BALTIC JOURNAL OF SPORT & HEALTH SCIENCES
5(Supplement); 2025; p. 63; eISSN 2538-8347
DOI: https://doi.org/10.33607/bjshs.v5iSupplement.1814

Device-Measured Physical Activity and Sedentary Behaviour Among Finnish Adult Population in 2017 and 2023

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Purpose: To examine changes in device-based physical activity and sedentary behaviour among Finnish adult population from 2017 to 2023, and whether they differ based on socio-economic status and residential location (rural/urban).

Methods: We used data from two population-based health surveys (n = 1,537, 43% men, aged 20–74 years): FinHealth 2017 (n = 753) and Healthy Finland 2023 (n = 750). Physical activity and sedentary behaviour were recorded continuously (24 h/day) for 3–7 days using a wrist-worn accelerometer (*ActiGraph GT9X Link*). MVPA (moderate-to-vigorous physical activity), SB (sedentary behaviour), and sedentary bout duration were derived from ENMO values based 60-second epochs. Results were analysed by gender, age, education, and urban-rural classification.

Results: The preliminary results indicate that sedentary behaviour increased from 704 min per day in 2017 to 722 min per day in 2023. Men spent more time being sedentary than women in 2017 ($p = 0.006$), but no significant differences were found in 2023. There was also a notable change in the mean duration of a sedentary bout: it increased from 30 min in 2017 to 35 min in 2023 for both men and women combined. Women had shorter mean bout duration than men at both time points. Time spent in MVPA was 74 min in 2017 and 70 min in 2023. In 2023 women spent more time in MVPA than men ($p = 0.025$), but no differences were observed in 2017. At both time points, individuals with lower education level had over 25 min more sedentary time per day compared to higher educated ($p < 0.001$) and engaged in 25 min less MVPA ($p < 0.001$). Urban residents had more sedentary time than rural (2017: $p = 0.001$; 2023: $p = 0.043$) but showed no differences in MVPA.

Conclusion: With the narrowing of gender disparities, the increase in sedentary behaviour and the concomitant decline in MVPA are notably more pronounced among women. Monitoring and addressing the trends in sedentary behaviour and physical activity is crucial for reducing future health disparities and ensuring equitable preventive health strategies.

Support/Funding Source: Juho Vainio Foundation.