DISORDERED EATING AND COMPULSIVE EXERCISE BEHAVIORS: ASSOCIATIONS WITH QUALITY OF LIFE AMONG ADOLESCENT ATHLETES

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Purpose

- The prevalence of disordered eating (DE) and compulsive exercise (CE) behaviors is higher among adolescent athletes compared to their non-athlete peers.^{1,2}
- DE behaviors are related to lower quality of life (QoL) in adolescents,³ but the association between eating and exercise psychopathology with QoL is not well understood in adolescent athletes.
- The primary aim was to examine the association between DE and CE behaviors with QoL measures among uninjured adolescent athletes.

Methods

- Cross-sectional study of uninjured adolescent athletes who completed the Eating Disorder Examination Questionnaire (EDE-Q), Compulsive Exercise Test (CET) and Pediatric QoL Inventory (PedsQL).
- Pearson's correlation coefficients were used to assess the relationship of PedsQL scores with EDE-Q and CET scores (global and subscales).

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Results

- 24 athletes (mean age=15.5±1.4 years, 79% female) participated in the study. •
- Adolescent athletes with more severe DE reported poorer QoL (Figure 1a).
- Participants with less exercise rigidity and more lack of exercise enjoyment reported lower QoL (Figure 1b and 1c). Global CET scores (r=0.00, p=0.99), as well as subscales for avoidance of negative affect (r=-0.22, p=0.31), weight control (r=-0.02, p=0.91) and mood improvement (r=0.30, p=0.15), were not significantly related to QoL.

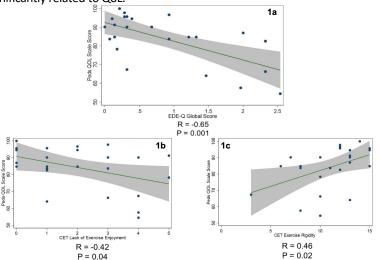


Figure 1. Scatterplot, line of best fit, and 95% confidence interval describing the relationship between 1a) EDE-Q and Peds QL scores; 1b) CET subscale/Lack of Exercise Enjoyment and PedsQL scores; 1c) CET subscale/Exercise Rigidity and PedsQL scores.

Conclusion

- Our data demonstrate a significant relationship between DE behaviors and QoL in adolescent athletes.
- The relationship between CE and QoL remains unclear but can be further elucidated with a larger sample size.
- Enhanced understanding of the associations between eating and exercise psychopathology with QoL in adolescent athletes is critical to promote the health and well-being of this vulnerable population.

References

- Martinsen M, Sundgot-Borgen J. Higher Prevalence of Eating Disorders among Adolescent Elite Athletes than Controls. Sports Med Health Sci. 2013;45(6):1188-1197.
- Goodwin H, Haycraft E, Meyer C. Disordered Eating, Compulsive Exercise, and Sport Participation in a UK Adolescent Sample. Eur Eat Disord Rev. Jul 2016;24(4):304-9.
- Wu XY, Yin WQ, Sun HW, Yang SX, Li XY, Liu HQ. The association between disordered eating and health-related quality of life among children and adolescents: A systematic review of population-based studies. PLoS One. 2019;14(10):e0222777.

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