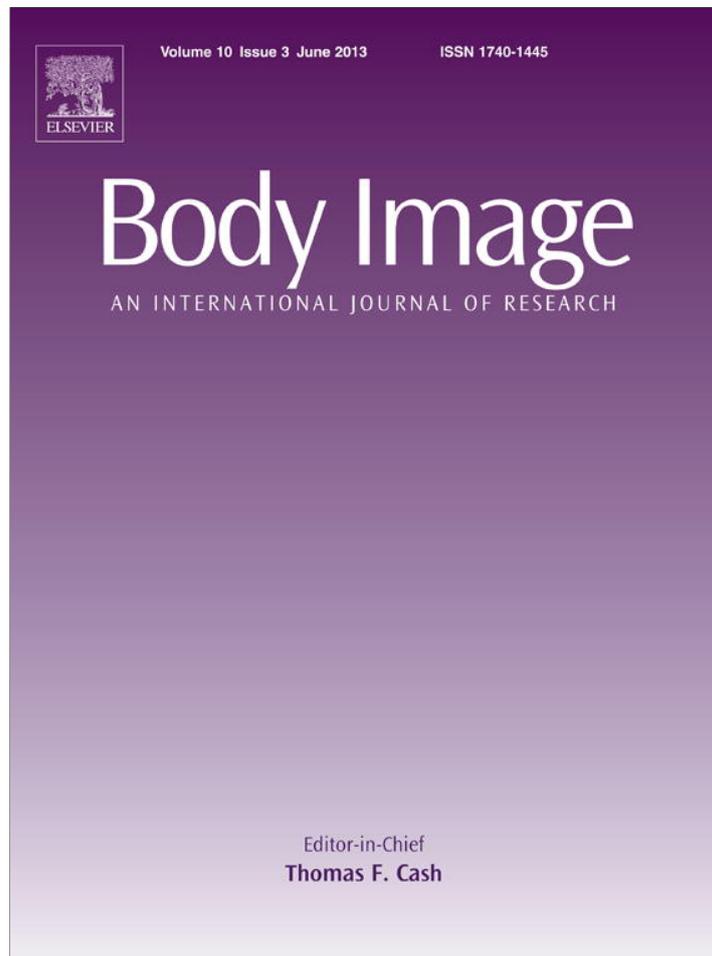


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Exploring gender differences in body image, eating pathology, and sexual harassment



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ABSTRACT

This study examines the relationship between body image (weight/shape concerns), eating pathology, and sexual harassment among men and women ($N = 2446$). Hierarchical regressions controlling for depression revealed main effects of gender such that women reported greater weight/shape concerns, eating pathology, dietary restraint, eating concerns, and binge eating compared to men. Main effects for sexual harassment indicated that as harassment increased, participants reported increased weight/shape concerns, eating pathology, dietary restraint, eating concerns, binge eating, and compensatory behaviors. There were small but significant interactions between gender and harassment for eating pathology total score (which included each of the domains listed above), weight/shape concerns, dietary restraint, and eating concerns such that the relationship between increased harassment and increased pathology was stronger for women compared to men. The largest interaction was found for compensatory behaviors, such that while women and men's scores both increased as harassment increased, the relationship was stronger for men.

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Introduction

A sizable number of women and a rising number of men in the United States feel significant dissatisfaction with their bodies and engage in dysfunctional eating behaviors (McFarland & Petrie, 2012; Stice & Whitenton, 2002). It is recognized that mistreatment, particularly if it is focused on one's body (e.g., sexual victimization), is associated with increased weight/shape concerns and disordered eating. Although a small body of research has begun to examine whether sexual harassment may have similar effects, this relationship has not been sufficiently investigated, particularly across gender. Given that sexual harassment is associated with increased body monitoring and shame (Lindberg, Grabe, & Hyde, 2007), we predict that targets of sexual harassment will report increased weight/shape concerns and eating pathology.

Objectification theory (Fredrickson & Roberts, 1997; see Moradi & Huang, 2008 for a review) proposes that women are routinely sexualized and objectified throughout their lifetimes. Women frequently internalize these views and begin to objectify themselves (e.g., tie their self-worth to their appearance), which is, in turn,

associated with distortions in body image (weight/shape concerns), body shame, and disordered eating behaviors (Forbes, Jobe, & Revak, 2006; Harrell, Fredrickson, Pomerleau, & Nolen-Hoeksema, 2006; Lindberg, Hyde, & McKinley, 2006; Prichard & Tiggemann, 2005). Although rarely studied, there is evidence that men are also vulnerable to self-objectification, albeit at lower rates than women, and that it may be directly associated with similar effects on body shame and disordered eating behaviors (Engeln-Maddox, Miller, & Doyle, 2011; McKinley, 2006). Further, objectification theory proposes that personal experiences of sexual objectification (e.g., appearance evaluations and inappropriate sexual comments) will exacerbate negative outcomes. Consistent with this proposal, sexual harassment and appearance-based harassment have been associated with increased body surveillance, body shame, and disordered eating (Harned, 2000; Lindberg et al., 2007; Tylka & Hill, 2004). Given the findings on weight/shape concerns and disordered eating related to self-objectification, as well as the ways in which sexually objectifying behaviors such as sexual harassment may exacerbate these outcomes, the current study examines the role of sexual harassment in predicting weight/shape concerns and disordered eating behaviors across men and women.

Past research has examined the impact of sexual abuse on weight/shape concerns and eating behaviors and has found that sexual abuse is not a specific etiologic factor for eating disorders (Fischer, Stojek, & Hartzell, 2010; Waller, Halek, & Crisp, 1993). Conversely, sexual harassment may have direct effects on weight/shape

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concerns and eating disturbances because it is pervasive across situations and time, especially for women, and contributes to the general milieu of women being sexualized and objectified (Petersen & Hyde, 2012). Estimates suggest that over half of all women experience harassment at work (Ilies, Hauserman, Schwochau, & Stibal, 2003), 70% of college women report harassment (Buchanan, Bergman, Bruce, Woods, & Lichty, 2009; Paludi & Paludi, 2003), and 95% of high school girls report sexual harassment (Ormerod, Collinsworth, & Perry, 2008). Sexual harassment also comes from a variety of perpetrators and is present in a variety of settings. For example, targets report harassment from peers, bosses, and subordinates (DeSouza, 2011), random strangers on the street, and people of the same or opposite sex (Street, Gradus, Stafford, & Kelly, 2007).

Further, the content of sexually harassing comments are often appearance-based, focusing on the target's body, which objectification theory proposes will increase the likelihood that s/he will develop weight/shape concerns and eating disturbances (Petersen & Hyde, 2012). By elementary and middle school (Murnen & Smolak, 2000), children who report receiving negative comments based on their bodies and physical appearance respond with increased body shame and monitoring; although more common and severe for girls, similar relationships are found for boys (Lindberg et al., 2007; Lunde & Frisén, 2011; Petersen & Hyde, 2012). Consistent with this, the handful of studies examining sexual harassment and eating behaviors among adults have found that sexual harassment is a specific risk factor for disordered eating behaviors (e.g., Harned, 2000; Harned & Fitzgerald, 2002). As such, the relationship between weight/shape concerns, eating pathology, and sexual harassment warrants further examination.

Sexual Harassment, Weight/Shape Concerns, and Eating Pathology

From a legal perspective, sexual harassment has two forms: *quid pro quo* and hostile environment (Equal Employment Opportunity Commission, 1980). *Quid pro quo* harassment is defined as sexual threats or bribery that are implicitly or explicitly established as a condition of employment or used as the basis for employment or educational decisions. For example, *quid pro quo* harassment would include using one's willingness to comply with sexual acts as a criterion for determining a course grade. *Hostile environment* harassment involves any sexual harassment behaviors, such as sexual jokes, comments, and touching that create an intimidating or offensive working environment that interferes with an individual's ability to do his or her job or to perform academically.

Social science research also defines three subtypes of sexual harassment behaviors: gender harassment, unwanted sexual attention, and sexual coercion (Schneider, Pryor, & Fitzgerald, 2010). *Gender harassment* is defined as verbal and nonverbal gender-based behaviors that are insulting, hostile, and degrading. *Unwanted sexual attention* is considered any unwanted sexual behavior that is deemed offensive to the target. Hostile environment claims frequently involve gender harassment and unwanted sexual attention. Finally, in *sexual coercion* (equivalent to *quid pro quo*), sexual cooperation is extorted via promises of benefits (e.g., promotions, raises, better grades) or threats (e.g., failing a class, being fired).

Women report sexual harassment at a significantly higher frequency than men (Berdahl, 2007; Cortina & Berdahl, 2008; Cortina et al., 2002; McLaughlin, Uggen, & Blackstone, 2012). Furthermore, women report experiencing greater distress and more psychological problems following sexual harassment than do men (Cortina & Berdahl, 2008; Freels, Richman, & Rospenda, 2005; Rotundo,

Nguyen, & Sackett, 2001). Despite this gender disparity in frequency, sexual harassment has been associated with a wide array of distressing psychological symptoms, including depression, post-traumatic stress, physical health problems, and work or academic disengagement in both men and women (Avina & O'Donohue, 2002; Buchanan, Bergman, Bruce, Woods, & Lichty, 2009; Buchanan & Fitzgerald, 2008; Larkin & Rice, 2005; Larkin, Rice, & Russell, 1996).

More specifically, research has provided preliminary support for relationships between sexual harassment, weight/shape concerns, and eating pathology. Namely, sexual harassment is associated with decreased self esteem, particularly body-based self esteem (Brinkman & Rickard, 2009; Harned, 2000; Harned & Fitzgerald, 2002; Lindberg et al., 2007; Ormerod et al., 2008; Tiggemann & Kuring, 2004), which concomitantly increases the likelihood of developing pathological eating behaviors (Backhouse & Cohen, 1978; Hofschire & Greenberg, 2002; Lindberg et al., 2006; Petersen & Hyde, 2012). It is also true that sexual harassment may instill fear and heighten bodily discomfort, increasing the likelihood of developing concerns about one's weight and shape. Additionally, pre-existing weight/shape concerns heighten the risk of developing eating pathology following a sexual harassment experience (Barker & Galambos, 2003; Fredrickson & Roberts, 1997; Hofschire & Greenberg, 2002; Larkin & Rice, 2005; Petersen & Hyde, 2012).

A limitation of the current literature is the relative absence of research exploring men's weight/shape concerns, eating pathology, and experiences of sexual harassment. Studies rarely examine eating pathology among men, but the research done to date consistently finds that men report less body dissatisfaction and eating pathology than do women (Hudson, Hiripi, Pope, & Kessler, 2007). Similarly, there is a dearth of information examining the impact of sexual harassment on men because they are frequently excluded in sexual harassment research (Cortina & Berdahl, 2008). Research that has included men finds that not only do they report far fewer experiences of sexual harassment compared to women (Berdahl, 2007; Cortina et al., 2002; Kalof, Eby, Matheson, & Kroska, 2001), but they also perceive harassment as less severe (Rotundo, Nguyen, & Sackett, 2001).

Recent research examining psychological distress associated with sexual harassment suggests that typically men also report less psychological distress following harassment compared to women (Rotundo et al., 2001), but can experience depression and psychological distress, particularly if they perceive the harassment as bothersome or frightening (Settles, Harrell, Buchanan, & Yap, 2011; Street et al., 2007). Regarding its relationship with eating pathology, whereas a link between sexual harassment and symptoms of disordered eating in women has been established, few studies have investigated this relationship in men. Notably, the relationship between general eating pathology and sexual harassment was not significant in one of the only studies assessing men (Harned & Fitzgerald, 2002). However, it is important to note that this study examined harassment in the U.S. military, which may not generalize to civilian populations. Active duty military personnel must meet stringent requirements for physical fitness and weight. As a result, they may not be as likely to have concerns about their body weight or shape, nor engage in disordered eating. Therefore, a comprehensive understanding of the experiences of men necessitates examination of weight/shape concerns, eating disturbances, and sexual harassment among civilian men. Further, while it is likely that sexual harassment is a risk factor for weight/shape concerns and eating pathology among civilian men, the relationship is suspected to be stronger among women than men because men often do not perceive harassment as negatively and typically have less psychological distress following harassment.

The Current Study

Accordingly, the current study aims to address these gaps in the extant literature by examining the relationship between weight/shape concerns, eating pathology, and sexual harassment in an ethnically diverse sample of men and women. Depression is included as a control variable because it is a common comorbidity of weight/shape concerns and eating pathology (Brausch & Gutierrez, 2009), and is commonly found among targets of sexual harassment (Mikkelsen & Einarsen, 2002). Although a handful of studies have examined the direct relationship between sexual harassment experiences and subsequent weight/shape concerns and eating pathology among women (Harned, 2000; Harned & Fitzgerald, 2002; Larkin et al., 1996), this study is one of the first to explore these relationships among men.

Drawing upon previous research (e.g., Barker & Galambos, 2003; Harned, 2000; Harned & Fitzgerald, 2002; Ormerod et al., 2008), we hypothesized that (a) women will demonstrate significantly more weight/shape concerns and eating pathology than will men; (b) regardless of gender, increased sexual harassment will be associated with increased weight/shape concerns and eating pathology; and (c) gender will moderate the relationship between sexual harassment and weight/shape concern and eating pathology, such that increased sexual harassment will be associated with greater weight/shape concerns and eating pathology in women than men.

Method

Participants

Participants were undergraduate students at a large, Midwestern university. The sample included 2446 participants (women: $n = 1715$, 70.1%; men: $n = 731$, 29.9%), ranging in age from 18 to 56 years old ($M = 20.3$, $SD = 2.8$). Participants primarily identified as heterosexual ($n = 2333$, 95.4%), followed by gay/lesbian ($n = 42$, 1.7%) and bisexual ($n = 37$, 1.5%). Participants indicated their ethnic group membership by selecting from one or more of seven ethnicity categories. Participants who selected more than one ethnicity were coded as belonging to the category "Multiracial." The sample was primarily composed of Caucasian participants ($n = 1564$, 63.9%), followed by African American/Black ($n = 377$, 15.4%), Asian/Pacific Islander ($n = 184$, 7.5%), Multiracial ($n = 155$, 6.3%), Latino/a ($n = 87$, 3.6%), American Indian ($n = 13$, 0.5%), and "other" or non-response ($n = 48$, 2.0%) participants.

Procedure

Prior to data collection, the study was reviewed and approved by university's institutional review board. Participants were recruited from the Psychology Department's subject pool and completed an online questionnaire that asked about demographic and school-related information (e.g., gender, ethnicity/race, grade point average), psychological well-being, physical health, and academic performance. Similar to previous studies of body and eating disturbances and sexual harassment (e.g., Harned, 2000), the survey was designed to assess potential criterion variables while minimizing response bias and demands. Therefore, measures assessing psychological symptoms (e.g., weight/shape concerns, disordered eating, depression) were positioned at the beginning of the survey, prior to assessments of stressful events such as sexual harassment.

Measures

Scales were created by summing the items, and were scored such that higher values indicated greater endorsement of the construct.

Weight/shape concerns and eating pathology. Participants answered a 30-item version of the Eating Disorder Examination Questionnaire (EDEQ; Beglin & Fairburn, 1992), which contains items assessing participants' experiences of specific behaviors that relate to eating disorders and concern about weight and shape. When tested among undergraduate students, the EDEQ was found to be a psychometrically strong self-report assessment tool measuring current behavioral and attitudinal symptoms of eating (e.g., restricted food intake, binge eating), weight concerns, and compensatory behaviors (Harned, 2000; Luce & Crowther, 1999). Respondents indicated how often they experienced the behaviors during the last 28 days using a 7-point scale ranging from 0 (*no days*) to 6 (*every day*).

The EDEQ contains four subscales: dietary restraint (five items), eating concerns (five items), shape concerns (eight items), and weight concerns (five items). Alpha reliabilities in the present study were 0.86, 0.86, 0.93, and 0.88, respectively. Given that the shape and weight concerns subscales were highly correlated with one another ($r = 0.94$), they were combined to form a single scale, called weight/shape concerns, to reduce redundancy (12 items; $\alpha = .95$). Subscales were created from the remaining questions in the EDEQ. The first subscale was binge eating (four items; $\alpha = .79$). The compensatory behavior subscale was originally four items; however, due to its negative effect on the alpha reliability, we removed the exercise item and retained items assessing vomiting and the use of laxatives and/or diuretics. This resulted in a 3-item scale and increased Cronbach's alpha from .62 to .79. These alpha reliabilities are comparable to those found in previous studies of undergraduates (dietary restraint: $\alpha = .81$; eating concerns: $\alpha = .78$; shape concerns: $\alpha = .93$; and weight concerns: $\alpha = .89$; Luce & Crowther, 1999).

Sexual harassment. Participants answered a 20-item version of the Sexual Experiences Questionnaire (SEQ; Fitzgerald, Gelfand, & Drasgow, 1995; Fitzgerald et al., 1988). This scale contains multiple items that assess participants' experiences of specific behaviors that constitute sexual harassment (e.g., "repeatedly told sexual stories or jokes that were offensive to you," "continued to ask you out for dates, drinks, dinner, etc., even though you had said 'no,'" "touched you in a way that made you feel uncomfortable"). The term "sexual harassment" does not appear until the final item, and because this item assesses labeling rather than a specific behavior, it is not included in the total scale score. Respondents indicated how often they experienced such behaviors at the university during the last 12 months using a 5-point scale ranging from 0 (*never*) to 4 (*very often*). The SEQ is the most comprehensive self report instrument available for assessing sexually harassing experiences (Arvey & Cavanaugh, 1995), with strong psychometric properties (e.g., Cronbach's alphas between .86 and .94 have been reported in prior research with working adults and undergraduates; Buchanan & Fitzgerald, 2008; Fitzgerald, Magley, Drasgow, & Waldo, 1999). For the current study, Cronbach's alpha for the SEQ was .96.

Depression. We controlled for depression using the 21-item Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II contains items that assess participants' depressive symptoms during the previous two weeks. Respondents indicated how often they experienced depressive symptoms (e.g., sadness, pessimism, guilt, anhedonia, etc.) using a 4-point scale ranging from 0 to 3. Cronbach's alpha for the current sample was .93, which is comparable to that reported by Beck and colleagues ($\alpha = .92$; Beck et al., 1996).

Table 1
Means, standard deviations, and correlations by gender (N = 2446).

		1	2	3	4	5	6	7	8	Men	
										M	SD
1.	Sexual harassment		.21**	.12**	.14**	.39**	.41**	.41**	.49**	7.21	12.07
2.	Eating pathology total score	.20**		.96**	.79**	.81**	.41**	.28**	.35**	29.76	20.28
3.	Weight/shape concerns	.15**	.97**		.64**	.71**	.31**	.19**	.29**	19.17	13.18
4.	Dietary restraint	.17**	.85**	.73**		.57**	.28**	.15**	.22**	5.74	5.11
5.	Eating concerns	.29**	.89**	.80**	.75**		.43**	.32**	.39**	2.98	3.54
6.	Binge eating	.25**	.63**	.55**	.53**	.66**		.39**	.34**	1.32	1.02
7.	Compensatory behaviors	.15**	.34**	.27**	.31**	.38**	.31**		.47**	0.17	0.59
8.	Depression	.25**	.32**	.30**	.26**	.31**	.24**	.16**		10.61	9.73
	Women	M	7.58	49.12	31.60	9.02	6.38	1.63	0.11	11.13	
		SD	10.78	28.99	17.67	6.66	5.67	1.29	0.32	8.97	

Note. Correlations for women (n = 1715) are presented below the diagonal; correlations for men (n = 731) are presented above the diagonal.

** p ≤ .01.

Approach to Data Analysis

In the following analyses, the goal was to determine the incremental value of each variable and their interactive effects, while controlling for depression. As such, we performed six hierarchical moderated regressions. Hierarchical regression is ideal for such analyses because an ordered partitioning of the variance accounted for is provided for each step in the regression. Due to the number of analyses, a conservative *p* < .01 was used to determine significant results. When the interactions were significant, their simple slopes were calculated and then graphed.

Overall, our data met all of the assumptions for hierarchical regression. Sexual harassment scores were mean centered to reduce the multicollinearity between main effects and interactions (Aiken & West, 1991). In addition, the skewness and kurtosis were within acceptable limits (skewness <3.0 and kurtosis <10.0; Kline, 2010) for each of our study variables with the exception of compensatory behaviors. As a result, we used a square-root transformation on the compensatory behaviors variable. Because the significance and direction of the relationships for compensatory behaviors were almost identical for the transformed and nontransformed data, the nontransformed results are presented here for ease and clarity of interpretation and presentation (Brannan & Petrie, 2008). Finally, given that the amount of missing data for the criterion variables was small, we used pairwise deletion for any missing values.

Results

Preliminary Analyses

The correlations, means, and standard deviations of the variables used in the current study are displayed by gender (see Table 1). All of the correlations were in the expected direction. Increased sexual harassment was associated with an escalation in eating pathology total scores, weight/shape concerns, dietary restraint, eating concerns, binge eating, and compensatory behaviors for both men and women. Furthermore, depression was mildly to moderately and positively correlated with each criterion variable.

Hierarchical Moderated Regression

The results of six hierarchical multiple regression analyses predicting each of the weight/shape concerns and eating pathology scales are displayed in Table 2. For all of the regression analyses, the first step included the control variable (i.e., depression), which was significant for each criterion variable. The second step included the main effects for gender (coded as 0 = female and 1 = male) and

sexual harassment, while the third step included the interaction of the standardized sexual harassment scores and gender.

Our first hypothesis proposed a main effect for gender, such that women would demonstrate significantly more weight/shape concerns and eating pathology than would men. This hypothesis was supported across five of the six criterion variables. Specifically, the women in our sample experienced significantly more weight/shape concerns and eating disturbances (i.e., eating pathology total score, dietary restraint, eating concerns, and binge eating) than did the men. Contrary to our hypothesis, men reported more compensatory behaviors (vomiting and the use of laxatives and/or diuretics) than did women in our sample.

We also proposed that regardless of gender, increased sexual harassment would be associated with increased weight/shape concerns and eating pathology (Hypothesis 2). A main effect of sexual harassment, controlling for depression, was found for each criterion variable. In particular, increased sexual harassment was significantly associated with increased weight/shape concerns and eating disturbances in our sample (i.e., eating pathology total score, dietary restraint, eating concerns, binge eating, and compensatory behaviors).

Finally, Hypothesis 3 posited that gender would moderate the relationship between sexual harassment and weight/shape concerns and eating pathology, such that increased sexual harassment would be associated with greater weight/shape concerns and eating disturbances in women than in men.¹ We found that the interaction between gender and sexual harassment provided significant improvement in prediction for five of our six criterion variables (i.e., eating pathology total score, weight/shape concerns, dietary restraint, eating concerns, and compensatory behaviors), but not binge eating, providing initial support for our hypothesis that gender moderates the relationship between harassment and eating pathology. It is important to note that the significant ΔR^2 values for the interactions are generally small, ranging from 0.004 to 0.01. However, because moderator effects can be particularly difficult to detect in non-experimental research designs, ΔR^2 values that

¹ Few studies have examined eating pathology among lesbian women and their findings have been inconsistent, with some studies reporting no differences between lesbian and heterosexual women (e.g., Feldman & Meyer, 2007; Heffernan, 1994) and other studies finding lower levels of eating pathology for lesbians (French, Story, Remafedi, Resnick, & Blum, 1996; Lakkis, Ricciardelli, & Williams, 1999; Morrison, Morrison, & Sager, 2004) but more eating pathology among bisexual women (Austin et al., 2004, 2009). Conversely, previous research suggests that gay and bisexual men are more likely to exhibit disordered eating behavior than heterosexual men (e.g., Boisvert & Harrell, 2009; Feldman & Meyer, 2007). To avoid potential bias in the present findings, we ran the analyses with and without participants that identified as lesbian, gay, or bisexual. There were no significant differences in the findings; therefore, the results presented here include all participants regardless of their sexual orientation.

Table 2
Eating pathology and body dissatisfaction predicted by sexual harassment (N = 2406).

Variable	Cum. R ²	Adj. R ²	ΔR ²	B	SE B	β	t
Criterion: eating pathology total score overall F(4, 2402) = 155.14***							
Step 1	.10	.10	.10				
Step 2	.20	.20	.10				
SH				0.25	0.05	0.10	5.13***
Gender				-18.80	1.12	-0.31	-16.83***
Step 3	.20	.20	.004				
SH				0.36	0.06	0.14	6.25***
Gender				-17.43	1.18	-0.29	-14.77***
SH × Gen				-0.34	0.10	-0.08	-3.55***
Criterion: weight/shape concerns overall F(4, 2367) = 138.87***							
Step 1	.08	.08	.08				
Step 2	.19	.18	.11				
SH				0.08	0.03	0.05	2.44*
Gender				-12.14	0.70	-0.32	-17.34***
Step 3	.19	.19	.005				
SH				0.15	0.04	0.10	4.07***
Gender				-11.25	0.74	-0.30	-15.22***
SH × Gen				-0.22	0.06	-0.09	-3.67***
Criterion: dietary restraint overall F(4, 2402) = 82.99***							
Step 1	.06	.06	.06				
Step 2	.12	.12	.06				
SH				0.05	0.01	0.09	4.19***
Gender				-3.19	0.27	-0.23	-11.88***
Step 3	.12	.12	.004				
SH				0.07	0.01	0.13	5.23***
Gender				-2.90	0.28	-0.21	-10.22***
SH × Gen				-0.07	0.02	-0.07	-3.12**
Criterion: eating concerns overall F(4, 2401) = 170.33***							
Step 1	.10	.10	.10				
Step 2	.22	.22	.12				
SH				0.10	0.01	0.21	10.89***
Gender				-3.29	0.21	-0.28	-15.57***
Step 3	.22	.22	.004				
SH				0.12	0.01	0.25	11.05***
Gender				-3.03	0.22	-0.26	-13.58***
SH × Gen				-0.06	0.02	-0.08	-3.52***
Criterion: binge eating overall F(4, 2401) = 86.92***							
Step 1	.07	.07	.07				
Step 2	.13	.13	.06				
SH				0.03	0.002	0.22	11.08***
Gender				-0.89	0.05	-0.11	-5.59***
Step 3	.13	.13	.00				
SH				0.03	0.003	0.22	9.25***
Gender				-0.29	0.05	-0.11	-5.29***
SH × Gen				0.00	0.004	0.00	0.009
Criterion: compensatory behaviors overall F(4, 2382) = 66.00***							
Step 1	.07	.07	.07				
Step 2	.09	.09	.01				
SH				0.003	0.001	0.12	5.88***
Gender				0.01	0.01	0.02	1.09
Step 3	.10	.10	.01				
SH				0.001	0.001	0.04	1.64
Gender				-0.01	0.01	-0.02	-0.92
SH × Gen				0.01	0.001	0.15	5.98***

Note. For all of the regressions, only the criterion variable was entered in Step 1; SH = sexual harassment; Cum. = cumulative; Adj. = adjusted; Gen = gender.

* p ≤ .05.
** p ≤ .01.
*** p ≤ .001.

account for as little as 1% of the variance in a criterion variable can be considered meaningful (McClelland & Judd, 1993). Using this standard, the interaction of sexual harassment and gender is able to explain a meaningful amount of the variance for compensatory behaviors (ΔR² = 0.01). Simple slopes were obtained using the dichotomous scores for the moderator (0 = women; 1 = men) and values that were one standard deviation above and below the mean for the standardized sexual harassment scores (see Figs. 1–5; Aiken & West, 1991). As sexual harassment increased, the endorsement of weight/shape concerns and disordered eating behaviors significantly increased for women but not for men on eating pathology total score, weight/shape concerns, and dietary restraint. For the eating concerns criterion measure, as the degree of sexual

harassment increased, the endorsement of eating concerns significantly increased for women and for men; however, the slope of the regression line was significantly steeper for women. On the other hand, as the degree of sexual harassment increased, the increased endorsement of compensatory behaviors was stronger for men than for women.

Discussion

The present study explored relationships between weight/shape concerns, eating pathology, and sexual harassment among men and women. Although each of these topics have received separate attention in previous research, few studies

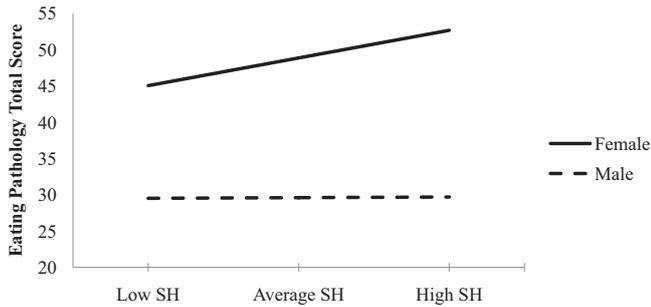


Fig. 1. Interaction between gender and sexual harassment on eating pathology total score.

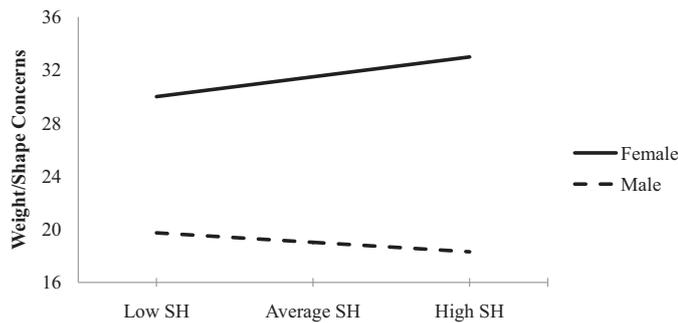


Fig. 2. Interaction between gender and sexual harassment on weight/shape concerns.

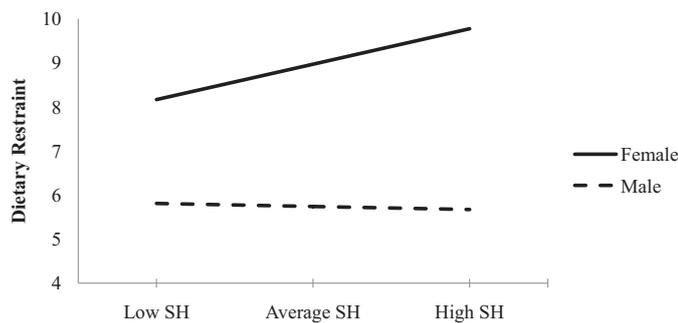


Fig. 3. Interaction between gender and sexual harassment on dietary restraint.

have examined the relationship between sexual harassment, weight/shape concerns, and eating pathology in women (Harned, 2000; Larkin et al., 1996), and this study is among the first to do so with men. Our primary goals were to determine if weight/shape concerns and disordered eating behaviors were associated with sexual harassment for men and women and whether or not gender moderated these relationships. Overall, our results support our

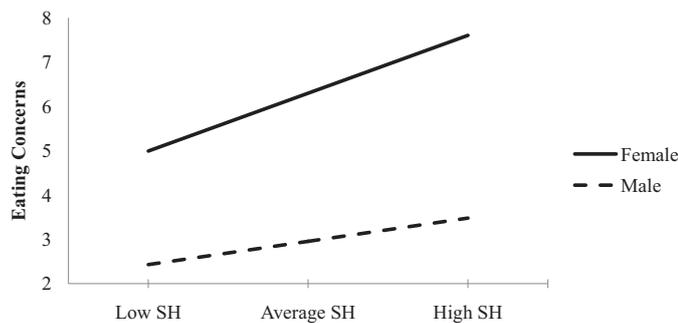


Fig. 4. Interaction between gender and sexual harassment on eating concerns.

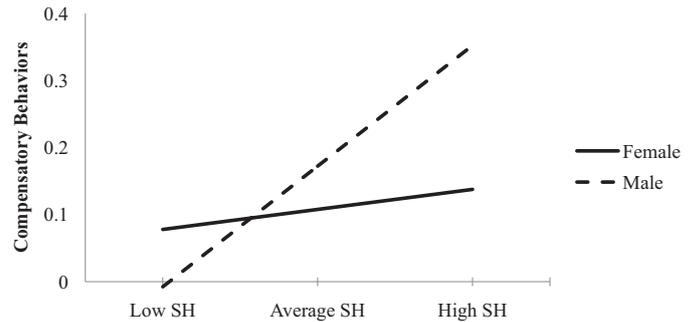


Fig. 5. Interaction between gender and sexual harassment on compensatory behaviors.

assertions that sexual harassment is a risk factor for weight/shape concerns and disordered eating, regardless of gender, and that these relationships vary across men and women.

In our first hypothesis, we proposed that women would demonstrate greater weight/shape concerns and more disturbed eating behaviors than would men, which was supported for weight/shape concerns, overall eating pathology, dietary restraint, eating concerns, and binge eating. These results are not surprising given that past studies have consistently found that women report greater disturbance in weight/shape concerns and eating behaviors than do men. For example, in a meta-analysis of self-conscious emotions, the largest gender differences were found for shame regarding one's body, food, and eating, revealing that women experience more shame in each of these domains than do men (Else-Quest, Higgins, Allison, & Morton, 2012). Similarly, in their review of risk factors for eating disorders, Striegel-Moore and Bulik (2007) found that in every study of gender differences in eating pathology, women outnumber men by a sizeable margin (e.g., Hoek, 2006; Hudson et al., 2007).

Less attention has been paid to gender differences in specific subsets of eating pathology, but studies do find the same pattern of women reporting higher levels of these behaviors and beliefs than do men (Anderson & Bulik, 2004). As such, we were surprised to find that men scored higher than women on compensatory behaviors in our current sample. Contrary to our findings, Anderson and Bulik (2004) found that compensatory behaviors were more common among women than men in their nonclinical sample of twins, with the exception of no gender differences in exercise as a compensatory behavior. Another study of young adults found that women reported higher rates of all domains of eating pathology with the exception of excessive exercise as a compensatory behavior, on which men scored significantly higher (Lewinsohn, Seeley, Moerk, & Striegel-Moore, 2002). These differences across studies may reflect gender differences in subtypes of compensatory behaviors. The current study focused on purging compensatory behaviors (i.e., the use of vomiting, laxatives, or diuretics as a means of controlling one's shape or weight) and excluded the exercise item to improve the reliability of the scale. Nevertheless, excessive exercise appears to be the domain of compensatory behavior with the most inconsistent findings across past studies. Thus, it will be useful for future research to more thoroughly examine variations in the ways in which men and women engage in compensatory behaviors in order to determine the reason for these discrepancies.

We also hypothesized that sexual harassment would be associated with more weight/shape concerns and disordered eating behaviors (Hypothesis 2). After controlling for depression, increased sexual harassment was associated with significant increases in each of the weight/shape concerns and eating pathology variables. These findings are not surprising given that objectification theory would predict that the types of comments

and behaviors common in sexual harassment should increase body monitoring and body shame (Moradi & Huang, 2008). Very few studies have examined weight/shape concerns and eating pathology as a consequence of sexual harassment, but their findings do support this relationship. For example, Harned (2000) demonstrated a significant relationship between sexual harassment and subsequent detriment to weight/shape concerns and eating pathology has been associated with sexual harassment in two previous studies (Harned, 2000; Harned & Fitzgerald, 2002).

Our final hypothesis proposed that the associations between weight/shape concerns, disordered eating, and sexual harassment would be stronger for women than for men. Gender did moderate these relationships for most of our criterion variables. However, despite being statistically significant, the effects of these interactions were quite small according to (McClelland & Judd, 1993) criterion (ΔR^2 of 0.01 and higher) for practical significance. Using this standard, the strongest moderating effects were found for eating concerns ($\Delta R^2 = 0.005$) and compensatory behaviors ($\Delta R^2 = 0.01$). For eating concerns, both men and women's scores increased as sexual harassment increased, but as hypothesized, this relationship was much stronger for women than for men. Conversely, compensatory behaviors was unique in that the effects were stronger for men than for women, reflecting that as sexual harassment increased, men engaged in significantly more compensatory behaviors than did women. In other words, at high levels of sexual harassment, men induced vomiting or took laxatives and/or diuretics in an attempt to control their weight more often than did women. It is important to note that no previous study has examined the relationships between sexual harassment and compensatory behaviors among sexually harassed men, making this study unique. It is possible that there are certain features of sexual harassment that are particularly powerful in triggering compensatory behaviors in males; additional research is needed to further examine this possibility.

The Role of Sexual Harassment in Body Image and Eating Pathology

The present findings support objectification theory (Fredrickson & Roberts, 1997), which proposes that internalized sexual objectification leads to distortions in body image (weight/shape concerns) and disordered eating behaviors. Whereas other forms of victimization (e.g., sexual abuse, sexual assault, physical abuse) have been associated with increased risk for general psychopathology, sexual harassment has been established as a specific risk factor for weight/shape concerns and eating pathology (Harned, 2000). The very nature of sexual harassment (i.e., frequent negative attention and critique of one's body) may explain why it is so closely associated with these criterion variables. For example, sexual harassment may directly affect weight/shape concerns and eating pathology because it is so pervasive, especially for women. From adolescence through early and middle adulthood, sexual harassment is a common occurrence (Buchanan et al., 2009; Ilies et al., 2003; Ormerod et al., 2008), involving a variety of perpetrators and settings (DeSouza, 2011). What this implies is that for many, sexual harassment is omnipresent, which furthers one's sense of objectification and the associated negative perceptions of one's body.

Past research did not find an association between sexual harassment and increased eating pathology among men (Harned & Fitzgerald, 2002). The dissimilarity of those findings with the current study may be due to differences in the populations sampled. For example, Harned and Fitzgerald focused on military personnel. The unique physical constraints placed on those in the armed forces (e.g., weight and body fitness requirements) may limit the types of disordered eating attitudes and behaviors associated with sexual harassment, as opposed to the present study, which sampled

undergraduate men. Conversely, it is possible that the military's heightened focus on body size, weight, and fitness may result in a higher base rate of weight/shape and eating concerns, leaving little room for sexual harassment to exacerbate the relationship. Further research investigating this phenomenon and its gendered manifestations across military and civilian men is needed.

Future Directions, Limitations, and Clinical Implications

As with all research, the current study has areas upon which future studies can improve. The data are correlational, which limits our ability to make causal attributions between these variables. However, Harned (2000) compared body image and eating disturbances as either antecedents or outcomes of sexual harassment and found that the best fitting model was one with body image and eating disturbances as outcomes of sexual harassment. Nevertheless, future research would benefit from using longitudinal designs that permit causal inferences to be made. In addition, the survey did not include questions to determine whether or not participants were adequately attending to the survey material. It is possible that responses from inattentive participants distorted the data, and it is impossible to know whether such responses attenuated or bolstered the findings reported here. Further, the measures in this study were not counterbalanced. Instead the survey was structured such that measures assessing psychological symptoms were presented prior to assessments of stressful events (i.e., sexual harassment). Because it is methodologically sound to assess stressors after assessing psychological distress (to avoid biasing responses on distress measures), prior studies have also used this format (e.g., Harned, 2000; Street et al., 2007). Nevertheless, because measures were not counterbalanced, potential order effects cannot be determined.

Future research will also benefit from the inclusion of weight/shape concern, eating behaviors, and sexual harassment items that intentionally address men's experiences. For example, past research shows that certain maladaptive body-related behaviors are more commonly endorsed by men, such as taking amino acids, creatine, and protein supplements (Anderson & Bulik, 2004), but the current EDEQ does not include such items. Similarly, the SEQ does not include some sexually harassing behaviors that may be more relevant for men, such as threats to masculinity, male-to-male sexual harassment, and negative male stereotyping (Street et al., 2007). Including items that are more relevant to men would broaden our understanding of how weight/shape concerns and eating disturbances are related to sexual harassment for men. Given that we did not have such items in the current study, it is even more surprising that such robust findings were still present for the men in our sample. The results presented here are likely to be attenuated compared to future studies that include such items.

It will also be important for future research to investigate compensatory behaviors in greater depth. In the present study, the excessive exercise item was removed from the compensatory behavior subscale due to its low reliability with other scale items. As a result, only purging items were assessed. This is unfortunate because the research literature has conflicting findings regarding exercise across men and women, and it would have been useful to address this in the current sample. Past research has found that women typically report more purging forms of compensatory behavior than do men (Anderson & Bulik, 2004; Lewinsohn et al., 2002), but the current results contradict those findings. Given the contradictory results across studies, differentiating between the prevalence of various types of both purging (e.g., vomiting; misuse of laxatives, diuretics, or enemas) and non-purging (e.g., fasting or excessive exercise) compensatory behaviors across genders will be an important goal of future research.

Furthermore, this sample consisted exclusively of college-aged students and as such, these results may not generalize to non-university samples, such as working men and women. In fact, Harned and Fitzgerald (2002) sampled working adults and found that the relationship between sexual harassment and eating disorder symptoms was not as strong as had been found in her previous sample of undergraduate women (Harned, 2000). Despite this limitation, our sample also represents a unique strength. Not only was it a large sample of over 2400 undergraduates, but it was also ethnically diverse and included a sizeable number of both men and women. Similar studies of weight/shape concerns, eating pathology, and sexual harassment have been comprised of only women or a comparably small number of men (Harned, 2000; Harned & Fitzgerald, 2002), or have focused on sexual minority men (Wiseman & Moradi, 2010). Having a large, diverse sample of men and women may actually enhance the external validity of the results presented here.

The current findings also have implications for clinical practice. Levine and Piran (2004) reviewed the research literature on prevention of body image distortion and eating pathology. Of note was the fact that the vast majority of prevention programs were designed for girls and women and none focused on boys and men. The results of the current study suggest that although boys and men have lower rates of weight/shape concerns and eating disturbances, they are still significant and warrant intervention. It is also important that clinicians do not underestimate the relationships between weight/shape concerns, disordered eating, and sexual harassment experiences. Given the associations between these variables, counselors working with those who have been sexually harassed are encouraged to assess and monitor concerns about weight/shape, eating attitudes, and eating behaviors. Conversely, it will be beneficial for counselors to probe whether clients that present with weight/shape concerns and eating disturbances have a history of sexual harassment.

Conclusion

The current study is among the first to concomitantly examine weight/shape concerns, disordered eating behaviors, and sexual harassment across men and women. The findings demonstrate that sexual harassment is associated with detriment to both men and women's weight/shape acceptance and eating behaviors. As past research suggests, these relationships were stronger for women; however, the relationship with compensatory behaviors was stronger for men. These findings suggest that in order to fully understand weight/shape concerns and eating pathology, it is necessary to examine the role of objectifying behaviors, such as sexual harassment, for both men and women. Furthermore, efforts to reduce sexual harassment could be associated with less weight/shape concerns and disordered eating behaviors among all people, regardless of gender.

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