



## Systematic review and meta-analysis of school-based obesity interventions in mainland China

The rise in the prevalence of overweight and obesity is increasing both in high-income and low- and middle-income countries. China is a country which, over the past 25 years, saw a substantial increase in the prevalence of childhood overweight and obesity. Childhood obesity has been associated with many adverse health consequences which often have lasting repercussions later on in adulthood. It is therefore essential to intervene early to prevent and control childhood obesity to reduce the impact of negative consequences. Increasingly, schools are being identified as the ideal environment to deliver obesity interventions to children given the amount of time students spend there. Only a few studies were conducted in low- and middle-income countries, leading to knowledge gaps regarding the effectiveness of interventions in these countries, despite faster growth rates in the prevalence of childhood obesity. Through studies published from January 1990 to December 2015, this systematic review aims to assess the effectiveness of school-based interventions for childhood obesity conducted in mainland China.

Overall, 76 papers were included in the systematic review, and a total of seven intervention components were identified: i) physical activity, ii) health education, iii) dietary improvement, iv) weight management, v) school policies, vi) psychological counselling and vii) physical infrastructure support. While most of the studies were rated as weak in quality, comprehensive interventions combining physical activity and health education seemed to be more effective than the ones using physical activity only. The study flagged an important aspect of combined school-based interventions. While the ones conducted in high-income countries identified physical education and dietary improvement as the two most common components, the studies conducted in mainland China revealed that the most common combination included physical activity and health education. While the results of this study provided some evidences for obesity interventions in the school-setting, results should be interpreted with caution as more high quality researches is needed to confirm the effectiveness of school-based obesity interventions.

Reference: Feng L, Wei D-M, Lin S-T, et al. Systematic review and meta-analysis of school-based obesity interventions in mainland China. Zhang H, ed. *PLoS One*. 2017;12(9):e0184704. doi:[10.1371/journal.pone.0184704](https://doi.org/10.1371/journal.pone.0184704)