## [Original Article]

## Impact of the Intervention to Increase Physical Activity in Elementary School Children

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## Abstract

**Objective**: The purpose of this study was to determine the effectiveness of the intervention to motivate fifth grade children to play outdoors.

**Methods**: Participants consisted of 142 fifth-graders (boys = 79, girls = 63) from two similar schools in Tsuru, Yamanashi, Japan. The participants were assigned into two groups according to their school origin. The first received the intervention for 6 weeks, while also attending regular physical education (PE) classes twice a week (intervention school: boys = 42, girls = 27). The second group attended only regularly scheduled PE classes (control school: boys = 37, girls = 36). In the intervention school, students participated in an intervention program to motivate children to play outside from June to July 2009. We used accelerometers to evaluate children's physical activity. Additionally, participants completed a questionnaire assessing their attitudes toward physical activity as well as frequency of physical activity or outdoor play.

**Results**: Among control school boys, the number of daily steps on weekdays significantly decreased; however, there were no significant effects for intervention school boys. Among control school girls, the number of daily steps on weekdays tended to decrease, while there were no significant changes for intervention school girls.

**Conclusion**: The intervention program to motivate fifth grade children to play outdoors in this study positively impacted the children by suppressing age-related decreases amount of physical activity in this age group.

Key words: intervention, physical activity, elementary school children, outdoor play

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