School environment factors were associated with BMI among adolescents in Xi’an city, China

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The school environment has a considerable influence on the behavior in Chinese students since they spend most of the day there. The purpose of this research was to identify school environment factors associated with BMI. A cross-sectional study was conducted among 1804 school-aged adolescents from 30 schools in six districts in Xi’an City in 2004. Anthropometric measurements were taken from students by trained field staff. School environment characteristics such as school facilities, health and physical education curricula, school policies for bicycle-riding and school shops and fast food outlets in school areas were collected by asking school doctors to fill in school environment questionnaires. Mix effect models were built with school BMI as outcome and school environment factors were identified after adjusted for socio-demographic factors. The availability of soft drinks in school shops (coef. 1.11, 95% CI 0.56-1.67, P<0.01) was significantly correlated with increased mean BMI after adjusted for socio-demographic factors. Number of fast food outlet in the school vicinity was positively correlated with school mean BMI but not significant (one outlet compared with none: coef. 0.17, 95% CI -0.26-0.60; two or more outlets compared with none: coef. 0.56, 95% CI -0.38-1.46, P=0.56). Urgent actions are needed to address the obesogenic elements of school environments in facing with the increasing overweight and obesity adolescent in urban China.

Biography

Ming Li has completed her Ph.D in 2006 from The University of Newcastle, Australia and is doing postdoctoral studies from University of South Australia. She has been working in the area of overweight and obesity among Chinese adolescents since 2003 and is doing research on other non-communicable diseases such as type II diabetes, coronary heart disease, and metabolic syndrome. Her work has been published in reputed journals and was presented in many international conferences.