

Adolescents' Digital Health Literacy and Its Associations With Physical Activity and Health-Risk Behaviours Factors

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Purpose: Adolescents live in an era where digital media permeates every aspect of their everyday lives, including entertainment, learning, and information acquisition. It influences their physical activity and other lifestyle factors. We aimed to investigate the relationship between adolescents' digital health literacy, physical activity, and health-risk behaviours using the WHO Action Network on Measuring Population and Organizational Health Literacy (M-POHL) instrument HLS19-DIGI.

Methods: The current cross-sectional study includes survey data from 796 adolescents (boys: $n = 339$, girls: $n = 466$; 15–19 years of age). Digital health literacy (DHL), as a predictor variable, was measured using two HLS19-DIGI scales. One scale consisted of eight items, while the other comprised six items. DHL scores range from 0 to 100. Health risk behaviours include smoking and alcohol consumption. Reliability was assessed using Cronbach's α . Regression analyses were conducted to measure associations between digital health literacy, physical activity, and health-risk behaviours variables, controlling for social demographics.

Results: Digital health literacy mean score was 78.28 ($SD = 24.24$). One third of the participants (29.8%) demonstrated inadequate or problematic DHL, while more than half (55.8%) exhibited excellent and 14.4% adequate levels of DHL. Participants who were more physically active demonstrated higher DHL scores ($F = 3.36$, $p = 0.04$). Regression analysis showed that DHL has a significant positive impact on physical activity ($\beta = 0.08$, $p < 0.05$) and a significant negative impact on lifetime smoking ($\beta = 0.09$, $p < 0.01$), indicating that higher instances of DHL relate to higher exercising and lower smoking.

Conclusion: The results of this study suggest that by using HLS19-DIGI, a meaningful relationship between digital health literacy and adolescents' physical activity and health-risk behaviours was found. Among adolescents with higher digital health literacy, there is a lower prevalence of smoking and higher levels of physical activity.

