Gender and Age Differences in Associations between Peer Dieting and Drive for Thinness

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ABSTRACT

Objective: To examine associations between peer dieting and drive for thinness (DT) in men and women of three age groups and to compare rates of perceived vs. reported peer dieting.

Method: Data came from an epidemiological study in which surveys were completed by women (n=1,468) and men (n=592) from three age groups: late adolescent (mean ± SD age: 20.0 ± 1.6 years), adult (30.0 ± 1.6), and midlife (40.1 ± 2.0).

Results: Significant associations were found between perceived peer dieting and DT in women and men. For women, associations were strongest in late adolescents for same-sex peers. Associations in men did not differ by age group or peer sex. Expected gender differences in the strength of associations were not found. Reported dieting occurred at or below rates perceived for peers.

Conclusion: Results may partially account for why DT has been found to decline with age in women, but not men. Longitudinal research is needed to support cross-sectional findings. © 2007 by Wiley Periodicals, Inc.

Keywords: drive for thinness; dieting; gender differences; age differences

Introduction

Drive for thinness (DT) is characterized by an extreme fear of gaining weight and undue concern with dieting and is thought to contribute to the development of eating disorders such as anorexia nervosa and bulimia nervosa.1 Western culture’s emphasis on the thin ideal has been implicated in the development of DT,2 and several studies have found an association between DT and sociocultural factors, such as media exposure.3,4 However, most individuals exposed to media portrayals of the thin ideal do not develop high DT. While genetic factors are important in the development of disordered eating and may account for individual differences in vulnerability to cultural risk factors (see Ref. 5 for a review), additional social factors such as the peer environment appear to contribute to a “subculture” that further reinforces the thin ideal6 through processes of modeling7 and social reinforcement. Peer dieting may be of particular relevance because dieting is an overt behavior and because DT is partially characterized by excessive concern with dieting.1 Given the greater influence of perceived peer behaviors versus actual peer behaviors,8,9 perceptions of peer dieting are of paramount interest. Several studies have supported associations between perceived peer behaviors and DT in young female populations. However, fewer studies have focused specifically on perceptions of peer dieting or on males or older populations.

Peer interactions regarding weight have been associated with DT in preadolescent10 and adolescent girls.11 In addition, perceived peer preoccupations with weight and dieting have been associated with DT in adolescent girls,12 although a second study failed to support peer modeling of weight loss behaviors as a unique predictor of DT in adolescent girls.11 Finally, in college-aged women, peer exchanges regarding weight and dieting were directly associated with a latent restriction factor that included DT.13 These studies suggest that perceived peer behaviors, particularly verbal interactions, related to weight and dieting may influence an adolescent girl’s DT.

It is well known that males have lower DT compared to females.14–16 It is possible that males have lower DT because their same-sex peers are less
likely to diet, thus are modeling less dieting. In addition, males may be less influenced by peer dieting behaviors. However, as noted above, there have been fewer attempts to investigate peer influences on DT in males, and results have been mixed. Although one study found a significant association between boys’ DT and peer interactions regarding weight and eating habits in preadolescent children, a second study found that peer influences did not predict DT in adolescent boys; instead, body mass index (BMI) was the only significant predictor. Further research is needed to elucidate associations between perceived peer behavior and DT in males.

Studies on contributors to DT tend to focus primarily on college-aged and younger populations. This focus reflects the fact that both dieting and DT peak in females during late adolescence and young adulthood. In contrast, recent research has found that both DT and dieting increase from late adolescence to midlife in men. If perceived peer dieting is relevant to the development of DT, then patterns from late adolescence to midlife may be explained by decreasing associations between peer dieting and DT in women but not in men. Previous research suggests that friendships play a decreased role in women’s lives when women are balancing myriad demands, such as careers, marriages, and children. This might contribute to diminished influence of peer dieting on women’s DT as they age. In contrast, friendships do not play a decreased role in men’s lives as they take on new social roles. Thus, it is important to examine how associations between peer dieting and DT may differ by age in women versus men.

Finally, when investigating the role of perceived peer dieting on DT, it is important to determine how perceptions of other individuals’ behaviors differ from the extent to which individuals themselves report engaging in these behaviors. Studies of alcohol use and sexual behavior have shown that subjects are likely to overestimate rates of these behaviors in their peers. Such biased perceptions may increase the likelihood of engaging in these behaviors by allowing the individual to rationalize unhealthy behaviors as normative. To the authors’ knowledge, no published studies have looked at the accuracy of estimations of peer dieting. This information would be a useful contribution to the literature, as misperception of peer norms could contribute to a vicious cycle in which biased perceptions contribute to high DT, and high DT contributes to biased perceptions.

The purpose of the current study was to investigate associations between DT and perceptions of friends’ dieting in men and women from three age groups: late adolescent, adult, and midlife. We hypothesized that associations between perceived peer dieting and DT would be greater in women than in men in all age groups. We also hypothesized that associations would be stronger in late adolescents than in adults and stronger in adults than in the midlife subjects for both genders. An additional aim was to examine the difference between reported rates of dieting in women and men and perceived rates of female and male peer dieting. We hypothesized that individuals would overestimate the extent to which their peers were engaging in dieting practices, consistent with data on perceptions of alcohol use and sexual activity.

Method
Participants
Data for this project came from a large epidemiological and longitudinal study on eating behaviors, attitudes, and health. Participants were recruited from freshman and senior classes at a prestigious Northeastern University in the springs of 1982, 1992, and 2002. In 2002, participants from the 1992 and 1982 cohorts were recruited for 10- and 20-year follow-up, respectively. The present study examines data collected in the Spring of 2002 that came from men (n = 592) and women (n = 1,468) in three age groups. Late adolescents (n = 783) ranged in age from 17 to 24 years, mean ± SD age 20.0 ± 1.6 years; adults (n = 622) from 27 to 35 years, 30.0 ± 1.6; and the midlife sample (n = 655) from 37 to 65 years, 40.1 ± 2.0. The ethnic/racial breakdown was: 70.0% Caucasian, 14.2% Asian, 6.7% African American, 5.8% Hispanic, and 3.3% other/undisclosed. Cohorts did not differ in terms of gender (χ²(2) = 3.8, p = .15); though they did differ in terms of ethnic diversity, with the younger cohorts being more ethnically diverse (χ²(8) = 57.75, p < .001). Of note, disordered eating patterns observed when all participants were in college, and thus matched for age, were independent of changes in ethnic diversity (see Ref. 23). Overall, 72.3% of subjects contacted participated in 2002 assessments, with response rates of 74.6% in women and 66.3% in men. Women were significantly more likely to participate than men, as described previously for all three cohorts.  

Procedure and Measures
A self-report survey on eating behaviors and health was mailed to participants, along with a cover letter and consent form. Questions on the survey inquired about demographic background, height, weight, and several health and eating behaviors. DT was assessed using the

*The upper age range reflects an outlier. 99% of participants in the midlife sample were between the ages of 37 and 44 years.
DT subscale from the EDI. Recent studies have supported the discriminant validity and internal consistency of the EDI-2 and the test–retest reliability of the EDI-2 for individuals with and without eating pathology. Importantly, recent factor invariance analyses of the EDI have supported a consistent factor structure in both women and men and across age groups. Cronbach’s alpha was .912 for the full sample, with values ranging from .862 to .928 for men and women in the three cohorts, indicating that this was an internally consistent measure across cohorts and between genders.

Perceived peer dieting was assessed with questions asking about the percentages of male friends and female friends who dieted. Given that the effects of modeling may be stronger for peers perceived to be more similar to the self, we conducted exploratory analyses to examine associations between same-sex versus opposite-sex peer behaviors on DT, separately, in both females and males. Reported dieting levels were ascertained for participants by averaging men and women’s responses to a single question, “How often are you dieting?” with responses of “usually” or “always” coded positively.

This research was approved by the Institutional Review Boards at the University of Iowa and Harvard University.

**Data Analyses**

Partial correlations were used to determine associations between perceived friends’ dieting and self-reported DT scores, controlling for BMI. Correlations obtained for different age groups and genders were compared by converting r values into Fisher’s z. Chi-square analyses were used to examine hypotheses regarding differences between reported rates of dieting in women and men versus perceived rates of dieting in women and men. Because of missing data, n values vary by analyses, with specific ns reported in Results.

**Results**

Mean (SD; range) BMIs (kg/m²) for each group are as follows: late adolescent men 23.21 (2.80; 16–35); adult men 24.62 (2.90; 20–36); midlife men 25.55 (2.98; 19–36); late adolescent women 22.17 (3.21; 16–43); adult women 22.92 (3.70; 16–43); and midlife women 23.25 (4.10; 14–41). BMIs differed significantly by cohort (F(2, 2040) = 29.49, p < .001), with the midlife group reporting the highest BMI, followed by the adult and then the late adolescent groups. BMI was also higher in men compared to women (F(1, 2040) = 86.16, p < .001). Additionally, BMI was significantly positively associated with DT within each group (all p-values < .01) as well as in the overall sample (r = .133; p < .001). Given differences in BMI between cohorts and genders and the significant association between BMI and DT, subsequent analyses controlled for BMI.

Table 1 presents partial correlations between perceived peer dieting and EDI DT for women and men of each age group, controlling for BMI. Significant correlation coefficients for same-sex peer dieting and DT in women and men were of medium to large effect size. This suggests a robust association between perceived same-sex peer dieting practices and one’s own DT. Contrary to our hypothesis, partial correlations between DT and same-sex friends’ dieting (controlling for BMI) did not differ significantly between women (r = .327, p < .001) and men (r = .363, p < .001), Z = .64, p = .522, when cohorts were combined.

Correlations between DT and opposite-sex peer dieting were significant for men (r = .197, p < .001) but not women (r = .034, p = .250) and differed significantly between women and men in magnitude (Z = 3.15; p < .01). Thus, DT in men was related to perceived dieting frequency in both male and female friends, whereas DT in women was related only to perceived dieting in female friends. Correlations between perceived same-sex peer dieting and DT were greater than those between perceived opposite-sex peer dieting and DT in both women (p < .001) and men (p < .01).

Correlations for women’s DT and same-sex peer dieting were significantly greater in late adolescent compared to midlife participants (p < .05; see

### Table 1. Correlations between perceived peer dieting and DT, controlling for BMI

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Groups</th>
<th>Sample Size</th>
<th>Correlation (Partial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Late adolescent (n=498; n=464)</td>
<td>Adult (n=413; n=380)</td>
<td>Midlife (n=378; n=332)</td>
</tr>
<tr>
<td></td>
<td>SS peers</td>
<td>.407***</td>
<td>.298***b</td>
</tr>
<tr>
<td></td>
<td>OS peers</td>
<td>.14*</td>
<td>.679</td>
</tr>
<tr>
<td>Men</td>
<td>Late adolescent (n=210; n=197)</td>
<td>Adult (n=137; n=133)</td>
<td>Midlife (n=145; n=134)</td>
</tr>
<tr>
<td></td>
<td>SS peers</td>
<td>.393***</td>
<td>.382***</td>
</tr>
<tr>
<td></td>
<td>OS peers</td>
<td>.219**</td>
<td>.183***</td>
</tr>
</tbody>
</table>

Correlations with different superscripts differ significantly from each other at p < .05. *p < .05, **p < .01, ***p < .001.

SS = same sex; OS = opposite sex.

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Men and women did not differ significantly in their reported dieting and perceived peer dieting. Perceived dieting reflects the mean percentage of male and female friends reported dieting by each age group.

Table 1) and approached traditional thresholds for significance for late adolescents compared to adults (p < .06). Though the latter finding was significant only at trend level, the observed pattern of results was consistent with hypothesized age differences in women. Contrary to expectations, correlations for men’s DT with both same-sex and opposite-sex friends’ dieting did not differ significantly across age groups.

Table 2 presents comparisons between self-reported dieting and perceived peer dieting. Women and men did not differ significantly in their estimates of dieting frequency among female and male peers (all ps > .30); women’s and men’s estimates were combined in Table 2. Female peers were perceived to be dieting more frequently than were male peers (ps < .001). Consistent with these perceptions, women reported dieting more frequently than did men. Supporting study hypotheses, self-reported dieting occurred at or below rates perceived for peers in all three cohorts. Individuals significantly overestimated the extent to which their female peers were dieting in all three cohorts (all ps < .001). In addition, perceived dieting in midlife men was significantly overestimated (p < .01), and perceived dieting in adult men was overestimated at trend level (p = .09).

### Conclusion

We found significant associations between perceived peer dieting and DT in college-aged women, a finding largely consistent with previous research demonstrating associations between peer behaviors and DT in females. The current study extended results from previous work showing that associations in women were specifically present for peer dieting, differed by age, and were stronger for same-sex versus opposite-sex peers. The current study also demonstrated that associations in men were significant, did not differ by age group, and were present for both same-sex and opposite-sex peer dieting. Thus, results are not consistent with a framework in which men are less susceptible to the influences of peer dieting than are women. In addition, results indicated that individuals in all three cohorts overestimated female peer dieting, and, in the midlife cohort, overestimated male peer dieting.

It is likely that there are multiple, potentially reciprocal influences on DT; however, results may partially explain reports by Keel et al.18 that DT decreases with age for women, but increases with age for men. Despite increasing BMI with age in both sexes,18 adult women may be protected by the decreased association between perceived peer practices and their own behaviors. Thus, not only are women’s same-sex peers dieting less frequently as they age,18 older women in the current study demonstrated less robust associations between perceived peer dieting and their own DT compared to late adolescent women. In contrast, men’s same-sex peers are dieting more frequently as they age,18 and this study found that men demonstrated robust associations between perceived peer dieting and their own DT in late adolescent, adult, and midlife participants.

Several factors may account for these findings. For example, women have more experience than men with failed dieting outcomes,31 and after repeated unsuccessful dieting attempts, women may realize that dieting is not an effective means of weight loss. This realization may lead them to become more resigned to their bodies, potentially segueing into reductions in dieting and DT with age. In this case, reductions in dieting and DT are accounted for by a third underlying variable. Men, however, may not yet have had enough experience with dieting to have relinquished its practice.

Results in women also may be explained by developmental changes in friendships. Increased life demands for adult women may limit time available to spend with peers.19 Additionally, as women enter marriages, their friendship networks become more diverse, including more opposite-sex peers introduced from their spouse’s social network.33 Increased life demands and heterogeneity of friendships may lead to reductions in time available to spend with same-sex peers, which may explain the decreased association between DT and same-sex peer dieting with age in women. New life roles that accompany adulthood do not appear to have

### TABLE 2. Comparison of self-reported dieting to perceived peer dieting

<table>
<thead>
<tr>
<th></th>
<th>Reported (%)</th>
<th>Perceived (%)</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adolescent</td>
<td>17.8</td>
<td>32.6</td>
<td>34.67</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Adult</td>
<td>10.0</td>
<td>32.2</td>
<td>72.19</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Midlife</td>
<td>11.0</td>
<td>34.2</td>
<td>73.49</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adolescent</td>
<td>2.9</td>
<td>5.0</td>
<td>1.83</td>
<td>.177</td>
</tr>
<tr>
<td>Adult</td>
<td>4.3</td>
<td>8.3</td>
<td>2.91</td>
<td>.088</td>
</tr>
<tr>
<td>Midlife</td>
<td>4.3</td>
<td>11.4</td>
<td>8.17</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

Reported dieting is based on the percent of participants indicating that they were “usually” or “always” dieting. Perceived dieting reflects the mean percentage of male and female friends reported dieting by each age group.
the same effect on men's opportunities for friendships. Men may not experience decreased time available to spend with peers, which could explain why associations between perceived same-sex peer dieting and DT did not differ across age groups in men.

Explanations based on time available to spend with friends, however, are dependent upon the mechanism by which the association between DT and perceived peer dieting is acting. If associations between perceived peer dieting and DT are a result of socialization, and women are spending less time with peers in adulthood, then reduced exposure could result in a lower association. A recent study in college men and women reported that bulimic symptoms showed patterns of socialization among friends. This finding suggests that peer exposure may be a key factor underlying associations between perceived peer behavior and one's own disordered eating behaviors. Further research is necessary to determine whether these findings extend to DT, or alternatively, whether women become less susceptible to peer's influences as they age, regardless of exposure. A third possible explanation for reductions in DT is that peer exposure and susceptibility remain constant with age, but reduced dieting in older female cohorts results in less modeling of dieting to peers. This explanation seems unlikely, however, given similar, overestimated rates of perceived female peer dieting across cohorts. This finding suggests that perceptions of female peer dieting are not accurately based on individuals' reports of their dieting behaviors.

Gender differences in associations between DT and opposite-sex peer dieting may be explained by gender differences in levels of intimacy with opposite-sex friends. Research on adult friendship has suggested that women experience less intimacy with opposite-sex versus same-sex friends than do men. Lower levels of intimacy with opposite-sex friends may decrease the potential influence opposite-sex friends have on personal DT. This may explain why associations between opposite-sex perceived peer dieting and DT are low in late adolescent women and were insignificant in adult and midlife women. Given that men report similar levels of intimacy with opposite-sex friends, it follows that associations between opposite-sex peer dieting and DT were significant and did not differ across cohorts for men in this study.

Consistent with studies in which peer substance use and sexual activity are overestimated, self-reported dieting assessed in this study occurred at or below rates perceived for peers. Reasons posited in the substance use literature, such as generalizing peer behaviors based on isolated but memorable interactions and the media's portrayal of risk behaviors as normative, also may apply to overestimations of peer dieting. More research is needed to determine causes of overestimations and strategies for improving the accuracy of peer dieting estimations, as interventions aimed at correcting erroneous perceptions of peer behaviors have been shown to reduce other health risk behaviors (see Ref. 36).

This study had several strengths. Data came from a large, nonclinical sample of women and men in three age groups, spanning late adolescence to midlife. To our knowledge, this is the first study to compare and contrast associations between DT and perceived peer dieting in adult and midlife samples of women and men and to investigate the accuracy of estimations of peer dieting. However, the study has weaknesses as well, including issues of assessment, representativeness, and design.

First, there were limitations in the assessment of dieting. Participant and peer dieting were measured with a single question (e.g., “How often are you dieting?” and “What percentage of your female friends diet?”) which reduces assessment reliability and introduces participant interpretation as to what was meant by the term “dieting.” Additionally, peer dieting was not directly assessed; instead, peer dieting was based on participants’ reports on the proportion of their same-sex and opposite-sex friends dieting. However, in studies that have assessed both perceived and actual peer behaviors, perceptions of peer behaviors were stronger predictors of participant behavior than were actual peer behaviors, and perceived peer behaviors accounted for the contribution of actual peer behaviors to adolescents' health risk behaviors.

A second limitation is the representativeness of the sample. Although the original study used random selection and participation rates were generally high, men were less likely than women to participate. Therefore, findings may be less representative of men’s attitudes, perceptions and behaviors. This could produce higher associations between DT and perceived peer dieting in male participants than in the general population of men. In addition, data were collected from a single, prestigious university which may introduce biases to findings.

A third limitation is the cross-sectional design of the study. A longitudinal design is necessary to determine whether observed age differences reflect developmental rather than cohort effects, and an
experimental design is necessary to determine whether observed correlations between peer dieting and DT reflect a causal association between these variables. Of note, cross-sectional data came from a study that reported cohort differences in DT when participants were all in college. However, differences indicated lower DT in later cohorts (i.e., younger participants), which would have limited our ability to detect decreases in associations between peer dieting and DT with age in women. Thus, although there are differences in DT among cohorts, this would have hindered our ability to support study hypotheses. However, we cannot rule out the possibility that observed age differences are a result of other differences among cohorts. For example, results could be due to increasing ethnic diversity across cohorts or generational differences. Nonetheless, cross-sectional studies such as this one are important for laying the groundwork for future longitudinal and experimental studies.

In conclusion, perceived peer dieting is associated with DT in both men and women. Associations were lower in women at midlife compared with women in late adolescence. No differences by age were found in men. Age and gender differences in associations between perceived peer behaviors and self-reported behaviors may be an important avenue for understanding pathways to risk behaviors that potentially lead to disordered eating. Future research is needed to elucidate potential factors that mediate associations between peer dieting and DT in women and men, such as changes in adult roles and responsibilities.

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References