

Effectiveness of Nutrition and Physical Activity Interventions for Weight-Control Program at Workplace

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Introduction

Overweight and obesity related to metabolic syndrome and lots of chronic diseases are major health problems worldwide. Previous studies indicated that promoting health-behavior change including balance diet and active lifestyle were effective on weight control. The purpose of this study was to explore the effects of weight-control program at a workplace for overweight and obese employees.

Methods


20 participants were employees of a technology corporation in the area of Hsinchu city (Taiwan) who joined the program and received 6-week weight-management program including one-hour nutrition classes (lectures) and one-hour exercise per week. Participants were asked to keep a food diary in which they recorded what and how much they had eaten, and when and where the food was consumed. The nutrition classes were about the diet logs discussion and emphasizing the healthier eating behavior. Anthropometric measurements were collected. Knowledge, frequencies of healthy diet, exercise behaviors were assessed by questionnaires at the beginning and the end of program. The body weight were collected again at 4 months later. All data was analyzed by using SPSS 22.0 version software.

Small group counseling:



Dietary assessment of subjects by food diary and picture records:

時間	餐別/地點	食物名稱	材料 (含烹調方式)	重量或份量	運動與作息
8:10	早餐	白米粥	白米	1份	
		軟豆腐(凍)	軟豆腐	200cc	
		冰凍餃子(小)	冰凍餃子	1杯	
17:10	午	雞腿	雞腿(小份)	1份	
		蛋	蛋	1個	
		菜	菜	1份	
19:30	晚	雞	雞(小份)	1份	
		蛋	蛋	1個	
		菜	菜	1份	
		麵	麵	1份	
		湯	湯	1份	
		飯	飯	1份	
		菜	菜	1份	
		飯	飯	1份	
		菜	菜	1份	



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早餐:白粥、肉鬆、炒蛋(小份)、燕麥
午餐:白飯一碗 魯肉一份 筍子一份 煎鮭魚兩份 荷包蛋
晚餐:沒吃晚餐(不是為了減肥不吃是忙到沒時間吃)
喝了一杯無糖拿鐵

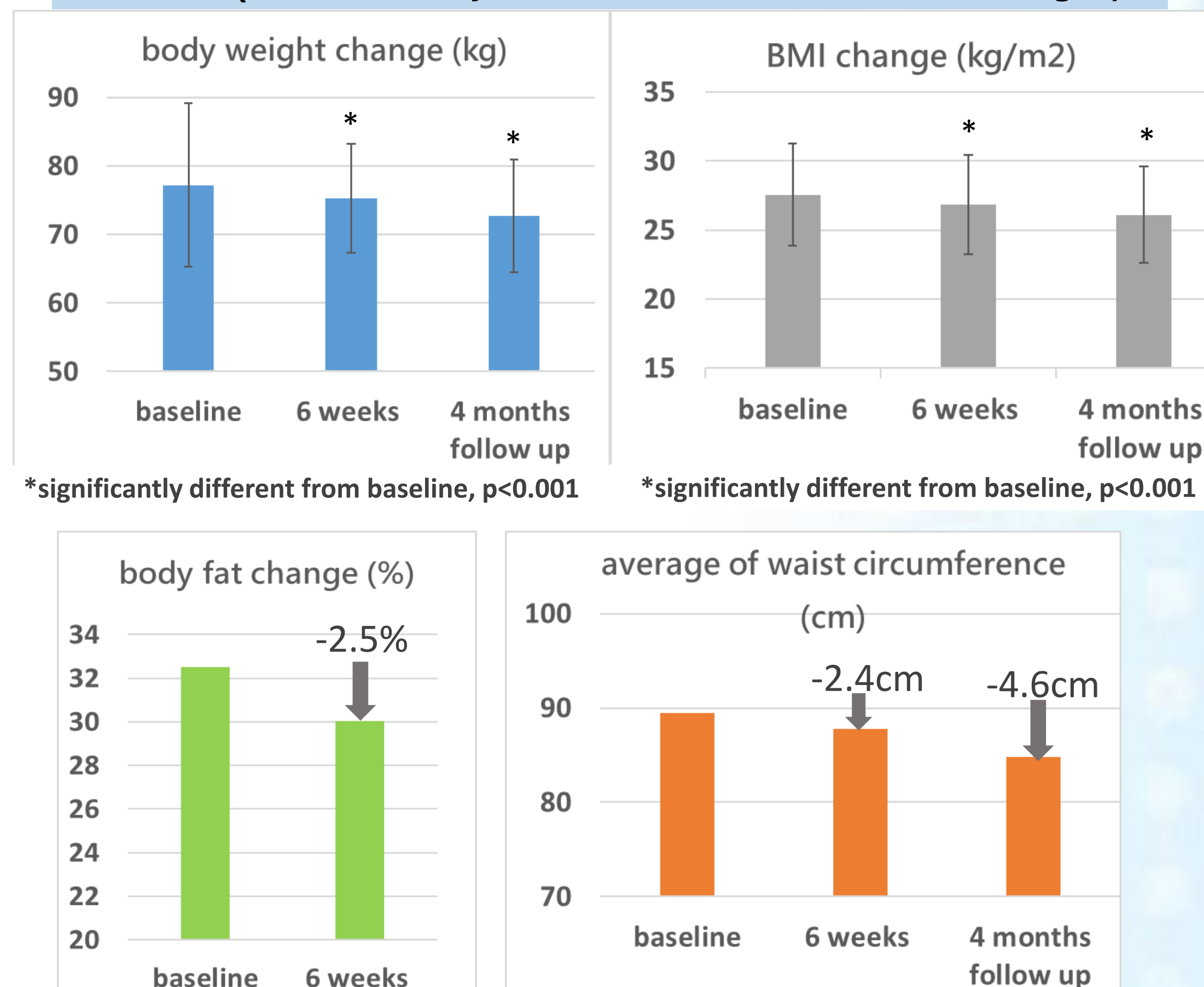
Exercises and activities:



Results

All participants were able to identify their initial motivation for joining the weight management program. The most common motivator was to improve their health in general. All participants (n=20) had a BMI of 27.6 ± 3.7 kg/m² in the beginning, 26.8 ± 3.6 kg/m² at the end of the program ($p < 0.001$), and 26.1 ± 3.5 kg/m² at the 4 months follow up. The average weight loss for all participants was 2.0 ± 1.9 kg of initial weight in 6 weeks ($p < 0.001$) and 4.3 ± 3.2 kg at 4 months follow up ($p < 0.001$). The average percent of body fat loss was 2.5% and the average of waist circumference reduction was 2.4 cm. Weight-related nutrition knowledge was increased 8 %, dietary and exercise adherence were increased 18 % and 20 % respectively.

Results (BW, BMI, body fat and waist circumference changes):



Conclusions

According to our results, a regional institute-based weight management program emphasized on lifestyle and self-monitoring of food intake interventions through small group education and peer support could result in short-term weight losses and contributed to the healthier behavior and nutrition knowledge improvement at workplace.