

## **Improving the Metabolic and Mental Health of Children with Obesity: A School-Based Nutrition Education and Physical Activity Intervention in Wuhan, China**

With the increased consumption of poor diets and sedentary lifestyles, children living with obesity are at increased risk of developing metabolic diseases and poor mental health. Childhood obesity is a risk factor for several chronic diseases later in life. Early interventions are therefore necessary to prevent the risk of metabolic disease or poor mental health outcomes for children living with obesity. Conducted between November 2015-June 2016 in Wuhan, China, the study aimed to evaluate “the effectiveness of school-based nutrition education and physical activity intervention on cardiovascular risk profile and mental health outcomes among Chinese children with obesity.”

1340 students were randomly allocated to control, and intervention groups received the 6-month training. It was hypothesised that participants receiving the intervention would report improved mental health outcomes after the trial. At the end of the intervention period, students receiving the nutrition education and physical activity program had a significant decrease in indicators for depression, with a lower fasting plasma glucose and improved blood lipid profile. They had lower blood pressure, reduced social anxiety, and reported improved health and well-being overall. Although the risk of metabolic abnormalities reduced, there were no significant reductions to body mass index between the intervention groups.

Overall, the study demonstrated that while such interventions might have minimal effect on weight loss, school-based physical activity interventions can lead to improved mental health status and metabolic health. Future studies should be conducted over a longer period to confirm these findings and mental health should be prioritised in efforts to address childhood obesity.

*Yu, H., Li, F., Hu, Y., Li, C., Yuan, S., Song, Y., Zheng, M., Gong, J. and He, Q., 2020. Improving the Metabolic and Mental Health of Children with Obesity: A School-Based Nutrition Education and Physical Activity Intervention in Wuhan, China. Nutrients, 12(1), p.194.*