

Binge Eating and Purging in a Multi-Ethnic Community Sample

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ABSTRACT

Objective: The purpose of the present study is to document the frequency of three eating disorder-related behaviors (binge eating; self-induced vomiting; and use of laxatives, diuretics, and diet pills) among a multi-ethnic community sample.

Method: A questionnaire was administered to 1225 Hispanic, Asian, black, and white women and men. Participants responded to items (based on DSM-IV diagnostic criteria for eating disorders) about binge eating and purging behavior.

Results: Binge eating and purging were more common among women than among men in Hispanic, black, and white subsamples (frequency rates were similar among Asian men and women). Ethnic differences were found in frequency of

purging among women (ethnicity was not associated with behavior rates among men). Fewer Asian than Hispanic, black, and white women induced vomiting and used laxatives, diuretics, and diet pills as weight control methods.

Conclusion: The fact that frequency rates differed as a function of participant sex and ethnicity underscores the importance of considering both of these group variables when examining disordered eating and weight control behaviors. © 2006 by Wiley Periodicals, Inc.

Keywords: disordered eating; ethnicity; community sample; purging; binge eating

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Introduction

Eating disorders are among the most pernicious of clinical syndromes, carrying with them a host of adverse physical, psychological, and social outcomes.¹ Epidemiological research suggests that prevalence rates of anorexia nervosa and bulimia nervosa have increased over time² and, consequently, social and behavioral scientists increasingly have focused their attention on identifying risk factors for these disorders. Binge eating, self-induced vomiting, excessive dieting, and other disordered eating and weight control behaviors appear to constitute one such category of risk factor.^{3,4}

The recognition that these particular behaviors may play an important role in the etiology of eating disorders has led to a growing interest in delineating their prevalence and correlates.^{5,6} Much of the research in this area has utilized white female samples

to the relative exclusion of men and ethnic minority populations. This may be a reflection of the fact that higher rates of eating disorders historically have been found among female than among male populations, and among white populations than among other ethnic groups.^{2,7} Nevertheless, this situation poses serious threats to generalizability for researchers interested in disordered eating, weight control, and other health-related behaviors.^{8,9}

The present study was designed to address this limitation by using a community-based (nonclinical), multi-ethnic sample of adult men and women. Our goal was to examine whether the frequency of three eating disorder-related behaviors (i.e., binge eating, self-induced vomiting, and use of laxatives, diuretics, and diet pills) would differ as a function of participant sex and ethnicity. Based upon a consideration of earlier research,¹⁰ we hypothesized that binge eating would occur with similar frequencies in men and women, but that purging behavior would be relatively more common among women than among men.

Method

Participants

Participants ($N = 1225$) were 805 women and 420 men comprising four ethnic groups: 43.3% Hispanic/Latino,

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24.5% Asian/Asian American, 16.2% black/African American, and 16.0% Caucasian/non-Hispanic white. The average age for the total sample was 24.4 years and no participant was currently undergoing, or had previously undergone, treatment for an eating disorder.

Procedure

A convenience sample of participants was recruited from colleges, community organizations, churches, and work establishments in the urban Los Angeles area. Participation was voluntary (no compensation was provided) and responses were anonymous (i.e., questionnaires were identified by numbers only and signed consent forms were collected and stored separately from completed questionnaires). Potential participants were approached by the researcher and asked if they would be willing to participate in a brief questionnaire study; those individuals who consented to participate received a questionnaire that asked them to provide self-report responses to a variety of demographic and personal history items (e.g., age, sex, ethnicity, level of education, height, weight) and to three items pertaining to eating disorder-related behavior. These three items were based on the diagnostic criteria for eating disorders¹¹ and were included on the self-report questionnaire developed for the 1996 National Eating Disorders Screening Program.¹² Specifically, participants were asked whether they had engaged in (1) binge eating (i.e., "Have you gone on eating binges where you feel that you may not be able to stop? [eating much more than most people would under the same circumstances]"); (2) self-induced vomiting (i.e., "Have you ever made yourself sick [vomited] to control your weight or shape?"); and (3) the use of laxatives, diet pills, or diuretics (i.e., "Have you ever used laxatives, diet pills, or diuretics [water pills] to control your weight or shape?"). Finally, participants were asked whether they had ever been treated for an eating disorder (used solely as part of our screening procedure).

Results

Table 1 presents the percentages of men and women from each ethnic group who reported engaging in the three behaviors of interest. A series of *z* tests for proportions revealed that binge eating was equally common among the four ethnic groups; no significant differences were found. There was a significant sex difference, however, such that more women (18.1%) than men (10.4%) reported having experienced episodes of binge eating, $z = 3.63$, $p < .0005$. This sex difference was moderated by ethnicity. Although Asian men and women, and Hispanic men and women, did not

TABLE 1. Frequency of binge eating and purging as a function of participant sex and ethnicity

	Ethnic group			
	Asian (<i>N</i> = 300)	Hispanic (<i>N</i> = 531)	Black (<i>N</i> = 198)	White (<i>N</i> = 196)
<i>N</i> _{women} :	200	366	127	112
<i>N</i> _{men} :	100	165	71	84
Binge eating				
Women				
No. reporting	40	58	25	23
% reporting	20.0	15.8	19.7	20.5
Men				
No. reporting	13	18	4	8
% reporting	13.0	10.9	5.6	9.5
Self-induced vomiting				
Women				
No. reporting	9	30	13	11
% reporting	4.5 _{abc}	8.2 _a	10.2 _b	9.8 _c
Men				
No. reporting	3	6	0	2
% reporting	3.0	3.6	0.0	2.4
Using laxatives, diet pills, diuretics				
Women				
No. reporting	22	78	43	26
% reporting	11.0 _{abc}	21.3 _{ad}	33.9 _{bde}	23.2 _{ce}
Men				
No. reporting	5	10	3	6
% reporting	5.0	6.1	4.2	7.1

Note: Percentages that share a subscript within a row are significantly different. *Z* and *p* values are given in the text. Sex differences in behavior prevalence are presented in the text.

differ in their self-reported experience with binge eating, significantly more black women than men (19.7 vs. 5.6%, $z = 2.68$, $p < .005$), and more white women than men (20.5 vs. 9.5%, $z = 1.99$, $p < .05$), had engaged in binge eating.

An interesting sex \times ethnicity interaction pattern emerged with respect to the frequency of self-induced vomiting to control weight. Ethnicity was not associated with the occurrence of self-induced vomiting among men. However, ethnicity was strongly associated with this behavior among women. Specifically, fewer Asian women (4.5%) utilized this method of weight control than did Hispanic (8.2%), black (10.2%), and white (9.8%) women ($z = -1.66$, -2.02 , and -1.84 , all $p < .05$). As with binge eating behavior, there was an overall sex difference; women were more likely than men to report having induced vomiting to control their weight (7.8% vs. 2.6%, $z = 3.63$, $p < .0005$). Also as before, this sex difference was moderated by ethnicity. Equal proportions of Asian men and women reported having engaged in this behavior, but significantly more women than men from the Hispanic (8.2% vs. 3.6%, $z = 1.94$, $p < .05$), black (10.2% vs. 0.0%, $z = 2.35$, $p < .01$), and white (9.8% vs. 2.4%, $z = 2.07$, $p < .05$) participant samples had

used self-induced vomiting as a method of weight control.

A similar pattern emerged for the use of laxatives, diuretics, and diet pills as a method of weight control. Among women, ethnicity was associated with this eating disorder-related behavior. Significantly fewer Asian (11.0%) than Hispanic (21.3%), black (33.9%), and white (23.2%) women reported having used laxatives, diuretics, and diet pills to control their weight ($z = -3.08, -5.05, \text{ and } -2.87$, all $p < .005$). Additionally, more black women than women in the other three groups reported this behavior (for black vs. Hispanic women, $z = 2.83, p < .005$; for black vs. white women, $z = 1.81, p < .05$). However, the proportion of men who controlled their weight in this way did not differ among the four ethnic groups. As with the behaviors of binge eating and self-induced vomiting, more women than men in general reported using laxatives, diet pills, and diuretics (21.0% vs. 5.7%, $z = 6.99, p < .0001$). This sex difference was found within each ethnic group, as well. Specifically, the use of laxatives, diet pills, and diuretics was more prevalent among women than among men in the Asian (11.0% vs. 5.0%, $z = 1.71, p < .05$), Hispanic (21.3% vs. 6.1%, $z = 4.37, p < .0001$), black (33.9% vs. 4.2%, $z = 4.74, p < .0001$), and white (23.2% vs. 7.1%, $z = 3.01, p < .005$) participant samples.

Conclusion

The primary goal of this study was to examine whether frequency rates of three eating disorder-related behaviors would differ as a function of participant sex and ethnicity among a nonclinical community sample. The results revealed significant ethnic differences among our female, but not our male, participants on the measures of purging behavior. Specifically, although Hispanic, black, and white women were equally likely to report having used self-induced vomiting as a means of weight control (with rates ranging from 8% to 10%), this behavior was far more common among these three groups than among Asian women. Similarly, the use of laxatives, diet pills, and diuretics was far less common among Asian women than among women in the three other ethnic groups. Insofar as weight control behavior is correlated with being overweight,¹³ it is possible that the different rates of purging behavior observed among the ethnic subgroups of women in our sample reflect actual differences in their current body weight. To explore this possibility, we conducted a post hoc analysis of

the personal history data provided by our female participants. This analysis revealed that Asian women had the lowest average body weight (and thus, perhaps, less perceived need to manage their weight through purging). Whatever the origins of this ethnic difference, other researchers also have reported lower levels of weight control behavior (e.g., dieting) among Asian women than among women from other ethnic groups.^{14,15}

We also found significant sex differences with respect to rates of all three measured behaviors. As hypothesized, and in accord with previous research,¹⁰ both purging behaviors were more prevalent among women than among men. For example, 21% of our female participants reported using laxatives, diet pills, and/or diuretics, compared to only 6% of male participants. Even the least commonly reported behavior, self-induced vomiting, was more prevalent among women (8%) than among men (3%). Interestingly, binge eating was also more common among women; other researchers employing community surveys generally have not found sex differences in this particular eating disorder-related behavior.^{10,16} When we examined frequency rates within each ethnic group, however, we found that these sex differences were not universal. Specifically, self-induced vomiting was more prevalent among women than among men in the Hispanic, black, and white participant samples, and binge eating was more common among black and white women than among men. However, those two behaviors were equally common among Asian men and women; that is, no sex difference was obtained.

As with any investigation, several limitations must be addressed. Of particular importance is the sampling method we employed. Although we selected our participants from a wide variety of community organizations and establishments, the fact that we did not obtain a truly random sample suggests that our results may not generalize to the wider population. The relatively smaller number of men than women in our participant sample raises an additional question about generalizability.

These limitations notwithstanding, the fact that frequency rates differed as a function of both sex and ethnicity underscores the importance of considering each of these group variables when examining weight control, dieting, eating, and similar health-related behaviors. Moreover, the finding that a sizeable proportion of the men in this study reported engaging in the behaviors under investigation suggests that food, weight, and appearance constitute important issues for men as well as for

women, and highlights the necessity of including male participants in research on disordered eating and weight control.

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