

## School-Based Intervention Programs for Preventing Obesity and Promoting Physical Activity and Fitness: A Systematic Review.

The importance of school-based interventions to promote physical activity (PA) and prevent obesity remains unchallenged. Not only do children spend a significant amount of their day at school, but it is an environment that can reach individuals irrespective of their socioeconomic status. 'The systematic review looked at the content, type, and duration of PA programs concerning their success in school settings'. The possibility of school-based interventions for preventing obesity and promoting PA and physical fitness (PF) was examined. The findings were derived from 19 studies between 2010-2019, and across 14 different countries (USA, Australia, England, France, Czech Republic, Iceland, Switzerland, Norway, Scotland, South Africa, China, India, Pakistan, Israel).

Overall, 18/19 studies reported an improvement in BMI, PA, or PF. The content and detail of school-based intervention programs were a determining factor for success. Most studies had a direct focus on PA. In others (5/19), education, guidance, orientation on health, nutrition, and healthy life where the primary objective. Despite this, health promotion was the main goal across all school-based intervention programs, even if by encouraging PA.

Interventions aimed at increasing exercise levels are generally successful. 61.53% of studies reported improvements in PA outcomes, and this was even higher when it was the focal aim of the intervention (70–33.33%). For long-term success, school-based intervention programs need to take into consideration the root causes of obesity. They must be designed in a multi-component, comprehensive way to address environmental and socio-cultural factors (family characteristics and parents' lifestyle, school policies, and screen culture affect eating and activity behaviors). This will also ensure the sustainability of intervention outcomes. In schools, the emphasis should be on physical education courses, to diversify its content, and to train and evaluate teachers to ensure success. Beyond the school environment, children should be encouraged to use active transportation modes (walking/cycling).

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