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# Weight Comments by Family and Significant Others in Young Adulthood

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# Abstract

Weight teasing is common among adolescents, but less is known about the continuation of this experience during young adulthood. The present study uses survey data from a diverse sample of 2,287 young adults, who participated in a 10-year longitudinal study of weight-related issues to examine hurtful weight comments by family members or a significant other. Among young adults, 35.9% of females and 22.8% of males reported receiving hurtful weight-related comments by family members, and 21.2% of females and 23.8% of males with a significant other had received hurtful weight-related comments from this source. Hispanic and Asian young adults and overweight/obese young adults were more likely to report receiving comments than those in other groups. Weight teasing during adolescence predicted hurtful weight-related comments in young adulthood, with some differences by gender. Findings suggest that hurtful weight talk continues into young adulthood and is predicted by earlier weight teasing experiences.

# Keywords

Weight teasing; romantic relationships; emerging adults; young adults

# Introduction

Accumulated evidence indicates that many young people are teased about their weight and experience other types of appearance-related commentary (Keery, Boutelle, van den Berg, & Thompson, 2005; Neumark-Sztainer, Falkner, et al., 2002; Nichter, 2000; Thompson, Heinberg, Leslie, Altabe, & Tantleff-Dunn, 1999; van den Berg, Neumark-Sztainer, Eisenberg, & Haines, 2008). Sources of weight-related comments addressed in this body of research have included parents, siblings, peers and other adults (e.g., teachers, coaches). Our study team's previous work with Project EAT has shown that approximately one-quarter of adolescents reported experiencing weight-based teasing (Haines, Neumark-Sztainer,

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Hannan, & Eisenberg, 2008); this level remained fairly consistent from early to late adolescence. Moreover, research indicates that overweight and obese youth are more likely to be teased about their weight than average weight youth (Neumark-Sztainer, Falkner, et al., 2002).

Weight-related teasing during adolescence has been viewed as a type of harassment (Eisenberg & Neumark-Sztainer, 2008) and has been consistently associated with poorer body image, poorer emotional health, and disordered eating behaviors, with moderate effect sizes; studies have been both cross-sectional and longitudinal, and have included both population-based and clinical samples of adolescents (Eisenberg, Neumark-Sztainer, Haines, & Wall, 2006; Eisenberg, Neumark-Sztainer, & Story, 2003; Fulkerson, Strauss, Neumark-Sztainer, Story, & Boutelle, 2007; Haines, Neumark-Sztainer, Eisenberg, & Hannan, 2006; Keery et al., 2005; Loth, Neumark-Sztainer, & Croll, 2009; Menzel Schaefer, Burke, Mayhew, Brannick & Thompson, 2010; Neumark-Sztainer, Falkner, et al., 2002; Taylor et al., 2006; Thompson et al., 1999). For example, our previous work has shown that boys who reported being teased about weight at least a few times a year were significantly more likely than other boys to initiate binge eating and other unhealthy weight control behaviors in the ensuing 5 years, and girls who were teased were significantly more likely to become chronic dieters (Haines et al., 2006). We have identified similarly powerful relationships between teasing and emotional health and disordered eating when both parents and peers are the source of teasing (Eisenberg et al., 2003; Neumark-Sztainer, Falkner, et al., 2002). Although the prevalence of weight teasing and its connection to negative health outcomes has been well-established among adolescents, less is known about whether young people teased about weight in adolescence continue to be exposed to hurtful weight-related comments throughout young adulthood.

Research with young, or emerging adults (defined roughly as ages 18-25 years) has demonstrated that "weight talk" continues in this age group, albeit in different forms (Calogero, Herbozo, & Thompson, 2009; Herbozo & Thompson, 2006; Muscat & Long, 2008; Ousley, Cordero, & White, 2008; Thompson et al., 1999). In contrast to weight teasing which is inherently negative and directed at the listener, weight talk may be more general, may not refer to the listener, and may include both negative and positive comments regarding weight (e.g., "She looks terrible; she must have gained 20 pounds!" or "You look great - have you lost weight?"). Interestingly, while negative weight-related comments are consistently found to be harmful, research findings on the effect of positive weight comments on body image have been mixed. For example, Herbozo and Thompson (2006) found that the frequency of "positive weight and shape" comments in their Verbal Commentary on Physical Appearance Scale was significantly associated with better subjective body image and higher self esteem in female college students. However, Calogero and colleagues (2009) found that the more positively college women felt about appearance compliments, the higher their body surveillance and body dissatisfaction. Thus, it appears that talking about weight can be in positive and negative forms and have positive and negative consequences.

The literature in regard to adolescence is more substantial than that of young adults and there may be important differences across age groups. Young adulthood is developmentally distinct from both adolescence and adulthood, in terms of identity formation, transition to work, and development of more meaningful and long term romantic relationships (Arnett, 2000). Both social relationships and weight-related issues are arguably different in this stage than in adolescence (Eisenberg, Neumark-Sztainer & Paxton, 2006), and different social influences may wax and wane as important contributors to an individual's body satisfaction and related behaviors (Tantleff-Dunn & Gokee, 2002). In particular, romantic partners may play an important role in the ongoing re-evaluation of weight, shape, and general appearance

satisfaction (Tantleff-Dunn & Thompson, 1995), replacing other peer relationships as a powerful source of feedback. Most research regarding romantic partners, however, has focused on two areas: misperceptions about one's partner's "ideal" weight for the opposite sex (Markey & Markey, 2006; Tantleff-Dunn & Thompson, 1995), and the association between body image and more general relationship functioning (McKinley & Randa, 2005; Morrison, Doss, & Perez, 2009; Pole, Crowther, & Schell, 2004). We identified only one study examining the frequency of weight-related comments among young adults in romantic relationships. Sheets and Ajmere (2005) found that sizable minorities of both women (14%) and men (24%) in exclusive dating relationships reported that their romantic partners had told them to gain or lose weight in the prior three months.

Many questions remain regarding weight-based teasing and commentary in young adulthood. First, as samples across existing studies on this topic have included predominantly white female college students, the extent to which previous findings can be broadly generalized to young adults is unknown. Likewise, little is known about the prevalence of weight comments in other population groups (e.g., race) or differences across weight categories. Second, previous studies have focused on weight-related commentary either from a single specific source (e.g., romantic partners) or the source is unspecified. Understanding the prevalence of teasing and hurtful weight comments when they come from those close to young adults (e.g., family member, significant other) would provide a fuller picture of this experience and may suggest appropriate strategies for intervention and prevention. Third, research has not yet explored the extent to which teasing continues over time into young adulthood. For example, are young people who are teased about weight in adolescence likely to choose romantic partners who also comment on their weight in young adulthood? Elucidating the continuity of this experience could also suggest new approaches for prevention of continued weight-based teasing and commentary.

The present study, therefore, uses data from a large and diverse population-based sample of young adults who participated in a 10-year longitudinal study of weight-related issues to explore differences in weight-based comments from family and romantic partners across race, socioeconomic status (SES) and weight status. In addition, we examine the prospective relationship between weight-based teasing in adolescence and experiencing hurtful weight-related commentary 10 years later.

# Method

#### **Study Design and Population**

Data for this analysis were drawn from Project EAT (Eating and Activity in Teens and Young Adults)-III, the third wave of a 10-year longitudinal study designed to examine dietary intake, physical activity, weight control behaviors, weight status, and factors associated with these outcomes among young people.

The analytic sample includes 2,287 participants who responded to the 10-year follow-up survey. In Project EAT-I (baseline), junior and senior high school students at 31 public schools in the Minneapolis/St. Paul metropolitan area of Minnesota completed surveys and anthropometric measures during the 1998-1999 academic year (Neumark-Sztainer, Croll, et al., 2002; Neumark-Sztainer, Story, Hannan, & Croll, 2002). Project EAT-III (follow-up) was designed to follow up on the original participants in 2008-2009 as they progressed from adolescence to young adulthood and through their twenties. Of the original 4,746 participants, 1,304 (27.5%) were lost to follow-up for various reasons, primarily missing contact information at baseline (n = 411) and no address found at follow-up (n = 712). For Project EAT-III, survey invitation letters, providing the web address and a unique password for completing the online version of the Project EAT-III survey were mailed to the

remaining 3,442 participants. To enhance participant response, non-responders were sent three reminder letters. The second reminder letter included paper copies of the survey, and all other mailings included a postage-paid card for requesting paper copies. Reminder postcards were additionally mailed to participants that did not complete the survey after logging into the online version or requesting paper copies. Internet tracking services were employed to identify correct addresses when any mailing was returned due to an incorrect address. Data collection ran from November 2008 to October 2009 and was conducted by the Health Survey Research Center (http://www.sph.umn.edu/about/hsrc/) in the School of Public Health at the University of Minnesota, Minneapolis. The University of Minnesota's Institutional Review Board Human Subjects Committee approved all protocols used in Project EAT at each time point.

A total of 1,030 males (45.2%) and 1,257 females (54.8%) completed Project EAT-III surveys that were determined to be valid and adequately complete for inclusion in analyses (i.e., responding to at least 25% of survey items), representing 66.4% of participants who could be contacted. The majority (86.5%) of survey respondents completed the online survey. The mean age of the sample at follow-up was 25.3 (range 19.8 - 31.2).

#### **Survey Development**

The Project EAT survey was developed at baseline and revised for use at follow-up. Key items from baseline were retained in order to allow for longitudinal comparisons and examinations of secular trends. Several new items were added to the survey to ensure relevance to the study sample as they were transitioning to more independent lifestyles and establishing new careers, households and families, including questions about relationship status and the role of a significant romantic partner. Similarly, questions regarding weight teasing at baseline were broadened to ask about hurtful weight-related comments, based on literature showing that weight talk may be more nuanced (Calogero et al., 2009; Herbozo & Thompson, 2006), and a recognition that the term "teasing" may be considered juvenile. The follow-up survey was pretested by 27 young adults in focus groups and test-retest reliability was examined in a sample of 66 young adults. Additional details of the survey development process are described elsewhere (Neumark-Sztainer, Croll, et al, 2002; Larson, Neumark-Sztainer, Story, van den Berg, & Hannan, in press).

#### Measures

Weight teasing and hurtful weight-related comments were assessed at both baseline and follow-up. *Weight-related comments in young adulthood*, the key dependent variables, were measured with two separate questions: "How often do [family members/significant other] make comments to you about your weight or your eating that make you feel bad?" Response options included never, less than once a year, a few times a year, a few times a month, and a few times a week, and were dichotomized to compare those who experienced these comments never or less than once a year vs. a few times per year or more. These items had test-retest correlations of .72 (family) and .61 (significant other). Family and peer-based *weight-related teasing in adolescence* was used as an independent variable in longitudinal analysis, and was also measured with two separate items at baseline: "Have you ever been teased or made fun of by [family members/other kids] because of your weight?" (yes/no) (Thompson, Cattarin, Fowler, & Fisher, 1995).

Gender, race and SES were assessed by self-report at baseline. <u>Race/ethnicity</u> was assessed with one survey item: "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. Participants who checked "white" and another option were included in the other category. Those who checked two non-white options were categorized as "mixed/other race." Hawaiian/Pacific Islander participants were also categorized as "mixed/other race" due to their small numbers in this dataset. Five levels of *socioeconomic status (SES)* were based on the highest educational level completed by either parent for most respondents. Where this information was missing, eligibility for public assistance, eligibility for free or reduced cost school meals, and parental employment status were used to infer SES (Breiman, Friedman, Olshen, & Stone, 1984; Neumark-Sztainer, Story, et al., 2002). *Significant other* (yes/no) was assessed by self-report at follow-up.

Height and weight were assessed by trained research staff at baseline and by self-report at follow-up, which has been shown to be highly correlated with objectively measured values in adults (Kuczmarski, Kuczmarski, & Najjar, 2001; Palta, Prineas, Berman, & Hannan, 1982; Stewart, 1982; Tehard, van Liere, Com Nougue, & Clavel-Chapelon, 2002). Height and weights were used to calculated *body mass index (BMI)* at follow-up using the standard formula. In a validation study among a sub-sample of 127 Project EAT-III participants, the correlation between measured and self-reported BMI values was r = 0.95. Cutpoints developed by the Centers for Disease Control and Prevention were used to categorize participants into those who were underweight or average weight (BMI < 25), overweight (25  $\leq$  BMI < 30) and obese (BMI  $\geq$  30) (Centers for Disease Control and Prevention). Because research suggests that those who have experienced weight loss may differ from others who have consistently been of average weight (Annis, Cash & Hrabosky, 2004), a <u>change in weight status</u> variable was calculated as the difference in BMI category from baseline to follow-up and included in analysis.

#### **Data Analysis**

Chi-square tests of association were used to identify significant differences in the prevalence of weight-based comments in young adulthood (by family members and significant others, separately) by race, SES, BMI categories and weight-change categories. Logistic regression models were used to estimate odds of experiencing weight-related comments by family and significant other (separately). Weight teasing by family members in adolescence was used to predict family weight comments in young adulthood, and adolescent teasing by peers and family were used (simultaneously) to predict later weight-related comments by a significant other, adjusting for race/ethnicity, SES, BMI category and weight-change category. Owing to gender differences in weight-related comments, all models were stratified by gender, and analyses predicting hurtful weight comments by a significant other were restricted to those who indicated they had a significant other at follow-up.

Because attrition from the baseline sample did not occur at random, in all analyses, the data were weighted using the response propensity method (Little, 1986). Response propensities (*i.e.*, the probability of responding to the Project EAT-III survey) were estimated using a logistic regression of response at follow-up on a large number of predictor variables from the Project EAT-I survey. Weights were additionally calibrated so that the weighted total sample sizes used in analyses for each gender cohort accurately reflect the actual observed sample sizes in those groups. The weighting method resulted in estimates representative of the demographic make-up of the original school-based sample, thereby allowing results to be more fully generalizable to the population of young people in the Minneapolis/St. Paul metropolitan area. Specifically, the weighted sample was 48.4% white, 18.6% African American, 5.9% Hispanic, 19.6% Asian, 3.3% Native American, and 4.2% mixed or other race/ethnicity. The sample was well-distributed across the five categories of socioeconomic status: 18.0% low, 19.0% low-middle, 26.2% middle, 23.3% upper-middle, and 13.5% high.

# Results

A sizeable proportion of females reported being teased about weight by family during adolescence (30.1%), and a similar proportion reported being teased by peers (30.0%); this was less common among males in the sample (Table 1). Experiencing hurtful weight-related comments by family members was similarly high in young adulthood, with more than one-third of females and almost one-quarter of males reporting hurtful weight-related comments by family members. Approximately two-thirds of females (71.3%) and males (63.4%) had a significant other during young adulthood, and among these, nearly one-fourth of the young adults (21.2% of females; 23.8% of male) had received hurtful weight-related comments from their romantic partner.

# Cross-sectional associations between weight-related comments and personal characteristics

Significant differences were apparent in the prevalence of weight-related comments by demographic characteristics, weight status and weight change (Table 2). Of concern were the high prevalences of Hispanic and Asian young adults who reported receiving hurtful weight-based comments from family members and significant others. For example, 39.3% of Hispanic males reported hurtful weight-based comments from family, which is more than twice as high as rates reported by white males (17.0%;  $\chi^2 = 33.0$ , n = 1014, df = 5, p < .001). Young adult males from lower SES families were significantly more likely to report receiving hurtful weight-related comments from family members than young adult males from higher SES families; differences were not significant for females or comments from significant others. Similarly, both male and female participants who were overweight or obese were more likely to report receiving hurtful weight-related comments from family members and significant others than their male and female counterparts who were underweight or average weight: prevalence of these comments was 2-4 times higher among obese young adults than those who were underweight or average weight. For example, 32.3% of obese females reported that their significant other made hurtful comments about their weight, compared to 14.0% of females who were not overweight ( $\chi^2 = 32.5$ , n = 880, df = 2, p < .001). Likewise, participants who had gained weight since baseline were significantly more likely than those who had stayed in the same BMI category to report hurtful weight-related comments.

The logistic regression models tested the association of all demographic variables (plus previous teasing experience), adjusted for each other, and the results from these models showed similar findings (Tables 3 and 4). Being of Asian race was associated with hurtful weight-related comments from family and significant others. Hispanic ethnicity was associated with hurtful comments among males only, and Native American women had greater odds of experiencing family teasing than women in other racial/ethnic groups. Although SES was not associated with hurtful comments after adjusting for other covariates, being overweight or obese was associated with significantly elevated odds of experiencing weight-related comments in young adulthood, after adjusting for important covariates. Weight change, however, was not significantly associated with experiencing weight-related comments in most models, with the exception of females reporting elevated odds of weight-related comments by a significant other.

#### Longitudinal relationships between weight talk in adolescence and young adulthood

Logistic regression models indicated that weight teasing in adolescence predicted subsequent hurtful weight-related comments in young adulthood. Adolescent weight teasing by family members was associated with approximately twice the odds of reporting weightrelated comments by family 10 years later, for both males and females, after adjusting for

race, SES and weight status and weight change (Tables 3). For example, males who had been teased about weight by family members had 1.74 times the odds of experiencing hurtful weight-related comments in young adulthood compared to young men who had not been teased by family in adolescence (CI = 1.11, 2.74).

Patterns differed slightly for weight-related comments by significant others (Table 4). For females, the experience of weight teasing by peers was significantly associated with subsequent weight-related comments by a significant other, after adjusting for covariates, and weight teasing by family members was marginally associated with subsequent comments. For males, however, neither type of adolescent teasing was associated with later weight comments by a significant other.

In addition, we used logistic regression analysis to examine correlates of receiving weight teasing and comments at both time points. Results were generally similar to those described above, with higher odds of hurtful weight talk among certain racial/ethnic groups (especially Hispanic and Asian males) and overweight or obese females (data not shown).

# Discussion

The present study explored differences in reports of hurtful weight-based comments from family and romantic partners across race, socioeconomic status, weight status and weight change, and also examined relationships between weight-based teasing in adolescence and experiencing weight-related commentary 10 years later. Results indicate that hurtful weightrelated comments from family members and significant others are commonly experienced during young adulthood by both young men and young women, as they are in adolescence, and that this type of talk tends to persist over time. In addition, the prevalence of this experience was significantly higher among Hispanic young men and Asian young men and women, which is consistent with other literature suggesting that social norms around weight issues differ across racial and ethnic communities (Fitzgibbon, Blackman, & Avellone, 2000; Latner, Stunkard, & Wilson, 2005; Paeratakul, White, Williamson, Ryan, & Bray, 2002). As a result, these groups may be at increased risk of disordered eating and related emotional outcomes. For example, previous research has demonstrated higher rates of binge eating and purging among Hispanic and Asian male adolescents (Croll, Neumark-Sztainer, Story, & Ireland, 2002; Neumark-Sztainer, Story, Falkner, Beuhring, & Resnick, 1999). Further research examining the ways in which cultural norms and values may contribute to weight talk and related behaviors is needed.

As seen previously, overweight and especially obese participants were more likely to receive hurtful weight-related comments, which may take the place of more overt "teasing" behavior in younger age groups (Neumark-Sztainer, Falkner, et al., 2002). The odds of comments by family members were particularly high for obese males compared to young adult men of average weight.

Our finding that weight teasing by family members predicts weight comments by family in young adulthood is not unexpected. Survey items used here did not specify which family members were making comments at each time point, and participants may have been referring to the same people, or at least members of the same group, when responding to these items over time. This finding is consistent with family systems theory, which holds that interactions that occur between family members may lead to sustainable patterns of interactions. In this study it may be the case that young adults who were teased as adolescents continue to experience teasing as they get older because teasing patterns have been established over time (Whitchurch & Constantine, 1993). Alternatively, individuals

This study is among the first to describe weight-related teasing by a significant other in a large sample of young adults. An interesting difference emerged for weight-related comments by a significant other, whereby this experience could be predicted by earlier weight teasing for females but not for males. Specifically, even once they reach a stage of life when they can choose their important peer relationships, women who were teased about their weight as adolescents were more likely to have a romantic partner who also makes hurtful comments about their weight. Several possible explanations may account for these gender differences. First, our measure of teasing in adolescence asks about peers in general, while in young adulthood we assessed comments by a significant other. At baseline, therefore, we captured both same-sex and opposite-sex peer teasing; these may differ for girls and boys, and from weight talk in opposite sex romantic couples (the large majority of the present sample). Second, women may be more attuned to weight-related comments than men, both as adolescents and young adults, and therefore be more likely to notice and report them at both time points. Women may also initiate conversations related to their weight (e.g., "Do these pants make me look fat?"), due to the pervasive nature of fat-talk in adolescence and the important role it plays in young women's socialization (Nichter, 2000). Third, although socio-cultural pressures for men to achieve an "ideal" body type that is trim and muscular have increased in recent decades (Leit, Pope, & Gray, 2001; Pope, Olivardia, Borowiecki, & Cohane, 2001), the "thin ideal" for women's bodies is firmly entrenched in Western culture, which may make it seem more socially acceptable for men to comment negatively on their female partners' weight or shape, than the reverse. Fourth, even at a time in history when most young women do not need to tie themselves to a romantic partner for financial reasons, many still feel tremendous pressure to find a significant other for social reasons (e.g., peer acceptance, social confidence). This cultural norm may lead some women to "settle" for a partner who treats them poorly, such as by making hurtful comments, which could contribute to the gender differences found in this study.

### Implications for practice

Previous research on weight-based teasing and comments has positioned these in the context of verbal harassment (Eisenberg & Neumark-Sztainer, 2008) or other damaging family experiences, including emotional abuse and neglect. For example, Taylor and colleagues (2006), found that higher levels of parental criticism about weight and shape were associated with higher reported emotional abuse and neglect (regardless of the body size), and they suggest that young people who perceive being emotionally abused might live in a family environment where they felt criticized for a variety of things, including weight and shape. The continuation of teasing across adolescence and into young adulthood, when people have more control over who they choose to develop and maintain relationships with, suggests that early teasing may be subjectively internalized (Thompson et al., 1999), and victims of this teasing may come to feel they deserve it and should expect it from those close to them. Appropriate prevention strategies may therefore build on this field and counsel young people, particularly women, to break the cycle of surrounding themselves with people who treat them poorly.

At a broader social level, prevention may also take the form of community-wide campaigns or interventions aimed at reducing weight talk, teasing and comments. Importantly, moving such campaigns into on-line settings (such as social networking sites) may be a particularly useful strategy for reaching this age group. Prevention efforts through other media channels may also be a critical component of shifting the social environment towards less tolerance of weight-based harassment, as research has indicated that weight teasing and "fat humor" are common in television programming (Himes & Thompson, 2007). Possibilities include

working with creators to curb this source of humor, as well as expanding "media literacy" programs with young people to enable them to successfully deconstruct media messages, thereby reducing their impact.

#### Strengths and limitations

This study has a number of strengths, which enhances its contributions to the literature in this area. First, the 10-year longitudinal design and range of ages from middle school to mid-20s is unique in this body of work. The present results, therefore, speak to the ordering of weight-related teasing over time, as well as the experience of young people over several developmental stages. In addition, the large number of participants made it possible to conduct statistically valid analyses even with relatively small segments of the sample. This size and diversity, with regards to gender, race/ethnicity, economic status and BMI, extends previous research and is more generalizable than previous studies. Likewise, the sample was originally recruited through public middle and high schools and analyses have been weighted to reflect the original demographic make-up. As such, findings represent a broad cross-section of young people, and add to the body of literature, which has largely relied on samples from clinical settings or university classrooms. Finally, measures specified weight-related comments from two different sources, which is unusual in the existing literature regarding young adults and permits a more nuanced understanding of this experience.

However, findings from the present study must also be interpreted in light of certain limitations. First, the survey used in this study did not include additional measures relevant to the participant's relationship with the family member or the significant other, such as length of the relationship, type of comments received, gender of the teaser in adolescence or significant other in young adulthood, or the weight status of teasers or commentators. In particular, the survey did not include measures of teasing or commentary by specific family members. Previous research has demonstrated that brothers may be especially frequent and harsh teasers of girls in adolescence (Cash, 1995; Rieves & Cash, 1996); the extent to which these behaviors persist is unknown. Future research in this area would be enhanced by the addition of these types of measures to more fully understand the nature of these interactions. Likewise, the term "family" may be ambiguous for young adult participants; respondents could have considered their romantic partner as a family member when responding to both weight-comment items, which could result in some misclassification at follow-up that would not have occurred at baseline. Finally, even with data collected at two time points, a causal relationship between earlier and later weight-related comments cannot be inferred. Early teasing may create a particular "sensitivity" to future comments, such that subsequent events might be more salient and memorable than they would have been without such a history, or ambiguous comments may be interpreted as being weight-related.

Future research should address the impact of weight-related comments in young adulthood to determine if they are harmful to eating behaviors and emotional well-being, as in adolescence, or if they may, by contrast, spur young adults to take action to improve their weight status. More detailed attention to the nature of weight-related comments (e.g., positive or negative, encouraging or disparaging) as well as their source may provide new insights about how best to communicate about weight in a supportive and health-promoting manner.

#### Conclusions

Prevention of hurtful weight-related comments from family members and romantic partners is needed throughout adolescence and into young adulthood. Given the ethnic/racial differences in the prevalence of weight-related comments found among young adults, cultural differences in weight talk should be further explored for context and impact. For

example, it would be worthwhile to examine whether weight-related comments among Hispanic and Asian populations are associated with harmful outcomes or not. If so, special efforts to reach the Hispanic and Asian communities and other minority populations may be warranted.

Additionally, given high prevalence of reported experiences of hurtful weight comments by overweight individuals (Myers & Rosen, 1999), and previous research showing that such comments can increase risk for weight gain and poor psychological well-being over time in adolescents (Eisenberg et al., 2006; Neumark-Sztainer et al., 2007) it is crucial to take care in the development of obesity prevention interventions. While it is important to modify our environment to help individuals make healthier eating and physical activity choices, we do not want to engender increased talking about weight in a manner that is perceived as hurtful by overweight individuals. Strengthening people's existing coping mechanisms in the face of hurtful weight-related comments may also help reduce adverse psychosocial consequences of this experience (Myers & Rosen, 1999; Puhl & Brownell, 2006).

#### **Research Highlights**

- Weight-related comments continue to be a common occurrence in young adulthood.
- Hispanics and Asians were more likely to receive weight comments than Whites.
- Overweight young adults received comments more than those of normal BMI.
- Early weight-teasing predicted weight-related comments in young adulthood.

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#### Table 1

Percentages of Adolescents and Young Adults Reporting Weight Teasing at Baseline and Weight Comments at 10-year Follow-Up, by Gender, n = 2287

	Males N = 1033	Females <i>N</i> = 1254
	%	%
Weight teasing during adolescence		
By family	14.8	30.1
By peers	24.6	30.0
Hurtful weight comments at follow-up		
By family	22.8	35.9
By significant other	23.8	21.2
BMI (follow-up)		
Underweight/Average	43.8	51.2
Overweight	35.4	24.1
Obese	20.8	24.8
Change in weight status from baseline to follow-up		
Lost weight	8.4	9.6
Maintained	54.5	58.5
Gained weight	37.1	31.9

among those reporting a significant other, n=649 males, n=890 females

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Hurtful Weight-Related Comments in Young Adulthood, by Demographic Categories (n, % reporting "yes")

		<b>Comments from Family</b>	rom Fami	ily	Comm	Comments from significant other	significar	nt other
	Μ	Males	Fen	Females	M	Males	Fen	Females
	u	%	u	%	u	%	u	%
Race								
White	88	17.0	163	28.6	57	17.4	71	17.4
African American	36	23.2	101	38.5	27	25.8	26	18.3
Hispanic	27	39.3	28	43.5	15	38.2	15	28.9
Asian	66	33.0	66	41.8	47	36.4	58	31.3
Native American	9	18.4	20	49.4	2	17.7	7	19.2
Mixed/other	8	19.2	27	51.7	9	18.7	6	18.6
	$\chi^2(df = x^2)$	$\chi^2(df = 5) = 33.0,$ p < .001	$\chi^2(df=!$	$\chi^2(df = 5) = 28.3,$ p < .001	$\chi^2(df = p < p$	$\chi^2(df = 5) = 24.0,$ p < .001	$\chi^2(df = x^2)$	$\chi^2(df=5)=17.7,$ p=.003
SES								
Lower	46	28.3	98	42.0	34	30.2	43	24.8
Lower Middle	42	22.2	85	38.3	31	26.4	43	25.1
Middle	66	27.2	120	36.7	39	27.1	49	22.2
Upper Middle	42	16.9	87	32.8	29	18.2	28	15.2
Upper	21	15.2	48	29.8	14	17.1	21	19.0
	$\chi^2(df = c$ p = d	$\chi^2(df=4)=14.9,\ p=.005$	$\chi^2(df = p =$	$\chi^2(df = 4) = 8.0,$ p = .090	$\chi^2(df = p = p = p$	$\chi^2(df=4)=8.7,\ p=.070$	$\chi^2(df = p =$	$\chi^2(df=4)=7.3, \ p=.121$
BMI (follow-up)								
Underweight/avg	45	10.2	143	22.7	50	18.4	65	14.0
Overweight	06	25.0	123	41.6	55	23.5	54	25.7
Obese	76	46.0	175	57.6	49	36.2	67	32.3
	$\chi^2(df=2$ $p < p$	$\chi^2(df=2) = 104.7, \ p < .001$	$\chi^2(df=2$ $p < p$	$\chi^2(df=2) = 114.3, \ p < .001$	$\chi^2(df = p < p$	$\chi^2(df=2)=15.6,$ p<.001	$\chi^2(df = 1)$	$\chi^2(df=2)=32.5, \ p<.001$
Change in weight status								
Lost weight	22	27.1	41	35.5	8	17.3	13	14.9
Maintained	100	18.7	205	29.5	70	22.1	76	15.6
Gained weight	100	27.2	177	47.0	72	28.2	85	31.2

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rom Family Comments from significant other	Females Males Females	и % и %	$\begin{split} \chi^2(df=2) &= 10.3 \qquad \chi^2(df=2) = 32.5, \qquad \chi^2(df=2) = 4.2, \qquad \chi^2(df=2) = 27.9, \\ p &= .006 \qquad \qquad p < .001 \qquad \qquad p = .121 \qquad p < .001 \end{split}$
Comments from Family	Males	9% U	$\chi^2(df=2) = 10.3$ p = .006

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Among those who had a significant other

#### Table 3

Odds (and 95% CI) of Reporting Weight-Related Comments by <u>family members</u> in Young Adulthood by Demographic Characteristics and Teasing by Family During Adolescence, Stratified by Gender

	Males	Females
Weight teasing by family at baseline		
No <sup>a</sup>	1.00	1.00
Yes	1.74 (1.11, 2.74)	1.94 (1.45, 2.58)
Race		
White <sup>a</sup>	1.00	1.00
African American	1.28 (0.73, 2.24)	1.36 (0.94, 1.96)
Hispanic	3.59 (1.92, 6.71)	1.64 (0.88, 3.06)
Asian	2.67 (1.66, 4.29)	1.94 (1.31, 2.85)
Native American	0.98 (0.29, 3.25)	2.44 (1.21, 4.90)
Mixed/other	0.75 (0.28, 2.05)	1.66 (0.84, 3.28)
SES	1.08 (0.93, 1.25)	1.01 (0.90, 1.13)
BMI		
Underweight/average <sup>a</sup>	1.00	1.00
Overweight	2.18 (1.33, 3.58)	2.51 (1.73, 3.66)
Obese	6.54 (4.06, 10.55)	3.96 (2.69, 5.82)
Change in weight status		
Lost weight	1.64 (0.85, 3.17)	1.31 (0.82, 2.09)
Maintained a	1.00	1.00
Gained weight	1.30 (0.86, 1.99)	1.06 (0.75, 1.49)

All independent variables are mutually adjusted; significant associations shown in boldface (p < .05).

<sup>a</sup>referent category

#### Table 4

Odds (and 95% CI) of Reporting Weight-Related Comments by <u>Significant Other</u> in Young Adulthood <sup>^</sup> by Demographic Characteristics and Previous Teasing by Family and Peers During Adolescence, Stratified by Gender

	Males	Females
Weight teasing by family at baseline		
No <sup>a</sup>	1.00	1.00
Yes	0.95 (0.50, 1.78)	1.48 (0.99, 2.22)
Weight teasing by peers at baseline		
No <sup>a</sup>	1.00	1.00
Yes	1.23 (0.73, 2.07)	1.80 (1.19, 2.71)
Race		
White <i>a</i>	1.00	1.00
African American	1.28 (0.67, 2.45)	0.68 (0.36, 1.31)
Hispanic	3.08 (1.44, 6.59)	1.71 (0.79, 3.67)
Asian	2.98 (1.67, 5.31)	2.58 (1.56, 4.26)
Native American	0.52 (0.06, 4.56)	0.97 (0.37, 2.52)
Mixed/other	1.18 (0.43, 3.23)	1.16 (0.50, 2.73)
SES	1.02 (0.85, 1.22)	1.03 (0.88, 1.20)
BMI		
Underweight/average a	1.00	1.00
Overweight	1.18 (0.66, 2.11)	1.80 (1.06, 3.05)
Obese	2.11 (1.19, 3.75)	2.05 (1.18, 3.55)
Change in weight status		
Lost weight	0.93 (0.40, 2.17)	0.98 (0.48, 2.02)
Maintained <sup>a</sup>	1.00	1.00
Gained weight	1.30 (0.77, 2.18)	1.78 (1.10, 2.87)

All independent variables are mutually adjusted; significant associations shown in boldface (p < .05).

<sup>a</sup>referent category