

School-based interventions promoting both physical activity and healthy eating in Europe: a systematic review within the HOPE project.

Worldwide, the prevalence of overweight and obesity in childhood and adolescents has increased. To address these trends, school-based interventions to promote a healthy diet and physical activity (PA) have been developed. This includes modifications to school meals, enhancements to the physical education curriculum, improvements in facilities to support PA, and investment in training for staff. The systematic review was conducted as part of the EU-funded [HOPE project](#) to increase understanding of multi-component school-based interventions targeted at 16–18-year-olds in Europe, jointly targeting diet and PA.

The systematic review assessed evidence from 11 studies across both primary and secondary school settings. The outcomes measured included body mass index (BMI), diet and physical activity behaviours, and other indicators of obesity.

The findings revealed that there is a need for computer-tailored personalised education in the classroom when delivering both activity and nutrition feedback. Such interventions when combined with an environmental component were the most effective in preventing adolescent overweight and obesity.

Successful environmental modification methods include:

- Organised PA during breaks, or before and after school.
- Increased physical education lesson time.
- Changes in school canteens (unhealthy food options less readily available)

Future research is needed to identify the efficacy of multi-component interventions on younger children, and to understand the duration needed for sustained effects on BMI. Generally, both the number and quality of studies conducted in Europe fall short when compared with the USA.

De Bourdeaudhuij, I., Van Cauwenberghe, E., Spittaels, H., Oppert, J., Rostami, C., Brug, J., Van Lenthe, F., Lobstein, T. and Maes, L., 2011. School-based interventions promoting both physical activity and healthy eating in Europe: a systematic review within the HOPE project. Obesity Reviews, 12(3), pp.205-216.