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## Feminist identity, body image, and disordered eating

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### Abstract

Using data from a community-based sample (Project EAT-III), this study ( $N = 1241$ ; mean age = 25.2) examined the relationship of feminist identity with body image and disordered eating. Feminist-identified women reported significantly higher body satisfaction than non-feminist women and women who did not identify as feminists but held feminist beliefs. However, feminist-identified women did not differ from non-feminist women in disordered eating. Women holding feminist beliefs and non-feminist women did not differ in body satisfaction. Our findings suggest that self-identification as a feminist may promote positive body image in young adult women, but may be insufficient to change behaviors.

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Women are disproportionately affected by body image and eating disturbances (Bearman et al, 2006; Neumark-Sztainer & Hannan, 2000; Pingitore et al., 1997; Spitzer et al., 1999). Feminist theory may provide one lens through which we can understand why the experience of being female puts women at risk for body image and eating disturbances as well as why women who embrace feminism as part of their identity may be protected from these concerns. The purpose of the present study is to use a racial/ethnically diverse sample of young adult women (ages 20–31 years) from the Midwestern United States to better understand the relationship of feminist identity with body image and eating disturbances. Further, the present study explores differences between women who identify as feminists as compared to women who hold feminist beliefs but do not consider themselves to be feminists. A better understanding of the protective role that feminist identification may play in body image concerns and disordered eating has the potential to inform efforts to improve women's health, and, in particular, treatment and prevention programs for eating disorders.

## Women and body image

Feminist theorists highlight societal factors and gender beliefs specific to Western cultures that put women at risk for developing body image and eating concerns. According to objectification theory, girls are taught to view themselves as an outside observer would see them, leading to constant body monitoring, shame, anxiety, disordered eating, depression, and sexual dysfunction (Fredrickson & Roberts, 1997). Through self-objectification, a woman's experience of her body is dictated by constant self-evaluation and comparison to societal standards (Smolak & Piran, 2012). Concurrently, women come to believe that they can control their appearance in order to attain the ideal (McKinley & Hyde, 1996; Piran & Cormier, 2005).

The gendered etiology of body image can also be understood in the context of prevailing attitudes that a man's body is supposed to be "capable, strong, and powerful," while a woman's body is supposed to be "sexy" for the pleasure of men (Smolak & Piran, 2012, p. 202). Additionally, researchers have pointed to the everyday sexism and historically lower social status experienced by women as well as sexual abuse and violence as pathways by which women are exposed differentially to risk for body disturbances (Harned & Fitzgerald, 2002; Piran & Thompson, 2008; Smolak & Piran, 2012). This discourse highlights the effect that relationships of power and privilege related to gender have on the experience of one's own body (Piran, 2010).

## Feminist identity

Some scholars have suggested that holding a feminist identity is protective for women against body-related issues. According to Murnen and Smolak (2009), a unifying theme in many definitions of feminism is the idea that a feminist "recognizes that discrimination against women exists, experiences a sense of shared fate with women as a group, and wants to work with others to improve women's status" (p. 30). While our society today widely acknowledges that discrimination against women exists, stigma associated with the feminist label persists likely in large part due to negative representations of feminists in the media as radical, man-hating, and threatening to heterosexuality (Zucker, 2004). There are a number of explanations for why women who embrace feminism may be protected from body-related issues. For instance, in accepting a stigmatized label like "feminist," feminist identified women are rejecting a societal norm. These women may be better able to reject other societal norms such as those related to beauty. For example, they may be better able to reject unrealistic body ideals and critically evaluate media images and cultural messages that promote thinness (Hurt et al., 2007).

Another theory suggests that by rejecting traditional gender relationships of power, feminist women put themselves at less risk for internalization of the thin ideal and poor body image (Dionne et al., 1995). Based on their meta-analysis of 26 studies conducted predominantly on U.S. and Canadian samples, Murnen and Smolak (2009) put forth a number of explanations such as the idea that feminists have greater awareness of the ways in which objectification and the thin ideal are oppressive to women; when feminists encounter sexism, they understand it in a cultural context rather than internalize it; feminists are critical of

traditional notions that associate appearance with femininity; feminists are more likely to intentionally develop an identity around personality characteristics unrelated to appearance; and feminists are more likely to adopt strategies to deal with sexist events.

Examination of relationships between feminism and body image/disordered eating is important because of the potentially protective role of feminist identity. Further, the study of feminist identification in diverse population-based samples is important for drawing conclusions that are generalizable to the population of young adult women. Additionally, given the rapidly evolving cultural interpretations of feminism, further research in the area of body image and feminism is warranted in contemporary samples of young adult women. Young adulthood is a formative time for women as they gain independence, establish health habits that will last throughout their lives, develop their identity, and explore new ideologies (Nelson et al., 2008), it is therefore a stage of development in which feminist ideology has the potential to be influential. Ultimately, this area of research can be used to guide appropriate messages and interventions.

### **Research on feminism and body image/disordered eating**

Empirical research on the relationship of feminist identification and body image/disordered eating to date has yielded mixed results. The large majority of studies have been conducted in Western countries on samples of predominantly white, socioeconomically privileged samples. In their meta-analysis of 26 studies on feminist identity and body disturbances, Murnen and Smolak (2009) found a statistically significant relationship between feminism and body attitudes, although effect sizes were small and variable across studies. The largest effect sizes were found for the negative association of feminism with body shame and internalization of the media. The authors note that these findings align with feminist theory, suggesting that feminist identity may be more protective against internalization of cultural messages around thinness rather than body dissatisfaction or eating pathology, considering the ubiquitous body appearance pressures in the U.S. and other industrialized English-speaking countries.

The nuanced findings of empirical studies on this topic illustrate the complexity of the relationship between feminist identification and body-related issues. A few studies suggest that feminist beliefs may moderate the relationship between experienced cultural pressures and women's body experiences. For example, Myers and colleagues (2012) found in their quantitative study of predominantly white, college-aged women, that feminist beliefs moderated the relationship between appearance-focused comparisons and body image disturbance. Women holding feminist beliefs still made appearance-based comparisons leading to body dissatisfaction, but they were less likely to respond to body dissatisfaction by engaging in obsessive behaviors to improve appearance, suggesting that they were better able to dismiss feelings of body dissatisfaction. Similarly, using a qualitative study with predominantly white women, ages 19–42, Rubin and colleagues (2004) described feminism as a “filtering lens,” giving women a different way to interpret cultural messages about women's bodies and tools for avoiding internalization of negative messages (p. 30). However, feminists in the study reported that although they “knew better,” they still felt body dissatisfaction and shame about the way they looked.

While feminist consciousness may change the way women experience appearance-related pressures, and Murnen and Smolak's (2009) meta-analysis suggests a significant association between feminist belief and body attitudes, research to date has led to inconclusive results. Murnen and Smolak suggest that different factors influence the relationship found between feminist beliefs and body attitudes. One such factor involved the way in which feminist identity was measured. In particular, self-identification as a feminist, rather than holding feminist beliefs, was more strongly associated with body attitudes.

## The present study

In the present study we use data from a large and diverse sample of young adult women to better understand the potentially protective effects of feminist identification on body related issues. Included in our analyses are socio-demographic variables (race, educational attainment, and age) known to be associated with feminist identification and body satisfaction/disordered eating (Aronson, 2003; Tiggerman & Stevens, 1999), as well as BMI because of its association with body satisfaction/disordered eating (Neumark-Sztainer & Hannan, 2000; Paxton et al., 1991). The following hypotheses were proposed:

1. Women claiming a feminist identity and women holding feminist beliefs will have higher body satisfaction than non-feminist women. We expect these associations will persist after adjusting for race/ethnicity, age, educational attainment, and BMI.
2. Women holding feminist identity and women holding feminist beliefs will have fewer eating disturbances (binge eating, unhealthy weight control behaviors, dieting) than non-feminist women. We expect these associations will persist after adjusting for race/ethnicity, age, educational attainment, and BMI.
3. The association between feminist identification and body-related issues will be stronger for women holding feminist identity as compared to those holding feminist beliefs.

## Materials and Methods

### Study Sample and Design

Data for this cross-sectional analysis were drawn from Project EAT (Eating and Activity in Teens and Young Adults)-III, the third wave of a population-based study designed to examine factors associated with weight-related outcomes among young adults. At baseline (1998–1999), a total of 4,746 middle school and high school students at 31 public schools in Minneapolis/St. Paul metropolitan area of Minnesota completed surveys and anthropometric measures (Neumark-Sztainer, Story et al., 2002; Neumark-Sztainer, Croll et al., 2002). The baseline sample (Project EAT-I) was recruited from an initial pool of schools in the Minneapolis and St. Paul districts identified for initial inclusion based on their size and availability (i.e., not currently engaged in other research studies). Fifty-three schools were contacted by letter and telephone calls and asked to participate; of those, 31 schools consented. In 2008–2009, ten years after the initial data collection, original participants were

mailed letters inviting them to complete online or paper versions of the Project EAT-III survey. Participants included 70.8% of females who could be contacted (53.5% of females in the original school based sample). One third of participants (31%) were aged 20 to 25 years ( $M=23.0$ ,  $SD=0.70$ ) and two thirds (69%) were aged 26–31 years ( $M=26.2$ ,  $SD=0.79$ ). Given the focus of this paper, only female participants were included in analyses, comprising a sample size of 1241 young adult women. All study protocols were approved by the University of Minnesota’s Institutional Review Board Human Subjects Committee.

### Survey Development

The original Project EAT survey (Neumark-Sztainer et al., 2002) that was used with adolescents was modified at follow-up to improve the relevance of items for young adults. Several new items, including a question about feminist identification, were added to the EAT-III survey reflecting the study’s broader ecological perspective. The revised survey was pre-tested by 27 young adults in focus groups and test-retest reliability was examined in a sample of 66 young adults. Details of the survey development process are described elsewhere (Larson et al., 2011).

### Measures

**Feminism**—Feminism was measured using a single self-report item on the EAT-III survey. Participants were asked, “Choose the statement that best describes your belief regarding feminism.” Response options were: “I call myself a feminist,” “I agree with most of the objectives of the feminist movement but do not call myself a feminist,” and “I do not consider myself a feminist.” Based on responses to this question, participants were divided into three groups: feminist identified, feminist beliefs, and not feminist. This item was adapted from the Feminist Self-labeling Scale (Myakovsky & Wittig, 1997).

**Socio-demographic variables**—Participants’ gender and age, race/ethnicity, and educational attainment were self-reported on the EAT surveys. Race/ethnicity was assessed with one survey item (baseline): “Do you think of yourself as (1) white, (2) black or African-American, (3) Hispanic or Latino, (4) Asian-American, (5) Hawaiian or Pacific Islander, or (6) American Indian or Native American” and respondents were asked to check all that apply. A “mixed/other” group was created for those who checked more than one group, and included Hawaiian/Pacific Islanders due to their very small number in this sample. Participants indicated their highest level of educational attainment from seven categories, grouped as high school or less, associate’s degree, bachelor’s degree, or graduate/professional degree for analysis (EAT-III).

**Body mass index (BMI)**—In order to adjust the analysis for confounding by body weight, BMI was calculated during EAT-III using self-reported height and weight with the standard formula [weight (kg)/height (m<sup>2</sup>)]. Self-report of height and weight were validated in a subsample of 63 male and 62 female participants in Project EAT-III for whom height and weight measurements were completed by trained research staff. Results showed very high correlations between self-reported BMI and measured BMI ( $r = 0.98$ ).

**Body satisfaction**—Body satisfaction was assessed in EAT-III using a modified version of the Body Shape Satisfaction Scale (Pingitore et al., 1997). Participants were asked how satisfied they felt with 13 elements of their body: height, weight, body shape, waist, hips, thighs, stomach, face, build, shoulders, muscles, chest, and overall body fat. Response options for each body feature ranged from “very dissatisfied” to “very satisfied” on a 5-point scale, and all items were summed for an overall score with higher scores indicating higher body satisfaction. This scale has demonstrated discriminant, convergent, and predictive validity in prior studies conducted by our research team (e.g., Neumark-Sztainer, Wall, et al., 2006; Paxton et al., 2006) (Cronbach’s  $\alpha = 0.93$ ; test-retest  $r = 0.89$ ).

**Eating disturbances**—Eating disturbances were assessed on the EAT-III survey and included binge eating, dieting, and unhealthy and extreme weight control behaviors.

**Binge eating:** Binge eating was assessed via two items that have been widely used in similar populations: “In the past year, have you ever eaten so much food in a short period of time that you would be embarrassed if others saw you?” and “During the times when you ate this way, did you feel you couldn’t stop eating or control what or how much you were eating?” Participants who responded affirmatively to both questions were classified as binge eaters [test-retest  $r = 0.90$  (first question);  $r = 0.75$  (second question)] (Yanovski, 1993).

**Dieting:** Dieting was assessed with the question, “How often have you gone on a diet during the last year? By ‘diet’ we mean changing the way you eat so you can lose weight.” Response options included: *never*, *one to four times*; *five to 10 times*; *more than 10 times*; and *I am always dieting*. Participants were categorized as non-dieters (never) or dieters (all other responses) (test-retest  $r = 0.82$ ).

**Unhealthy weight control behaviors:** Unhealthy Weight Control Behaviors (UWCBs) were assessed with the following question, constructed for this study: “Have you done any of the following things in order to lose weight or keep from gaining weight during the past year? (*yes* or *no* for each method).” Behaviors categorized as less extreme UWCBs included (1) fasted, (2) ate very little food, (3) used a food substitute (e.g., Slim-fast), (4) skipped meals, and (5) smoked more cigarettes. Behaviors categorized as extreme UWCBs included (1) took diet pills, (2) made myself vomit, (3) used laxatives, and (4) used diuretics. Percentages of respondents using at least one of the behaviors were calculated for each category (less extreme UWCBs: test-retest  $r = 0.85$ , Cronbach’s  $\alpha$  for full scale = 0.74; extreme UWCBs:  $r = 0.96$ , Cronbach’s  $\alpha$  for full scale = 0.53).

## Statistical analysis

All analyses were conducted using SAS software (version 9.2, 2003; SAS, Inc., Cary, NC.). For all analyses, a p-value of less than 0.05 was considered statistically significant. An unadjusted analysis of variance (ANOVA) and an adjusted multiple analysis of variance (MANOVA) were used to examine the relationship of feminist identification with body satisfaction, binge eating, unhealthy weight control behaviors, and dieting. In order to determine which variables to include in the adjusted analysis, chi-square tests of association were used to compare feminist identification groups by socio-demographic characteristics,

and an ANOVA was used to compare mean BMIs. Variables that were significantly associated with feminist identification in bivariate analyses (race, educational attainment, age, and BMI) were included in the adjusted model, in order to decrease the possibility of confounding by these variables, thus allowing for an examination of independent associations between feminist identification and outcome variables. Post hoc *t-tests* were used to compare each feminist identification category to each other category for all body-related variables.

## Results

The demographic characteristics, prevalence of feminist identification, prevalence of eating disturbances, mean BMI and mean body satisfaction of the sample are shown in Table 1. Overall, 14.5% of study participants identified as feminist, 49.0% held feminist beliefs but did not self-identify as feminist, and 36.5% reported not being feminist.

### Body Satisfaction

In both the unadjusted and the adjusted models, feminist women had higher body satisfaction as compared to both groups of women who did not identify as feminist. In the adjusted model, the mean body satisfaction for feminists was 40.7 (0.91), which was significantly higher than for women with feminist beliefs ( $M = 38.4$ ,  $SD = 0.65$ ;  $p = 0.006$ ) and non-feminists ( $M = 38.6$ ,  $SD = 0.71$ ;  $p = 0.02$ ). There were no significant differences in body satisfaction between the feminist beliefs group and the not feminist group.

### Eating Disturbances

In unadjusted analyses, feminist identified women were significantly less likely to report engagement in less extreme UWCBs and dieting as compared to women holding feminist beliefs (Table 3). Further, feminist identified women were significantly less likely to report engaging in extreme UWCBs than the not feminist group. Feminist identification was not associated with binge eating.

After adjusting for race, educational attainment, age, and BMI, feminist identification was not significantly associated with binge eating or extreme UWCBs. Feminist identified women were significantly less likely to report less extreme UWCBs and dieting as compared to women holding feminist beliefs. However, there were no significant differences between feminist identified women and non-feminist women in terms of eating disturbances.

## Discussion

Using data from a large, racially diverse sample, this cross-sectional study analyzed feminist identification among young adult women and examined the relationships of feminist identity with disordered eating and body image. Amongst study participants, 14.5% identified as feminist, 49.0% held feminist beliefs but did not self-identify as feminist, and 36.5% reported not being feminist. Our results indicate differences in body satisfaction by feminist identification after controlling for race/ethnicity, age, educational attainment, and BMI. Consistent with our hypotheses, feminist identified women reported significantly higher body satisfaction than women who did not embrace feminism. Another important finding

from the present study is that although feminist identity was associated with higher body satisfaction, we did not find feminist-identification to be a consistent protective factor against disordered eating behaviors.

These findings are in line with some, but not all, findings from other studies that have examined associations between feminist identity and body image/eating disturbances. Specifically, our results align with the results of Murnen and Smolak's (2009) meta-analysis, which identified stronger associations between feminist identity and body shame than between feminist identity and eating pathology. In focus groups with feminist-identified women, Rubin and colleagues (2004) provide further explanation. They found that feminist women applied cognitive strategies to challenge their negative beliefs about their bodies. These cognitive strategies helped feminist women to feel good about their appearances, but they were not enough to fully combat deeply engrained societal notions of beauty. Similarly, in the present study perhaps aspects of feminism helped women to feel more satisfied with their bodies, but it did not translate into changed behaviors. However, interpretations should be made cautiously as findings across studies have not been consistent. For example, Snyder and Hasbrouck (1996) found feminist identification to be associated with less body dissatisfaction and fewer bulimic symptoms, but Cash et al. (1997) and Dionne et al. (1995) failed to find any association between feminist identity and body satisfaction or eating disturbances.

While the results of the present investigation regarding a significant association between feminist identification and body satisfaction may suggest a potentially beneficial role of feminist education in promoting positive body image, the inconsistent associations between feminist identity and disordered eating behaviors suggests that further studies need to be conducted in this area. In particular, intervention studies that include feminist education could help shed further light to this area. For example, Peterson and colleagues (2006) found that women at a university in the southeastern U.S. who underwent a feminist intervention, which involved learning about feminist theories and talking about feminism in relation to body image, had increased self-identification as a feminist and more body satisfaction following the intervention as compared to women who did not complete the feminist intervention. Building on the results of the present study, future intervention studies should explore different types of feminist interventions and examine the effects on disordered eating behaviors.

The discrepancy between the present study's results related to body satisfaction and eating symptomatology reinforce current views that emphasize the importance of considering gender-related social context in efforts to prevent these behaviors (Levine & McVey, 2012; Piran, 2010; Piran & Teall, 2012; Smolak & Piran, 2012). Within the context of a society that continues to accept a culture of dieting, sexualization, objectification, and disempowerment related to gender, despite women holding onto cognitive strategies such as feminism to reverse personal shame in relation to these occurrences, the challenge of changing body practices may be too great. The monumental societal forces working against women in this realm can be epitomized by the billion dollar beauty products industry that is founded on women feeling the need to conform to certain standards of appearance. In the present study, if the experience of appearance-based social power is unchanged in these



young women's college campuses, workplaces, or social circles, it may not be possible for many women to change their adherence to expected norms of appearance regardless of their feminist identity or beliefs.

Another important finding of the present study concerns the largest group of women in the study: those who hold feminist beliefs but do not identify as feminist. Interestingly, these women had body satisfaction no different from non-feminist women and significantly lower than feminist-identified women. Murnen and Smolak (2009), too, found that body satisfaction and feminism were more strongly related when feminism was measured by self-identification rather than by attitudes. The present study suggests that there may be something important about accepting the feminist label beyond agreeing with feminist beliefs, given the observed difference in body satisfaction between feminist identified women and women holding feminist beliefs.

While feminist identification was found to be associated with greater body satisfaction, the present study raises other questions. For example, only a relatively small percentage (14.5%) of young adult women identified as feminist. This finding is consistent with other studies of women in their twenties from the past two decades, which found that while a significant percentage of women support the ideas of feminism, few embrace the label fully (Aronson, 2003; Henderson-King & Stewart, 1994; Liss et al., 2001). Therefore, even though our findings suggest that feminist identification may be considered a protective factor, one has to consider the small number of young women who hold this identification. It has been suggested that even though most women agree with feminist beliefs, they do not identify as feminists because of the stigma surrounding the label (Hurt, 2007). The negative stigma associated with being a feminist may have a similar political and social background to negative body image, namely: sexism and the backlash against women's greater participation in the public sphere (Piran, 2010; Piran & Teall, 2012). Therefore, efforts that draw on feminism to promote positive body image must address resistance that women may have to embracing a feminist identity.

Strengths of the present study include the large sample size and its racial/ethnic and socioeconomic diversity, which increase the generalizability of our findings relative to previous studies. Additionally, the present study utilizes multiple measures of disordered eating and body image, providing us with a more thorough picture of women's body-related attitudes and behaviors. Study limitations also warrant consideration. Because the survey question regarding feminism was added at the third wave of a longitudinal study, data are cross-sectional and thus questions of temporality of relationships cannot be tested. Future research should investigate whether feminist identification in young adulthood predicts body satisfaction and eating behaviors later on. Also, feminist identification was assessed via a single survey item; multiple survey items or full scales may be more effective in capturing the nature of feminist identity, as would more qualitative methods. Finally, although participants represented a diverse range of backgrounds, the sample includes only women from Minnesota, so results do not necessarily reflect national trends.

## Conclusions

The findings of the present study suggest that identification as feminist may play a role in promoting positive body image and eating behaviors for young adult women. Efforts to empower young women to consider feminism's relevance to their lives today and to employ feminist thought in interpreting societal messages they receive about beauty may help to address the widespread body dissatisfaction experienced by young adult women. However, the low rates of feminist identification among young women may point to the need to address the underlying stigma associated with the label. Additionally, the clear association of feminist identity with body satisfaction in comparison to the less clear relationships with disordered eating behaviors illuminates the need for interventions to make the link between these attitudes and behaviors, even in light of prevailing societal notions and narratives regarding the woman's body.

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## References

- Aronson P. Feminists or "postfeminists"? Young women's attitudes toward feminism and gender relations. *Gender & Society*. 2003; 17(6):903–922. DOI: 10.1177/0891243203257145
- Bearman SK, Presnell K, Martinez E, Stice E. The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence*. 2006; 35:217–229. DOI: 10.1007/s10964-005-9010-9 [PubMed: 16912810]
- Cash TF, Ancis JR, Strachan MD. Gender attitudes, feminist identity, and body images among college women. *Sex Roles*. 1997; 36(7):433–447. DOI: 10.1007/BF02766682
- Dionne M, Davis C, Fox J, Gurevich M. Feminist ideology as a predictor of body dissatisfaction in women. *Sex Roles*. 1995; 33:277–287. DOI: 10.1007/BF01544615
- Fredrickson BL, Roberts TA. Objectification theory. *Psychology of Women Quarterly*. 1997; 21(2): 173–206. DOI: 10.1111/j.1471-6402.1997.tb00108.x
- Harned MS, Fitzgerald LF. Understanding a link between sexual harassment and eating disorder symptoms: A mediational analysis. *Journal of Consulting and Clinical Psychology*. 2002; 70:1170–1181. [PubMed: 12362967]
- Henderson-King DH, Stewart AJ. Women or feminists? Assessing group consciousness. *Sex Roles*. 1994; 31(9–10):505–16. DOI: 10.1007/BF01544276
- Hurt MM, Nelson JA, Turner DL, Haines ME, Ramsey LR, Erchull MJ, Liss M. Feminism: What is it good for? Feminine norms and objectification as the link between feminist identity and clinically relevant outcomes. *Sex Roles*. 2007; 57(5):355–363. DOI: 10.1007/s11199-007-9272-7
- Larson N, Neumark-Sztainer D, Story M, van den Berg P, Hannan P. Identifying correlates of young adults' weight behavior: Survey development. *American Journal of Health Behaviors*. 2011; 35:712–725. doi: <http://dx.doi.org/10.5993/AJHB.35.6.7>.
- Levine, MP.; McVey, GL. Prevention, prevention science, and an ecological perspective: A framework for programs, research and advocacy. In: McVey, L.; Levine, MP.; Piran, N.; Ferguson, B., editors. *Preventing eating-related weight-related disorders*. Waterloo, Canada: Wilfred Laurier University Press; 2012. p. 19-43.
- Liss M, O'Connor C, Morosky E, Crawford M. What makes a Feminist? Predictors and correlates of feminist social identity in college women. *Psychology of Women Quarterly*. 2001; 25:124–133. DOI: 10.1111/1471-6402.00014

- McKinley NM, Hyde JS. The Objectified Body Consciousness Scale: Development and validation. *Psychology of Women Quarterly*. 1996; 20(2):181–215. DOI: 10.1111/j.1471-6402.1996.tb00467.x
- Murnen SK, Smolak L. Are feminist women protected from body image problems? A meta-analytic review of relevant research. *Sex Roles*. 2009; 60(34):186–197. DOI: 10.1007/s11199-008-9523-2
- Myakovsky L, Wittig MA. Predictors of feminist social identify among college women. *Sex Roles*. 1997; 37(11/12):861–883. DOI: 10.1007/BF02936344
- Myers TA, Ridolfi DR, Crowther JH, Ciesla JA. The impact of appearance-focused social comparisons on body image disturbance in the naturalistic environment: The roles of thin-ideal internalization and feminist beliefs. *Body Image*. 2012; 9(3):342–351. DOI: 10.1016/j.bodyim.2012.03.005 [PubMed: 22520342]
- Nelson MC, Story M, Larson NI, Neumark-Sztainer D, Lytle LA. Emerging adulthood and college-aged youth: An overlooked age for weight-related behavior change. *Obesity*. 2008; 16:2205–2211. DOI: 10.1038/oby.2008.365 [PubMed: 18719665]
- Neumark-Sztainer D, Hannan PJ. Weight-related behaviors among adolescent girls and boys: Results from a national survey. *Archives of Pediatric and Adolescent Medicine*. 2000; 154(6):569–577. DOI: 10.1001/archpedi.154.6.569
- Neumark-Sztainer D, Croll J, Story M, Hannan P, French S, Perry C. Ethnic/racial differences in weight-related concerns and behaviors among adolescent girls and boys: Findings from Project EAT. *Journal of Psychosomatic Research*. 2002; 53:963–974. DOI: 10.1016/S0022-3999(02)00486-5 [PubMed: 12445586]
- Neumark-Sztainer D, Story M, Hannan P, Moe J. Overweight status and eating patterns among adolescents: Where do youth stand in comparison to the Healthy People 2010 Objectives? *American Journal of Public Health*. 2002; 92:844–851. DOI: 10.2105/AJPH.92.5.844 [PubMed: 11988458]
- Neumark-Sztainer D, Wall MM, Guo J, Story M, Haines J, Eisenberg ME. Obesity, disordered eating, and eating disorders in a longitudinal study of adolescents: How do dieters fare 5 years later? *Journal of the American Dietetic Association*. 2006; 106:559–568. DOI: 10.1016/j.jada.2006.01.003 [PubMed: 16567152]
- Paxton SJ, Neumark-Sztainer D, Hannan PJ, Eisenberg ME. Body dissatisfaction prospectively predicts depressive mood and low self-esteem in adolescent girls and boys. *Journal of Clinical Child and Adolescent Psychology*. 2006; 35(4):539–549. DOI: 10.1207/s15374424jccp3504\_5 [PubMed: 17007599]
- Paxton SJ, Wertheim EH, Gibbons K, Szmukler GI, Hillier L, Petrovich JL. Body image satisfaction, dieting beliefs, and weight loss behaviors in adolescent girls and boys. *Journal of Youth and Adolescence*. 1991; 20(3):361–379. DOI: 10.1007/BF01537402 [PubMed: 24265063]
- Peterson RD, Tantleff-Dunn S, Bedwell JS. The effects of exposure to feminist ideology on women's body image. *Body Image*. 2006; 3:237–246. DOI: 10.1016/j.bodyim.2006.05.004 [PubMed: 18089226]
- Pingitore R, Spring B, Garfield D. Gender differences in body satisfaction. *Obesity Research*. 1997; 5(5):402–409. DOI: 10.1002/j.1550-8528.1997.tb00662.x [PubMed: 9385613]
- Piran N, Cormier HC. The social construction of women and disordered eating patterns. *Journal of Counseling Psychology*. 2005; 52(4):549–558. DOI: 10.1037/0022-0167.52.4.549
- Piran, N.; Teall, T. The Developmental Theory of Embodiment. In: McVey, G.; Levine, MP.; Piran, N.; Ferguson, HB., editors. *Preventing eating-related and weight-related disorders: Collaborative Research, Advocacy, and Policy Change*. Waterloo ON: Wilfred Laurier Press; 2012. p. 171-199.
- Piran N, Thompson S. A study of the adverse social experiences model to the development of eating disorders. *International Journal of Health Promotion and Education*. 2008; 46(2):65–71. DOI: 10.1080/14635240.2008.10708131
- Piran N. A feminist perspective on risk factor research and on the prevention of eating disorders. *Eating Disorders*. 2010; 18(3):183–198. DOI: 10.1080/10640261003719435 [PubMed: 20419523]
- Rubin LR, Nemeroff CJ, Russo NF. Exploring feminist women's body consciousness. *Psychology of Women Quarterly*. 2004; 28(1):27–37. DOI: 10.1111/j.1471-6402.2004.00120.x

- Smolak, L.; Piran, N. Gender and the prevention of eating disorders. In: McVey, G.; Levine, MP.; Piran, N.; Ferguson, HB., editors. Preventing eating-related and weight-related disorders: Collaborative research, advocacy, and policy change. Waterloo ON: Wilfred Laurier Press; 2012. p. 201-224.
- Snyder R, Hasbrouck L. Feminist identity, gender traits, and symptoms of disturbed eating among college women. *Psychology of Women Quarterly*. 1996; 20(4):593–598. DOI: 10.1111/j.1471-6402.1996.tb00324.x
- Spitzer BL, Henderson KA, Zivian MT. Gender differences in population versus media body sizes: A comparison over four decades. *Sex Roles*. 1999; 40:545–565. DOI: 10.1023/A:1018836029738
- Yanovski S. Binge eating disorder: Current knowledge and future directions. *Obesity Research*. 1993; 1:306–324. DOI: 10.1002/j.1550-8528.1993.tb00626.x [PubMed: 16350580]
- Zucker AN. Disavowing social identities: What it means when women say, “I’m not a feminist, but...”. *Psychology of Women Quarterly*. 2004; 28(4):423–435. DOI: 10.1111/j.1471-6402.2004.00159.x

**Table 1**

## Study Sample Characteristics

	N(%)
Race	
White	758 (61.8)
African American	138 (11.2)
Hispanic	46 (3.7)
Asian	208 (17.0)
Native American	39 (3.2)
Mixed race/other	38 (3.1)
Educational Attainment	
High school graduate or less	420 (33.9)
Associate degree/technical or vocational certification program	327 (26.4)
Bachelor Degree	438 (35.4)
Graduate/Professional degree	53 (4.3)
Feminist Identification	
Feminist Identified	180 (14.5)
Feminist Beliefs	608 (49.0)
Not Feminist	453 (36.5)
Binge Eating	
Yes	200 (16.2)
No	1036 (83.8)
Less Extreme Unhealthy Weight Control Behaviors	
Yes	641 (51.7)
No	600 (48.3)
Extreme Unhealthy Weight Control Behaviors	
Yes	251 (20.2)
No	990 (79.8)
Dieting	
Yes	711 (57.3)
No	529 (42.7)
	M (SD)
Average Age	25.2 (1.65)
BMI (range=15.7–56.5)	26.0 (6.3)
Body Satisfaction (range=12.0–65.0)	38.3 (11.6)

**Table 2**

## Feminist Orientation by Socio-Demographic Characteristics and BMI

	N	Feminist Identified (%)	Feminist Beliefs (%)	Not Feminist (%)
$\chi^2= 33.27, p < 0.001$				
Race				
White (reference)	758	14.3	48.4	37.3
African American	138	12.3	39.1	48.6
Hispanic	46	10.9	56.5	32.6
Asian	208	21.2	55.3	23.6
Native American	39	7.7	43.6	48.7
Mixed race/other	38	5.3	55.3	39.5
$\chi^2= 33.27, p < .001$				
Educational Attainment				
High school graduate or less (reference)	420	11.0	46.0	43.1
Associate degree/technical or vocational certification program	327	11.6	47.7	40.7
Bachelor Degree	438	19.0	53.4	27.6
Graduate/Professional degree	53	22.6	47.2	30.2
$F=8.48, p < .001$				
Average Age [M(SD)]		24.8 ( $\pm 0.12$ )	25.2 ( $\pm 0.07$ )	25.4 ( $\pm 0.08$ )
$F= 5.52, p = .0004$				
Average BMI [M(SD)]		24.6 ( $\pm 0.47$ )	26.0 ( $\pm 0.25$ )	26.5 ( $\pm 0.29$ )

Row sum may exceed 100% due to rounding.

**Table 3**  
 Estimated mean body satisfaction/percentage reporting disordered eating behaviors by feminist identification groups

	Unadjusted				Adjusted <sup>1</sup>			
	Feminist Identified	Feminist Beliefs	Not Feminist	F, p	Feminist Identified	Feminist Beliefs	Not Feminist	F, p
Body satisfaction [M (SE)]	41.0 <sup>a</sup> (±0.86)	37.7 <sup>b</sup> (±0.47)	38.1 <sup>b</sup> (±0.54)	F = 5.57, p = 0.004	40.7 <sup>a</sup> (±0.91)	38.4 <sup>b</sup> (±0.65)	38.6 <sup>b</sup> (±0.71)	F = 4.00, p = 0.019
Binge Eating <sup>2</sup>	15.6%	17.1%	15.1%	F = 0.41, p = 0.66	14.8%	15.5%	14.6%	F = 0.09, p = 0.91
Less Extreme UWCBs <sup>2</sup>	46.1% <sup>a</sup>	56.5% <sup>b</sup>	47.5% <sup>a</sup>	F = 5.50, p = 0.004	47.9% <sup>a</sup>	56.3% <sup>b</sup>	47.1% <sup>a</sup>	F = 5.16, p = 0.006
Extreme UWCBs <sup>2</sup>	14.4% <sup>a</sup>	20.6% <sup>ab</sup>	22.1% <sup>b</sup>	F = 2.37, p = 0.094	16.1%	21.1%	21.7%	F = 1.30, p = 0.27
Dieting <sup>2</sup>	50.0% <sup>a</sup>	60.1% <sup>b</sup>	56.5% <sup>ab</sup>	F = 3.02, p = 0.05	51.8% <sup>a</sup>	60.0% <sup>b</sup>	57.1% <sup>ab</sup>	F = 2.04, p = 0.13

<sup>a,b</sup> Within rows, cells with different superscripts are significantly different (p < 0.05)

<sup>1</sup> Adjusted for race, educational attainment, age, and BMI

<sup>2</sup> For categorical dependent variables, least square means can be interpreted as predicted probabilities of engaging in each behavior. Due to the large sample size, the Central Limit Theorem effectively treats them as normally distributed continuous variables.