## Missed opportunity to explore social determinants of health and protective properties in First Nations study

Dear Editor:

The CJPH article "Correlates of physical activity among First Nations children residing in First Nations communities in Canada" by Janssen et al. 1 begins to explore a prudent public health issue. Considering that Aboriginal children, often living with poverty, inadequate housing and low educational levels, are at even greater risk for poor health, 2 this study lost an opportunity to explore interactions between physical activity and the social determinants of health.

While parent/guardian education level was included, the study omitted other measures of socio-economic status, such as income level and housing.¹ Another study of physical activity of youth³ found some correlation of socio-economic status with physical activity but differences according to the community type: urban, suburban or rural. This would have been interesting to evaluate in the First Nations study. Additionally, physical activities often differ according to season, therefore, the study design of attempting to obtain an average week from a year of activities has likely confounded some seasonal differences in childhood activity level. Such seasonal differences have been found in other studies.⁴ With regard to the current study, it is unknown whether there are differing associations between seasonal activities, socio-economic status and community size, as this was not evaluated.

The Janssen et al. study<sup>1</sup> found positive associations of larger support systems with more frequent physical activities and First Nations activities. Social capital has been found to be positively associated with children doing well in unfavourable

circumstances.<sup>5</sup> Further studies with stronger measurement tools for physical activity, such as accelerometers,<sup>6</sup> along with accounting for seasonal differences and for social determinants of health, may elucidate the strengths within First Nations communities. If First Nations peoples, despite their living conditions, have a social structure and physical traditional activities that have protective properties for health, this is a mechanism that can leverage their own knowledge, and culture, to empower and improve overall well-being.

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