Physical education, obesity, and academic achievement: a 2-year longitudinal investigation of Australian elementary school children.

Telford RD, Cunningham RB, Fitzgerald R, Olive LS, Prosser L, Jiang X, Telford RM.

Source
Medical School, Australian National University, Canberra, Australia. rtelford@cominst.org.au

Abstract

OBJECTIVES: We determined whether physical education (PE) taught by specialists contributed to academic development and prevention of obesity in elementary school children.

METHODS: Our 2-year longitudinal study involved 620 boys and girls initially in grade 3 in Australia, all receiving 150 minutes per week of PE. One group (specialist-taught PE; n = 312) included 90 minutes per week of PE from visiting specialists; the other (common-practice PE; n = 308) received all PE from generalist classroom teachers. Measurements included percentage of body fat (measured by dual-emission x-ray absorptiometry) and writing, numeracy, and reading proficiency (by government tests).

RESULTS: Compared with common-practice PE, specialist-taught PE was associated with a smaller increase in age-related percentage of body fat (P = .02). Specialist-taught PE was also associated with greater improvements in numeracy (P < .03) and writing (P = .13) scores. There was no evidence of a reading effect.

CONCLUSIONS: The attenuated age-related increases in percentage of body fat and enhanced numeracy development among elementary school children receiving PE from specialists provides support for the role of PE in both preventive medicine and academic development.

(Note: The full journal article is available by subscription or through a library).