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The effects of socio-economic status on physical activity participation in Hong Kong adolescents.

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Purpose

There is evidence that socio-economic status (SES) is associated with physical activity (PA) participation. Lower SES is predictive of lower levels of leisure-time PA. However, most of this research has been conducted in the West and on adults. SES inequalities in PA among youth and Asian populations remain underexplored. Thus, the main aims of this study were (1) to examine SES differences in PA among Hong Kong adolescents and (2) explore the moderating effects of SES on the relationships between environmental factors and PA participation.

Methods

A sample of 148 adolescents (12-18) was recruited from 32 Hong Kong neighborhoods varying in SES (median household income) and objectively-measured walkability (dwelling density and street connectivity). PA was measured both using accelerometers (N=77) and a validated questionnaire (N=148). Individual-level SES was measured using household income as reported by parents, while area-level SES was defined as the Census-based median household income in a neighborhood. PA-related environmental characteristics of schools and neighborhoods were assessed via self-report and GIS.

Results

Household income was positively related with weekly minutes of self-reported and objectively-measured moderate-to-vigorous PA (MVPA). Household income moderated the relationships of either self-reported or objectively-measured MVPA and availability of commercial and cultural destinations, greenness, slippery/wet footpaths, and land use mix. Area-level SES moderated the relationships of MVPA with traffic safety, physical barriers to walking, hilliness and land use mix.

Conclusion

The effect of the built environment on PA differs between age and SES groups. Environmental interventions need to take into account these differential effects.

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