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The Impact of Sports Nutrition Knowledge on the Physical Effects of Low Energy Availability (LEA) in Female Cross Country Runners.

A. Olcott, C. Anstrom

Learning Outcome

To understand the impact sports nutrition knowledge has on the risk for developing LEA in Female Cross Country Runners.

Background

The International Olympic Committee introduced the concept of Relative Energy Deficiency in Sports (RED-S) to accurately encompass the condition previously known as the Female Athlete Triad. LEA is the root cause of RED-S. (Mountjoy et al., 2014). The purpose of this study was to measure sports nutrition knowledge and the impact knowledge level has on the susceptibility to develop LEA in female cross country runners.

Methods

A quantitative design was used. Participants included the women's cross country team at a small Midwestern university ($n=20$). Two validated questionnaires were administered. The Low Energy Availability in Females Questionnaire (LEAF-Q) (Melin, 2014) assessed risk for LEA, and the 49-Item Sports Nutrition Knowledge Instrument (49-SNKI) (Karpinski et al., 2019) assessed sports nutrition knowledge. Participants were assigned to two groups based on risk for LEA as indicated by the LEAF-Q results.

Results

Eleven (55%) were at risk for LEA. A 1-sample t-test was performed to examine if participants at risk for LEA scored low on the 49-SNKI. The results showed no statistically significant difference in the scores between the two groups ($p=0.684$).

Conclusion

A low score on the 49-SNKI (lesser knowledge of sports nutrition) was not a risk factor for developing LEA in this study. Research studies with larger participant pools are warranted.

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