

## **Effectiveness of ToyBox intervention to reduce sedentary behaviour among pre-school children: A case in Malaysia**

### **Abstract**

Children have been found to spend more time on gadgets in learning and passing leisure time especially in the era of this new millennium. Besides, modern parents also claim that gadgets possess additional education function for children in acquiring new information. Nonetheless, on the flip side of using gadgets, little is known about the intervention in reducing sedentary behaviour, which mainly refers to prolonged sitting, especially among pre-schoolers. Thus, the present study investigates the effectiveness of ToyBox intervention in Malaysia to reduce sedentary behaviour among pre-schoolers ( $n = 281$ ) via primary caregivers' self-reports. In addition, the Mann Whitney U test displayed significant variances between the experimental group and the control group in reducing sedentary behaviour among five-year-old and six-year-old pre-schoolers. Besides, the Wilcoxon Signed-Rank Test revealed significant differences in the experimental group before and after treatments among four-year-olds, five-year-olds, and six-year-old pre-schoolers. Interestingly, Split-plot ANOVA analysis showed that the interaction terms of groups and treatment were significant, where the treatment for experimental groups was significantly lower in sedentary behaviour after treatment. As a result, the ToyBox intervention in Malaysia is indeed a promising intervention to reduce sedentary behaviour among pre-schoolers.