

**Title:           DISORDERED EATING ON CAMPUS: IDENTIFYING STUDENT  
CHARACTERISTICS AND PREFERRED SERVICES**

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## **CHARACTERISTICS AND PREFERRED SERVICES**

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### **Abstract:**

Designing campus services to address the harmful physical and psychological consequences of students' body dissatisfaction, dieting and disordered eating is a challenge. Information to guide service development and target limited resources where they will most help students is useful. To gather such data, a survey was conducted to identify characteristics and concerns about eating and weight, and campus service preferences of 310 female college students at a large urban university. The survey included the Eating Attitudes Test-26 (EAT), The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ), and a questionnaire to determine demographics and preferences for services. 15% of the surveyed female students scored above 20 points on the EAT, indicating they had disordered eating patterns. These females also reported greater internalization of societal standards for appearance based on the SATAQ. They were also more likely to feel there was an eating disorder problem on campus and to know a fellow student with an eating disorder. The most preferred services for both at-risk and not-at-risk students were the same. These included counseling services, nutrition counseling, and medical services. Recommendations are presented for colleges and universities planning student services targeted at prevention and intervention for eating disorders.

**Key Words:** college students, diet, weight, nutrition, eating disorders

### **Introduction:**

Addressing the problems of body dissatisfaction, dieting, disordered eating, and underlying issues challenges college health services to design and target interventions for their specific student populations. Societal pressures to lose weight and obtain an often unrealistic body appearance drives many young adults to adopt harmful practices that affect their physical and psychological health. College students are especially affected by these pressures. In fact, the onset of eating disorders may be associated with a stressful event such as leaving home to attend college. (DSM) Eating disorders are more prevalent in females during adolescence and early adulthood, with the most common onset around the age of 18, putting freshman at particular risk. (Thelen, 1987, DSM) College atmosphere, attitudes, and emphases relate to the development of eating disorders. (Kashubeck, 1994) Also, current societal standards for beauty and popular culture media messages contribute to body image and eating disturbances. (Heinberg, 1995) The college environment is extremely competitive, not only academically, but socially. To fit in or obtain the “ideal” body, college students push their bodies to the extreme. This is done by dieting to the point of severe restriction, overexercising at the risk of injury, or adopting other dangerous bingeing and purging behaviors. Women and athletes are subgroups with highest risk for developing an eating disorder and long-term health consequences. (Putakian 1994, Brownell 1992)

Clinical eating disorders are said to affect 1-5% of young women. (DSM, 1994), (Heatherton, 1997) Studies on the prevalence of the eating disorder problem on college campuses have used various instruments to operationalize and measure student attitudes and behaviors. Recently, Chandler et al reported 16% of white college females with a pathogenic level of eating disorder attitudes and behaviors utilizing the EAT-26. (Chandler, 94) Kurth et al reported

19% of freshmen college women in the dieter's at risk category utilizing the Dieting and Bingeing Severity Scale (DBSS). (Kurth 95) Other prevalence statistics reported include 7-7.5% who sought help for an eating disorder (Kashbeck, 94), 5.1% prevalence of bulimia nervosa, 1 in 10 with symptoms for a clinical eating disorder, and >70% with body dissatisfaction and the desire to lose weight. (Heatherton, 95)

Given this high prevalence rate in college populations, prevention and intervention services are important to reduce the health risks to students. The scientific literature has extensive materials on the treatment of eating disorders, but much less is available on the prevention aspects of the problem. Some experts believe that prevention efforts may be the most important. It is suggested that these efforts be designed to prevent excessive and unhealthy dieting practices before a clinical eating disorder is developed. Secondary prevention may be aimed at stopping an eating disorder in its early stages or reducing its health impact. (Neumark-Sztainer 1995, Battle, Brownell, 1996)

The purpose of our project was to: (1) identify the extent of eating disordered problems at The University of Akron; (2) provide some data on the specific attitudes and behaviors that are common on campus so we might address these issues in our interventions, and (3) to have students tell us their preferences for types of services. Our hope was that determining the prevalence and specific risk factors for disordered eating on The University of Akron campus, and gaining student feedback on services would provide an invaluable tool for targeted prevention and intervention programs.

### **Method:**

Our survey was conducted at The University of Akron, a large (23,000 students) urban,

commuter institution in the Fall semester of 1997. The research was approved by the school's Institutional Review Board for the Protection of Human Subjects. A convenience sample of 310 female college students were surveyed in classrooms in large groups. A large sample of freshman was desired because of the documented high risk to this age group. Most students were in Freshman Orientation classes whose instructors agreed to the survey, or other large, conveniently surveyed classrooms across campus.

The Eating Attitudes Test-26 (EAT-26) was used as a measure of psychological factors characteristic of eating disordered individuals. A cut-off score of 20 was used to differentiate at-risk (>20) level of disturbed eating, from not-at-risk (<20) level. ( Garner 82, McSherry, 86) The 14-item Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) was used to measure awareness and internalization of specific societal pressures about appearance. A score of 14-70 is possible. Higher scores, particularly on the internalization scale, are correlated with disordered body image and eating behaviors. (Heinberg, Thompson, Stormer, 1995) A 16-item fill-in sheet was used to collect demographic data. Students were asked to choose, from among a list of services, those that they would be willing to utilize. They were also given the opportunity to fill in a desired service.

Data analysis was completed using descriptive statistics. Level of significance was selected at  $p < .01$ . The Statistical Package for the Social Sciences version 4.1 for IBM OS/MUS was used to analyze data.

### **Results:**

Three hundred and ten female students completed the survey of which 45% (n=138) were freshman between the ages of 19-21. Student demographics are reported in Table 1. Our sample reflected our institution's typical female student in that most were Caucasian (75%), commuter

(68%), heterosexual (94%), and reported a variety of majors. 81% self-reported an acceptable BMI range of 18-26.

Fifteen percent of the surveyed students' EAT scores were above the cut off level of 20 indicating an at risk or pathogenic level of attitudes and behaviors associated with eating disorders. Among freshman students, 17% had at-risk scores. An at-risk score ( $>20$ ) on the EAT was significantly correlated with a high total SATAQ score ( $P=.000$ ) and greater internalization subscale score ( $P=.000$ ), reflecting an increased awareness and internalization of societal standards for appearance, as expected. The mean SATAQ score of not-at-risk students was 40. At-risk students mean score was 49. In other words, students with disordered eating attitudes and behaviors were more the ones most likely to be influenced by the media messages around them, and that internalization resulted in abnormal eating behaviors. The influence of media messages and internalization by students were evident from their answers to specific questions on the SATAQ. Movies, TV and magazines are potent influences on our students, especially for freshman. See Table #2.

It was useful to look at specific EAT questions to identify student characteristics that are a problem at the University of Akron. Specific problem attitudes and behaviors indicated with answers of often-always on the EAT are reported in Graph #1. We found that almost 47% were terrified of being overweight (54% of freshman), and another 24% engaged in dieting behaviors to deal with that fear, indicating the need for primary and secondary prevention for our students. More disordered behaviors were reported as uncontrolled binge eating and vomiting after eating in 2-6% of students.

Those students with at risk scores were more likely to feel there was an eating disorder problem on campus ( $P=.012$ ), and to know a fellow student with an eating disorder ( $P=.001$ ).

When asked what services they would personally use for themselves or a friend, students reported counseling services, nutrition counseling, and medical services. Other services were chosen with fairly even frequency. See Graph #2 for all service preference results. There were no significant differences in preferred services chosen between the at-risk and not-at-risk students.

### **Discussion:**

#### **Students' problem attitudes and behaviors related to disordered eating**

Our results indicate a significant number of at-risk student behaviors on campus. At-risk students were generally freshman Caucasian females who internalized cultural appearance messages. Not surprisingly, our students were most influenced by TV, magazines, or movies, with freshman reporting the greatest impact from cultural media. Students who were at risk reported they knew other students at risk and also felt there was an eating disorder problem on campus, indicating the importance of peer groups in maintaining or perhaps promoting undesirable behaviors. Specific abnormal eating attitudes and behaviors were identified, including a large percentage who are terrified of being overweight and engage in dieting behavior. Binge eating and vomiting behaviors indicative of a clinical eating disorder were reported in smaller numbers of students which is consistent with the literature.

#### **Student preferences for campus services to address problems**

The data on preferred services in Graph #1 shows that students wanted more traditional services, including psychological counseling (60%), nutrition counseling (56%) and medical

services (46%). Our students have a significant preference for these more traditional intervention-treatment type services. However, though they were chosen less frequently, a diversity of other services were selected, indicating we need multiple service types in order to reach a majority of our students. We were unable to establish a correlation between those at most risk for disordered eating problems and type of service. This was disappointing as it would have helped us to target those most needing help.

### **Impact on service development and provision**

Currently, our campus has an Eating Disorders Treatment Team that offers collaborative intervention for symptomatic and clinical eating disorder problems. The Team consists of professionals from psychology, nutrition and health services, with services limited to group and individual counseling and medical services as needed. Prevention services are limited and infrequent, and usually limited to Eating Disorder Awareness Week.

As a result of our study, we will enhance the traditional services students preferred that are offered by our Eating Disorder Treatment Team. We will increase advertising of them so that students are aware they exist and hopefully be more likely to use them. The higher frequency of disordered eating problems and sociocultural influences on Freshman indicates the need to target this group of students in all our efforts, perhaps in Freshman Orientation classes.

Data on our students' excessive weight preoccupation, dieting practices, and influence of the media will be used in designing prevention services and in enhancing our intervention services through the Team. These include programs on dieting and weight issues, size acceptance, the effect of media culture and peers on weight and eating, resisting peer and media influences, and helping friends and relatives who have disordered eating. Prior to the study we were considering developing alternative student services, such as computer web sites, offering

more peer lectures and education, and utilizing more videos and printed literature. However, since students preferred more traditional services we will first work to enhance those services to meet our students needs, including offering and promoting alternative services through traditional channels, for example printed literature, workshops, or peer support groups.

### **Recommendations and limitations**

The study has several limitations, including use of students' self-reported heights, weights, and the high face-validity of the instruments used (EAT, SATAQ). Although, we were unable to establish a preferred service type for the most at risk students, the study will be a valuable resource for developing campus wide services for an alarming campus health problem. We suggest additional research in this area, so that limited resources may be targeted at students with the most problems. Although the findings cannot be generalized to all college female student populations, similar surveys may be useful to determine student population characteristics and services preferences on other campuses.

### References:

1. Thelen MH, Mann LM, Pruitt J, Smith M. Prevalence and component factors in college women. *J. of Psychosomatic Research*. 1987;31:73-78.
2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. (4th ed.) Washington DC:American Psychiatric Association;1994.
3. Kashubeck S, Walsh B, Crowl A. College atmosphere and eating disorders. *J. of Counseling and Development*. 1994;72:640-645.
4. Heinberg LJ, Thompson JK, Stormer S. Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire. *Int J Eat Disor*. 1995;17(1):81-89.
5. Putakian M. The female triad: Eating disorders, amenorrhea, osteoporosis. *Med Clin North Am*. 1994;78:345-356.
6. Brownell KD, Rodin J, Wilmore JH. Prevalence of eating disorders in athletes. In *Eating, body Weight and Performance in Athletes, Disorders of Modern Society*. Philadelphia, PA: Lea and Fabiger Publisher; 1992:128-145.
7. Heatherton TF, Mahamedi F, Striepe M, Field AE. A 10-year logitudinal study of body weight, dieting, and eating disorder symptoms. *J Abn Psych*. 1997;106(1):117-125.
8. Heatherton TF, Nichols P, Mahamedi F, Keel P. Body weight, dieting, and eating disorder symptoms among college students, 1982-1992. *Am J Psychiatry*. 1995;152(11):1623-1629.
9. Garner DM, Olmsted MP, Bohr Y, Garfinkel PE. The Eating Attitudes Test: psychometric features and clinical correlates. *Psych Med*. 1982;12:871-878.
10. McSherry JA. Progress in the diagnosis of anorexia nervosa. *J Royal Society of Health*. 1986;106:8-9.

11. Neumark-Sztainer D. Excessive weight preoccupation. *Nutrition Today*. 1995;30:68-74.
12. Battle EK, Brownell KD. Confronting a rising tide of eating disorders and obesity: Treatment vs. Prevention and policy. *Addictive Behaviors*. 1996;21:755-765.

**TABLE 2 - Internalization of media messages - SATAQ**

(% of students who “completely agree” with the statement)

Women who appear in TV shows and movies project the type of appearance that I see as my goal.

All students 12 % completely agree  
Freshman 14% completely agree

I tend to compare my body to people in magazines and on TV.

All students 17% completely agree  
Freshman 23% completely agree

I often read magazines like Cosmopolitan, Vogue, and Glamour and compare my appearance to the models.

All students 9% completely agree  
Freshman 13% completely agree

