

Association Between Device-Measured Moderate-to-Vigorous Physical Activity and Perceived Work Ability Among Finnish Adult Population in 2017 and 2023

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Purpose: To examine associations between device-measured moderate-to-vigorous physical activity (MVPA) and perceived work ability among Finnish adult population in 2017 and 2023.

Methods: We used cross-sectional population health examination survey on physical activity, sub-sample data restricted to under 68-year-old participants of FinHealth 2017 (n = 668) and Healthy Finland 2023 (n = 642). Accelerometer data were analysed to quantify MVPA (*ActiGraph GT9X Link*). Analysis included participants (43% men), who wore the device 24 hours on three or more days. MVPA information was extracted from 60-second epoch data to ENMOs. We classified MVPA into three groups: less than 30 min per day, 30–90 min per day, and over 90 min per day. Self-reported estimates of current work ability in relation to the person's lifetime best on a scale from zero to ten (0–10) were dichotomised into good (8–10) and limited (0–7). IBM SPSS Statistics 29 software was used for the logistic regression analyses.

Results: In 2017, 22% of the working aged sample had limited work ability whereas in 2023, 24% had limited work ability. In 2017, 14% had less than 30 min per day MVPA, 53% 30–90 min per day, and 33% more than 90 min per day. In 2023, the figures were similar, i.e. 15%, 55%, and 30%, respectively. The MVPA associations with perceived work ability showed somewhat different in 2017 and 2023. Compared with the most active group, in 2017 the least active group (odds ratio (OR) 2.1; 95% confidence interval (CI) = 1.1–4.0) but not the intermediate activity group (OR 1.4; 95% CI = 0.9–2.3) had a higher likelihood of limited work ability when adjusting for sex, age, education, smoking, and body mass index. Whereas in 2023, both the least active (OR 3.9; 95% CI = 1.9–7.9) and the intermediate (OR 2.1; 95% CI = 1.2–3.6) groups had a higher likelihood of limited work ability.

Conclusion: Lower levels of MVPA associated with a higher likelihood of limited work ability and associations were stronger in 2023 than in 2017. Promoting MVPA may prove useful in maintaining population work ability.

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