

10 PED

“Un km al giorno”: the effect of brief walking active breaks on motivation to physical activity in secondary school

P.R. Brustio¹, P.Moisè^{2,3}, D.Marasso², D. Alossa⁴, F. Miglio³, A. Rainoldi¹, G. Boccia^{1,5}

¹NeuroMuscularFunction 1 Research Group, School of Exercise and Sport Sciences, Department of Medical Sciences, University of Turin, Turin, Italy;

²School of Exercise and Sport Sciences, University of Turin, Turin, Italy;

³Istituto Comprensivo Statale Buttigliera Alta-Rosta (TO), Italy;

⁴Istituto Comprensivo di Santena, Scuola Secondaria di primo grado “G. Falcone”, Santena (TO), Italy;

⁵CeRiSM research center “Sport, Mountain and Health”, Rovereto (TN), Italy

Aim: The introduction of brief walking active breaks during the school day is a relatively innovative method for increasing physical activity in educational setting (e.g., Wilson et al. 2017). The aim of this study was to explore the effect of brief walking active breaks on motivation to physical activity in students of an Italian middle-school. **Methods:** Two hundred and ninety students (F = 39.3%; age M = 13 ± 1 years) of a secondary school neighbourhood Turin were enrolled in the study. One hundred and thirty-eight students (age M = 12 ± 1 years) participated in the intervention group named “un km al giorno”, while a convenience sample of 138 students (age M = 13 ± 1 years) maintained the school routine. The intervention consisted in walking or running in the schoolyard along a path for 10-min break on a daily basis for four months. Data about motivation to physical activity were obtained using the Participation Motivation Questionnaire (PMQ; Gill et al. 1983).

Results: Controlling for age, significant interactions between the intervention and control group were observed in the PMQ. Specifically, after the program “un km al giorno” a significant decrease in “Social Status” components of the PMQ [F(1,273) = 4.851; p = 0.028] and an increase in “Team” and “Energy Release” components [F(1,273) = 6.015; p = 0.020 and F(1,273) = 4.328; p = 0.038, respectively] were observed in the intervention group.

Conclusions: Results showed that a brief walking in educational context can change the shape of motivation to physical activity. Moreover, the program “un km al giorno” might be useful to reach the recommended 60 min per day physical activity and consequently decrease sedentary lifestyle in children.

Reference

- Gill DL et al. (1983) Participation motivation in youth sports. *International Int J Sport Psychol* 14(1):1–14
- Wilson AN et al. (2016) Active School Lesson Breaks Increase Daily Vigorous Physical Activity, But Not Daily Moderate to Vigorous Physical Activity in Elementary School Boys. *Pediatr Exerc Sci* 29(1):145–152

11 PED

Physical Activity in old age: educational and psychological aspect

C. Cristini¹, F. Togni¹, M. Margiotta¹, E. Riva¹, G. Cesa-Bianchi²

¹Department of Clinical and Sperimental Sciences, University of Brescia, Brescia, Italy; ²University of Milan, Milan, Italy

Aim: Several studies showed that an adequate and continuous psychomotor activity seems to be associated with a lower risk of dementia and improves the expectations and quality of life, prevents disability, may better control pain and copes better with stressful situations, keeps the brain more efficient and plastic (1–3). WHO (4) states that physical activity may achieve well-being, helps to reduce anxiety and stress, improves mood, stimulates social interaction, promoting an elderly improved efficiency, greater independence. According to researches this paper above all examines the psychomotility in old age in different ways.

Methods: We interviewed many elderly people, engaged in physical activity, grouped by sex, age (<75 years >75 years), residence (metropolitan and rural areas), educational level. Tools: (a) MMSE; (b) Multiareas questionnaire, including “physical activity”; (c) Zung Self-Rating Anxiety Scale; d) Geriatric Depression Scale.

Results: Physical activity resulted greater in men, in less than 75 years old, in living in the metropolitan area, in people with a higher educational level. The interviewed elderly prefer to practice sport in a group, in gyms and swimming pool. The levels of anxiety and mood improved after some months of sport, especially realized in groups. The examined elderly said that exercise had improved their quality of life and their relationships, they had better physical and mental health, felt more loosely moving.

Conclusions: The psychomotility allowed to the interviewed elderly people to have a better quality of life, a more clear mind and a more confidence in their abilities, in according to WHO (4) said about “interventions aimed at encouraging people to increase their physical activity levels”.

References

- Shephard R.J. (1998). *Aging, Physical activity and Health*, tr. it. Tammaro A.E., McGraw-Hill, Milano.
- Colcombe S, Kramer A.F. (2003). Fitness effects on the cognitive function of older adults: a meta-analytic study, *Psychological Science*, 14: 125–130.
- Cesa-Bianchi M., Cristini C. (2014). *Come invecchiare. Dalla psicologia generale alla psicogerontologia*. Aracne, Roma.
- The World Health Report 2002. *Reducing Risks, Promoting Healthy Life*. WHO, Geneva

12 PED

Technologies in physical education in primary school. Preliminary study for the assessment of motor development with the MOBAK 5

S. Epifani^{1,2}, V. Montrone¹, D. Monacis¹, D. Colella¹

¹Department of clinical and experimental medicine, University of Foggia, Foggia, Italy;

²Department of Humanities sciences, University of Foggia, Foggia, Italy

Aim: New technologies in PE provide children with the opportunity (a) to improve motor learning and self-efficacy, (b) model and structure new prospective of the educational process (Clapham et al.,2015). The purpose of this study is to evaluate and compare (a) the development of motor coordination of primary school’s children in relation to BMI, (b) effects of strategies that utilize interactive video game technology (T0 vs T1), (c) enjoyment and physical self-efficacy between EG and CG.

Methods: The study has been conducted in a primary school of Puglia, Italy. The sample includes 65 children, separated into two groups in relation to sex and BMI: EG (M: 22, age, 10.09 ± 0.30; F: