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Fat Talk Among College Students:

How Undergraduates Communicate Regarding Food and Body Weight, Shape & Appearance

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Abstract

This article is based on an empirical study designed to learn more about how college students communicate regarding food and body weight, shape and appearance. Data from a survey of 272 randomly selected college students (82 males and 190 females) were collected and analyzed to explore the relationships of “fat talk,” a behavior described by Nichter to refer to conversations about eating and body-related issues, to eating pathology and body dissatisfaction. Results indicate that the frequency of fat talk is positively related to eating pathology and body dissatisfaction in students with and without an eating-disorder diagnosis. Furthermore, results reveal that the most frequently reported topic of fat talk was other people’s appearance. Suggestions for modifying conventional prevention and intervention efforts aimed at decreasing undergraduate eating pathology and body dissatisfaction by incorporating strategies to reduce the occurrence of “fat talk” are included.

Fat Talk Among College Students:

How Undergraduates Communicate Regarding Food and Body Weight, Shape & Appearance

Eating disorders, sub-threshold eating problems, and body dissatisfaction appear more frequently in college students than in the general population. Whereas the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition- Text Revision* (DSM-IV-TR, 2000) estimates lifetime prevalence of anorexia and bulimia within the general population to be between 0.5% and 3%, 6% of undergraduate females meet criteria for anorexia or bulimia and 25-45% exhibit maladaptive eating and eating-related attitudes (Bishop, Bauer & Baker, 1998; Douglas et al, 1997; Kurtzman, Yager, Landverck, Wiesmeir & Bodurka, 1989; Tsai, Hoerr & Song, 1998).

The extant research indicates that various influences affect the development of eating pathology and body dissatisfaction. These studies suggest that genetic factors and personality traits are associated with the emergence of these concerns (Kinder, 1997; Striegel-Moore, Silberstein & Rodin, 1986; Stice, 2002). Additionally, socio-cultural pressures from media, family, and peers seem to be related to eating pathology and poor body image, particularly for adolescents (Kinder, 1997).

Although the mechanisms by which risk factors and correlates of disturbed eating and body image interact to produce such outcomes continue to be investigated and conceptualized, researchers have concluded that these pathways are multi-factorial (Mussell, Binford & Fulkerson, 2000). The results are a mixture of both direct and indirect pressures to be thin. For instance, the use of slender models in advertising presents direct socio-cultural messages (Stice, Maxfield & Wells, 2003). Indirect pressures also occur, often times from conversations with family and friends pertaining to the topics of dieting, exercise, and beauty.

Termed *fat talk* by Nichter and Vuckovic (1994), these conversations with family and friends pertaining to positive or negative comments about appearance, dieting techniques, and the need to lose weight appear to be acceptable and normative in today's society, particularly for women. Indeed, this seminal study along with later work by Nichter (2000), demonstrated that fat talk plays a role in the maintenance of relationships among adolescent girls. Engagement in this form of communication serves to affirm similarity of values regarding appearance in friendship cliques and also allows peers to support one another (Nichter & Vuckovic, 1994; Paxton, Schutz, Wertheim & Muir, 1999). Nichter and Vuckovic (1994) examined the cultural meanings of fat talk and uncovered that the phrase "I'm so fat" may be used among adolescent females to indicate sadness or a bad day. In this way, fat talk establishes group norms among teenaged girls and acts as a pseudo-language with which they can communicate more than body dissatisfaction.

Stice, Maxfield and Wells (2003) experimentally manipulated engagement in fat talk in order to uncover its effects on body image. Female undergraduates were randomly assigned to exposure to a thin, female confederate who talked about how fat she felt and how she wanted to lose weight. Such exposure significantly increased body dissatisfaction when compared to participants exposed to a control condition in which a neutral topic was discussed. Their findings indicate that peer pressure does indeed promote body dissatisfaction, which in turn is known to foster eating pathology.

While these studies evince that hearing thin individuals complain about their own weight issues has a detrimental impact on listeners, the prevalence or effects of other fat-talk topics has not been well documented. Also, little is known about the prevalence of fat talk among college students- a population at high risk for eating pathology. The purpose of this study was to assess

the amount of time undergraduates spend participating in fat talk and to explore which topics were most often discussed. Thus, two hypotheses were tested:

1. It was suspected that undergraduates with an eating disorder participate in fat talk more often than undergraduates without an eating disorder.

2. It was predicted that college students with eating disorders would discuss different fat-talk topics at different frequencies than would those without an eating disorder.

Method

Participants

A random sample of 1500 female ($n = 750$) and male ($n = 750$) undergraduates was generated from the university's registration database. A total of 272 completed surveys were used in the analysis. The final sample was 70% female and 30% male with an average age of 20.9 years. Seventy-two percent of the participants self-identified as Caucasian or White ($n = 195$), 14% as Asian/Pacific Islander ($n = 39$), 4% as Latino ($n = 10$), 5% as Chicano/Mexican American ($n = 14$), 0.4% as Native American ($n = 1$), 0.7% as African American ($n = 2$), and 2% as Other ($n = 6$). Respondents were asked their height and current weight to compute Body Mass Index (BMI). The average BMI of the sample was 22.8 with 75% of respondents falling in the normal BMI range of 18.5 to 24.9.

Procedures

This study was conducted in 2002 at the University of California, Santa Barbara (UCSB), a public university of approximately 20,000 students in a coastal city in southern California. The university's Human Subjects Committee approved all procedures in this study. Packets containing a cover letter explaining the study and the two-page questionnaire were mailed to all

participants during the spring quarter. Participants received a reminder postcard after 2 weeks about completion of the measure.

The questionnaire was entitled, “The 2002 Weight Management, Eating and Exercise Habits Survey” and its purpose presented as an attempt to gather anonymous, confidential information about the health habits and needs of university students. The cover letter, signed by the University Physician, directed students with questions or concerns to contact the Health Education office at Student Health Services. Submission of the survey was considered consent to participate.

Measure

The instrument used to identify eating disorders in this study was a modified version of the Weight Management Questionnaire (WMQ) which was originally designed using criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (DSM-III) to identify eating-disorder diagnoses (Ousley, 1986). This survey yields frequency data for individual eating-disorder symptoms (e.g., laxative use) and for eating-disorder categories (e.g., Bulimia Nervosa). Because previous research using the WMQ with college students found few or no anorexics in the samples who met DSM criteria (Ousley, 1986; Meisels, 1999), anorexia nervosa was not included as a diagnostic group in this study.

For use in the current study, the WMQ measure was modified in two ways. First, it was revised to meet criteria for Bulimia Nervosa and Eating Disorder, Not Otherwise Specified (EDNOS) as conceptualized in the DSM-IV-TR (Meisels, 1999; Mintz, O’Halloran, Mulholland, & Chneider, 1997). This revision allowed membership in the “eating disorder” (Dx) or “no eating disorder” (NoD) category to be determined by a scoring system based on the inclusion/exclusion criteria of the DSM-IV-TR diagnostic groups, including the EDNOS

category. This category included any respondent who met all but one of the necessary criteria for Anorexia Nervosa or Bulimia Nervosa. For example, a participant who meeting all the criteria for Bulimia Nervosa except for the frequency of binge-eating or the frequency of compensatory behaviors would be placed in the EDNOS category (for a complete description of the WMQ items and scoring system see Meisels, 1999).

The second revision was to add “fat-talk” items developed by Health Education interns and clinicians at UCSB’s Student Health Services. These items were constructed from transcripts of discussions by hundreds of undergraduates about eating, exercise, and body-image issues. Fat-talk items were generated to reflect the following five topics regularly discussed by the general undergraduate population:

1. self-comparison to ideal eating and exercise habits (e.g., “I know I shouldn’t eat this brownie.”)
2. fears of becoming overweight (e.g., “I’m so worried that I’m going to get fat!”)
3. how eating and exercise habits compare to others (e.g., “Gary works out twice as long as I do. I wish I had his stamina”)
4. evaluations of others’ appearances (e.g., “Look how much weight she gained. She looks terrible!”)
5. meal replacements and muscle-building strategies (e.g., “You should try protein shakes to really bulk up.”)

Each item was rated on a 6-point Likert-type scale indicating the frequency at which the topic was discussed amongst the participant and their friends. The scale ranges from "more than once daily," scored as a 1, to "rarely/never" scored as a 6. When comparing frequency rates of fat-talk topics between Dx and NoD respondents, it was decided to collapse the first two categories

("more than once daily" and "daily" into one category, "at least daily") because the number of students answering "more than once daily" to any topic was small enough to make that category relatively meaningless. It was felt that "at least daily" adequately represented the high end of the frequency spectrum for fat-talk topics.

Results

Table 1 displays the frequencies at which each fat-talk topic is discussed by undergraduates with an eating-disorder diagnosis (Dx) and without (NoD) a diagnosis of an eating disorder. Data were analyzed using z tests for percentages.

The results presented in Table 1 support our first hypothesis that undergraduates with an eating disorder (Dx) participate in fat talk more often than undergraduates without an eating disorder (NoD). Results indicate that significantly more undergraduates with an eating disorder discussed the topics "at least daily" whereas significantly more undergraduates without an eating disorder "rarely/never" discussed the topics. More so than their counterparts with an eating disorder, NoD undergraduates reported that they "monthly" talk about what eating and exercise habits should be, fears of becoming out of shape/overweight, and other people's shape and appearance. NoD students reported engaging in discussions about eating and exercise habits and other people's shape and appearance "weekly" more so than Dx students. Significantly more Dx undergraduates, however, relayed that they talked about how their eating and exercise habits compare to others "more than once weekly."

Dx Undergraduates: Frequency of Topics

In order to test the second hypothesis, the frequencies at which Dx undergraduates engage in conversations about the various fat-talk topics were compared using t-tests in order to uncover significant differences in how often each topic was discussed within this population;

alpha was set at .005 to compensate for the multiple (10) t-tests conducted within this group for an overall .05 probability of making a Type 1 error. Items that inquired about frequency of each fat-talk topic were converted into continuous variables in order to perform the t-tests. Table 2 presents these values.

Dx undergraduates reported spending more time discussing other people's shape and appearance ($M = 2.80$, $SD = 1.323$) than discussing fears of becoming out of shape or overweight ($M = 3.46$, $SD = 1.476$), $t(53) = 3.229$; how eating and exercise habits compare to others ($M = 3.72$, $SD = 1.510$), $t(53) = 4.161$; and supplements, meal replacements, and/or muscle-building strategies ($M = 4.43$, $SD = 1.549$), $t(53) = -7.515$. Additionally, these students reported that they talk significantly less about supplements, meal replacements, and/or muscle-building strategies ($M = 4.43/4$, $SD = 1.549/1.537$) than they discuss what their eating and exercise habits should be ($M = 3.28$, $SD = 1.406$), $t(53) = -5.454$; fears of becoming out of shape or overweight ($M = 3.45$, $SD = 1.463$), $t(54) = -4.141$; and how their eating and exercise habits compare to others ($M = 3.71$, $SD = 1.4999$), $t(54) = -3.605$.

No significant differences were uncovered when the frequency in which Dx talk about other people's shape and appearance ($M = 2.80$, $SD = 1.323$) was compared to the topic of what eating and exercise habits should be ($M = 3.28$, $SD = 1.406$), $t(53) = 2.281$. Further, there was no significant difference in the amount of time Dx undergraduates reported talking about what their eating and exercise habits should be ($M = 3.28$, $SD = 1.406$) and fears of becoming out of shape or overweight ($M = 3.46$, $SD = 1.476$), $t(53) = -1.399$; there was also no significant difference in how much time Dx undergraduates reported spending talking about what their eating and exercise habits should be ($M = 3.28$, $SD = 1.406$) and talking about how their eating and exercise habits compare to others ($M = 3.72$, $SD = 1.510$), $t(53) = -2.544$. Moreover, there

was no significant difference in the amount of time Dx undergraduates discussed fears of becoming out of shape or overweight ($M = 3.45$, $SD = 1.463$) and how eating and exercise habits compare to others ($M = 3.71$, $SD = 1.499$), $t(54) = -1.320$.

NoD Undergraduates: Frequency of Topics

The frequencies at which NoD undergraduates talk about the fat-talk topics were also compared using t-tests to determine significant differences in how often each topic is discussed within this population; alpha was set at .005 to compensate for the multiple (10) t-tests conducted within this group, too, for an overall .05 probability of making a Type 1 error. Again, items pertaining to frequency of each fat-talk topic were converted into continuous variables in order to perform the t-tests. Table 2 presents these values.

Similar to the patterns displayed by Dx undergraduates, NoD undergraduates reported engaging in more conversations about other people's shape and appearance ($M = 3.85/4$, $SD = 1.469/5$) than the rest of the fat-talk topics: what eating and exercise habits should be ($M = 4.22$, $SD = 1.388$), $t(219) = 3.565$; fears of becoming out of shape or overweight ($M = 4.47$, $SD = 1.388$), $t(218) = 6.981$; how eating and exercise habits compare to others ($M = 4.64$, $SD = 1.349$), $t(219) = 8.143$; and supplements, meal replacements, and/or muscle-building strategies ($M = 5.15$, $SD = 1.235$), $t(219) = -12.455$.

The second significantly-most frequent fat-talk topic among NoD undergraduates was what eating and exercise habits should be ($M = 4.23/2$, $SD = 1.389/8$) when compared with fears of becoming out of shape or overweight ($M = 4.47$, $SD = 1.338$), $t(218) = -3.337$; how eating and exercise habits compare to others ($M = 4.64$, $SD = 1.349$), $t(219) = -5.151$; and supplements, meal replacements, and/or muscle-building strategies ($M = 5.15$, $SD = 1.235$), $t(219) = -9.783$.

Furthermore, NoD undergraduates reported that they discuss fears of becoming out of shape or overweight ($M = 4.47$, $SD = 1.338$) significantly more than they discuss supplements, meal replacements, and/or muscle-building strategies ($M = 5.16$, $SD = 1.229$), $t(218) = -7.635$. Finally, NoD undergraduates stated that they talk about how their eating and exercise habits compare to others ($M = 4.64$, $SD = 1.349$) significantly more than they talk about supplements, meal replacements, and/or muscle-building strategies ($M = 5.15$, $SD = 1.235$), $t(219) = -5.297$.

There was no significant difference in how much NoD undergraduates discuss fears of becoming out of shape or overweight ($M = 4.47$, $SD = 1.338$) and how their eating and exercise habits compare to others ($M = 4.63$, $SD = 1.349$), $t(218) = -2.150$.

These findings indicate that both college students with and without eating disorders discuss other people's shape and appearance more than any other fat-talk topic. However, this topic (as are the other fat-talk topics) is discussed more frequently by Dx students than by NoD students.

Discussion

It was suspected that the frequency of fat talk would be related to eating pathology and body dissatisfaction within the college population. It was also predicted that college students with eating disorders would discuss different fat-talk topics at different frequencies than would individuals without an eating disorder. Indeed, the results of this study suggest that undergraduates with eating problems engage in more fat talk than do undergraduates without eating problems. However, regardless of presence of eating pathology, undergraduates discussed other people's appearances more than any other fat-talk topic about which they were surveyed.

The elevated levels of fat talk among individuals with eating problems support the notion that this population is more attuned to and preoccupied with eating and body image than are

individuals without eating problems of clinical severity. Other studies with similar participant samples have found related phenomena. For example, Beebe, Holmbeck, Schober, Lane & Rosa (1996) examined body focus in the evaluation of one's self and others within undergraduate women. They found that scores on the Eating Attitudes Test- 26 (EAT-26) were positively associated with assumptions that others are preoccupied with body shape. They also found a statistical trend for a positive relationship between EAT-26 scores and noticing body-related characteristics of others.

It may be inferred by such findings that students with unhealthy eating patterns and body image misjudge the prevalence of food and body-related stimuli in their social worlds. Muller, Williamson & Martin (2002) studied the *false consensus effect* among college females of normal weight. They found that participants with high levels of body-shape concerns overestimate the presence of such concerns in others. These findings provide empirical support for a popular treatment technique utilized by psychotherapists who work with clients with eating pathology which involves guiding clients to recognize that other individuals are not as preoccupied by appearance as they are.

However, the results of the current study convey that fat-talk is prevalent among all college students, whether or not they engage in disordered eating. Thus it is realistic for college students with eating problems to infer from the amount of fat talk occurring around them that most students place great emphasis on eating and body-related issues. It might, therefore, be beneficial if both treatment and prevention practitioners acknowledged rather than minimized students' perceptions about fat talk and worked towards reducing its prevalence. This can be done by introducing strategies to help students:

1. understand their own susceptibility to the negative effects of fat-talk in terms of eating disturbances and body dissatisfaction
2. recognize the various forms of fat-talk
3. reduce their own participation in fat talk
4. reduce their exposure to fat talk by changing the subject and/or avoiding spending time with people who engage in it.

Additionally, it might be useful to specifically discuss the effects of the most common form of fat-talk: comments about others. College health professionals could explore with students (both in individual treatment or prevention settings) how public comments about others can unwittingly support the desire of all people within hearing distance to lose weight for acceptance. This effect can happen in a variety of ways. If the initiator of fat talk intends their comment to be complimentary of another person's appearance ("Doesn't she look great—she must have lost about 20 pounds"), there is no way to know if that person achieved their appearance through healthy or unhealthy eating behaviors. If the fat-talk comment is intended to be negative ("She looks like a cow in those jeans"), others overhearing that comment will be reinforced in their belief about the pervasiveness of negative comments. The effect of both is more disturbed eating and body-image dissatisfaction: "No one complimented me before I lost weight (by purging)." "If they think she looks fat, I wonder how they think I look?"

At least three limitations of this study need to be acknowledged. First, the fat-talk items were neither field tested nor statistically analyzed to substantiate their validity. Additionally, the fact that there was only an 18% response rate presents a major problem for this study. Although a reminder postcard was sent two weeks after the survey was mailed, it did not result in a more desirable response rate. One way to improve the response rate would have been to offer

incentives. This was not considered in the current study because a similar study done in 1999 by Meisels was conducted at the same university without incentives and achieved a 50% return rate. A third related limitation concerns the percentage of female versus male responses. Given that the literature states there is a larger problem with eating disorders among females, perhaps the results should have been discussed separately. However, the low response rate makes it difficult to make conclusions based on sex.

The findings of this study suggest directions for future research. First, it would be useful to increase the number of college males in future studies. Second, our survey items did not allow us to determine whether fat-talk statements were intended to be compliments or criticisms and under which circumstances (if any) they could serve as a protective factor. It would be beneficial for future researchers interested in this line of inquiry to follow up on the work of Gapinski, Brownwell & LaFrance (2003) whose findings suggests that fat talk by a confederate may have helped subjects be less critical of themselves. Finally, the role of fat talk in families of origin could be explored in terms of whether it acts as a risk or protective factor in terms of the college experience.

The findings of this study suggest the importance of helping clients and students in general find ways to reduce the impact of fat talk in their lives. Not only will this help individual clients counteract messages about weight, shape and appearance, it will help reduce the overall impact of these messages on students in general.

References

- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders, fourth edition, text revision. Washington, DC.
- Beebe, D. W., Holmbeck, G. N., Schober, A., Lane, M., & Rosa, K. (1996). Is body focus restricted to self-evaluation? Body focus in the evaluation of self and others. *International Journal of Eating Disorders, 20*, 415-422.
- Bishop, J. B., Bauer, K. W., & Baker, E. T. (1998). A survey of counseling needs of male and female college students: Perfectionism and adult autonomy or intimacy struggles, along with moderate distress and impairment in social relationships. *Journal of College Student Development, 39*, 205-210.
- Douglas, K. A., Collins, J. L., Warren, C., Kann, L., Gold, R., Clayton, S., Ross, J. G., & Kolbe, L. J. (1997). Results from the 1995 national college health risk behavior survey. *Journal of American College Health, 46*, 55-66.
- Gapinski, K. D., Brownell, K. D. & LaFrance, M. (2003). Body objectification and “fat talk:” Effects on emotion, motivation, and cognitive performance. *Sex Roles, 48*, 377-388.
- Kinder, B. N. (1997). Eating disorders. In S. M. Turner & M. Hersen (Eds.), *Adult psychopathology & diagnosis* (pp. 465-482). New York: John Wiley & Sons, Inc.
- Kurtzman, F. D., Yager, J., Landverck, J., Wiesmeier, E. & Bodurka, D. C. (1989). Eating disorders among selected female student populations at UCLA. *Journal of the American Dietetic Association, 89*, 45-53.
- Meisels, J. A. (1999). Diagnostic and clinical utility of the binge eating disorder: A comparative

- analysis of men and women with eating disorders on measures of prevalence, psychopathology, and body image concerns. *Dissertation Abstracts International*, 59(7-B), 3704.
- Mintz, L., O'Halloran, M., Mulholland, A. & Chneider, T. (1997). Questionnaire for eating disorder diagnoses: Reliability and validity of operationalized DSM-IV criteria into a self-report format. *Journal of Counseling Psychology*, 44(1), 63-79.
- Muller, S. L., Williamson, D. A. & Martin C. K. (2002). False consensus effect for attitudes related to body shape in normal weight women concerned with body shape. *Eating & Weight Disorders*, 2(7), 124-130.
- Mussell, M. P., Binford, R. B. & Fulkerson, J. A. (2000). Eating disorders: Summary of risk factors, prevention programming, and prevention research. *Counseling Psychologist*, 28, 764-796.
- Nichter, M. (2002). *Fat talk*. Cambridge, MA: Harvard University Press.
- Nichter, M. & Vuckovic, N. (1994). Fat talk: Body image among adolescent girls. In N. Sault (Ed.), *Many mirrors* (pp. 109-131). New Brunswick, NJ: Rutgers University Press.
- Ousley, L. B. (1986). Differences among bulimic subgroups, binge eaters, and normal eaters in a female college population. *Dissertation Abstracts International*, 47(5-B), 2178.
- Paxton, S. J., Schutz, H. K., Wertheim, E. H., & Muir, S. L. (1999). Friendship clique and peer influences on body image attitudes, dietary restraint, extreme weight loss behaviors and binge eating in adolescent girls. *Journal of Abnormal Psychology*, 108, 255-266.
- Stice, E. (2002). Risk factors for eating pathology: Recent advances and future directions. In R. H. Striegel-Moore & L. Smolak (Eds.), *Eating disorders: Innovative directions in*

research and practice (pp. 51-74). Washington, D.C.: American Psychological Association.

Stice, E., Maxfield, J. & Wells, T. (2003). Adverse effects of social pressure to be thin on young women: An experimental investigation of the effects of fat talk. *International Journal of Eating Disorders, 34*, 108-117.

Striegel-Moore, R. H., Silberstein, L. R. & Rodin, J. (1986). Toward an understanding of risk factors for bulimia. *American Psychologist, 41*, 246-263.

Tsai, C. Y, Hoerr, S. L. & Song, W. O. (1998). Dieting behavior of Asian college women attending a U.S. university. *Journal of American College Health, 46*, 163-168.

Table 1

Frequencies (%) of fat-talk topics between undergraduates with an eating-disorder diagnosis (Dx) and without an eating-disorder diagnosis (NoD)**

Topic	Frequency of Fat Talk					
	At Least Daily	> Weekly	Weekly	Monthly	Rarely/Never	
Ideal eating & exercise habits	Dx	33**	28	19	11**	9**
	NoD	12	20	22	24	22
Fears of becoming out- of-shape/ overweight	Dx	27**	27	20	15**	11**
	NoD	10	15	18	31	26
Eating & exercise habits compared to others	Dx	22**	31**	13	18	16**

	NoD	8	14	16	29	33
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Other people's shape & appearance	Dx	52**	24	11**	7**	6**
	NoD	20	22	22	20	16
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Supplements, meal replacements, & muscle-building strategies	Dx	16**	13	16	18	36**
	NoD	5	9	8	21	57

*Dx: n=55; NoD: n=219.

** $p < .05$.

Table 2

Comparisons of prevalence of fat-talk topics among undergraduates with an eating-disorder diagnosis (Dx) and without an eating-disorder diagnosis (NoD)

Topic	Dx				NoD			
	n	M	SD	t	n	M	SD	t
Other people's shape & appearance	--	2.80	1.32	--	--	3.82	1.46	--
Fears of becoming out- of-shape/ overweight	54	3.46	1.48	3.229*	219	4.46	1.34	6.981*
Eating & exercise habits compared to others	54	3.72	1.51	4.161*	220	4.63	1.35	8.143*
Supplements, meal replacements, & muscle-building strategies	54	4.43	1.55	-7.515*	220	5.16	1.23	-12.455*

Ideal eating & exercise habits	54	3.28	1.41	2.281*	220	4.22	1.39	3.565*
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Fears of becoming out- of-shape/ overweight	--	3.46	1.48	--	--	4.46	1.34	--
Eating & exercise habits compared to others	55	3.72	1.51	-1.320	219	4.63	1.35	-2.150
Supplements, meal replacements, & muscle-building strategies	55	4.43	1.55	-4.141*	219	5.16	1.23	-7.635*
Ideal eating & exercise habits	54	3.28	1.41	-1.399	219	4.22	1.39	-3.337*
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Eating & exercise habits compared to others	--	3.72	1.51	--	--	4.63	1.35	--
Supplements, meal replacements, & muscle-building strategies	55	4.43	1.55	-3.605*	220	5.16	1.23	-5.297*
Ideal eating & exercise habits	54	3.28	1.41	-2.544	220	4.22	1.39	-5.151*
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Supplements, meal replacements, & muscle-building strategies	--	4.43	1.55	--	--	5.16	1.23	--
Ideal eating & exercise habits	54	3.28	1.41	-5.454*	220	4.22	1.39	-9.783*
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* $p < .005$ (2-tailed).