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ASSOCIATIONS OF THE PHYSICAL ACTIVITY-RELATED INJURIES WITH SELECTED VARIABLES IN ADOLESCENTS – RESULTS OF THE PILOT STUDY

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Introduction

Physical activity (PA) as health promotion tool is not one without adverse effects and adolescents with nonfatal physical activity-related injuries (PARI) may experience serious health consequences for the rest of their lives.

Purpose

The aim of this study was to assess the associations between physical activity-related injuries in adolescents in various settings and moderate-to-vigorous physical activity, medically attended injuries, cardiorespiratory fitness and body composition.

Methods

- Part of the pilot study of the Health Behaviour in School-aged Children Study conducted in October and November 2021 in Slovakia.
- 119 adolescents surveyed and measured (53 girls; average age 12,6±2,0):
 - Frequency of moderate-to-vigorous physical activity (MVPA),
 - Frequency of medically attended injuries (MAI),
 - Frequencies of:
 - physical activity-related injuries in sports clubs (PARISC),
 - physical activity-related injuries in leisure-time (PARILT),
 - physical activity-related injuries in schools (PARIS),
 - Cardiorespiratory fitness (20-metre shuttle run),
 - Body composition (InBody 230).

Results

Spearman's correlations (n = 50 for PARISC and n = 119 for PARILT and PARIS):

- associations between MAI and PARISC, PARILT and PARIS,
- no associations between MVPA or 20-metre shuttle run laps and PARISC, PARILT and PARIS,
- percentage of body fat negatively associated with the number of 20-metre shuttle run laps.

Crude linear regression models:

- frequency of MVPA not associated with frequencies of:
 - PARISC (B coefficients (B)/95% CI: 0,03/-0,11-0,18),
 - PARILT (B/95% CI: 0,04/-0,05-0,13),
 - PARIS (B/95% CI: -0,02/-0,07-0,02) .

Conclusions

Estimating the burden of PARI is important in advocating the need of directing sufficient resources to PARI prevention along with the PA promotion. Improvement and understanding of factors associated with PARI might be helpful in PARI prevention. In addition, it might, among other factors, play a role in promotion of active lifestyle in adolescence.

Results

PARISC

- 50 adolescents (42%) attending sports clubs.
- 27 (54%) had ≥1 PARI in sports clubs' activities in previous year.
- On average 10 missed days from school or leisure-time activities.

PARILT

- 50 adolescents (42%) had ≥1 PARI in leisure-time activities.
- On average 7,2 missed days from school or leisure-time activities.

PARIS

- 15 adolescents (12,6%) had ≥1 PARI in school activities.
- On average 6,2 missed days from school or leisure-time activities.

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