



Abstract Title: How physically active are Nova Scotia preschoolers during childcare hours?

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Introduction

Physical activity in the early years is critical, as childhood physical activity levels are significantly related to optimal health throughout the lifespan. Preschoolers aged 3-4 years are recommended to get a minimum of 180 minutes of physical activity per day, of which at least 60 minutes is energetic play (Tremblay et al., 2017). Children and youth aged 5-17 years are recommended to get at least 60 minutes of moderate to vigorous physical activity per day (Tremblay et al., 2016). An estimated 73% of 3-4 year olds and 30% of 5 year-olds, meet their respective physical activity guidelines (Garriguet et al., 2016). 75% of Nova Scotian children attend licensed childcare centers and spend an average of 29 hours per week there (Friendly et al., 2015). Previous research in Ontario preschoolers provides evidence of how physically active these children are during childcare hours, using accelerometry-measured physical activity data, and reveals how characteristics of the childcare environment can impact the physical activity behaviour of Ontario preschoolers (Vanderloo & Tucker, 2015). To the authors' knowledge, the accelerometry-assessed physical activity behaviour of Nova Scotia preschoolers during childcare hours is not known.

Objectives

The aim of this study is to provide information on Nova Scotia preschoolers' physical activity behaviour during childcare hours.

Methods

Data were collected from 16 Nova Scotia early years centers. Children's height and weight were measured and used to calculate body mass index. Children wore accelerometers (ActiGraph wGT3X+) during waking hours for nine consecutive days. Valid accelerometer data were available for 128 children. Accelerometer data reduction

decisions were consistent with a previous study of Canadian preschoolers. Time spent sedentary, in light physical activity, in moderate to vigorous physical activity, total physical activity, and steps per day, during daycare hours (7:30 AM to 5:30 PM), will be calculated.

Results

We anticipate that children will spend more time in light than moderate to vigorous physical activity, and a significant proportion of their time in childcare will be spent sedentary. Children aged 5 years will also be less likely to meet physical activity guidelines than younger children (aged 3-4 years).

Conclusion

This study will provide critical insight into how physically active Nova Scotia preschoolers are during childcare hours. This information can then be used to improve physical activity policies and programs in Nova Scotia early years centres to support physical activity behaviour in these settings.

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