



Screening for Eating Disorders

Presented by Kathleen Rindahl, FNP-C, DNP (ABD)
Student at Western University of Health Sciences

Screening

Objectives

Identify early physical signs or symptoms of an eating disorder.

Identify the difference between screening for eating disorders, and diagnosing an eating disorder.

Introduce the SCOFF Screening Tool and its appropriate use.

Identify resources for information regarding eating disorders.

Problem

Eating Disorders

Not the current school health focus.

Have been identified as the most common psychiatric problem affect young women.

Many adolescents do not meet the diagnostic criteria, however have disordered eating patterns.

Anorexia is life threatening, has the highest mortality rate of any mental illness.

Eating Disorders

DSM IV Principle Types of Eating Disorders

Anorexia Nervosa

Restricting

Binge-eating/purging

Bulimia Nervosa

Purging

Non Purging

Non-specified Eating Disorder

Who Gets Eating Disorders?

- Most common in adolescents and young adults, males and females, however 10 times more common in females.
- Occurs in all ethnic groups and social-economical groups, however, more common in Caucasians in industrialized nations.
- Nervosa is the number one health concern in China(National Institute of Mental Health, 2012).
- Three major influences that puts a person at risk for developing an eating disorders, biological, psychological, and family/social pressures.

Biological Risk

An Individual

Has 56% chance of developing an eating disorder if a relative/family member had or has an eating disorder.
(Archives of General Psychiatry, 63(3)305-312)

Is 12 times more likely to develop anorexia nervosa if their mother or sister has been diagnosed. (Bulik et al., 2006)

Psychological Risk

Individuals who are frequently anxious.

Those in the early stages of adolescents.

Those who avoid becoming independent.

Perfectionist, and when not perfect see themselves
a a failure.

Family/Social Risk

Parents who are controlling, or place a great deal of value on appearance, or who frequently diet themselves and often criticize their child's appearance.

Stressful life events - death in the family, break up with a boy/girl friend, going away to school.

Peer groups-wrestlers, cheerleaders, dancers, gymnasts, runners, actors, models.

Primary “RED” Flags

- Body Dissatisfaction
- Dieting
- Low self-esteem
- Perfectionism
- Childhood sexual abuse
- Family History of an eating disorder

Who Has an Eating Disorder?

- The U.S. Surgeon General estimated the prevalence of anorexia nervosa to be 0.01% of the population (2002).
- Approximately 10 million females and 1 million males are suffering from an eating disorder (Hoek & van Hoeken, 2003).
- The National Institute for Mental Health (NIMH) has estimated 0.5 to 3.7 percent of females are affected, 0.5% of those identified are adolescents.
- This makes the overall prevalence rate of the disorder to be about one in 1,000 or affecting an estimated 272,000 people in the United States.(NIMH)
- Reported figures significantly underestimate the prevalence of the disease, which may actually be as high as 5-10% of the population in the United States (Sullivan, 1995; National Institute of Mental Health, 2001).
- The nature of the disease and unwillingness for self-disclosure, make compiling accurate statistics impossible. It is estimated only 1/2 of those with an eating disorder have been diagnosed.

What we do Know

- Hospitalization rates for eating disorders increased 18 % between 1999 and 2006.
- Hospitalizations specifically for males with eating disorders increased 37 % between 1999-2006.
- 2005-2006 Eating Disorder Patients
 - 24% had cardiac dysrhythmias
 - 4% had acute renal failureRepresenting 125% and 118% increase from 1999-2000
(Zhao & Encinosa, 2009)

Identification

- Eating disorders are very difficult to identify.
- There are **RED** flags of psychological, behavioral, and physical symptoms that may be seen in a child with an eating disorder.
- Some of the symptoms may be easily identified and others may not be seen at all.
- Identification of symptoms depends on the severity of the disorder and how long it has been affecting the child.

Psychological Indicators

- Self injury
- Difficulty in following a conversation
- Poor concentration
- Poor memory
- Feeling of pride when losing weight or resisting hunger
- Feeling of shame in relationship to eating habits
- Body distortion associated with anxiety
- Intense fear of gaining weight or becoming fat

Psychological Indicators

- Minimizes feelings or extreme anger at family regarding eating habits
- Co- morbidity of depression
- Co- morbidity of OCD (Obsessive Compulsive Disorder)
- Suicidal ideation
- Deception, lying to hide eating disorder
- Feelings of hopelessness
- Feelings of self hatred
- Extreme thought patterns or perfectionism

Behavioral Indicators

- Missing school/classes
- Social withdrawal
- Constantly comparing body size to others
- Excessive use of bathroom scale
- Preoccupation with body reflection in mirrors/windows
- Calorie intake reported below 800 kcal per day
- Refusal to keep food down/purging
- Hiding and hoarding food
- Cutting food into tiny pieces and moving it around the plate

Behavioral Indicators

- Excuses self from the table at meal time
- Not eating in front of others
- Lying about having eaten
- Eating the same foods every day/rigid food rituals
- Becoming a vegetarian
- Excessive water or diet soda intake
- Refusal to maintain weight
- Excessive gum chewing

Behavioral Indicators

- Wearing baggy clothing
- Wearing many layers of clothing despite the weather.
- Excessive exercise
- Preparing food for others and not eating
- Excessive baking for others
- Constant obsessing about food
- Over use of laxatives
- Over use of diet pills
- Over use of energy drinks

Physical Indicators

Early Signs

Unexplained weight loss

- Lightheadedness/Dizziness
- Syncope
- Constant complaints of headache
- Cold intolerance
- Extreme fatigue

Late Signs

- 80% below normal body weight
- BMI below 16
- Chest pain
- Orthostatic blood pressure changes
- Bradycardia/Palpitations
- Dehydration

Physical Indicators

Early Signs

- Loss of hair
- Lanugo on face, neck and arms
- Restlessness
- Insomnia

Late Signs

- Yellow tint to skin
- Blue tint to hands
- Amenorrhea
- Dental enamel erosion
- Swollen or tender parotid glands
- Severe abdominal pain and blotting
- Constipation or diarrhea due to use of laxatives
- Abdominal pain with consumption of food
- Constant indigestion and heart bur

Clinical Findings

- Serum potassium < 2.6 mm/dl or > 6.0 mm/dl
- Serum Calcium < 6 mg/dl or > 13 mg/dl
- EKG abnormalities
- Bone marrow suppression
- Serum protein and or albumin below or above normal
- Elevated TSH
- Low T4
- Low LH
- Hypercarotenemia
- Esophageal tear
- Gastric reflux
- Osteoporosis in and adolescent
- Elevated serum amylase or lipase
- Elevated liver enzymes
- Pancreatitis
- Possible gastric rupture

Diagnosing an Eating Disorder

DSM IV Criteria for Anorexia Nervosa

Weight loss leading to maintenance of body weight $<85\%$.

BMI $<17.5\%$

Disturbance in one's body image, weight or shape

Amenorrhea (at least three consecutive cycles)

DSM IV Criteria for Bulimia Nervosa

- Eating an amount of food that is larger than most people would eat during similar period of time.
- Feeling that one cannot stop eating or control what or how much one is eating.
- Use of compensatory methods to prevent weight gain: Use of laxatives, diuretics, enemas, or other medications.
- Fasting
- Excessive exercise

Diagnosing an Eating Disorder

DSM IV Criteria for Eating Disorder Not Otherwise Specified

- Eating disorder not otherwise specified, disorders of eating that do not meet the criteria for any specific eating disorder.
- 1. The patient meets the criteria for anorexia nervosa, except has regular menses.
- 2. The patient meets the criteria for anorexia nervosa, but despite significant weight loss, the patient's current weight is in the normal range.
- 3. The criteria for bulimia nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur less than twice a week or for less than 3 months.
- 4. The patient has normal body weight and regularly uses inappropriate compensatory behavior after eating small amounts of food.
- 5. Repeatedly chewing and spitting out, but not swallowing, large amounts of food.

(American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 4th ed, text rev. Washington, DC, American Psychiatric Association, 2000.)

Why Screen?

GAPS- Guidelines for Adolescent Preventive Services (2009)

Recommendation 13:

“All adolescents should be screened annually for eating disorders and obesity by determining weight, and stature, and asking about body image and dieting patterns” .

Why Screen?

“It is important to aggressively treat patients who have traits of eating disorders but who do not meet the full criteria for anorexia or bulimia”

(American Family Physician, 2003, p 298)

Why Screen?

Early identification increases the chance of a successful recovery.

Once a student turns eighteen, he/she may legally refuse treatment.

Types of Screening Tools

Eating Attitudes Test (EAT) (Garner & Garfinkle, 1979)

- 40-item self report for AN
- 14 items were later found unnecessary. =EAT-26

Bulimia Test-Revised (BUILT-R) (Thelen, Farmer, Wonderlich & Smith, 1991)

- 28-item questionnaire
- Measurement of Bulimia

EAT-26 (Garner et al, 1982)

- Measurement of a general eating disorder
- 20/26 cut off identifies problematic attitudes with eating.

Eating Disorder Examination (EDE) (Fairburn & Cooper, 1993)

- Clinician interview
- Considered the “method of choice” for assessing specific eating disorders.

The SCOFF Screening Tool

- Do you make yourself **sick** because you feel uncomfortably full?
- Do you worry you have lost **control** over how much you eat?
- Have you recently lost more than 14 pounds (**one** stone) in a three month period?
- Do you believe you are **fat**, when others say you are thin?
- Would you say **food** dominates your life?

Why the SCOFF?

- The SCOFF Questionnaire developed in London in 1999 to screen for the presence of eating Disorders.
- Two or more positive answers, results provided 100% sensitivity for anorexia and bulimia.

(All cases, 95% confidence interval 96.9% to 100%; bulimic cases, 92.6% to 100%; anorectic cases, 94.7% to 100%), with specificity of 87.5% (79.2% to 93.4%)

Why the SCOFF?

Since 1999 the SCOFF questionnaire has since been studied and tested

- Internationally in Finland, China, Spain Austria and the United States (Hautla et al., 2009; Mond et al., 2007; Muron-Sans, et al., 2008;).
- And has been identified as a reliable screening tool for adolescents with as sensitivity of 81.9% and a specificity 78.7%.
- And is recommended for us as a screening tool by primary care providers by the American Academy of Family Physicians, (2003) and the American Medical Association (2012).

Resources

Internet Websites

Gurze Eating Disorders Resource Catalogue

References

- American Academy of Pediatrics. (2003). American Academy of Pediatrics recommendations for prevention of pediatric overweight and obesity. 424-430.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th ed.* Washington, D.C.: American Psychiatric Association.
- Anorexia Nervosa and Related Eating Disorders. (2012). Statistics: How many people have eating disorders? Mortality and recovery rates. Retrieved April 20, 2008 <http://www.anred.com/stats.html>
- Austin, S. B., Ziyadeh, N. J., Forman, S., Prokop, L. A., Keliher, A., & Jacobs, D. (2008). Screening high school students for eating disorders: Results of a national initiative. *Prevention of Chronic Diseases, 5*(4), 114-116.
- Becker, A. E., Grinspoon, S. K., Klibanski, A., & Herzog, D. B. (1999). Eating disorders. *New England Journal of Medicine, 340*(14), 1092-1098. doi: 10.1056/NEJM199904083401407
- Bulik, C. M., Sullivan, P. F., Tozzi, F., Furberg, H., Lichtenstein, P., & Pedersen, N. L. (2006). Prevalence, heritability, and prospective risk factors for anorexia nervosa. *Archives of General Psychiatry, 63*(3), 305-312. doi: 10.1001/archpsyc.63.3.305
- Center for Disease Control and Prevention. (2011). About BMI for children and teens. Retrieved June 2012 http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html
- Chavez, M., & Insel, T. R. (2007). Eating disorders: National Institute of Mental Health's perspective. *American Psychologist, 62*(3), 159-166. doi: 10.1037/0003-066X.62.3.159

References

- Cotton, M. A., Ball, C., & Robinson, P. (2003). Four simple questions can help screen for eating disorders. *Journal of General Internal Medicine*, 18(1), 53-56.
- Currin, L., Waller, G., & Schmidt, U. (2009). Primary care physicians' knowledge of and attitudes toward the eating disorders: Do they affect clinical actions? *International Journal of Eating Disorders*, 42(5), 453-458. doi: 10.1002/eat.20636
- Dellava, J. E., Thornton, L. M., Hamer, R. M., Strober, M., Plotnicov, K., Klump, K. L., . . . Bulik, C. M. (2010). Childhood anxiety associated with low BMI in women with anorexia nervosa. *Behaviour Research and Therapy*, 48(1), 60-67. doi: 10.1016/j.brat.2009.09.009
- Family Practice Note Book. (2008). Disease Prevalence rate.
- Haines, J., Ziyadeh, N. J., Franko, D. L., McDonald, J., Mond, J. M., & Austin, S. B. (2011). Screening high school students for eating disorders: Validity of brief behavioral and attitudinal measures. *Journal of School Health*, 81(9), 530-535. doi: 10.1111/j.1746-1561.2011.00623.x
- Hautala, L., Junnila, J., Alin, J., Gronroos, M., Maunula, A. M., Karukivi, M., . . . Saarijarvi, S. (2009). Uncovering hidden eating disorders using the SCOFF questionnaire: Cross-sectional survey of adolescents and comparison with nurse assessments. *International Journal of Nursing Studies*, 46(11), 1439-1447. doi: 10.1016/j.ijnurstu.2009.04.007
- Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders*, 34(4), 383-396. doi: 10.1002/eat.10222
- Ikeda, J. P., Crawford, P. B., & Woodward-Lopez, G. (2006). BMI screening in schools: Helpful or harmful. *Health Education Research*, 21(6), 761-769. doi: 10.1093/her/cyl144

References

- Jacobs, M. J., Roesch, S., Wonderlich, S. A., Crosby, R., Thornton, L., Wilfley, D. E., Bulik, C. M. (2009). Anorexia nervosa trios: Behavioral profiles of individuals with anorexia nervosa and their parents. *Psychological Medicine*, 39(3), 451-461. doi: 10.1017/S0033291708003826
- Lamberg, L. (2003). Advances in eating disorders offer food for thought. *Journal of American Medical Association*, 290(11), 1437-1442. doi: 10.1001/jama.290.11.1437
- Luck, A. J., Morgan, J. F., Reid, F., O'Brien, A., Brunton, J., Price, C., . . . Lacey, J. H. (2002). The SCOFF questionnaire and clinical interview for eating disorders in general practice: Comparative study. *British Medical Journal*, 325(7367), 755-756.
- Mond, J. M., Myers, T. C., Crosby, R. D., Hay, P. J., Rodgers, B., Morgan, J. F., . . . Mitchell, J. E. (2008). Screening for eating disorders in primary care: EDE-Q versus SCOFF. *Behaviour Research and Therapy*, 46(5), 612-622. doi: 10.1016/j.brat.2008.02.003
- Muro-Sans, P., Amador-Campos, J. A., & Morgan, J. F. (2008). The SCOFF-c: Psychometric properties of the Catalan version in a Spanish adolescent sample. *Journal of Psychosomatic Research*, 64(1), 81-86. doi: 10.1016/j.jpsychores.2007.06.011
- National Association of Anorexia Nervosa and Associated Eating Disorders. (2012). Facts about eating disorders. Retrieved June 2012 <http://www.anad.org>
- Perry, L., Morgan, J., Reid, F., Brunton, J., O'Brien, A., Luck, A., & Lacey, H. (2002). Screening for symptoms of eating disorders: Reliability of the SCOFF screening tool with written compared to oral delivery. *International Journal of Eating Disorders*, 32(4), 466-472. doi: 10.1002/eat.10093
- Plomin, R. (1989). Environment and genes. Determinants of behavior. *American Psychologist*, 44(2), 105-111.

References

- Pritts, S. D., & Susman, J. (2003). Diagnosis of eating disorders in primary care. *American Family Physician*, 67(2), 297-304.
- Rueda Jaimes, G. E., Diaz Martinez, L. A., Ortiz Barajas, D. P., Pinzon Plata, C., Rodriguez Martinez, J., & Cadena Afanador, L. P. (2005). [Validation of the SCOFF questionnaire for screening the eating behaviour disorders of adolescents in school]. [Comparative Study Validation Studies]. *Atencion Primaria*, 35(2), 89-94.
- Steinhausen, H. C., Gavez, S., & Winkler Metzke, C. (2005). Psychosocial correlates, outcome, and stability of abnormal adolescent eating behavior in community samples of young people. *International Journal of Eating Disorders*, 37(2), 119-126. doi: 10.1002/eat.20077
- White, J. H. (2000a). Eating disorders in elementary and middle school children: Risk factors, early detection, and prevention. *Journal of School Nursing*, 16(2), 28-35.
- White, J. H. (2000b). The prevention of eating disorders: A review of the research on risk factors with implications for practice. *Journal of Child and Adolescent Psychiatric Nursing*, 13(2), 76-78.
- Wonderlich, S. A., Lilenfeld, L. R., Riso, L. P., Engel, S., & Mitchell, J. E. (2005). Personality and anorexia nervosa. *International Journal of Eating Disorders*, 37 Suppl, S68-71; discussion S87-69. doi: 10.1002/eat.20120
- Zhou, Y., & Encinosa, W. (2011). An update on hospitalizations for eating disorders, 1999 to 2009.