

Physical Activity as a Predictor of Adolescents' Subjective Health Assessment

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Purpose: Regular physical activity (PA) is a key protective factor for health in youths. The WHO recommends that adolescents do at least an average of 60 minutes per day of moderate-to-vigorous physical activity (MVPA) and incorporate vigorous-intensity aerobic activities (VPA) at least three days a week. This study aims to explore and to examine association between physical activity and self-rated health assessment in adolescents in Lithuania for two decades.

Methods: Data were collected during the six national Health Behaviour in School-aged Children (HBCS) surveys in Lithuania during 2002–2022 ($n = 42,260$). Students were from 5th, 7th, 9th grades (11-to-15-years-old). The self-reported paper-pencil questionnaires were used to examine indicators such as self-rated health, MVPA and VPA, gender, grade, and family affluence (FAS). Multivariate logistic regressions were performed, adjusting by gender, grade, and FAS. Data analysis was conducted using univariate and multivariate logistic regression. Fair and poor self-rated health and physical inactivity were the respective reference groups.

Results: Analysing the dynamics of MVPA for the period of 2002–2022, a consistently changing situation was observed, VPA among boys remained relatively stable, while rates among girls gradually improved. Boys were consistently more likely to have sufficient daily MVPA and VPA at least four days a week compared to girls; similarly, 5th grade students and adolescents from the higher FAS group were more physically active ($p < 0.05$). The multivariate analysis showed that during the period of 2002–2022, VPA at least four days a week always was a significant predictor for good and excellent self-rated health assessment (odds ratio (OR) = 1.35–1.72), while daily MVPA was not such a relevant factor (2010 and 2018 became non-significant, $p > 0.05$).

Conclusion: These results highlight the increasing importance of vigorous-intensity aerobic physical activities in assessing adolescent health.

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