Mental Health Issues in Student-Athletes:
Disordered Eating, Energy Balance and Language Appropriate for Student-Athletes

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Spectrum of Risk
DSM-4 vs. DSM-5

- Diagnostic and Statistical Manual for Mental Disorders
  - 5th Ed (2013 update)
  - universal authority for psychiatric diagnosis
- No longer requires amenorrhea to be a diagnostic criterion for Anorexia Nervosa (AN)
- Reduces the frequency of binge eating and compensatory behaviors to once a week instead of twice weekly for Bulimia Nervosa (BN)
- Binge Eating Disorder (BED) is now a separate diagnosis
- Eating Disorder Not Otherwise Specified (EDNOS) has been removed
  - Other Specified Feeding or Eating Disorder (OSFED)
  - Unspecified Feeding or Eating Disorder (UFED)
Anorexia Nervosa (AN)

- Primarily affects adolescent girls and young women
  - excessive dieting leads to severe weight loss
  - pathological fear of gaining weight or becoming fat; interferes with weight gain
  - characterized by distorted body image
Bulimia Nervosa (BN)

- **Recurrent episodes of binge eating;** characterized by:
  - *Eating,* in a *discrete period of time* (e.g. within any 2-hour period), an *amount of food that is larger* than most people would eat
  - A sense of *lack of control* over eating during the episode

- **Recurrent inappropriate compensatory behavior,** such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.

- The binge eating and behaviors *both occur, on average, at least once a week for three months.*

- Self-evaluation is unduly influenced by body shape and weight.
Binge Eating Disorder (BED)

- Recurring episodes of eating significantly more food in a short period of time than most people would eat under similar circumstances
  - episodes marked by feelings of lack of control

- Disorder is associated with marked distress

- Occurs, on average, at least once a week over three months.

- These episodes associated with three or more of:
  - eating much more rapidly than normal
  - eating until feeling uncomfortably full
  - eating large amounts of food when not feeling physically hungry
  - eating alone because of feeling embarrassed by how much one is eating
  - feeling disgusted with oneself, depressed or very guilty afterward

*NOT associated with purging, fasting, excessive exercising, or laxative*
Disordered eating behaviors include:

- Restricting
  - Weight and shape preoccupation
  - Striving for perfection
  - Fasting
  - Yo-yo dieting
- Purging
  - Steroid use
  - laxative abuse
  - Compulsive overeating
  - Excessive exercising

Related disorders:

- Anorexia nervosa
- Bulimia nervosa
- Binge eating disorder
Healthy body image

Healthy weight for age, height and body type

Healthy normal eating habits

Body acceptance

Eating

Restricting

Weight and shape preoccupation

Striving for perfection

Fasting

Yo-yo dieting

Disordered

Purging

Steroid use

Laxative abuse

Compulsive overeating

Excessive exercising

Eating disorder

Anorexia nervosa

Bulimia nervosa

Binge eating disorder
disordered

- body acceptance
- healthy normal eating habits
- healthy weight for age, height and body type

- restricting
- weight and shape preoccupation
- striving for perfection
- fasting
- yo-yo dieting

- purging
- steroid use
- laxative abuse
- compulsive overeating
- excessive exercising

- anorexia nervosa
- bulimia nervosa
- binge eating disorder

healthy body image

eating

eating disorder
A diagram illustrating the relationship between healthy body image, eating, and disordered eating behaviors. The diagram includes:

- **Healthy Body Image**:
  - Body acceptance
  - Healthy normal eating habits
  - Healthy weight for age, height, and body type

- **Eating**:
  - Restricting
  - Weight and shape preoccupation
  - Striving for perfection
  - Fasting
  - Yo-yo dieting
  - Purging
  - Steroid use
  - Laxative abuse
  - Compulsive overeating
  - Excessive exercising

- **Disordered Eating**:
  - Anorexia nervosa
  - Bulimia nervosa
  - Binge eating disorder
disordered

- restricting
- weight and shape preoccupation
- striving for perfection
- fasting
- yo-yo dieting
- purging
- steroid use
- laxative abuse
- compulsive overeating
- excessive exercising
- anorexia nervosa
- bulimia nervosa
- binge eating disorder

healthy body image

healthy normal eating habits

healthy weight for age, height and body type

eating

eating disorder
disordered

body acceptance
healthy normal eating habits
healthy weight for age, height and body type

restricting
weight and shape preoccupation
striving for perfection
fasting
yo-yo dieting

purging
steroid use
laxative abuse
compulsive overeating
excessive exercising

anorexia nervosa
bulimia nervosa
binge eating disorder

healthy body image eating eating disorder
disordered

- body acceptance
- healthy normal eating habits
- healthy weight for age, height and body type

- restricting
- weight and shape preoccupation
- striving for perfection
- fasting
- yo-yo dieting

- purging
- steroid use
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- compulsive overeating
- excessive exercising

- anorexia nervosa
- bulimia nervosa
- binge eating disorder

healthy body image

eating

eating disorder
Prevalence in General Population

• AN: Lifetime prevalence 0.5% to 1%
  – The crude mortality rate (CMR) is approximately 5% per decade

• BN: Lifetime prevalence 1% to 5%
  – The CMR is nearly 2% per decade

Those who engaged in dieting, unhealthy and extreme weight control behaviors, and binge eating during adolescence were at increased risk 10 years later

Neumark-Sztainer D et al, JADA 2011
Prevalence in Adolescent Population

- Cross-sectional survey of adolescents ages 13-18 yoa
  - Lifetime prevalence estimates of AN, BN and BED were 0.3%, 0.9%, and 1.6%
- Significant ethnic differences emerged for BN, with Hispanic adolescents reporting the highest prevalence
  - Trend toward ethnic minorities reporting more BED, while non-Hispanic white adolescents tended to report more AN

Swanson SA et al, Arch Gen Psychiatry 2011
Prevalence in Adolescent Population

- 55.2%, 88.0%, 83.5% of adolescents with AN, BN, BED endorse 1 or more comorbid psychiatric disorders
  - AN assoc. only with *oppositional defiant d/o*
  - BN and BED strongly associated with mood and anxiety disorders and with multiple disorders
  - 27.0% of adolescents with BN and 37.0% of adolescents with BED endorsed 3 or more classes of comorbid disorders.
- 88.9% of AN reported social impairment, and 19.6% reported severe social impairment

Swanson SA et al, Arch Gen Psychiatry 2011
Prevalence in Adolescent Population

• Lifetime suicidality was associated with all subtypes of eating disorders

• *Suicidality was particularly associated with BN*
  – more than half of adolescents with BN reported suicide ideation and more than a third reported attempts

Swanson SA et al, Arch Gen Psychiatry 2011
Athletes > Non-athletes

• The “athletic personality”
  – Goal orientation, desire for athletic success, perfectionism, compulsiveness
• Extreme exercise is risk factor for AN, especially when combined with dieting
Risk Factors for ED

• Pressure to optimize performance and/or modify appearance

• Psychological factors
  – low self esteem
  – poor coping skills
  – perceived loss of control
  – perfectionism
  – obsessive compulsive traits
  – depression and anxiety
  – history of sexual/physical abuse and family dysfunction
Factors Unique to Athletes

• Symptoms vs Desired Characteristics
  – Driven personality
  – Perfectionists
  – People pleasers
  – Obsessive-compulsive tendencies
  – High pain tolerance

• Size increase due to weight training
• Stress of being in the spotlight
• Balancing multiple role demands

• Coach and/or parent comment about athlete’s weight/appearance
Energy Balance

- Trend among athletes toward inadequate energy intake without the presence of a clinical eating disorder
- The imbalance of energy intake and energy expenditure results in low energy availability
Energy Balance

Female Athlete Triad

- Low energy availability
- Disordered eating

Female Athlete Triad

- Irregular Period
- Amenorrhea
- Low Bone Density
- Osteoporosis

RED-S

- Decreased muscle strength
- Decreased endurance performance
- Increased injury risk
- Decreased training response
- Impaired judgement
- Decreased concentration
- Decreased coordination
- Decreased glycogen stores
- Depression
- Irritability
Female athlete triad

Suboptimal energy availability

Low bone density

Irregular menses

Healthy energy status

Healthy menstrual cycles

Healthy bones

Low energy availability with or without eating d/o

Osteoporosis

Amenorrhea

PATHOLOGY

OPTIMAL HEALTH

How to Recognize?

• Look for **physical** signs:
  – Excessive/frequent fluctuations in weight
  – Stress fractures; overuse injuries
  – Cramping, weakness, fatigue, achiness
  – Dizziness, fainting
  – Broken blood vessels in eyes
  – Sore throat, swollen salivary glands
  – Cold intolerance
  – Constipation
  – Tooth decay, receding gums
How to Recognize?

• Look for **behavioral** signs:
  – Restricted food intake; becoming a “picky” eater
  – Eliminating specific foods or whole food groups
  – Fear of food, avoiding social situations involving food, solo eating
  – Excessive exercise, above expected sport training
  – Regular weighing
  – Frequent comments about own weight, calories, food fat content
  – Frequent bathroom visits following meals
  – Moodiness, withdrawal from others
How to Recognize?

• Look for **attitudinal** signs:
  – Dichotomous thinking
    • tendency to only see extremes (good or bad, black or white, all or nothing)
  – Denial of eating problems
  – Perfectionistic standards
  – Fear of failure
  – Harsh self-criticism
  – Self-worth determined by weight
    • Frustration or guilt if unable to control weight or appearance
How to Recognize?

- Highly Successful in All Endeavors
- High Expectations for Self
- Parents Set High Expectations for Child
- Family Often Exerts Tight Control on Child
- Family has Low Tolerance for Conflict
Our Roles

• Don’t question teammates or talk to them about the athlete. Talk directly to athlete
• Don’t ignore the problem. Intervene.
• Don’t get into a power struggle about whether there is a problem.
• Don’t be deceived by excuses.
• Never conclude that an athlete just isn’t trying hard enough to overcome an eating disorder
• Don’t try to keep the problem hidden or try to deal with it yourself.
• **When in doubt, refer out!**
Our Roles

• Ensure confidentiality if requested unless the student-athlete is in danger of harming him/herself or others

• Reassure that participation will only be affected if health is compromised or athlete is at risk for injury

• Prevention
  – Don’t focus on weight/appearance
  – Eliminate weigh-ins especially if done by coach

• Develop a mental healthcare network
NCAA

- Ensure that mental health care is provided by licensed practitioners qualified to provide mental health services
- Clarify and disseminate referral protocol
- Consider mental health screening in PPEs
- Create and maintain a health-promoting environment that supports mental well-being and resilience
The Mental Health Care Network

- clinical or counseling psychologists, neuropsychologists, psychiatrists, licensed clinical social workers, psychiatric mental health nurses, licensed mental health counselors, primary care physicians with core competencies to treat mental health disorders

- *Nutritionists also helpful for these athletes*
What to say to student-athletes

**Not Okay**

- You should get in shape

- Your uniform doesn’t fit you well

- Your back/knees will feel better if you lose weight

**Okay**

- Let’s work on improving your fitness

- Let’s get you a uniform that allows you to perform better at your position

- By strengthening your muscles that support your back/knees they will feel better--then you’ll be able to train harder and perform at a higher level
Responses to a student-athlete who feels he/she/they is overweight

• Emphasize strength, endurance, body composition (increasing muscle mass) *instead of weight*
• Relate concerns to performance—let’s get stronger, quicker
• “Let’s consider adding another session in the weight room to get stronger; having more muscle will increase your metabolism and improve your fitness”
• “You look great. How do you feel? We should try to improve our overall endurance as a team.”
Things NOT to say to a student-athlete who is thin

• Why do you need to work out so much? You are already so skinny.
• Make sure you dress warmly, especially since you have no fat on you
• You better get some meat on your bones, or you might get blown away
• Have you been trying out a new fad diet?
• You are so tiny, how are you strong enough to box out?
• You are so small, are your parents feeding you enough?
• You eat like a bird
“Potato chips, root beer, and cupcakes aren't an unhealthy lunch — it's vegetarian!”