

The Research File



Summary from the Canadian Fitness and Lifestyle Research Institute and ParticipACTION

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The Effects of Immigration and Ethnicity on Physical Activity among Canadian Youth

Insufficient physical activity in childhood and adolescence has long been recognized as a precursor to negative health outcomes in adulthood. National guidelines indicate that children and youth should engage in 60 minutes of moderate-to-vigorous activity daily.¹ These guidelines represent the amount of energy expenditure needed for healthy growth and development. Recent surveillance data shows, however, that only a small proportion (9%) of Canadian children and youth achieve these recommended levels.² To be effective, strategies for encouraging physical activity among young Canadians requires adequate knowledge of the correlates and determinants of physical activity. To date, a number of individual, social and environmental factors including age, gender, socio-economic status, self-efficacy, family support, and safety, have been identified as having significant influence on participation in regular physical activity.³ Two important determinants are ethnicity and immigration. Generally, immigrants and citizens of the host country differ in their norms and cultural practices.³



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Successful integration requires merging norms and values of the ‘host’ culture with that of the ‘heritage’ culture.³ How do activity levels of young immigrant Canadians compare to Canadian-born peers? This edition of The Research File summarizes the findings of a recent study by Kukaswadia and colleagues. The purpose of this study was to investigate differences in activity levels between immigrant youth and their Canadian-born peers.³ Additionally, investigators examined the effects of time since immigration and ethnicity on this relationship. Kukaswadia et al. postulate that activity levels would be lower for immigrant youth and that this would vary by ethnicity.³

Methods

Data for this study were obtained from the 2010 Canadian Health Behaviour in School-Aged Children Study (HBSC).³ This self-report survey gathered information from over 26,000 students across Canada in Grades 6 through 10, with the exception of those residing in New Brunswick and Prince Edward Island.³ Results were based on a final (weighted) sample size of 23,124 respondents.³ Participants were asked to report on their: place of birth (‘foreign-born’ or ‘Canadian-born’), time since immigration (‘born in Canada’, ‘1 to 2 years’, ‘3 to 5 years’, and ‘6 years or more’), and ethnicity (ex: ‘South Asian’).³ Participants were also asked to report on the number of days they were moderate-to-vigorously physically active (MVPA) for at least 60 minutes in the past week, as well as how often they were active for 60 minutes or more in a typical week.³

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Based on their responses to these questions, participants were categorized into 3 activity groups: ‘0 to 3 days/week’, ‘4 to 6 days/week’ and ‘7 days/week’ (the highest category implies that Canadian guidelines are met).³

Results

The majority of respondents were born in Canada. Less than 10% of the sample was born abroad.³ The most commonly reported ethnic groups (besides Canadian) were East and South East Asian (5.8%) followed by African (4.3%) and East Indian and South Asian (3.1%).³ Overall, approximately 15% of the youth in this sample reported activity levels consistent with Canadian Physical Activity guidelines (60 minutes of moderate-to-vigorous physical activity every day).³ Physical activity levels differed based on length of time in Canada and ethnicity (these persisted after controlling for potential confounders). Youth who immigrated within the last 1-2 years were less likely to accumulate 60 minutes of MVPA on 4 to 6 days/week.³ Similarly, youth who identified themselves as being East and South East Asian, Latin American, and African reported lower levels of MVPA compared those in the Canadian ethnic group.³ Investigators also explored the potential interaction between ethnicity and time since immigration; however no significant interaction was found.²

References:

1. Canadian Society for Exercise Physiology. Canadian Physical Activity Guidelines. 2011. Available [here](#) : (accessed on May 20th, 2014).
2. Canadian Fitness and Lifestyle Research Institute. *Canadian Physical Activity Levels Among Youth Study (CANPLAY), Bulletin 5: How many steps is sufficient for children and youth to be healthy?* 2012. Kids CANPLAY series. Available [here](#): (accessed on May 20, 2014)
3. Kukaswadia A, Pickett W, Janssen I. Time Since Immigration and Ethnicity as Predictors of Physical Activity among Canadian Youth: A Cross-Sectional Study. *PLOS ONE*. 2014; 9(2):1-9. Available [here](#) : (accessed June 3, 2014)

What have we learned?

Children and youth require 60 minutes of regular MVPA daily for optimal growth and development. Establishing healthy behaviours early in life will facilitate ‘carry-over’ of these habits into adulthood, reducing the risk of developing certain chronic diseases. Despite this, only a small proportion of young Canadians achieve recommended levels. This study identified disparities in physical activity levels among Canadian youth based on immigration and ethnicity.³ It appears, however, that these levels improve with increasing time – implying an effect of acculturation.³ However, this phenomenon does not hold true among East and South East Asian youth, who have the lowest odds of being physically active irrespective of time since immigration.³ The findings of this study strengthen the argument for importance of tailored physical activity interventions.³ Additional research is needed to determine the mechanisms by which immigrant youth are less active.³