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DISORDERED EATING BEHAVIORS: WHICH TEENS ARE AT HIGHEST RISK?

WHILE THE obesity epidemic is a serious and growing threat to the public's health, the social pressure to be thin, particularly for women, and reinforced in the mass media, can be destructive and contribute to the prevalence of anorexia and bulimia. However, disordered eating behaviors that do not meet the diagnostic criteria for these two illnesses also are a problem. This issue of the *CD Summary* reviews data on the prevalence of disordered eating behaviors among Oregon teens, examines potential risk factors, and provides resources for clinicians.

EATING DISORDERS AND "DISORDERED EATING"

Eating disorders, such as anorexia nervosa and bulimia nervosa, represent debilitating and sometimes fatal conditions. *Diagnostic and Statistical Manual for Mental Disorders, Fourth edition* (DSM-IV) criteria for anorexia include: 1) intense fear of becoming fat even though underweight; 2) refusal to maintain body weight; 3) disturbed body image; and 4) amenorrhea. Criteria for bulimia include: 1) recurrent binge eating; 2) unhealthy behaviors to control weight after bingeing (vomiting, fasting, laxative use); 3) behaviors occurring at least twice weekly for 3 months; and 4) self-image influenced by body shape.

National estimates suggest that over five million people in the US have anorexia or bulimia, most of whom are adolescent girls.¹ However, a much larger proportion of teens practice be-

haviors that could be characterized as "disordered eating", while not meeting all the DSM-IV criteria. These behaviors include: fasting, vomiting, hiding/lying about food, binge eating without purging, and using unprescribed medications to lose weight. While not necessarily life-threatening, these behaviors can indicate substantial psychological distress in themselves, and often are associated with a variety of health risk behaviors. In addition, disordered eating may cause morbidity, such as electrolyte imbalances, esophageal irritation, erosion of tooth enamel, and persistent diarrhea.¹ Some who manifest these behaviors may also progress to frank anorexia or bulimia.

HOW BIG IS THE PROBLEM IN OREGON?

We analyzed 2005 Oregon Healthy Teen survey data from 8th & 11th graders to determine the prevalence of disordered eating behaviors.[†] This survey includes the following questions about disordered eating behaviors during the past 30 days:

- Did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
- Did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight?
- Did you vomit or take laxatives to lose weight or to keep from gaining weight?

Disordered eating is common among Oregon teens. Among 8th

graders, 12% of students overall (17% of girls and 8% of boys) reported at least one of these behaviors (table below). Prevalence among 11th graders is similar. Oregon teens have lower disordered eating behaviors than is seen nationally where, of 9th graders: 13% reported fasting, 5% reported taking pills, and 4%

Prevalence of disordered eating behaviors: Oregon 8th graders, 2005

Behaviors	Total	Girls	Boys
Fasting or laxative use	9%	13%	5%
Diet pills, powders, or liquids	3%	4%	3%
Vomiting or taking laxatives	4%	5%	2%
Total	12%	17%	8%

reported vomiting or taking laxatives to lose weight.²

To identify other associated factors, we compared those with and without disordered eating behaviors in terms of perceived weight status, mental health (depressed mood, anxiety, and suicidal ideation), and other health risk behaviors, including sexual activity, physical or sexual abuse, substance use, harassment about appearance, recent physical fight or arrest, and lack of adult support.

The table (verso) compares 8th and 11th grade students with and without disordered eating behaviors. In multivariable analyses that included adjustment for grade and sex, those with disordered eating behaviors were more likely than those without to report: mental health problems; tobacco, alcohol or illicit drug use; a history of sexual or physical abuse; fighting or arrest; harassment by peers; and feeling without adult support.

[†]<http://oregon.gov/DHS/ph/chs/youthsurvey/index.shtml>



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We also looked at prevalence of unhealthy risk behaviors as a function of the severity of disordered eating, using the number of disordered eating behaviors as a mark of severity. As the number of unhealthy eating behaviors increased (0, 1, 2, 3), so did the prevalence of associated risk factors (figure).

Associated Risk	Disordered Eating		Adjusted OR (CI)
	Yes(%)	No(%)	
Mental health problems	61	24	3.0 (2.6, 3.5)
Tobacco or substance use	52	27	2.2 (1.9, 2.5)
Sexual or physical abuse	55	31	1.5 (1.3, 1.7)
History of fighting or arrest	40	23	1.5 (1.3, 1.7)
Harassment by peers	26	13	1.4 (1.2, 1.7)
Feeling without adult support	13	6	1.4 (1.1, 1.8)
Perception of overweight	21	5	N/A*
Not eating breakfast	49	15	N/A*
Any sexual intercourse	45	26	N/A*

*Not in final model.

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SCREENING

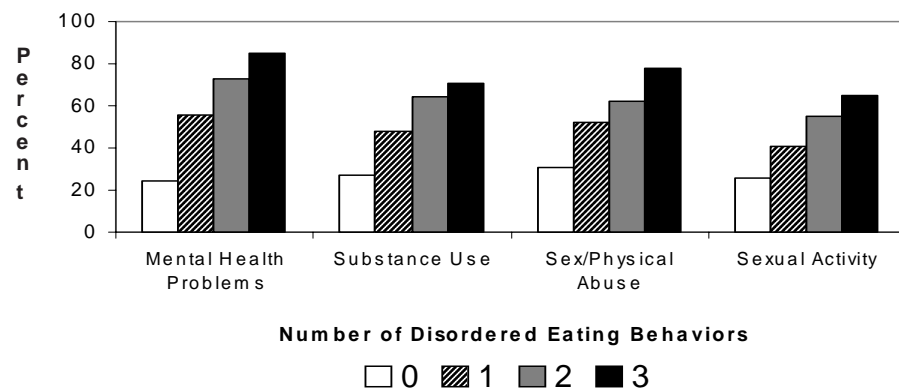
Disordered eating is common among adolescents and may indicate increased risk for other health issues. The American Academy of Pediatrics recommends that “screening questions

about eating patterns and satisfaction with body appearance should be asked of all preteens and adolescents as part of routine pediatric health care.”³ These questions may uncover eating behaviors that are a problem in their own right, and may also indicate a variety of other health risks that should be addressed with the patient. Useful screening questions include:

- Have you recently gained or lost weight?
- How much do you think you should weigh?
- Are you happy with your weight and with how your body looks?
- How much exercise do you get?

In addition, practitioners should ask about specific dietary practices, such as types of foods, amounts,

Associated risk behaviors by severity of disordered eating.



calorie counting, binge eating, purging, vomiting, taking unprescribed medications such as diuretics, laxatives, ipecac, etc. Additional information that may be relevant includes: the growth chart and recorded weight; family history of obesity, eating disorders, depression, etc; menstrual history; and other associated behaviors such as sexual history, tobacco, alcohol and drug use, and history of physical or sexual abuse. Such questions could be asked as part of an annual teen preventive health visit.

SUMMARY

Disordered eating behaviors are common among teens and are associated with a number of other health risk behaviors. If teens respond positively to screening questions related to disordered eating, practitioners should assess for other risk behaviors/issues. Addressing these issues is not simple, and may require a multi-faceted approach, including medical evaluation, monitoring and treatment as appropriate; nutritional counseling; and psychosocial counseling.⁴

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