

# Partnership-group and exercise e-maps to support fitness walking in a weight management program to promote cardiopulmonary fitness and weight loss

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## Abstract

The aims were to examine the effects of applying partnership-groups and exercise e-maps to support fitness-walking in a weight management program to promote cardiorespiratory fitness and weight loss. A community-based intervention using a pretest and repeated tests design was conducted. A total of 116 adults with a body mass index between 24 and 32 with a minimum educational level of junior high school were recruited from urban areas of southern Taiwan, but only 72.4% participants completed. Using residential clusters randomly assigned participants to an intervention group (IG) or a control group (CN). IG additionally used exercise e-maps which were by mobile Apps as a reminder to keep tracks of their fitness-walking. Cardiorespiratory fitness was measured by the 3-minute step test. In addition, body weight was repeated measured at week 1<sup>th</sup>, 4<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup>, 13<sup>th</sup> and 16<sup>th</sup>. Data were analyzed by Chi-square test for cardiorespiratory fitness changes and one-way ANOVA repeated measures for weight loss. The results show that cardiorespiratory fitness improved in both groups with the IG showing a higher percentage of positive change. Adjusting confounding factors, the IG showed significantly greater weight loss than CN at week 10<sup>th</sup>, 13<sup>th</sup> and 16<sup>th</sup> ( $F_{(df=1, 80)}=34.4, p < .001$ ). Furthermore, the IG had greater mean of weight loss (-2.9 kg; 95 % CI=-3.3~-2.5) compared to CN (-1.1 kg; 95 % CI=-1.5~-0.7) over 16-week. Study shows that using partnership-group and exercise e-maps in a weight management program has significant impacts on promoting cardiovascular fitness and weight loss in individuals of urban communities.

## Biography

Chi-Jane Wang is an Assistant Professor working in Department of Nursing, College of Medicine, of National Chen-Kung University of Taiwan. She has completed her MPH at 1991 from Yang-Ming Medical University of Taiwan and Ed.D. at 2000 from Special Education Institute of Changhua University of Taiwan. Her specialty is in minority nursing. Furthermore, she also promotes population health in community, especially focusing on issues of obese prevention.