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Eating attitudes and food intakes of elite adolescent female figure skaters: a cross sectional study

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Abstract

Background

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Background

Elite adolescent female figure skaters compete in an aesthetic-based sport that values thin builds and lithe figures. To conform to the sport's physical requirements, skaters may alter their eating patterns in unhealthy directions. This study assesses the eating attitudes and dietary intakes of elite adolescent female figure skaters to assess the potential nutritional risks among them.

Methods

Thirty-six elite competitive adolescent female figure skaters (mean age 16 ± 2.5 SD years) completed self-administered three-day records of dietary intake and simultaneous physical activity records during training season. Two months later, they attended a national training camp during which they completed the Eating Attitudes Test (EAT-40), provided fasting blood samples, and had heights and weights measured.

Results

Participants' mean body mass index (BMI) was 19.8 ± 2.1 SD. Their BMIs were within the normal range, and the majority (70%) did not report a history of recent weight loss. The mean EAT-40 score was normal (19.5 ± 13.5 SD) and below the cut-off score of 30 that indicates clinically significant eating pathology. However, one-quarter of the skaters had EAT-40 scores above 30. The skaters reported a mean energy intake of 1491 ± 471 SD kcal/day (31 ± 10 SD kcal/kg), with 61.6% of calories from carbohydrate, 14.6% from protein, and 23.7% from fat. Their reported dietary intakes were high in carbohydrates but low in total energy, fat, and bone-building nutrients.

Conclusions

Although these highly active young women compete in a sport that prizes leanness, they had appropriate weights. The athletes reported dietary intakes that were far below estimated energy needs and were at moderate risk of disordered eating. Anticipatory guidance is warranted to improve their dietary intakes, particularly of bone-building nutrients.

Keywords: Eating attitudes; Female athletes; Disordered eating; EAT scores; Dietary intake; BMI

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