

## Abstract

**Background:** Female participation in sports has seen a dramatic increase in recent years. Despite numerous health benefits seen through female participation in sports, there has been an increase in sports related health consequences including the female athlete triad. **Purpose:** The purpose of this research was to investigate the female athlete triad, its prevalence at Acadia University, and the effects of nutrition education on triad risk. **Methods:** Varsity and club female athletes at Acadia University were recruited in person and via email. Participants were randomized to an experimental group which attended nutrition education interventions, or a control group which did not attend the interventions. All participants completed a survey assessing triad risk and nutrition knowledge prior to, and following intervention. **Results:** From the initial survey, 29.4% of athletes were at risk of the triad and 47.1% were at risk following intervention due to injury. Following intervention, no significant difference was found among athlete's energy ( $p = 0.651$ ), fat ( $p = 0.0718$ ), carbohydrate ( $p = 0.633$ ), protein ( $p = 0.0959$ ) intake. It was found that 94.1% of participants reported feeling guilty when choosing unhealthy foods. **Conclusion:** Many athletes at Acadia University are at risk of the female athlete triad, however, nutrition education does not appear to affect athletes risk. More research is needed on the prevalence of the triad and effective methods to reduce risk.