Nutrition Knowledge and Dietary Behaviors in Army ROTC Cadets

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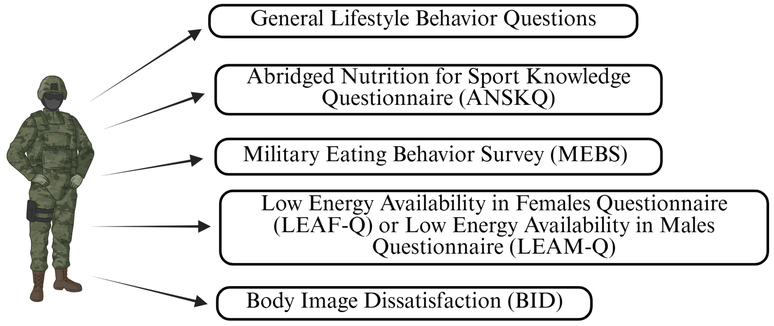
BACKGROUND

- Army ROTC cadets have limited nutrition knowledge, which can contribute to poor dietary choices, inadequate energy intake, and a higher risk of low energy availability (LEA).
- Additionally, cadets face unique lifestyle stressors, including rigorous training, academic demands, and body composition standards that may influence eating behaviors and body image dissatisfaction (BID).
- Assessing nutrition knowledge and dietary behaviors in this population is essential for identifying factors contributing to LEA and BID, and for developing targeted interventions to support cadet health, readiness, and performance.

PURPOSE

To assess nutrition knowledge and dietary behaviors in AROTC cadets and explore relationships with LEA, BID, and lifestyle factors.

METHODS



- 274 AROTC (female: n=103, male: n=171) cadets participated in this study (mean ± standard deviation (SD):
  - Age: 19.8 ± 1.5 yrs
  - Weight: 73.8 ± 12.3 kg
  - Body mass index: 24.4 ± 2.8 kg/m^2
- Spearman correlations assessed relationships between nutrition knowledge, BMI, eating behaviors, LEA scores, and BID ($p < 0.05$)
- Two one-way ANOVAs determined differences in nutrition knowledge scores across sex and BMI categories (underweight (n=2), healthy weight (n=142), overweight (n=96), obese (n=6)) ($p < 0.05$)

RESULTS

Table 1. Cadets' Dietary Behaviors

Cadets Reported:	% Cadets
Restricting Food Intake	89%
Moderate-to-High Level of Diet Rigidity	98%
Feeling Significant Signs of Hunger	96%

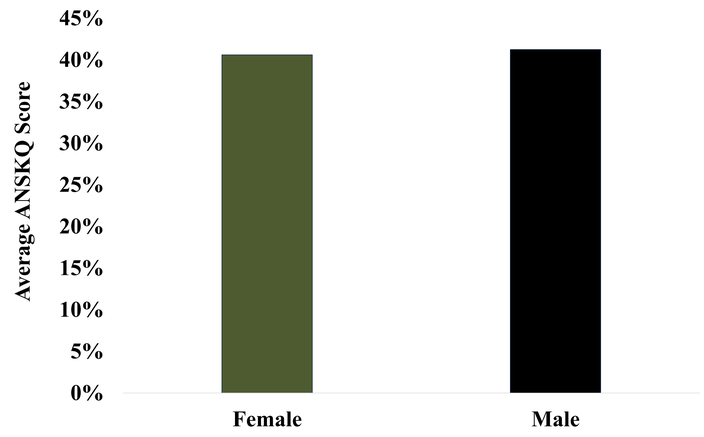
Cadets reported consuming **2.3 meals** per day

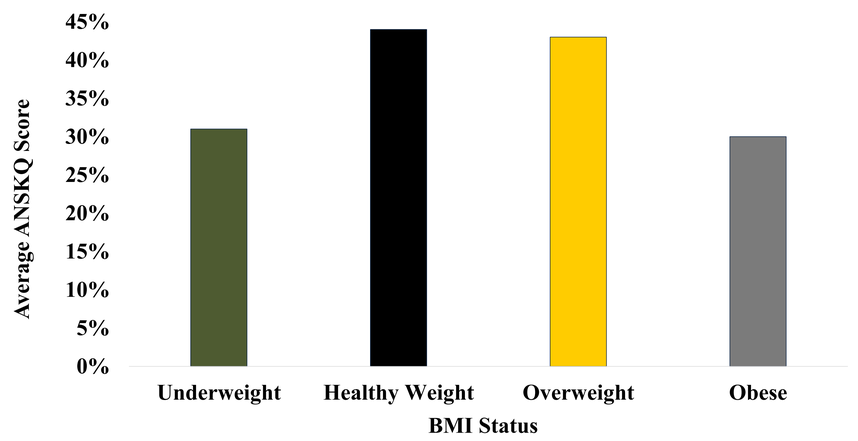
Cadets scored an average of **43%** on the ANSKQ

11% of cadets reported drinking 7+ drinks weekly

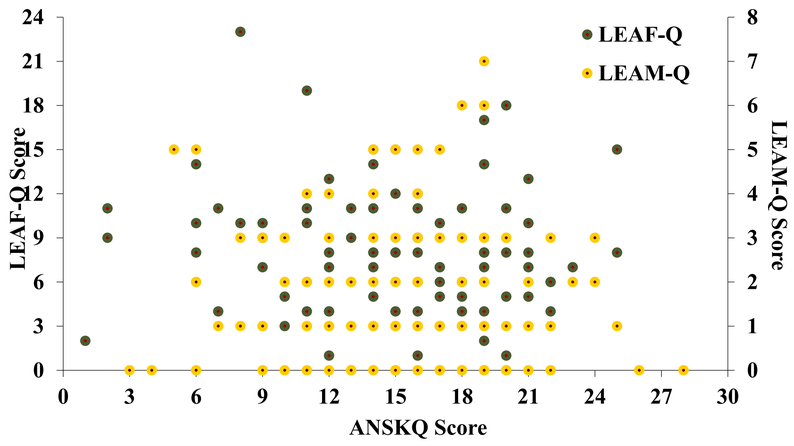
59% of cadets reported sleeping 4-6 hours

Nutrition knowledge did not differ between sexes ($p=0.712$) or across BMI status ($p=0.056$)

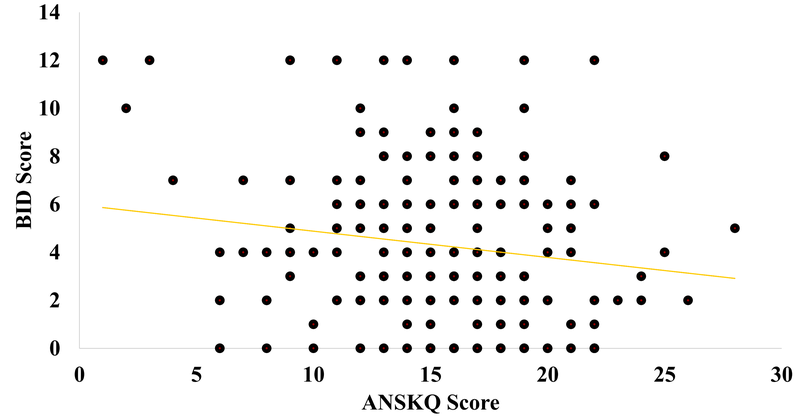




No relationship existed between nutrition knowledge and LEA scores (females $r = -0.11$, $p = 0.297$; males: $r = -0.007$, $p = 0.931$)



No relationship existed between nutrition knowledge and body weight dissatisfaction or body shape dissatisfaction ($p>0.05$).



CONCLUSION & PRACTICAL APPLICATIONS

- AROTC cadets showed low nutrition knowledge and high hunger, cravings, and dietary restraint, which were interrelated; however, nutrition knowledge was not linked to LEA risk or BID, suggesting other contributing factors.
- Findings highlight the need for interventions to address nutrition education and the importance of adequate fueling for AROTC cadets.