

## **A randomised controlled trial of a Facebook-based physical activity intervention for government employees with metabolic syndrome**

### **ABSTRACT**

**Introduction:** This study aimed to ascertain the effects of a Facebook-based physical activity intervention on improvements in step counts and metabolic syndrome. **Methods:** Government employees with metabolic syndrome were randomly assigned by cluster to the Facebook group (n = 44) or the control group (n = 103). All participants were asked to complete self-administered questionnaires at baseline, after the first and second phases. Data from anthropometric (weight, body mass index, fat mass, body fat percentage, waist circumference, hip circumference and waist-to-hip ratio), biochemical (total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides and fasting glucose) and clinical examinations (systolic blood pressure and diastolic blood pressure) were collected. The number of steps per day was determined by a Lifecorder e-STEP accelerometer. **Results:** A significant difference in the number of steps per day between the baseline and the first phase ( $p < 0.001$ ) was observed in both the Facebook and control groups. A significant group main effect ( $p < 0.001$ ) was found for the number of steps per day; the Facebook group had a significantly greater increase in the number of steps per day than the control group. Overall, a significant strong to very strong correlation was found between the changes in the number of steps per day and the changes in the other variables. **Conclusion:** The Facebook-based intervention approach has the potential to increase physical activity among government employees with metabolic syndrome.

**Keyword:** Employees; Metabolic syndrome; Physical activity; Randomised controlled trial; Social networking