Benefits of step-counting device-based intervention in overweight participants

Kornanong Yuenyongchaiwat, Duangnate Pipatsitipong and Panthip Sangprasert
Thammasat University, Thailand

Obesity and overweight are a major risk factor of hypertension and leads to cardiovascular disease. Increased physical activity has been recommended for the prevention of these diseases. The purpose of the study was to determine the effect of accumulating 10,000 steps per day on physical and mental health conditions. Thirty participants with overweight (defined as body mass index: BMI ≥25 kg/m²), both male and female within the age range of 35–59 years were recruited. These participants were recommended to accumulate at least 10,000 steps per day. Measurement of anthropometry, resting blood pressure, blood glucose and the Profile Of Mood States Scales (POMS) questionnaire were taken pre- and post-walking program for 12 weeks. Daily step counts were recorded using a Yamax SW-200 pedometer. During the walking intervention, individuals who accumulate 10,000 steps per day were observed with significantly lower weight, waist circumference, BMI, body fat percentage, resting systolic blood pressure and blood sugar (p<0.05) as compared to what it was prior to the study program. Further, the benefits of accumulating 10,000 steps a day were noted in mental health conditions: decreased tension, depression, anger, confusion, fatigue. In conclusion, accumulating at least 10,000 steps per day resulted in improved anthropometry (BMI, % body fat, waist circumference). In addition, a in reduction resting systolic blood pressure, blood glucose and decreased mental health problems in overweight participants was observed. This shows that increase in physical activity by accumulating at least 10,000 steps per day can reduce the risk of cardiovascular disease and psychological health problems in overweight adults.

Biography

Kornanong Yuenyongchaiwat completed her PhD from the University of Derby, United Kingdom. She is the Assistant Professor of Physiotherapy at the Faculty of Allied Health Sciences, Thammasat University, Thailand. Her research focuses on cardio-respiration in physiotherapy, cardiovascular reactivity and health psychology, physical activity and geriatric conditions.

ykornano@tu.ac.th