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1 Canadian 24-Hour Movement
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Abstract

Background: New Canadian 24-Hour Movement Guidelines for the Early Years have been released in 2017. According to the guidelines, within a 24-h period, preschoolers should accumulate at least 180 min of physical activity (of which at least 60 min is moderate-to-vigorous physical activity), engage in no more than 1 h of screen time, and obtain between 10 and 13 h of sleep. This study examined the proportions of preschool-aged (3 to 4 years) Canadian children who met these new guidelines and different recommendations within the guidelines, and the associations with adiposity indicators.

Methods: Participants were 803 children (mean age: 3.5 years) from cycles 2–4 of the Canadian Health Measures Survey (CHMS), a nationally representative cross-sectional sample of Canadians. Physical activity was accelerometer-derived, and screen time and sleep duration were parent-reported. Participants were classified as meeting the overall 24-Hour Movement Guidelines if they met all three specific time recommendations for physical activity, screen time, and sleep. The adiposity indicators in this study were body mass index (BMI) z-scores and BMI status (World Health Organization Growth Standards).

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Conclusions

Abbreviations

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BMI: Body mass index; CHMS: Canadian Health Measures Survey; CI: Confidence interval; cpm: Counts per minute; LPA: Light-intensity physical activity; MVPA: Moderate-to-vigorous physical activity

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Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available due to the Canadian Statistics Act, which explicitly states that only employees or "deemed employees" of Statistics Canada are legally allowed to access confidential microdata files. Requests to access the datasets can be made through a research data centre at an applicable

Canadian institution. The research data centre is accessible only to researchers with approved projects who have been sworn in under the Statistics Act as "deemed employees".

About this supplement

This article has been published as part of BMC Public Health Volume 17 Supplement 5, 2017: 24-Hour Movement Guidelines for the Early Years: An Integration of Physical Activity, Sedentary Behaviour, and Sleep. The full contents of the supplement are available online at https://bmcpublichealth.biomedcentral.com/articles/supplements/volume-17-supplement-5.

Authors' contributions

JPC, RCC, SA, VC, IJ, KCR, and MST participated in the conception of the article. RCC conducted the statistical analyses. JPC wrote the first version of the manuscript. All authors participated in the revisions of the manuscript, and read and approved the final manuscript.

Ethics approval and consent to participate

Ethics approval for the CHMS was obtained from Health Canada and the Public Health Agency of Canada Research Ethics Board. Written informed consent was obtained from a parent or guardian, and assent was obtained from the child

Consent for publication Not applicable.

Competing interests

The authors declare that they have no competing interests.

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