



Children who meet recommendations for physical activity and screen-time despite socioeconomic disadvantage

Findings from the READI study

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For health and wellbeing it is recommended that children and young people participate in at least 60 minutes of moderate-to vigorous-intensity physical activity every day, and that they not spend more than 2 hours a day using electronic media for entertainment¹.

Unfortunately, many Australian children do not meet these recommendations. A recent study found that only 40% of Australian children aged 9–13 years met the physical activity recommendations and only 7% of those children met the screen-time recommendations². There is also some evidence that children who experience socioeconomic disadvantage have lower rates of physical activity³ and higher rates of sedentary behaviours, including screen-time⁴.

This study sought to inform approaches to promoting healthy behaviours among children by gaining an understanding of the characteristics of children who, despite their socioeconomic disadvantage, were resilient to low physical activity and high screen-time.

Many Australian children do not meet recommendations for physical activity and screen-time.

Study design and methods

The study was part of the 'Resilience for Eating and Activity Despite Inequality' (READI) study, which focused on women and children living in disadvantaged areas of urban and rural Victoria, Australia.

It involved:

- a mailed survey of women with children aged 5–12 years;
- objective measurement of children's moderate-to vigorous-intensity physical activity (MVPA) using accelerometers;
- objective measurement of children's height and weight; and
- reporting of children's screen-time by mothers.

The data collection was conducted between July 2007 and June 2008. A total of 619 women responded to the survey, and full data were available for 373 children (167 boys and 206 girls). Approximately 70% of boys and girls lived in rural areas and 30% lived in urban areas.

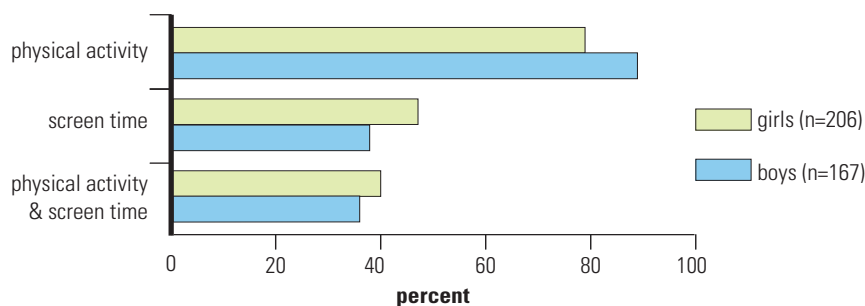
Physical activity and screen-time among study participants

Despite living in socioeconomically disadvantaged areas, approximately 90% of boys and 80% of girls participated in levels of physical activity at or above the recommended levels, and were therefore considered 'resilient' to low physical activity. Thirty eight percent of boys and 47% of girls were resilient to high screen-time. Thirty six percent of boys and 40% of girls were resilient to both low physical activity and high screen-time.

On average, boys spent more than three hours/day in MVPA (mean 195 mins/day) and girls spent 156 mins/day, a significant difference. Boys also participated in significantly more screen-time than girls (mean 160 mins/day and 142 mins/day respectively).

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Proportions of girls and boys meeting physical activity and screen-time recommendations



What are the characteristics of children who are resilient to low physical activity and high screen-time?

Children's age

In this sample, age was found to be a significant factor associated with both physical activity and screen-time. Younger boys and girls were significantly more likely to meet physical activity recommendations compared to older children. They were also more likely to meet screen-time recommendations and to meet both physical activity and screen-time recommendations. The findings with respect to physical activity are consistent with other studies, which have found strong declines from childhood to adolescence⁵.

Rural or urban location

Living in rural areas was found to be positively associated with boys meeting the recommendations for screen-time, and for boys meeting both screen-time and physical activity recommendations. Boys living in rural areas were almost three times more likely to meet screen-time recommendations compared to boys living in urban areas. They were also four times more likely to meet both physical activity and screen-time recommendations. It is possible that children living in rural areas may have more opportunities for active play, or that they have greater active travel times than children in urban areas. Children in rural areas may also have less access to screen-based technologies such as the Internet.

Maternal education

Girls whose mothers had a high level of education were 2.5 times more likely to meet screen-time recommendations than

girls whose mothers had low levels of education. It is possible that more highly educated mothers place greater importance on participating in physical activity and limiting screen-time for their children, even when families live in disadvantaged areas.

Siblings

Girls with two or more siblings were 73% less likely to meet screen-time recommendations than other girls—that is, they were more likely to participate in screen-time than girls with no siblings. The reasons for this are not clear; however, it may be that girls with siblings have more family screen-time resulting in more time spent in these behaviours.

Mother's weight

Perhaps unexpectedly, girls with mothers who were not overweight were 50% less likely to meet screen-time recommendations compared to girls with mothers who were overweight. This warrants further investigation; however, it may be that mothers who are a healthy weight are less concerned about weight management and therefore the amount of time their child spends in sedentary behaviours is less of an issue for them.

Where to from here?

The findings of this study provide valuable insights into the complex influences on children's behaviour. While many of these factors are not easily modifiable, the findings point to key target groups for whom further study of modifiable characteristics may be valuable for understanding influences on behaviour, and for designing interventions to reduce screen-time and increase physical activity among children.

References

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