

## **Comparison of self-reported and objectively measured physical activity levels of adolescents**

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### **Abstract**

Recent research evidence from the World Health Organization (2010) reinforces the strong link between physical activity (PA) and continuing positive benefits to health, well-being and weight control. However, previous studies based on self-reports show that the majority of children and adolescents fail to achieve the recommendation of 60 minutes moderate-to-vigorous PA (WHO, 2010) on a daily basis.

The aims of this study were 1) to examine if objectively measured and self-reported PA differ by gender or grade, and 2) to analyze the predictive strength of self-reports on objectively measured PA. Participants were 96 (58 girls, 38 boys) Finnish middle school students. The objective cross-sectional PA scores were collected using Polar Active accelerometers and self-reported PA was assessed using the Moderate to Vigorous Physical Activity (MVPA) measure (Prochaska, Sallis, & Long, 2001).

The results of the linear regression analyses conducted for each grade level indicated that self-reported PA emerged as the significant positive predictor for students' directly measured PA within Grade 8 and Grade 9 students. Self-reported PA was not a significant contributor for Grade 7 students' direct PA. Results showed that Grade 7 students were significantly more physically active than Grade 9 students when PA was measured using self-reports. Gender differences were not found.

Measurement issues seem to be critical in order to analyze children's and adolescents' PA levels. Objectively measured PA scores were remarkably higher than those of self-reported scores. However, both measurements showed the same tendency within gender and grade differences.

### **References:**

- Prochaska, J., Sallis, J., & Long, B. (2001). A physical activity screening measure for the use with adolescents in primary care. *Archives of Pediatrics and Adolescent Medicine* 155(5), 554-559.
- World Health Organization (2010). *Global recommendations on physical activity for health*. Available at: [http://whqlibdoc.who.int/publications/2010/9789241599979\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf)