



Article

# Objectification of Women in Japan and Its Effects on Their Well-Being

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\* Correspondence: [morikawa.kaho.n5@f.mail.nagoya-u.ac.jp](mailto:morikawa.kaho.n5@f.mail.nagoya-u.ac.jp)**How To Cite:** Morikawa, K., & Takai, J. (2026). Objectification of Women in Japan and Its Effects on Their Well-Being. *Intercultural Communication Studies*, 35(1), 2. <https://doi.org/10.53941/ics.2026.100002>

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**Abstract:** Sexual objectification causes women to view themselves as objects, a phenomenon known as self-objectification. While empirical studies on self-objectification have primarily focused on women in Western contexts, comprehensive investigations within the Japanese context remain limited. This study aimed to address this gap by empirically testing objectification theory through survey research. Two studies were conducted: Study 1 targeted college-aged women, and Study 2 focused on women in their twenties, with participants recruited via crowdsourcing. In both studies, regression analyses revealed significant paths from sexual objectification to self-objectification in interpersonal contexts, supporting the hypothesis that experiences of sexual objectification promote self-objectification. Subsequent path analyses further demonstrated that self-objectification was positively associated with disordered eating tendencies in both studies. Additionally, the indirect effect of self-objectification on disordered eating—mediated by body shame—was observed. These findings underscore the need to further develop objectification theory in Japan, particularly to shift societal awareness regarding women’s bodies and to combat inappropriate and unwanted objectification of Japanese women.

**Keywords:** objectification of women; self-objectification; psychological well-being; sexism; self-esteem; misogyny; body shame

## 1. Introduction

Things and people are often evaluated. Just as we are drawn to a beautiful landscape or an exquisite painting, many of us have experienced evaluating others based on external appearances. We may admire an idol group member because “his/her face is the most desirable”, or find someone’s style appealing as they pass by. The same holds true for negative evaluations. People are judged daily—through media such as television and magazines, in public spaces, and across a range of other social contexts. Such evaluations are generally grounded in “ideal images”. For example, women’s bodies have long been judged against unrealistic cultural ideals, which remain central to contemporary Japanese society. In Japan, thinness is especially valued and culturally reinforced, particularly through media depictions of celebrities and models.

In addition, statistics reveal the severity of the consequences associated with these social pressures. Disordered eating and depression are significant social concerns in Japan. An estimated 25,000 individuals are diagnosed with disordered eating, mostly women in their teens and twenties (National Center of Neurology and Psychiatry, 2019), though underreporting is likely. Depression affects over 1.27 million people, with women being 1.6 times more likely than men to be diagnosed (Ministry of Health, Labour and Welfare, 2018). Sexual victimization also remains a pressing issue; a 2022 NHK survey gathered responses from 38,383 individuals who experienced sexual victimization, 91.3% of whom were women, and 95% were victimized between the ages of 10 and 29 (Japan Broadcasting Corporation, 2022). The most common experiences included being touched over clothing (65.7%), and



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receiving sexually explicit comments (40.0%). While these psychological issues, such as disordered eating and depression, have been extensively problematized in Western contexts, their significant prevalence in Japan suggests that similar underlying mechanisms may be at work. Consequently, there is a clear academic imperative to examine the cross-cultural applicability of Western-developed theories in the Japanese context.

Beyond direct sexual objectification, Japanese media culture is rife with subtle, indirect forms. The use of women as promotional tools—such as campaign girls or product presenters—exemplifies how women’s bodies are commodified. Recent trends, including hair-removal advertisements that frame grooming as a prerequisite for social acceptance, further reinforce narrow beauty ideals. While explicit adult materials have been increasingly regulated, other problematic practices persist, such as the sexualization of virtual characters and the normalization of practices like sugar dating, where women exchange intimacy for financial support.

### *1.1. Objectification Theory*

Objectification refers to a form of dehumanization whereby individuals are treated as objects, disregarding their dignity and humanity. Objectification theory offers a sociocultural framework that highlights the body as the primary target of this process (Fredrickson & Roberts, 1997; Fredrickson et al., 2011). According to this theory, women who are frequently evaluated by others or exposed to sociocultural messages about ideal femininity begin to see themselves through the lens of others—becoming objects of evaluation. This process, known as self-objectification, involves a persistent concern with one’s appearance and being constantly aware of how one is seen by others, rather than focusing on one’s internal sense of self. One subtle yet important form of objectification is the “gaze”, categorized into three types (Fredrickson and Roberts, 1997): gaze from strangers or acquaintances, structural gaze embedded in systems of male dominance, and mediated gaze via media representations. Media in particular portray women as if their value and appeal derive solely from their physical appearance. This may ultimately impair both mental and physical well-being (Fredrickson et al., 2011).

### *1.2. Sexual Objectification*

Sexual objectification refers to experiences in which individuals are treated as bodies or body parts for others’ use or pleasure (Fredrickson & Roberts, 1997). It includes both direct and extreme forms, as well as indirect and insidious forms. Direct sexual objectification includes molestation, street harassment, sexual harassment, and sexual violence—situations in which women’s bodies are reduced to physical objects. In Japan, such experiences are highly visible social problems. For instance, a 2020 survey by the Ministry of Health, Labor and Welfare found that 12.8% of women reported experiencing sexual harassment at work within the past three years (Ministry of Health, Labour, and Welfare, 2021). According to the White Paper on Crime published by the Ministry of Justice (2021), there were 4154 reported cases of indecent exposure and 3766 arrests in 2020. Sexual objectification is not only a form of misogyny but also reinforces broader gender-based inequalities such as employment discrimination, sexual violence, and the devaluation of women’s contributions.

### *1.3. Self-Objectification*

Self-objectification is defined as the tendency to adopt an observer’s perspective of one’s own body, evaluating it based on its appearance and value to others rather than its internal sensations or functional worth (Fredrickson et al., 2011). As women are repeatedly exposed to sexually objectifying environments, self-objectification becomes the primary psychological response. It may erode one’s sense of self and internal agency, leading to various psychological concerns. This phenomenon is most prominent in adolescence and tends to decline in midlife. Fredrickson and Roberts (1997) outline two levels of psychological consequences resulting from self-objectification. First are subjective experiences such as increased body shame, elevated body anxiety, diminished body awareness, and disrupted flow (a state of optimal experience and concentration). These experiences may accumulate and lead to more severe mental health risks, including disordered eating, depressive symptoms, and sexual dysfunction.

### *1.4. Prior Studies on Objectification Theory*

Since its initial proposal, objectification theory has been supported by extensive empirical research across diverse populations. Prior studies have emphasized the mediating role of body shame in the link between self-objectification and psychological outcomes such as disordered eating and depression. Self-objectification and body shame have been consistently observed in women across age and cultural groups (Fredrickson et al., 1998; Calogero, 2004; Quinn et al., 2006), and strong associations with appearance anxiety, disordered eating, and

depressive symptoms have also been demonstrated (Burney & Irwin, 2000; Harrison & Fredrickson, 2003; Prichard & Tiggemann, 2005). Further, appearance anxiety has been shown to correlate with self-objectification and body shame (Calogero, 2004; Roberts & Gettman, 2004). Body shame negatively affects sexual functioning (Sanchez & Kiefer, 2007), and Daubemier (2005) found that body reactivity plays a stronger mediating role than body awareness in the link between objectification and disordered eating.

Experimental studies have simulated sexual objectification through manipulations such as attire (e.g., wearing swimsuits vs. sweaters), showing that such conditions heighten state self-objectification (Fredrickson et al., 1998). Media exposure to sexually objectifying content has also been shown to increase body shame and appearance anxiety (Monro & Huon, 2005), particularly among individuals with high levels of trait self-objectification. Kozee et al. (2007) developed the Interpersonal Sexual Objectification Scale (ISOS), which has demonstrated that body surveillance and internalization of thin-ideal norms mediate the link between sexual objectification and body shame.

### 1.5. Purpose of the Current Study

Despite a growing body of research, objectification theory has largely focused on Western, predominantly White women. Given that there is a void in empirically backed investigations on the issue in non-Western contexts, the present study seeks to achieve the following two purposes:

#### - Theoretical Verification in Japan

To apply the objectification theory framework to investigate the psychological mechanisms and consequences of self-objectification among Japanese women quantitatively. This study seeks to address the gap left by the lack of a comprehensive test of this theory within Japan.

#### - Examination of Variable Relationships

To quantitatively examine how sexual objectification relates to self-objectification and its subsequent psychological effects—specifically body shame, body anxiety, and body awareness—as well as its impact on mental health outcomes like disordered eating and depressive symptoms.

#### Theoretical Significance and Cultural Positioning

Studying objectification in Japanese populations is of great significance because cultural, social, and personal factors—including class, ethnicity, sexuality, and body characteristics—may shape how objectification is experienced and internalized (Fredrickson & Roberts, 1997). While sexual objectification has been discussed in Japanese philosophy and sociology (e.g., Eguchi, 2006; 2019), few empirical studies have examined its psychological effects. Japan presents a unique context where the emphasis on thinness and the specific ways women are commodified in media and dating trends may influence the self-objectification process differently than in Western societies. By examining these issues among Japanese women, objectification theory offers a compelling framework for understanding gendered mental health disparities in a non-Western context.

Furthermore, the Japanese cultural context is characterized by an interdependent self-construal, where individuals define themselves through relationships and social harmony. This orientation heightens sensitivity to the “gaze of others” (*seken-tei*), where one’s social practices are evaluated based on external expectations (McCreery, 1998). In this light, self-objectification for Japanese women may not only be a psychological consequence of sexualization but also a normative communicative practice to ensure social acceptance.

### 1.6. Hypotheses and Variable Relationships

Prior studies have emphasized the mediating role of body shame in the link between self-objectification and outcomes such as disordered eating and depression, observing these patterns across various age and cultural groups. Appearance anxiety and body reactivity have also been shown to correlate significantly with self-objectification.

Given the void in studies within Japan on the issue, we tested Fredrickson et al.’s (1998) sexual objectification model in the Japanese context. From this model, we proposed the following hypotheses corresponding to each path in the model:

**H1:** *Sexual objectification in interpersonal relationships leads to self-objectification.*

**H2a:** *Self-objectification amplifies body shame.*

**H2b:** *Self-objectification leads to increased body anxiety.*

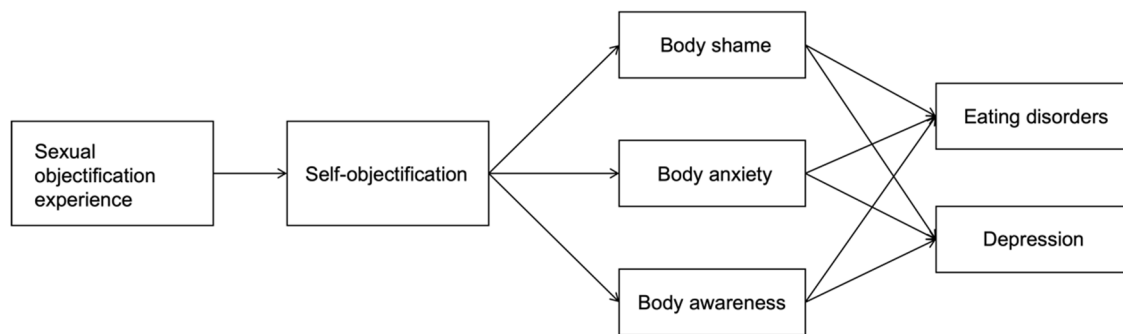
**H2c:** *Self-objectification reduces body awareness.*

Regarding the more severe mental health risks, we further hypothesize:

**H3a:** *Self-objectification leads to disordered eating either directly or indirectly through H2.*

**H3b:** *Self-objectification leads to depressive symptoms either directly or indirectly through H2.*

Among these effects, body shame, body anxiety, and body awareness can be reliably measured, whereas measures of flow states are inconsistent (Moradi & Huang, 2008), and research on sexual dysfunction faces significant ethical barriers. Taken together, these results suggest that the proposed model (Figure 1) will clarify the psychological mechanisms through which sociocultural objectification impacts the well-being of women within the specific social and cultural context of Japan.



**Figure 1.** Influence process of objectification examined in this study.

## 2. Methods

### 2.1. Survey Participants

Considering that the sexually developed woman's body is most likely to be the target of evaluation (Fredrickson & Roberts, 1997), the subjects of this study were women aged 18 to 29. In addition, the target population was limited to Japanese women to examine the roles and influences of Japanese society and culture.

The survey was conducted twice, once by inviting university students to cooperate (Study 1) and once by recruiting participants via a crowdsourcing platform (Study 2). This two-study design was implemented primarily to ensure the replicability of the results across different sampling methods and to enhance sample diversity by including working adults with more varied social experiences. While university students represent a specific demographic, the inclusion of the crowdsourced sample allowed for a broader examination of how objectification functions in different social environments, such as the workplace. Crucially, the comparison between these two groups was intended to verify the generalizability of the objectification theory model within the high-risk 18–29 age range, rather than focusing on developmental differences between the samples.

#### - Study 1: Survey of college students

College students from several universities participated in the survey. Of these, 288 women ( $M_{\text{age}} = 19.62$  years,  $SD = 1.03$ ), excluding 3 men, were included in the analysis.

The survey was web-based via Qualtrics' survey platform. Methods and compensation were in accordance with the policies of each course, and participants were recruited during or outside class time, by means of offering course credit or on a voluntary basis. Volunteer participants were provided with a PDF containing detailed feedback, and some were compensated in the form of a learning opportunity. Because this was a women-only survey, it was conducted in conjunction with other researchers' surveys for fairness.

#### - Study 2: Survey of women in their 20's

Respondents to the Qualtrics survey were recruited via the crowd-sourcing platform Lancers, such as to include those engaged in work. A total of 132 respondents ( $M_{\text{age}} = 25.67$  years,  $SD = 2.77$ ) were included in the analysis, excluding 12 respondents with incomplete answers and 2 respondents who reported being men.

### 2.2. Measurement

This study used seven scales based on the hypotheses (Moradi & Huang, 2008). Scales written in English that were not available in the Japanese language were back-translated by Japanese-English bilinguals, conferring amongst each other where disagreement occurred in the translation process. The details of each scale are as follows.

- The Interpersonal Sexual Objectification Scale (ISOS)

The ISOS measures sexual objectification in interpersonal relationships (Kozee et al., 2007). It consists of 11 physical assessment items such as “How often have you noticed someone staring at your breasts when you are talking to them?” and four items assessing unwanted sexual advances such as “How often have you experienced sexual harassment (on the job, in school, etc.)?” “Two expressions that are not typically reported experiences in Japan, “How often have you been whistled at while walking down a street?” and “How often have you been honked at when you were walking down the street?” were deleted. In total, 13 items were used. The respondents were asked to respond on a five-point scale ranging from “never” to “almost always”.

- The Self-Objectification Questionnaire (SOQ)

This scale measures an individual’s level of self-objectification (Fredrickson et al., 1998) by asking them to rank ten physical characteristics. The characteristics consist of five appearance-based items such as “physical attractiveness” and “weight”, and five ability-based items such as “firm/sculpted muscles” and “health”. Scores are obtained by subtracting the rank total of the ability items from the rank total of the appearance items. Scores range from –25 to 25, with higher scores indicating greater importance placed on appearance and a higher degree of self-objectification.

- Objectified Body Consciousness (OBC)

The OBC is a measure of body awareness (McKinley & Hyde, 1996). It consists of 24 items: eight body monitoring items such as “I rarely think about how I look”, 10 body shame items such as “When I can’t control my weight, I feel like something must be wrong with me”, and six control belief items such as “I think a person can look pretty much how they want to if they are willing to work at it”. The body monitoring items are a scale that measures self-objectification in parallel with the SOQ. Respondents were asked to answer on a seven-point scale ranging from “strongly disagree” to “strongly agree”.

- The Social Physique Anxiety Scale: SPAS

The SPAS is a measure of body anxiety (Hart et al., 1989). It consists of 12 items, including “I am comfortable with the appearance of my physique/figure”. Respondents were asked to answer from “not at all” to “extremely” on a five-point scale.

- The Body Awareness Questionnaire: BAQ

The BAQ is a scale measuring body awareness (Shields et al., 1989). It consists of 18 items, including “I notice differences in the way my body reacts to various foods. “Respondents were asked to answer on a seven-point scale from “not at all true” to “very true”.

- EAT–26 (Eating Attitudes Test–26) in Japanese

This scale, translated by Mukai et al. (1994), measures an individual’s degree of disordered eating. It consists of 26 items including “I am afraid of being overweight”. A five-point scale was used with responses ranging from “not at all” to “all the time”.

- CES-D in Japanese

The Center for Epidemiologic Studies Depression Scale (CES-D), translated by Shima et al. (1985) was used. In order to measure general depressive tendencies rather than depressive states, we modified some instructional texts following Ogai (2004) and Yamaoka and Yukawa (2019). Namely, the phrase “We will ask you about your physical and mental state during the past week” was changed to “We will ask you about your physical and mental state in your daily life”. This measure consisted of 20 items such as, “I was bothered by things that usually don’t bother me”. The respondents were asked to answer on a four-point scale, from “not at all” to “often”.

- Scale Reliability and Validity

To confirm the construct validity of the scales, a confirmatory factor analysis (CFA) of the ISOS and OBC was conducted for both studies. In Study 1, we confirmed that the experiences of sexual objectification as measured by the ISOS were comprised of “body evaluation” and “unwanted sexual advances”. Results showed fit indices of  $\chi^2(64) = 320.15$  ( $p < 0.01$ ), GFI = 0.835, AGFI = 0.765, CFI = 0.883, and RMSEA = 0.118. Although these indicate inadequate fit, all path coefficients from factors to items were statistically significant. For the OBC, a three-factor structure (surveillance, body shame, and control beliefs) was supported with fit indices of  $\chi^2(249) = 701.16$  ( $p < 0.01$ ), GFI = 0.824, AGFI = 0.788, CFI = 0.796, and RMSEA = 0.079.

In Study 2, the CFA was conducted in the same manner. For the ISOS, the indices were  $\chi^2(64) = 238.84$  ( $p < 0.01$ ), GFI = 0.763, AGFI = 0.662, CFI = 0.790, and RMSEA = 0.144, with significant factor-to-item paths. For the OBC, the indices were  $\chi^2(249) = 492.618$  ( $p < 0.01$ ), GFI = 0.769, AGFI = 0.721, CFI = 0.772, and RMSEA = 0.086.

Following these validity checks, we assessed internal consistency. Tables 1 and 2 depict the descriptive statistics for each scale, including reliability. In Study 1, the ISOS measuring interpersonal experiences of sexual objectification had a Cronbach's alpha of  $\alpha = 0.91$  for body evaluation and  $\alpha = 0.80$  for unwanted explicit sexual advances. The OBC, which measures body awareness, had  $\alpha = 0.84$  for surveillance,  $\alpha = 0.79$  for body shame, and  $\alpha = 0.75$  for control beliefs. The SPAS, which measures body anxiety, had  $\alpha = 0.88$ , and the BAQ had  $\alpha = 0.84$ . The Japanese version of the EAT-26 had  $\alpha = 0.86$ , and the CES-D had  $\alpha = 0.91$ . In Study 2, the ISOS had  $\alpha = 0.88$  for body evaluation and  $\alpha = 0.79$  for unwanted explicit sexual advances. The OBC had  $\alpha = 0.83$  for surveillance,  $\alpha = 0.85$  for body shame, and  $\alpha = 0.68$  for control beliefs. The SPAS had  $\alpha = 0.89$ , the BAQ had  $\alpha = 0.89$ , the EAT-26 had  $\alpha = 0.90$ , and the CES-D had  $\alpha = 0.92$ . These results confirmed the internal consistency of each scale. Additionally, the correlation between self-objectification (SOQ) and surveillance (OBC) was  $r = 0.545$  ( $p < 0.001$ ) in Study 1 and  $r = 0.351$  ( $p < 0.001$ ) in Study 2, indicating the concurrent validity of the two scales.

### 2.3. Procedure

Participants were asked to confirm their consent to participate in the study after reading the instructions on the first page of the survey. Participants who gave their consent were asked about their length of stay abroad, gender, age, and occupation on the next two pages. From page 3 onwards, they were required to respond to each scale. The total response time was about 15 min. Sufficient care was taken to ensure that participants were not retained for long periods of time and did not experience physical pain. At the end of the final page, participants were asked to confirm their consent to participate in the survey. If they disagreed, they could withdraw their content by opting out of submitting their responses. After submitting their responses, participants were given feedback that explained the study's purpose.

**Table 1.** Study 1: Descriptive statistics for each scale (N = 288).

		<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>	<i>α</i>
1	Sexual objectification	1.75	0.67	1.00	5.00	0.93
	Body Evaluation	1.86	0.74	1.00	5.00	0.91
	Unwanted Explicit Sexual Advances	1.51	0.65	1.00	5.00	0.80
2	Self-objectification	-4.32	12.74	-25.00	25.00	-
3	Body Consciousness	4.56	0.66	1.00	7.00	0.81
	Body Surveillance	5.02	1.01	1.00	7.00	0.84
	Body Shame	4.33	1.09	1.00	7.00	0.79
	Control Beliefs	4.32	0.92	1.00	7.00	0.75
4	Body anxiety	3.59	0.68	1.00	5.00	0.88
5	Body awareness	4.23	0.85	1.00	7.00	0.84
6	Eating disorders	2.20	0.65	1.00	6.00	0.86
7	Depression	2.13	0.56	1.00	4.00	0.91

**Table 2.** Study 1: Correlations between the scales.

	1	1a	1b	2	3	3a	3b	3c	4	5	6	7
1 Sexual objectification	-											
a Body Evaluation	0.979 ***	-										
b Unwanted Explicit Sexual Advances	0.854 ***	0.731 ***	-									
2 Self-objectification	0.317 ***	0.342 ***	0.189 **	-								
3 Body Consciousness	0.302 ***	0.309 ***	0.225 ***	0.477 ***	-							
a Body Surveillance	0.289 ***	0.309 ***	0.181 **	0.545 ***	0.786 ***	-						
b Body Shame	0.321 ***	0.319 ***	0.262 ***	0.351 ***	0.784 ***	0.556 ***	-					
c Control Beliefs	-0.04	-0.044	-0.02	0.024	0.386 ***	-0.047	-0.089	-				
4 Body anxiety	0.254 ***	0.254 ***	0.203 ***	0.331 ***	0.532 ***	0.531 ***	0.639 ***	-0.181 **	-			
5 Body awareness	0.116 *	0.128 *	0.064	-0.001	0.018	0.020	0.010	0.006	-0.024	-		
6 Eating disorders	0.465 ***	0.484 ***	0.323 ***	0.312 ***	0.474 ***	0.420 ***	0.517 ***	-0.043	0.490 ***	0.186 **	-	
7 Depression	0.368 ***	0.347 ***	0.347 ***	0.168 **	0.313 ***	0.293 ***	0.390 ***	-0.102	0.403 ***	-0.103	0.334 ***	-

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

### 3. Results

#### 3.1. Study 1: Survey of College Students

R-Studio 2022.07.2 was used for the analysis of this study. Tables 1 and 3 depict the descriptive statistics for each scale for Study 1 and Study 2 respectively. Correlations between the scales are shown in Tables 2 and 4 for Study 1 and Study 2 respectively. All scale scores were roughly correlated, though the OBC's control beliefs were not significantly related to other items. To examine the self-objectification influence process, each scale score was standardized. A single regression analysis with ISOS as the independent variable and SOQ as the dependent variable was significant at  $R^2 = 0.100$  ( $F(1,286) = 31.96, p < 0.001$ ). ISOS also significantly affected OBC surveillance ( $R^2 = 0.084, F(1,286) = 26.13, p < 0.01$ ).

**Table 3.** Study 2: Descriptive statistics for each scale (N = 132)

		<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>	<i>α</i>
1	Sexual objectification	2.18	0.65	1.00	5.00	0.89
	Body Evaluation	2.26	0.70	1.00	5.00	0.88
	Unwanted Explicit Sexual Advances	2.02	0.75	1.00	5.00	0.79
2	Self-objectification	-7.02	12.87	-25	25.00	—
3	Body Consciousness	4.38	0.68	1.00	7.00	0.84
	Body Surveillance	4.55	1.00	1.00	7.00	0.83
	Body Shame	4.30	1.13	1.00	7.00	0.85
	Control Beliefs	4.28	0.76	1.00	7.00	0.68
4	Body anxiety	3.41	0.72	1.00	5.00	0.89
5	Body awareness	4.39	0.91	1.00	7.00	0.89
6	Eating disorders	2.42	0.78	1.00	6.00	0.90
7	Depression	2.24	0.57	1.00	4.00	0.92

A path analysis was then conducted to examine the fit of the theory objectification model in the present study, and the model illustrated in Figure 2 was modified to improve the goodness of fit. The model had fit indices of  $\chi^2(2) = 0.49$  ( $p = 0.784$ ), GFI = 0.999; AGFI = 0.993; CFI = 1.00; RMSEA = 0.00, indicating very high goodness of fit. As for effects processes, a positive path from self-objectification to body shame and body anxiety as measured by the SOQ was significant at the 0.1% level, but no significant path was found for body awareness. There were no significant paths for body awareness" ( $\beta = 0.35, 0.33, -0.00$ , respectively). Body shame showed significant positive pathways at the 0.1% level for both disordered eating and depression ( $\beta = 0.31, 0.23$ , respectively). Body anxiety also showed a significant positive path at the 0.1% level for two dependent variables ( $\beta = 0.26, 0.25$ , in the same order). Body awareness had a significant positive path at the 0.1% level only for disordered eating but no path for depression ( $\beta = 0.19, -0.10$ , respectively). Self-objectification as measured by the SOQ showed no significant path for the depression but a positive path for the disordered eating ( $\beta = 0.19, -0.10$ , respectively). The positive path to disordered eating was significant at the 5% level, while there was no significant path to depression from self-objectification as measured by SOQ.

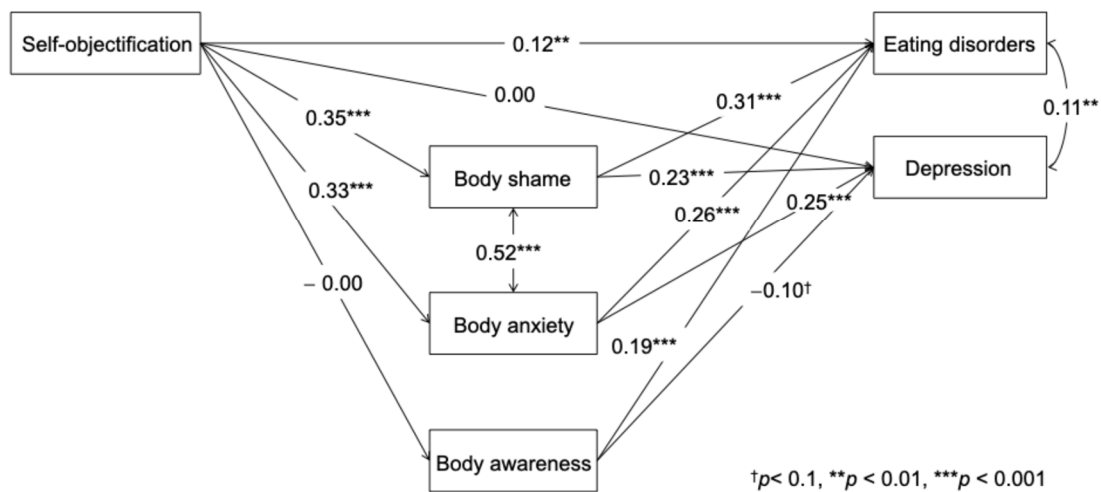
A path analysis was then conducted to examine the fit of the objectification model (Figure 2). The model indicated very high goodness of fit:  $\chi^2(2) = 0.49$  ( $p = 0.784$ ), GFI = 0.999, AGFI = 0.993, CFI = 1.00, and RMSEA = 0.00. Regarding effects, a positive path from self-objectification to body shame and body anxiety was significant at the 0.1% level, though no significant path was found for body awareness. Body shame and body anxiety both showed significant positive pathways for disordered eating and depression. We also confirmed the indirect effects of self-objectification on disordered eating via body shame ( $\beta = 0.109$ ) and body anxiety ( $\beta = 0.085$ ).

We also examined the effect of self-objectification on disordered eating via body shame and body anxiety. The indirect effect of body shame was  $\beta = 0.109$ , the indirect effect of body anxiety was  $\beta = 0.085$ , and the overall effect from self-objectification to disordered eating was  $\beta = 0.312$ .

**Table 4.** Study 2: Correlations between the scales.

	1	1a	1b	2	3	3a	3b	3c	4	5	6	7
1 Sexual objectification	-											
a Body Evaluation	0.957 ***	-										
b Unwanted Explicit Sexual Advances	0.796 ***	0.586 ***	-									
2 Self-objectification	0.251 **	0.245 **	0.190 *	-								
3 Body Consciousness	0.175 *	0.183 *	0.108	0.450 ***	-							
a Body Surveillance	0.160	0.169	0.095	0.417 ***	0.766 ***	-						
b Body Shame	0.176 *	0.196 *	0.084	0.387 ***	0.801 ***	0.422 ***	-					
c Control Beliefs	0.000	-0.020	0.041	0.091	0.499 ***	0.126	0.118	-				
4 Body anxiety	-0.056	-0.008	-0.14	0.154	0.453 ***	0.437 ***	0.469 ***	-0.049	-			
5 Body awareness	0.112	0.140	0.021	0.036	0.223 *	0.121	0.264 **	0.049	0.085	-		
6 Eating disorders	0.300 ***	0.304 ***	0.204 *	0.353 ***	0.465 ***	0.307 ***	0.496 ***	0.105	0.217 *	0.121	-	
7 Depression	0.234 **	0.215 *	0.204 *	0.299 ***	0.136	0.183 *	0.245 **	-0.236 **	0.336 ***	-0.175 *	0.224 *	-

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .



**Figure 2.** Study 1: Influence process of self-objectification.

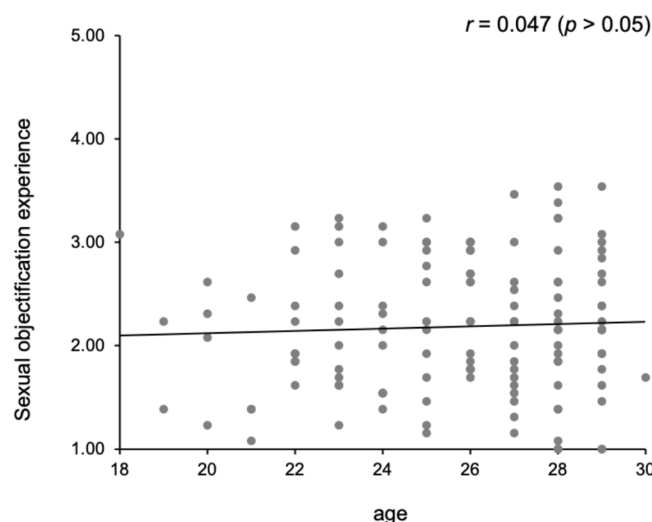
3.2. Study 2: Survey of a Crowdsourced Sample

Table 4 shows the correlations among the scales. Although the correlations between the measures were roughly consistent, there were some items that did not correlate as well as in Study 1.

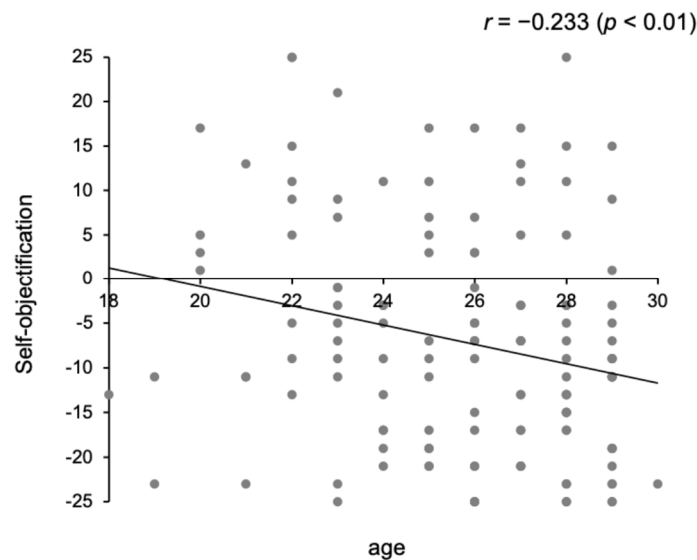
The experience of sexual objectification and self-objectification as measured by the SOQ were correlated, but there was no statistically significant relationship between self-objectification and the surveillance items of the OBC. The results of the OBC’s control beliefs were similar to those of Study 1. Furthermore, body anxiety and body awareness were not significantly related to the experience of sexual objectification and self-objectification as measured by the SOQ. Although the results did not suggest a significant relationship between body awareness and self-objectification as measured by the OBC surveillance items, body anxiety was significantly related to self-objectification as measured by the surveillance items.

- Effects of age

Pearson’s correlation coefficient was calculated to determine the correlation between age, sexual objectification experience, and self-objectification. The correlation coefficient between age and sexual objectification experience was  $r = 0.047$  ( $p = 0.591$ ), showing no statistically significant relationship. On the other hand, the correlation coefficient between age and self-objectification was  $r = -0.233$  ( $p < 0.01$ ), indicating a weak negative correlation between the two variables. The respective scatterplots and regression lines are shown in Figures 3 and 4.



**Figure 3.** Study 2: Correlations between age and sexual objectification experience.



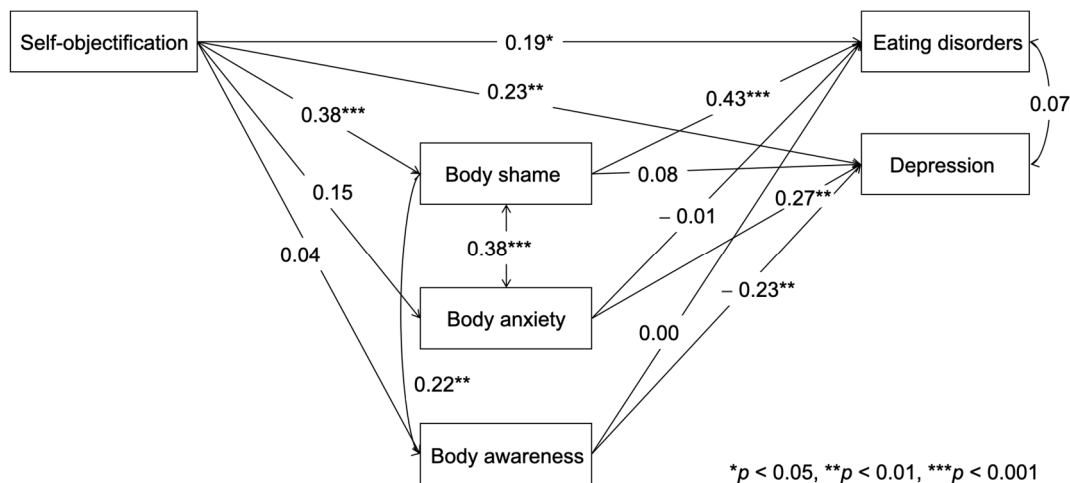
**Figure 4.** Study 2: Correlation between age and SOQ self-objectification.

- Self-objectification influence process

The following analyses were conducted after standardizing the scores of each scale.

To investigate the relationship between sexual objectification and self-objectification, a single regression analysis was performed with ISOS as the independent variable and SOQ as the dependent variable, and the results were statistically significant at  $R^2 = 0.063$  ( $F(1,130) = 8.74, p < 0.01$ ). A subsequent single regression analysis with ISOS as the independent variable and OBC surveillance as the dependent variable yielded  $R^2 = 0.026$  ( $F(1,130) = 3.43, p = .066$ ), indicating no significant effect.

To examine the model of the theory, a path analysis was then performed based on the model of objectification theory, and the results are illustrated in Figure 5, with modifications to increase the goodness of fit. The model yielded fit indices  $\chi^2(1) = 0.802$  ( $p = 0.370$ ), GFI = 0.998, AGFI = 0.950, CFI = 1.0, and RMSEA = 0.00, indicating a high fit of the model.



**Figure 5.** Study 2: Influence process of self-objectification.

Regarding effect processes, a positive path from self-objectification to body shame as measured by the SOQ was significant at the 0.1% level, but no significant paths were found for body anxiety and “body awareness” (There were no significant paths for body anxiety and body awareness” ( $\beta = 0.38, 0.15, 0.04$ , respectively). Body shame showed a significant positive path at the 0.1% level only for disordered eating ( $\beta = 0.43$ ). Body anxiety showed a significant positive path only for depression at the 0.1% level, and body awareness showed a negative path only for depression and was significant at the 0.11% level ( $\beta = 0.27, -0.23$ , respectively). Positive paths from self-objectification to disordered eating and depression were also significant ( $\beta = 0.19, 0.23$ , respectively). There

was a moderate correlation between body shame and body anxiety ( $r = 0.38, p < 0.001$ ), and a weak correlation between body shame and body awareness ( $r = 0.22, p < 0.01$ ).

Next, we focused on body shame, which showed a positive path from self-objectification, and examined the effect of body shame on disordered eating from self-objectification. We first examined the indirect effect of body shame on disordered eating and found it to be  $\beta = 0.162$ . Including the direct effect and the indirect effect, the overall effect of self-objectification on disordered eating was  $\beta = 0.353$ .

#### - Comparison of Scale Scores between Study 1 and Study 2

Welch's *t*-test was conducted to confirm whether there was any difference between the scale scores obtained from Study 1 and Study 2. A test for equal variances was conducted, and significant results were obtained for three of the sexual objectification: unwanted explicit sexual advances, OBC control beliefs, and disordered eating, thereby rejecting equal variance. Since the other items were suggested to be equally distributed, a *t*-test was conducted assuming equal variances. In addition, Cohen's *d* is also shown as an effect size in Table 5.

The effect sizes for sexual objectification experience and its subscales, self-objectification, and body awareness as measured by the SOQ, and surveillance, body shame, body anxiety, and disordered eating as measured by the SOQ, are shown in Table 5. Statistically significant differences were found in self-objectification, body awareness, body shame, body anxiety, and disordered eating measured by the SOQ. However, the effect sizes for all scales were small.

**Table 5.** Scale scores and *t*-tests.

		Study1 (N = 288)		Study2 (N = 132)		<i>t</i>	<i>df</i>	Cohen's <i>d</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
1	Sexual objectification	22.74	8.77	28.39	8.42	6.20 ***	418.0	0.29
	Body Evaluation	16.70	6.69	20.31	6.30	5.23 ***	418.0	0.25
	Unwanted Explicit Sexual Advances	6.04	2.60	8.08	3.01	6.72 ***	224.1	0.33
2	Self-objectification	-4.32	12.74	-7.02	12.87	2.00 *	418.0	-0.1
3	Body Consciousness	109.36	15.96	105.10	16.41	2.52 **	418.0	-0.12
	Body Surveillance	40.15	8.05	36.43	7.97	4.40 ***	418.0	-0.21
	Body Shame	34.68	8.68	34.42	9.06	0.27	418.0	-0.01
	Control Beliefs	34.53	7.32	34.24	6.12	0.43	300.5	-0.02
4	Body anxiety	43.14	8.18	40.92	8.61	2.53 **	418.0	-0.12
5	Body awareness	76.10	15.31	79.01	16.30	1.77	418.0	0.09
6	Eating disorders	57.31	16.93	62.98	20.31	2.78 **	215.4	0.14
7	Depression	42.60	11.15	44.75	11.47	1.81	418.0	0.09

## 4. Discussion

In line with objectification theory, the present study aimed to examine whether the experience of sexual objectification in interpersonal relationships enables self-objectification among Japanese women, and how this process influences disordered eating and depressive tendencies. To test Hypothesis 1, we investigated the path from sexual objectification to self-objectification. Taken together, these results suggest that sexual objectification promoted self-objectification in both Study 1 and Study 2, thereby supporting H1 and confirming the general applicability of the theory within the Japanese context. Specifically, although there is room for further investigation regarding the OBC measurement, the overall data indicates a significant association between sexual objectification and self-objectification. This robust link between sexual and self-objectification in Japan can be further interpreted through the lens of intercultural communication. Given the emphasis on interpersonal sensitivity, Japanese women might internalize the observer's gaze as a form of "social etiquette" to meet collective beauty standards (Sugihara & Katsurada, 2000). Unlike the Western context where objectification is often seen as a loss of agency, in Japan, it may be deeply intertwined with the communicative necessity of maintaining harmony within one's social environment, potentially intensifying the psychological burden.

In addition, the relationship between age and objectification provided further theoretical insight. While we found no relationship between sexual objectification and age within the 18–30 range, a weak negative correlation was observed between age and self-objectification. This is consistent with previous findings that self-objectification is highest in adolescence and declines toward middle age. Notably, comparing the two studies reveals that university students (Study 1) scored higher on self-objectification and body anxiety than women in their 20s (Study 2), whereas the latter group reported higher scores for sexual objectification and disordered eating. These differences may reflect the specific developmental stage of the participants, as the sexually developed woman's body is most likely to be the target of evaluation.

Regarding the internal psychological mechanisms, self-objectification increased the tendency toward disordered eating through both direct and indirect paths, supporting H2a and H3a. To test Hypotheses 2 and 3, we examined the mediating roles of body shame, anxiety, and awareness. In Study 1, significant paths from self-objectification to body shame and body anxiety were found, both of which led to increased disordered eating and depression. In Study 2, however, the link between self-objectification and disordered eating was primarily mediated by body shame, while body anxiety and awareness showed significant paths only toward depression. These outcomes suggest that while the mediation of body shame is a robust universal feature, the roles of body anxiety and awareness may manifest differently depending on the sample.

Furthermore, the results highlighted important cultural considerations regarding scale validity. In both studies, the fit for the ISOS and OBC scales was relatively poor, likely because certain items—such as being catcalled or whistled at—are more prevalent in Western societies than in the latent forms of harassment common in Japan (Uggen & Shinohara, 2009). In light of these findings, there is a clear need for future improvements, such as creating scales that extract universal aspects of objectification or those specifically tailored to Japanese culture. Additionally, while this study focused on negative outcomes, measuring positive affect in relation to the desire to be objectified might offer broader findings in the future.

Finally, the practical implications of these findings are significant for Japanese society. As seen in the global #MeToo movement and local initiatives like NHK's survey on sexual victimization (NHK, 2022), awareness regarding sexual consent and the commodification of women's bodies is changing. Proactive presentation of objectification theory—through reforming visual media and educational support—will help reduce social problems such as sex crimes and eating disorders. Further verification of this model must be conducted to ensure that information is presented to society accurately and without misinterpretation.

### Author Contributions

K.M.: conceptualization, methodology, investigation, formal analysis, data curation, writing—original draft preparation. J.T.: supervision, writing—review and editing. All authors have read and agreed to the published version of the manuscript.

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### Institutional Review Board Statement

This research involved human participants and was approved by the institutional ethics committee (Approval Nos. 22-1786 and 22-1827). All procedures were in accordance with the ethical standards of the Declaration of Helsinki and its later amendments.

### Informed Consent Statement

Informed consent was obtained from all individual participants included in the study.

### Conflicts of Interest

The authors declare no conflict of interest. Given the role as Editorial Board Member, Jiro Takai had no involvement in the peer review of this paper and had no access to information regarding its peer-review process. Full responsibility for the editorial process of this paper was delegated to another editor of the journal.

### Use of AI and AI-Assisted Technologies

During the preparation of this work, the authors used ChatGPT (OpenAI) for English-language editing and improvement of academic expression. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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