

Intervene in the weight loss effect of hospital employees through diversified methods

Pao-Ping Tsai , Shih-Yu Hung , Lee,Pei-Hsuan

Ditmanson Medical Foundation Chia-Yi Christian Hospital, Chia-Yi City, TAIWAN

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Introduction

Obesity is the fifth leading risk factor for death worldwide and causes metabolic-related diseases for individuals and a national medical and economic burden. According to employee health examination results, many employees have excessive BMI values. Indicates that obesity is a common problem. It is difficult for busy medical staff to manage their own health. Therefore, we conducted an intervention study using online social media and professional courses in different fields to explore the effectiveness of weight loss among their employees.

Method

- 1) Recruitment method: Through in-hospital announcements and social media promotion,
- 2) Number of participants: A total of 16 employees with a BMI of over 27 were recruited to participate.
- 3) Course content: Psychologists provide knowledge on positive and healthy psychology, physical therapists design basic exercises and prevention of sports injuries, and nutritionists provide knowledge on healthy diet, etc.
- 4) Course format: 11 physical courses.
- 5) Course period: 2 months in total.
- 6) Supplementary course content: A social group is established, and participants upload photos of their diet, exercise, and weight every day. Weekly online feedback from nutritionists and physical therapists on diet and exercise injury prevention. Participants can ask questions and get answers online in real time.
- 7) Post-course tracking: In the third month, participants will be followed up after the course.



Figure 1. Admissions poster in the hospital



Figure 2. From left to right, the class status and daily diet records of psychologists, nutritionists, and physical therapists

Results

The average BMI of the 16 participants was 29.5 ± 7.5 , the average weight was 78.2 ± 22.1 kg, the average body fat rate was $39.2 \pm 11.5\%$, and the average muscle weight was 44.4 ± 12.5 kg. After the course, the average BMI of the participants decreased by 1.0 ± 1.1 , the average weight decreased by 2.8 ± 2.6 kg, the average body fat rate decreased by $1.8 \pm 1.8\%$, and the average muscle weight decreased by 0.9 ± 2.0 kg. Comparing the follow-up in the third month after the course and the post-test again, the average BMI decreased by 0.1 ± 0.6 , the average weight decreased by 0.3 ± 1.6 kg, the average body fat rate decreased by $0.2 \pm 0.9\%$, and the average muscle weight decreased by 0.1 ± 0.6 kg.

Table 1. Results of pre-test, post-test and three-month follow-up of participants.

n=16	Weight	body fat percentage	muscle weight	BMI
pretest	78.2 ± 22.1	39.2 ± 11.5	44.4 ± 12.5	29.5 ± 7.5
posttest	75.4 ± 21.8	37.4 ± 11.6	43.6 ± 12.6	28.5 ± 7.3
Follow up after three months	75.1 ± 22.0	37.2 ± 11.7	43.5 ± 12.6	28.4 ± 7.4

Conclusion

Due to the different work schedules in hospitals, a multi-faceted approach to healthy diet intervention for hospital employees can significantly reduce BMI, weight and body fat rate. It is hoped that future courses will attract more employees to participate.

Healthy eating and weight management are an important part. The healthy eating principles emphasized by HPH, such as eating more fruits and vegetables, limiting processed foods and sugar intake, can help lose weight and maintain a healthy weight.