GOING BEYOND THE QUANTITATIVE APPROACH: A CROSS-SECTIONAL STUDY OF THE LINKAGE BETWEEN PHYSICAL ACTIVITY LEVELS, ENJOYMENT, MOTOR AND COGNITIVE DEVELOPMENT
PURPOSE

This study represents the first, cross-sectional step within the broader framework of an intervention study targeted to identify quality physical activity (PA) guidelines for promoting children’s motor and cognitive development jointly.

We verified whether (1) the quantity and characteristics of PA practiced by children and their enjoyment in PA predict the quality of their motor development and (2) if this last, in turn, is predictive for cognitive development.

METHODS

Hundred and twenty-four primary school children, aged 6-8, from the municipality of Rome, were administered questionnaires to evaluate their PA levels (PAQ-C) and enjoyment in PA (PACES), as well as tests to assess motor (M-ABC and TGMD) and cognitive development (CAS and RNG). In addition, children’s spontaneous outdoor play was evaluated by means of a questionnaire completed by parents.

RESULTS AND CONCLUSION

The results show a complex relationship, different in males and females, among the amount of structured PA, enjoyment in PA, and the development of specific motor skills. Developmental levels in different motor skill classes were predictive for the development of specific higher-level cognitive functions. This specificity supports the intent to evaluate, in the following intervention study, whether qualitatively different types of PA may selectively impact different motor skills and promote the development of high-level cognitive functions in their unity and diversity.

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