

September 2018

Name of students: Cheung Yuk Lam, Lam Yan Yan, Lee Nga Kiu, Lee Yuen Yi, Ma Ming Wai, Man Ka Lun, Ng Ka Yan

Title: A quasi-experimental study on the effect of sedentary alert function of smart bracelet on the physical activity in clerks in Hong Kong

ABSTRACT

Clerks in Hong Kong have a low level of physical activity which increases the risk of suffering from chronic disease. Previous studies showed that the reminder function can enhance the physical activities level of adults. Therefore, there is a need to investigate the effectiveness of sedentary alert function of the smart bracelet on promoting the physical activity in clerks in Hong Kong. The aim of this study was to investigate the effect of sedentary alert function of smart bracelet on the physical activity in clerks in Hong Kong.

A quota sample of 60 clerks from different age and gender categories were recruited. The study was divided into baseline phase (week 1 to week 2), intervention phase (week 3 to week 4) and post-intervention phase (week 5 to week 6). Subjects were required to wear the smart bracelet in intervention phases. Physical activity was measured by the walking steps per day and the metabolic equivalent of task (MET) per week. Walking steps was assessed by a pedometer and MET was assessed by International Physical Activity Questionnaire (IPAQ) The repeated measures analysis of variance (ANOVA) and the Friedman test were used to verify the differences in the means of walking steps and the medians of MET in different phases.

Thirty-seven subjects completed the six-week study. Valid data were analysed by the repeated measure of ANOVA and the Friedman Test. There were similar findings in daily walking steps and MET. Both of the data indicated the physical activity of clerks was increased after providing the smart bracelets to the clerks during the intervention phases and then resumed to the same physical activity level in the baseline phase after retrieving the smart bracelets from the clerks during the post-intervention phase. To conclude, smart bracelet is recommended to use for enhancing physical activity by wearing it continuously. This study gave preliminary insight to the effect of sedentary alert function in wearable devices. Especially for people who have sedentary lifestyle

e.g. clerks in Hong Kong.