

Not All Screens Are Equal: Exploring How Type of Screen Media Use Correlates With Physical Activity in School-Aged Children

Josefine Björkqvist

Folkhälsan Research Center, Helsinki, Finland

Purpose: Screen use has been shown to affect children and adolescent's health behaviours, including physical activity (PA) and sedentary behaviour. Whilst there is a growing level of evidence to show harmful effects of screen use, most studies have been conducted in adolescents (12 years and older) and focus primarily on screen time. The aim of this study was to investigate how total screen time and types of screen media activities are associated with physical activity in preadolescent school children (aged 8–13).

Methods: The DAGIS Salo study, conducted in 2023–2024, invited all primary school children in grades 3–6 and their caregivers in Salo municipality in Southwest Finland to participate. Frequency of self-reported PA was assessed using the Prochaska moderate-to-vigorous physical activity screening measure. Total screen time and type of screen-based media use was assessed using the SCREENS-Q instrument. Caregivers reported background characteristics. Multiple linear regression analyses were used to examine associations.

Results: Cross-sectional data were collected from 540 schoolchildren (27% of eligible participants) across 22 schools. The average age in the cohort was 11 (± 1.15) years and 54% of participants were girls. Total screen time was associated with a decreased likelihood of meeting PA guidelines ($p = 0.003$). When further examining the association for specific types of screen media, both playing digital games and watching TV programmes, videos, or movies were associated with a decreased likelihood of meeting PA recommendations ($p = 0.001$ and $p = 0.008$, respectively). The association between social media use and the likelihood of meeting PA recommendations was not statistically significant.

Conclusion: Specific types of screen media may play a more significant role in displacing PA compared to other types of screen media. Public health policy and guidelines should prioritise reducing time spent on passive screen activities like gaming and video viewing to help promote physical activity in children.

Support/Funding Source: The DAGIS Salo study was financially supported by Folkhälsan Research Center, University of Helsinki, University of Eastern Finland, Research Council of Finland, Juho Vainio Foundation, Signe and Ane Gyllenberg Foundation, and Yrjö Jahnssonin säätiö.

