Physical activity interventions in the prevention and treatment of paediatric obesity: systematic review and crucial appraisal

The systematic review flags a lack of evidence on the long-term efficacy of treatment and prevention strategies for childhood obesity.

More than 340 million school-aged children and adolescents are affected by overweight or obesity, a 4-fold increase since 1975. This increase in overweight and obesity has also been paralleled with a decrease in physical activity (PA), although causation evidence is lacking. Nevertheless, interventions to prevent and treat childhood obesity typically involve measures to increase one's physical activity (PA) levels and decrease hours of sedentary behaviour (watching TV, sitting e.g.). Considering the expansion of research on this topic, the review aimed to update the existing systematic reviews of intervention studies in paediatric obesity prevention and treatment. It summarises weaknesses in the literature and discusses the most promising intervention strategies and priorities for research.

A literature search was conducted using Medline, Embase, Cinahl, Healthstar, the Cochrane Library, and the internet, for randomised controlled trials (RCTs) that targeted activity or inactivity in children or adolescents. By reviewing four new RCTs two new systematic reviews, and a meta-analysis it was concluded that targeting activity/inactivity might be effective in childhood obesity treatment.

Most importantly, this review identified that there remains a need for funding to conduct further research on the topic, primarily as the results are not generalisable across settings with limited evidence on the long-term efficacy of treatment and prevention strategies for childhood obesity.

Reilly, J. and McDowell, Z., 2003. Physical activity interventions in the prevention and treatment of paediatric obesity: systematic review and critical appraisal. Proceedings of the Nutrition Society, 62(3), pp.611-619.

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