, with higher scores indicating higher relational initiation competence ($\alpha = .90$).

Social Withdrawal Participants completed the 16-item Social Withdrawal Subtypes (Nelson 2013) which assesses three features of social withdrawal: the act of being shy (e.g., "I feel tense in social situations"), avoidant (e.g., "I don't really like being with other people and prefer being alone"), and unsociable (e.g., "I don't have a strong need to be with other people"). Participants indicated their level of agreement with the items on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All scores were averaged, with a higher overall score indicating a greater level of social withdrawal ($\alpha = .90$).

Positive Relationships with Others Participants completed the nine-item Positive Relations with Others subscale of the Psychological Well-Being Scale (Ryff et al. 1999). Participants rated their agreement with all the items (e.g., "I enjoy personal and mutual conversations with family members or friends") on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All scores were averaged, with higher scores indicating better relationships with others ($\alpha = .84$).

Interpersonal Sexual Objectification Participants completed the 15-item Interpersonal Sexual Objectification Scale (ISOS; Kozee et al. 2007) which assesses individuals' experiences of being objectified by others from two dimensions: body evaluation (e.g., "How often have you been whistled at while walking down a street?") and unwanted explicit sexual advances (e.g., "How often has someone grabbed or pinched one of your private body areas against your will?"). Participants rated how frequently they had the experiences described in the items on a 5-point Likert-type scale from 1 (*never*) to 5 (*almost always*). All scores were averaged, with higher overall scores indicating a higher level of interpersonal self-objectification ($\alpha = .95$).

Body Shame Participants completed the eight-item Body Shame subscale of the Objectified Body Consciousness

Scale (McKinley and Hyde 1996), which assesses perceptions of shame associated with ones' physical appearance. Respondents indicated how much they agreed or disagreed with all the statements (e.g., "When I'm not the size I think I should be, I feel ashamed") on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All scores were averaged with a higher score indicating greater body shame ($\alpha = .86$).

Appearance Anxiety Participants completed the 16-item Social Appearance Anxiety Scale (SAAS; Hart et al. 2008) which assesses anxiety of one's appearance being negatively evaluated by others. Participants indicated how accurately each item (e.g., "I am frequently afraid I would not meet others' standards of how I should look") describes them on a 5-point Likert scale from 1 (*not accurately at all*) to 5 (*extremely accurately*). All scores were averaged, with higher scores indicating greater appearance anxiety ($\alpha = .97$).

Stress Participants completed the 14-item Perceived Stress Scale (PSS; Cohen et al. 1983). Participants indicated how often they have experienced specific feelings and thoughts in the past month (e.g., "In the last month, how often have you been angered because of things that happened that were outside of your control?") on a 5-point Likert-type scale from 1 (*never*) to 5 (*almost always*). All scores were averaged, with higher scores indicating a greater level of perceived stress over the past month ($\alpha = .86$).

Control Variables Several possible covariates were measured, including Greek life affiliation (1 = yes, 0 = no), race (dummy-coded as White versus non-White and Hispanic versus non-Hispanic), and sexual orientation (dummy-coded as gay/bisexual versus all others). Given that our sample was drawn from a college campus with an active Greek system, we reasoned that Greek life affiliation would provide regular social opportunities that could affect relationship competencies, as well social events in which participants' bodies are regularly evaluated (Rolnik et al. 2010). We also reasoned that under-represented students in race and sexual orientation (non-White, LGBTQ) could experience more negative affect and have less access to social opportunities (Fisher and Hartmann 1995), whereas White and heterosexual students could have relatively more access to social opportunities.

Analysis Strategy

To test our model, we ran a four-stage path model using the Analysis of Moment Structures (AMOS) program. When constructing our model, we included all paths between the predictor and first stage of mediators (i.e., self-objectification), all paths between the first stage and second stage of mediators (i.e., negative affect variables), and all paths between the

second stage mediators and criterion variables (i.e., relationship competencies). We considered these the essential component paths of the model that were necessary to test the hypotheses. Initially, we fit a saturated model with all other paths also entered, but for parsimony, we trimmed the model of all nonsignificant paths, outside of the essential component paths, in one step. For hypothesis testing, in addition to the component paths of the model, we tested the serial mediation of ISO on relationship competencies through self-objectification and the negative affect variables. Bootstrapped serial mediation effects were tested with a user-defined estimand on AMOS (Gaskin 2019).

We took an empirical approach to adding demographic/background covariates to our model. After fitting our trimmed hypothesized model (as we described), we introduced four control variables: Greek life affiliation (whether participants were members of or in the midst of joining a fraternity or sorority), White ethnicity (dummy coded), Hispanic ethnicity (dummy coded), and identification as lesbian, gay, or bisexual (dummy coded). Of the four variables, we only retained those that exhibited statistically significant paths with at least one endogenous variable. We trimmed non-statistically significant paths in one step. Thus, we only retained the White dummy variable and Greek life affiliation as control variables in the model.

Because gender differences in the proposed relations was a central focus of our study, we ran multiple-group analyses to investigate whether the estimates in the model differed for men and women. A Chi-square difference test was utilized to test whether the model fit declined when estimates between men and women were constrained to be equal. Adequate fit was based on Hu and Bentler's (1999) recommendations: a normed Chi-square CMIN/df value not greater than 2.0, a comparative fit index (CFI) of .95 or higher, a root mean square error of approximation (RMSEA) less than .06, and a standardized root mean residual (SRMR) of .08 or less.

Results

Descriptive Analysis

Of interest to our study was whether there were gender differences in the associations between variables. Means, standard deviations, and independent *t*-test results for the study variables between male and female participants are shown in Table 1. Female participants reported significantly higher levels of ISO, self-objectification, body shame, appearance anxiety, and stress. No gender differences were observed in relational initiation, social withdrawal, or positive relationships with others.

Table 2 shows the zero-order correlations between the main study variables separately for male and female

participants. For both male and female participants, the predicted correlations were evidenced. In particular, ISO was positively correlated with self-objectification, self-objectification was positively correlated with the negative affect variables, and the negative affect variables were correlated in the predicted directions for the relationship competency variables.

Gender Differences in the Observed Models

A Chi-square difference test was used to determine if the unconstrained model exhibited a better fit than a model that constrained all paths, intercepts, and residual variances to be equivalent for male and female participants. Although the constrained model demonstrated an adequate fit to the data, $\chi^2(72) = 93.07, p = .048$ (CMIN/DF = 1.293, CFI = .982, RMSEA = .027, SRMR = .029), the unconstrained model demonstrated a better fit, $\chi^2(34) = 21.07, p = .959$ (CMIN/DF = .620, CFI = 1.000, RMSEA < .001, SRMR = .025). Moreover, the unconstrained model fit the data significantly better than the constrained model, $\chi^2_{\text{difference}}(38) = 72.00, p < .001$, suggesting that the model estimates were not equal between women and men. The unconstrained models are displayed in Fig. 2 (women) and Fig. 3 (men).

To understand more specifically how the model differed for female and male participants, we ran two additional multiple-group analyses. In the first, we constrained only paths between male and female participants that were in line with objectification theory's (Fredrickson and Roberts 1997) predictions. That is, we constrained the ISO → self-objectification path and the paths between self-objectification and each affect variable. The unconstrained model demonstrated a significantly better fit than the constrained model, $\chi^2_{\text{difference}}(6) = 19.43, p = .004$, suggesting that the size of the paths predicted by objectification theory (Fredrickson and Roberts 1997) were not equal between male and female participants. In Table 3, we compare the standardized estimates for each path between women and men. Objectification theory's paths were stronger for women than they were for men, with one exception: There was no gender difference in the size of the path estimate for self-objectification predicting stress (see Table 3a).

In the second multiple-group analysis, we examined whether the size of the "relational burden" estimates were non-equal between women and men (see Table 3b). That is, we constrained the nine paths between the three negative affect variables and the three relationship competency variables, in addition to the ISO → relationship initiation path. In that analysis, the difference in model fit between the male and female participants was *not* statistically significant, $\chi^2_{\text{difference}}(10) = 11.93, p = .290$. Thus, the associations between negative affect and relationship competencies were generally equal between men and women. However, as seen

Table 1 Descriptive statistics and comparisons of male and female participants across study variables

Variable	Actual Range	Male Participants (<i>n</i> = 129)		Female Participants (<i>n</i> = 262)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
1. Self-objectification	1–6.50	3.54	.90	3.86	1.14	–2.97	.003	.31
2. ISO	1–4.27	1.44	.46	2.04	.77	–9.68	<.001	.95
3. Body shame	1–7	3.28	1.10	3.77	1.44	–3.73	<.001	.38
4. Appearance anxiety	1–5	2.03	.89	2.46	1.07	–4.20	<.001	.44
5. Stress	1.50–4.79	2.75	.54	3.01	.54	–4.39	.001	.48
6. Relational initiation	1–5	3.37	.84	3.46	.81	–1.02	.310	.11
7. Withdrawal	1.14–6.50	3.49	1.05	3.63	1.00	–1.24	.217	.14
8. Positive relations	2.22–7	5.25	1.03	5.29	1.09	–.40	.687	.04

Note. ISO = Interpersonal Sexual Objectification

in Table 3b, the path-level comparisons between men and women showed that the link between ISO and relationship initiation was stronger for men than it was for women.

Taken together, the multiple group analyses generally support gender as a moderator in the model for the group of paths we described as objectification theory's tests; however, gender was not a moderator for the group of paths testing the relational burden links. Thus, Hypothesis 1 was partially supported.

ISO, Self-Objectification, Body Shame, and Relationship Competencies

To address Hypothesis 2, we examined the paths between ISO and self-objectification, self-objectification and body shame, and body shame and relationship competencies. For female and male participants, ISO was positively correlated with self-objectification, which was positively associated with body shame. For women, body shame was positively associated with relationship initiation (which was opposite in direction to our prediction), but it was not related to social withdrawal

or having positive relationships with others. Body shame was not associated with the relationship competency variables for men. Thus, although the main tenets of objectification theory (Fredrickson and Roberts 1997) were supported, body shame was not related to relationship competencies with only one exception. In that case, unexpectedly, the path model shows that body shame was positively associated with relationship initiation. Although the zero-order correlation between body shame and relationship initiation was negative ($r = -.18$, $p = .004$, Table 2), the sign switched when the path coefficient is calculated ($b = +.15$, $p = .043$, Fig. 2). We view this as a case of suppression. Thus, it is likely that body shame contains variance in common with relationship initiation, but to a lesser degree than the variance that body shame has in common with ISO and self-objectification, and the latter relationships appear to be irrelevant to the explanation of relationship initiation (Maassen and Bakker 2001; MacKinnon et al. 2007). We do not view this as evidence in opposition to Hypothesis 2, nor do we consider it evidence in support of Hypothesis 2.

We also examined serial mediation effects (ISO → self-objectification → body shame → relationship competencies).

Table 2 Correlations between study variables

Variables	Correlations							
	1.	2.	3.	4.	5.	6.	7.	8.
1. Self-objectification	–	.25***	.63***	.67***	.43***	–.15*	.13*	–.30***
2. ISO	.22*	–	.19**	.22***	.24***	.06	.03	–.07
3. Body shame	.46***	.17	–	.69***	.46***	–.18**	.17**	–.33***
4. Appearance anxiety	.51***	.03	.48***	–	.50***	–.33***	.30***	–.41***
5. Stress	.29**	.09	.45***	.58***	–	–.40***	.34***	–.41***
6. Initiation	–.10	.24**	–.20*	–.45***	–.32***	–	–.61***	.56***
7. Withdrawal	.13	–.03	.22*	.40***	.35***	–.61***	–	–.55***
8. Positive relations	–.21*	–.06	–.34***	–.45***	–.50***	.55***	–.61***	–

Note. ISO = Interpersonal Sexual Objectification. Correlations for female participants are above the diagonal; for male participants, below

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

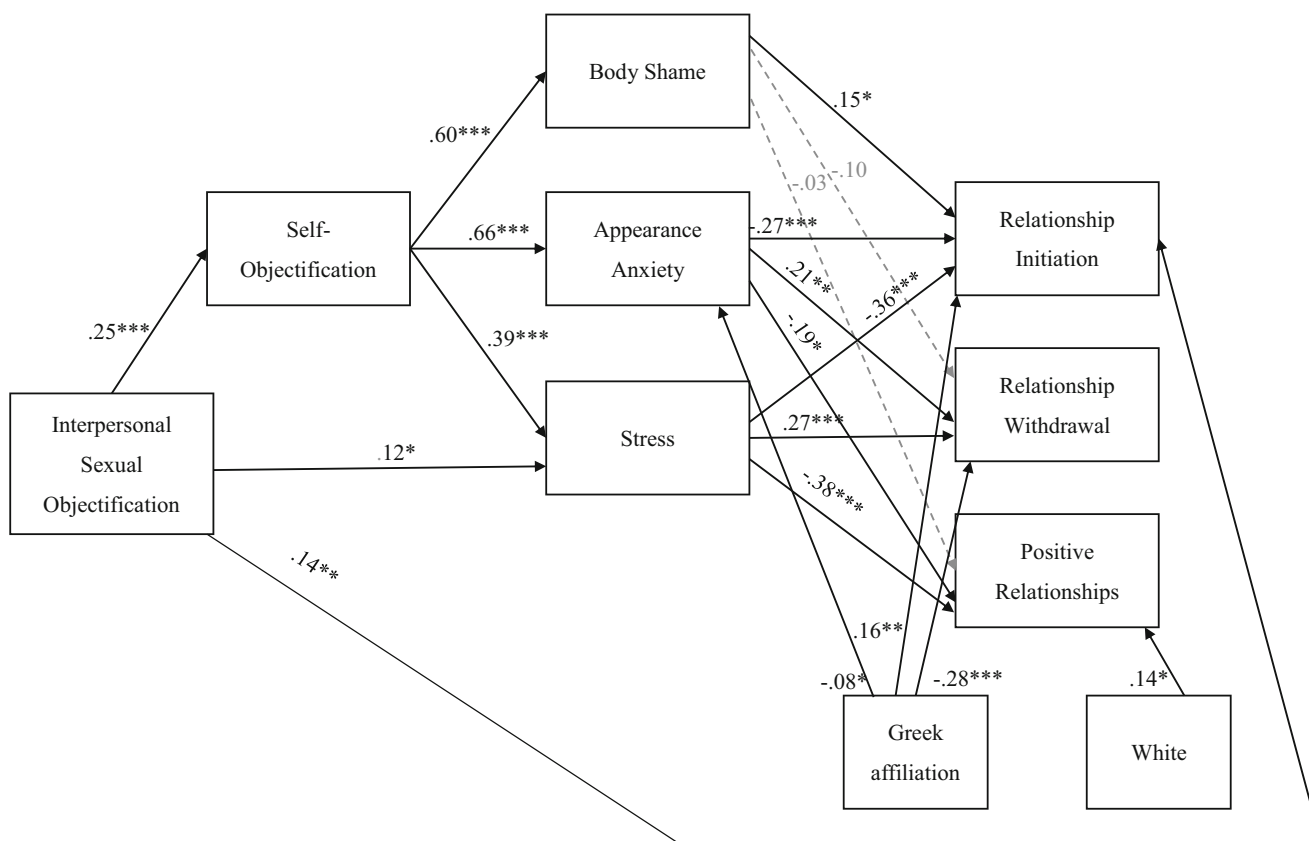


Fig. 2 Observed model examining interpersonal sexual objectification, self-objectification, negative affect, and relationship competencies for female participants. As predicted by objectification theory, interpersonal sexual objectification was related to self-objectification, which was in turn related to body shame, appearance anxiety, and stress. Body shame was not related to social withdrawal or positive relationships, but it was

related to relationship initiation. Appearance anxiety and stress were predictive of all three relationship competency variables. Standardized path coefficients reported. Grey, dashed paths are not statistically significant ($p \geq .05$). Greek affiliation was coded as 1 = member of fraternity/sorority and 0 = non-member. White was coded as 1 = White, 0 = non-White. * $p < .05$. ** $p < .01$. *** $p < .001$

The serial mediation effects for both men and women are reported in Table 4. Although there was a serial mediation effect for relationship initiation for female participants (again in the opposite direction), the remaining serial mediation effects were not statistically significant. Thus, Hypothesis 2 was not supported.

ISO, Self-Objectification, Appearance Anxiety, and Relationship Competencies

To address Hypothesis 3, we examined the component paths of the serial mediation model for ISO → self-objectification → appearance anxiety → relationship competencies. As we already reported, ISO and self-objectification were positively correlated for female and male participants. Self-objectification was positively associated with appearance anxiety. For women, in line with our prediction, appearance anxiety was positively correlated with social withdrawal and negatively correlated with relationship initiation and positive relationships with others. For men, appearance anxiety was negatively correlated with relationship initiation, whereas the relationship between

appearance anxiety and social withdrawal was not significant ($p = .07$). However, appearance anxiety was not correlated with having positive relationships with others.

Additionally, for female participants, the serial mediation effects for all three relationship competency variables were statistically significant. As predicted, the relationships between ISO and (a) relationship initiation, (b) social withdrawal, and (c) positive relationships were serially mediated by self-objectification and appearance anxiety, as can be observed from Table 4a. For male participants, there was evidence of serial mediation for relationship initiation and social withdrawal, but not for positive relationships with others, as can be observed in Table 4b. Thus, Hypothesis 3 was supported for women and partially supported for men.

ISO, Self-Objectification, Stress, and Relationship Competencies

Finally, for Hypothesis 4, we found again, for women, that ISO was positively associated with self-objectification, self-objectification was positively correlated with stress, and as

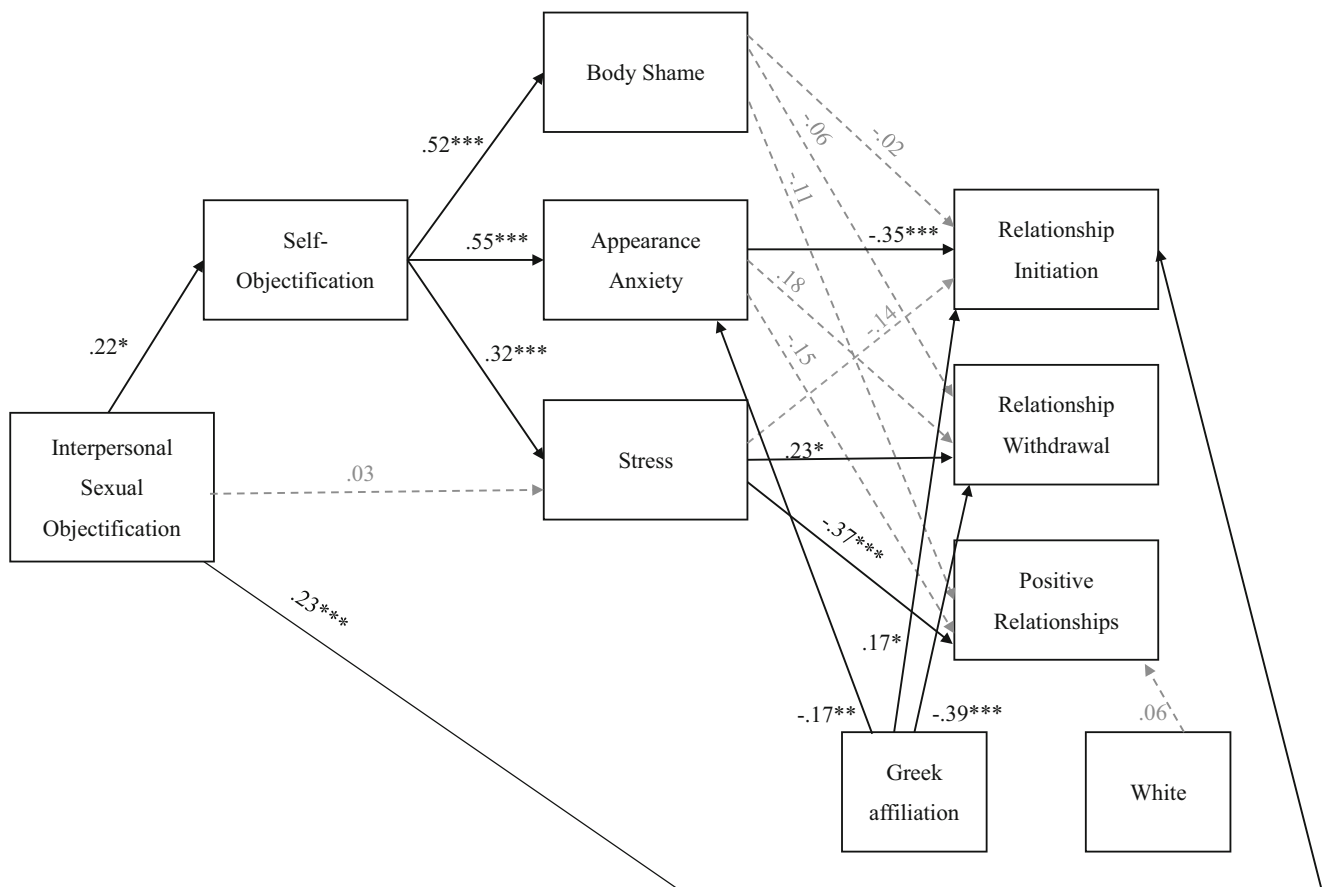


Fig. 3 Observed model examining interpersonal sexual objectification, self-objectification, negative affect, and relationship competencies for male participants. The paths predicted by objectification theory were supported. However, the affect variables were more inconsistently related to the relationship competency variables than they were for

female participants. Standardized path coefficients reported. Grey, dashed paths are not statistically significant ($p \geq .05$). Greek affiliation was coded as 1 = member of fraternity/sorority and 0 = non-member. White was coded as 1 = White, 0 = non-White. * $p < .05$. ** $p < .01$. *** $p < .001$

predicted, stress was positively correlated with social withdrawal and negatively correlated with relationship initiation and having positive relationships with others. Also, ISO had a direct, positive relationship with stress. As shown in Table 4a, the associations between ISO and women's (a) relationship initiation, (b) social withdrawal, and (c) positive relationships were serially mediated by self-objectification and stress. However, unexpectedly, there was a positive, direct relationship between ISO and relationship initiation.

For men, ISO was positively related with self-objectification, which was positively correlated with stress (see Table 4b). Stress, in turn, was positively correlated with social withdrawal and negatively correlated with having positive relationships with one's others, but it was not related to relationship initiation. There was not a serial mediation effect for the relationship initiation variable. As was the case for women, though, ISO was directly correlated with relationship initiation, suggesting that men's ISO was positively associated with the initiation of relationships. Additionally, among men, the associations between ISO and (a) social withdrawal and (b)

positive relationships with others were serially mediated by self-objectification and stress. Thus, Hypothesis 4 was supported for women and partially supported for men.

Testing an Alternative Model

We compared the observed model with an alternative model in which the direction of influence between the variables was reversed. That is, in the alternative model, the relationship competency variables were exogenous, predicting body shame, appearance anxiety, and stress, which, in turn, predicted self-objectification and finally ISO. The control variables were left in the model. The fit of the model of the alternative model was poor, $\chi^2(28) = 401.80$, $p < .001$ (CMIN/DF = 14.35, CFI = .771, RMSEA = .185, SRMR = .173). Additionally, the Akaike Information Criterion (AIC), which is a comparative measure of fit so that the model with the lowest value is the better fitting model, was 605.80 for the alternative model, whereas it was 213.07 for the observed model.

Table 3 Path-level differences between women and men

	Women		Men		Z-score
	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	
(a) Objectification Theory					
ISO → Self-objectification	.25	<.001	.22	.012	4.85***
Self-objectification → Body Shame	.60	<.001	.52	<.001	2.80**
Self-objectification → Appearance Anxiety	.66	<.001	.55	<.001	2.33*
Self-Objectification → Stress	.39	<.001	.32	<.001	.27
(b) Relational Burden					
ISO → Relationship Initiation	.14	.003	0.23	<.001	-10.62***
Body shame → Relationship Initiation	0.15	.043	-.02	.837	1.20
Body shame → Social Withdrawal	-.10	.195	.06	.521	-1.25
Body Shame → Positive Relationships	-.03	.721	-.14	.188	.87
Appearance Anxiety → Relationship Initiation	-.27	<.001	-.35	<.001	1.04
Appearance Anxiety → Social Withdrawal	.21	.008	.18	.074	.05
Appearance Anxiety → Positive Relationships	-.19	.010	-.15	.115	.16
Stress → Relationship initiation	-.36	<.001	-.14	.144	1.92
Stress → Social Withdrawal	.27	<.001	0.23	.013	.28
Stress → Positive Relationships	-.38	<.001	-.37	<.001	.32

Note. ISO = Interpersonal Sexual Objectification

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

Discussion

The results of the present study contribute to the objectification literature with four key findings. First, our results strongly support the main assumptions of objectification theory for men and women, such that past experiences of interpersonal sexual objectification (ISO) were associated with self-objectification which, in turn, was associated with body shame, appearance anxiety, and stress (Fredrickson and Roberts 1997; Roberts et al. 2018). Second, perhaps the most significant contribution of our study includes the indirect effects of ISO on relationship competencies. Specifically, past experiences of ISO were indirectly associated with relationship competencies through self-objectification, appearance anxiety, and stress, thus illustrating the relational burdens that can come from ISO. Third, results also suggest that the relational burden of ISO and self-objectification reflects a similar experience for both men and women. That is, the effects of ISO on self-objectification and of self-objectification on the negative affect variables were mostly stronger for women than men (with one exception for stress), whereas the associations between the negative affect variables and relationship competencies were relatively equal for men and women. Finally, contrary to our predictions, we found a direct effect of past experiences of ISO to greater relationship initiation for men and women.

Our results strongly support the main assumptions of objectification theory for both men and women. Past experiences

of ISO were positively associated with self-objectification. In turn, self-objectification was associated with negative affect (i.e., body shame, appearance anxiety, and stress). However, further analysis revealed that these associations were stronger and more consistent for women than men, with one exception for stress. Such results support the main assumptions of objectification theory (Fredrickson and Roberts 1997), which proposes that girls and women face societal pressures to “become their own first surveyors, to internalize and even become preoccupied with this appearance-dominant perspective on themselves and to essentially sexually objectify themselves” (Roberts et al. 2018, p. 249). Although men can certainly feel these pressures to an extent, girls and women suffer from greater self-objectifying tendencies and negative affective outcomes related to their bodies due to these greater pressures they experience and also the more frequent experiences of ISO from men through which they go (Gervais et al. 2011). Although stress is certainly associated with experiences of objectification (Roberts et al. 2018), results show that this linkage did not differ by gender, thus suggesting that the stressful associations from objectifying experiences do not discriminate for men or women.

Further, experiencing ISO, which can include sexist acts like catcalling, groping, or objectifying gazes toward the body from men (Kozee et al. 2007), was associated with greater levels of stress only for women. It appears that college women who experience more ISO feel as if they are in environments where these objectifying experiences from men alter their

Table 4 Serial mediation effects from interpersonal sexual objectification to relationship competencies

Serial Mediation Paths	(a) Women			(b) Men		
	<i>b</i>	<i>SE</i>	90% CI	<i>b</i>	<i>SE</i>	90% CI
ISO → self-objectification → body shame → relationship initiation	.025*	.014	[.008, .056]	−.003	.020	[−.043, .025]
ISO → self-objectification → body shame → social withdrawal	−.020	.017	[−.054, .003]	.012	.021	[−.015, .057]
ISO → self-objectification → body shame → positive relationships	−.006	.017	[−.034, .020]	−.024	.027	[−.083, .009]
ISO → self-objectification → appearance anxiety → relationship initiation	−.048***	.017	[−.048, −.084]	−.068**	.031	[−.129, −.026]
ISO → self-objectification → appearance anxiety → social withdrawal	.045**	.018	[.022, .084]	.044*	.027	[.010, .104]
ISO → self-objectification → appearance anxiety → positive relationships	−.045*	.023	[−.091, −.014]	−.037	.032	[−.103, .002]
ISO → self-objectification → stress → relationship initiation	−.036***	.013	[−.061, −.020]	−.046	.038	[−.013, −.001]
ISO → self-objectification → stress → social withdrawal	.035***	.012	[.019, .062]	.096**	.051	[.030, .201]
ISO → self-objectification → stress → positive relationships	−.052***	.017	[−.088, −.030]	−.148**	.070	[−.284, −.054]

Note. *b* = unstandardized serial mediation effect. ISO = Interpersonal Sexual Objectification

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

levels of stress. In addition, it could be that women who experience ISO feel more stressed because they feel that they can experience ISO at any moment. That is, women may feel stressed because they realize that being a victim of ISO is beyond their control. As such, women can live in a constant state of stress because they imagine when their next experience of ISO will be. Men do not seem to see these experiences as stressful. On the contrary, they may find ISO flattering and not be concerned about being honked at, stared at, or whistled at. This idea is similar to recent considerations of “complimentary” sexual objectification (Calogero et al. 2009; Gervais et al. 2011). Indeed, research has found that objectifying gazes decrease women’s, but not men’s, math performance, likely because men perceive objectifying gazes as complimentary whereas such experiences make women believe that their appearances are of greater value than their other qualities (Gervais et al. 2011).

One of the ways in which the present study contributes the most to the objectification literature pertains to our findings relating to the indirect effects of ISO on relationship competencies. For women, self-objectification, appearance anxiety, and stress serially mediated the associations between past experiences of ISO on all the relationship competency variables, including having fewer positive relationships with others, more social withdrawal, and less relationship initiation. Thus, because ISO is associated with intrapersonal processes, such as feeling like an object, feeling anxious about one’s appearance, and feelings of stress, these outcomes can then relate to relational well-being. Through the proposed negative affect mediators, ISO is associated with how women feel with initiating relationships and with basic interpersonal acts such as striking up a conversation or asking a group of friends to get together. As opposed to relational initiation, these individuals are more likely to withdraw from relationships

and report having fewer positive relationships. ISO could make women prioritize their appearance, which makes them feel more anxious about their appearance or generally more stressed. In turn, these affective tendencies likely inhibit their abilities to maintain relationships or approach people to establish relationships. Experiencing ISO may also make women see themselves as not worthy (Choma et al. 2010), specifically in attaining new relationships with other individuals or in maintaining already existing relationships. Women may begin to think “Why bother?” with putting an effort into relationship initiation or maintenance.

Still, it is noteworthy that the associations between the negative affect variables and the relationship competency variables were relatively equal for men and women, although our results revealed that the association between past experiences of ISO on relationship competencies can affect men in different areas of relationship competencies through different mechanisms. Indeed, we found that men’s self-objectification and appearance anxiety serially mediated the association between ISO and relationship initiation and social withdrawal. Like women, experiences of ISO, which bring attention to the body and appearance (Kozee et al. 2007), may make individuals feel like their bodies are being evaluated and can result in unwanted sexual advances, which can make people feel uncomfortable (Garcia et al. 2016; Saguy et al. 2010). As such, individuals may feel less inclined to initiate relationships and instead be more likely to withdraw from them in an effort to avoid greater appearance anxiety or feeling uncomfortable.

In addition, men’s self-objectification and stress serially mediated the associations between ISO and social withdrawal and positive relationships. Even for men, experiencing ISO is associated with feeling skeptical of initiating or having positive relationships. Although ISO is not directly stressful for men, it may encourage them to withdraw socially via self-

objectification *and* stress. It is noteworthy that we found this association for both men and women, suggesting that past experiences of ISO may make individuals prioritize themselves as objects (Roberts et al. 2018) and ultimately become more stressed because of this fixation. Indeed, objectification can be a cognitively taxing experience that can hinder individuals' further cognitive performance (Aubrey and Gerding 2015) and reduce their general motivation (Gapinski et al. 2003). Therefore, very few cognitive resources may be left to devote to other areas, such as relationships.

An unexpected finding was that experiencing ISO was associated with *greater* relationship initiation for men and women. We highlight two explanations for these results—one statistical and the other conceptual. In the case of female participants, the statistical explanation is inconsistent mediation, which occurs when the direct effect of the predictor variable is opposite in sign to the indirect effect (MacKinnon et al. 2007). As seen in Table 2, ISO is not significantly correlated with relationship initiation. However, when the negative affect variables are entered into the model, the direct effect is amplified and becomes statistically significant. In this case, if self-objectification is positively related to body shame, appearance anxiety, or stress, then those negative affect variables predicted *less* relationship initiation. The total effect of ISO on relationship initiation, then, is small (total effect = $-.065$) because the direct and indirect effects essentially cancel each other out. For the male participants, in contrast, the association between ISO and relationship initiation is consistent with the zero-order correlation; therefore, it is less likely this is a statistical artifact. Rather than viewing this association as a causal relationship, it would be helpful to consider the context in which ISO can occur in a college environment. Perhaps experiencing ISO and relationship initiation co-occur in social events a typical college student attends rather than in day-to-day experiences, such as attending class. Much of these social environments involve alcohol consumption and gendered objectification against women (Armstrong et al. 2006), which could further explain why people feel more comfortable in initiating relationships while also being objectified. Put together, the co-occurrence of attending social events, alcohol, ISO, and relationship initiation could all be factors to understand why this association occurred for men.

Limitations and Future Research Directions

Although the findings of the present study highlight the relational burden of ISO and self-objectification, we did use a convenience sample of U.S. college students. Future research may examine the observed relationships in a more culturally diverse sample beyond of college students and the United

States. Second, our cross-sectional data cannot support any causal claims. Future longitudinal or experimental studies may provide more solid evidence for the relational burden of objectification as well as establish the causal order of the variables.

We suggest that future research should seek to continue this line of research that explores the consequences of one's experiences of ISO. Specifically, we suggest two main areas for future research. First, the present study focused on general relational well-being, but future research should seek to explore the consequences of ISO in a romantic context. For instance, previous research has suggested that self-objectification leads to sexual dysfunction (see Tiggemann 2011, for a review). However, how do one's experiences of ISO, rather than self-objectification, contribute to reduced sexual agency? Second, how can individuals' attachment styles help explain the relational consequences of past experiences of ISO? For example, it could be that individuals who are high in attachment anxiety (e.g., skeptical of their partners' intentions, yet have a deep desire for intimate relationships; Hazan and Shaver 1987), experience more anxiety and sexual dysfunction from ISO given that they already feel anxious within their relationships. Future research should seek to make these connections to further our scholarly understanding of the romantic burden of objectification.

Practice Implications

Our results have practice implications for college campuses and among counseling practitioners. First, college campuses and university officials need to be conscientious of the presence of ISO among college students. Sexual objectification is a central component to women's daily lives (Holland et al. 2017) and may be heightened around the college environment (Armstrong et al. 2006). Therefore, college campuses should consider including more training and educational resources aimed at reducing the normativity of ISO. In addition, university officials should seek to implement bystander intervention practices and training as university requirements to reduce the rate of ISO and educate students about the harmful relational associations from ISO. Finally, counseling practitioners should be aware that some struggles with peer interactions and relationships may stem from previous experiences of ISO. Counseling practitioners should implement ways that teach clients who struggle in these areas to focus more on areas beyond their appearance or bodies.

Conclusion

Our results show that interpersonal sexual objectification and self-objectification can have detrimental associations

relating to relationships. Although these associations vary by gender, specifically the objectification paths in our model, a consistent finding in our study is that objectification is a *relational burden* for both men and women, ultimately occurring through self-objectification and negative affect. Aligning with objectification theory (Fredrickson and Roberts 1997; Roberts et al. 2018), ISO can be seen as a precursor to trait self-objectification, which can then come to contribute to negative affect. In turn, one's cognitive energy, resources, and motivation can be devoted to the objectifying experiences one encounters rather than to building and maintaining relationships. The past experiences of ISO could be transferred on to other realms of one's life, including the way people manage and pursue relationships. Our results indicate that issues relating to body image and the more interpersonal forms of sexism from men, targeting women especially, could be reasons that further explain feelings of alienation and greater distance in relationships.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Research Involving Human Participants The research was carried out in accord with APA ethical standards and within the terms of the institutional review board at the study's home institution.

Informed Consent Informed consent was obtained from all participants.

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