

Presenting Author Name

Eiva Fallahasady

Presenting Author Category

PhD Student

Research Category

Community Health / Policy

Abstract Title

Mental Health Outcomes and Physical Activity in Adolescents with Type 1 Diabetes. A Systematic Review and Meta-analysis with Meta Regression

Background

Adolescents living with Type 1 Diabetes (T1D) face daily challenges in balancing insulin, food, and physical activity (PA) which place burden on their mental health. While PA is a cornerstone in fostering positive mental health in adolescents, there is a surprising absence of empirical evidence for the role of PA in supporting the mental health of adolescents living with T1D.

Objective

The aim of this review is to synthesize all previous studies and research to test for (1) differences in mental health between adolescents with and without T1D and (2) potential mediating effects of PA and mental health outcome in adolescents living with T1D.

Methods

Data sources: We will search CINAHL, EMBASE, MEDLINE, SPORTDiscus and PsycINFO for the published articles and Google Scholar, ProQuest Dissertation & theses comparing mental health outcomes between adolescents with T1D and controls without T1D.

Study selection: We will include observational studies with at least one measurement of mental health outcome in children and adolescents aged 10 to 18 with T1D and control groups. The risk of bias will be assessed by Newcastle-Ottawa and for the quality of evidence, we will use GRADE methodology.

Results

Data extraction will be done with two reviewers. If meta-analysis is possible, the effect size and pooled random-effects model will be calculated. We will conduct meta-regression analysis for finding potential mediator including PA, sex, mean age, study design and mental health outcome type. Results of search and preliminary study demographics will be presented at the meeting.

Conclusion

This systematic review will provide valuable insights into (1) the prevalence of mental health outcomes and (2) the potential role of PA in fostering positive mental health factors in adolescents with T1D. These results could potentially inform clinical practice and interventional studies to improve youth living with T1D mental health with PA.

Authors

Name	Role	Profession
Eiva Fallahasady	Presenting Author	PhD student
Hanna Steiman De Visser	Co Author	BSc Med Student
Taelyr Dewarle	Co Author	Research Staff
Shaelyn Strachan	Co Author	Full Professor
Brandy Wicklow	Co Author	Full Professor
Jennifer Yamamoto	Co Author	Assistant Professor
Jon McGavock	Co Author	Full Professor