Exploring the role of high school Athletic Trainers in Relative Energy Deficiency in Sport and Eating Disorder early detection, prevention, and return to play

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Background

Adolescent Athletes are at risk for developing Relative Energy Deficiency (RED-S) and eating disorders (EDs)

RED-S is a syndrome resulting from a state of chronic low energy availability where in an athlete is not receiving adequate nutrition for biological function or performance.

EDs are complex mental and physical illnesses that include:
- Anorexia
- Bulimia
- Binge eating

Both RED-S and EDs are serious conditions affecting physical, psychological and social function, and can have lifelong medical consequences.

Risk Factors:
- Body dissatisfaction
- Pressure to lose weight
- Busy schedule
- Food insecurity
- Lack of nutrition knowledge
- Rapid increase in training
- Disordered eating/eating disorder

Physiological Impacts:
- Endocrine (hormonal) dysfunction
- Menstrual dysfunction
- Immune dysfunction
- Gut dysfunction
- Cardiovascular dysfunction
- Hematological (blood) dysfunction
- Metabolic dysfunction

Outcomes: Decreased performance, well-being, and health

Methods and Objectives

Goal: Address increase in RED-S/ED in adolescent athletes through development of a continuing education workshop for Seattle Children’s Athletic Training department

needs Assessment:
- Literature review
- Shadowed AT
- Informal interviews
- Pre-workshop survey of SCH ATs

Content for Continuing Education Workshop:
- Nutrition needs of adolescent athletes
- Nutrition needs of adolescent athletes with RED-S/ED
- RED-S and ED signs and symptoms
- Facilitated discussion on RED-S/ED protocols at the high school level

Themes

Literature Review
- Most coaches do not know the signs of EDs and few believe disordered eating (DE) behaviors are a concern
- Most ATs want more education on EDs, but about half of ATs believe they have adequate education on EDs
- Few resources exist for coaches and ATs on RED-S and EDs
- No standard education for coaches or ATs on RED-S and EDs
- No RED-S/ED protocols at the high school level

Informal Interviews (n = 21)
- Informal interviews with ATs, dietitians, social workers, medical providers, coaches
- Some healthcare providers unaware of the role of ATs in return to play
- ATs do not always have access to medical records related to sports participation
- High coach turnover compared to ATs in schools
- Resistance from coaches on learning more about RED-S/EDs
- ATs want to support athletes and prevent RED-S/EDs

Survey of Athletic Trainers at Seattle Children’s (n = 25)
- 24% are confident in their abilities to identify low energy availability or RED-S
- 54% feel confident in their ability to recognize DE/ED in an athlete
- 12% feel comfortable talking/intervening with an athlete presenting with signs of low energy availability or RED-S
- 32% feel comfortable talking/intervening with an athlete presenting with signs of an eating disorder or disordered eating

Continuing Education Workshop (n = 35)
- 54% feel confident in their ability to recognize DE/ED in an athlete
- Identified an approved screening tool for ATs to utilize
- Areas of need identified in facilitated discussion included:
  - Guidelines on when to pull from play
  - Improved communication between ATs and providers
  - Screening tools for when to escalate
  - Nutrition education for athletes and parents
  - How to assess communication requirements with coach regarding EDs

Future Directions

While collegiate and professional level programs are developing protocols to address RED-S/EDs, more energy needs to go into developing similar interventions at the high school level

There is opportunity for ATs to play an integral part in RED-S/ED treatment teams for adolescent athletes

Next Steps:
- Incorporating RED-S and ED Guidelines into AT protocols in local high schools
- Exploring how to improve communication pathways between ATs and health care providers
- Formalizing a referral pathway for ATs at SCH to utilize
- Identifying an approved screening tool for ATs to utilize
- Educating healthcare providers on how ATs can support in return to play monitoring
- Providing a continuing education workshop from mental health providers on RED-S/ED

Sources available upon request at jansenv@uw.edu