

A systematic review of school based interventions aimed at the promotion of physical activity and/or healthy dietary behaviours in adolescents

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There is evidence that low levels of physical activity and unhealthy dietary behaviours are associated with poor health in adolescents, leading to an increased risk of chronic disease in adulthood. These behaviours are modifiable and since adolescents spend a significant amount of time in school this provides an increasingly popular setting for physical activity and dietary interventions. A systematic review of school-based interventions aimed at changing physical activity and/or dietary behaviours in adolescents (11–18 yrs) published between 1995 and 2008 was conducted. The aim was to identify successful interventions, assess the quality of reporting, identify the effective components and any specific behaviour change theories and techniques implemented which may have facilitated interventions success.

From 274 studies identified 15 were included in the review; two dietary only, seven physical activity only and six physical activity combined with dietary interventions. There were insufficient studies ($n = 2$) to assess fully the effectiveness of school based diet only interventions. The success of school based interventions aimed at changing both physical activity and dietary behaviours of adolescents was mixed. There was some evidence of gender differences with boys increasing physical activity behaviours only and girls improving dietary behaviours only. Interventions aimed at only physical activity behaviours were the most successful, with multi-component interventions which included an educational and environmental component identified as being most effective. Physical activity only interventions aimed and tailored specifically for girls were generally successful at improving physical activity behaviours. Interventions aimed at improving physical activity behaviours and aimed at both boys and girls tended to be more effective at improving the physical activity behaviours of boys only. There was little evidence that parental involvement facilitated interventions success. No one behavioural theory was clearly identified as being associated with studies reporting significant results for either dietary or PA behaviours. Studies that were based on a theory which considered the environmental influences on behaviour, such as Social Cognitive Theory⁽¹⁾, however, appeared more effective. There were no specific behaviour change techniques identified with studies reporting significant results. The most common behaviour change techniques implemented in interventions were *Prompt practice* and *Stimulating social support/norm in family and/or community* for physical activity behaviours with the addition of *Provided knowledge about target behaviour* for dietary behaviours for dietary behaviours. Overall the reporting of intervention design and methodology was generally of moderate quality.

The heterogeneity of the studies made it difficult to generalise which interventions were most effective, but there was a suggestion that combined education and environmental interventions were effective at changing physical activity behaviours in both boys and girls. The quality of study reporting needs to improve to identify the active components and behaviour change techniques implemented within interventions to facilitate the replication of interventions in the future.

Funded by Scottish Government (RESAS) **Rural & Environment Science & Analytical Services** and the University of Aberdeen

1. Bandura A. (1986) Social foundations of thought and action: A Social cognitive theory. Enlewood Cliffs. NJ. Prentice Hall.