

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 (hormone) dysfunction
- Menstrual dysfunction
- Immune dysfunction
 - Gut dysfunction
 - Cardiovascular dysfunction
- Hematological (blood) dysfunction
- Metabolic dysfunction

Outcomes:

Decreased performance, wellbeing, and health

Seattle Children's Hospital provides on-site licensed athletic trainers (ATs) to 40 public and private schools in the Puget Sound who serve as liaisons between student-athletes, parents, health care providers, and their coaches.

Question:

How can Seattle Children's Athletic Trainers be a part of early detection and return to play procedures for high school athletes?

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/ED
 - 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)

- 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