

Effects of a psychomotor education program on Body Mass index (BMI) in a group of school- aged Italian children

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Many studies report that a corrected and systematic motor activity may represent a valid and therapeutic approach for preventing and treating overweight and obesity in pre-pubertal children [1]. In this context a psychomotor activity, aimed mainly to improve the functional pre-requisites [2], could play a key role, in particular in helping to perceive properly the own body image often misrepresented among obese children.

The aim of this study was to evaluate the effects of a psychomotor education program (focused on the training of global and segmentary coordination, static and dynamic equilibrium, as well as spatio-temporal cognition) for a period of two years, on body mass index (BMI) an anthropometric parameter easily obtainable from weight and height and commonly utilized as index of obesity [3], in a group of 489 eight year- old children living in Florence (Italy). Comparing the BMI values recorded in children before and after the psychomotor activity we found a significant decrease of weight excess (approximately 17.6% vs 27.6%). Moreover we also found that the mean increase of BMI was less than that of the Italian population of the same age (approximately 0.55 vs 1.2), suggesting a beneficial effects of the psychomotor activity.

References

- [1] Ara I, Vicente-Rodriguez G, Jimenez-Ramirez J, Dorado C, Serrano-Sanchez JA, Calbert JA. Regular participation in sports is associated with enhanced physical fitness and lower fat mass in pre-pubertal boys. *Int J Obes Relat Metab Disord*, 2004; 28: 1585-1593
- [2] Cappellini AC, Mancini S, Zuffellato S, Bini F, Polcaro P, Conti AA, Molino Lova R, Macchi C. Environmental effects on school age child psychomotricity. *Minerva Pediatr*, 2008; 60:277-84.
- [3] Pratesi S, Paternostro F, Tani A, Sassoli C, Cappellini AC. Body mass index correlates with waist circumference in school aged Italian children. *Diabetes Res Clin Pract*. 2012; doi:10.1016/j.diabres.

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