

Title:

Effectiveness of Weight Control Program on Nutritional Status and Knee Pain in Overweight Older Adults

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Session Title:

Promoting Outcomes in Obese Patients

Slot:

F 13: Friday, 28 July 2017: 2:30 PM-3:45 PM

Scheduled Time:

2:30 PM

Keywords:

NUTRITIONAL STATUS, OVERWEIGHT OLDER ADULTS WITH KNEE PAIN and WEIGHT CONTROL PROGRAM

References:

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3. Phonyiam, R., Terathongkum, S., Thungsarn, S., Arj-Ong Vallipakorn, S. (2015). Effect of Lifestyle Modification Program with Arm Swing Exercise on Health Behavior, Nutritional Status and Capillary Blood Sugar of Persons with Pre-diabetes in the Community. *The Bangkok Medical Journal*, 10, 16-21.
4. Foster-Schubert, K.E., Alfano, C.M., Duggan, C.R., Xiao, L., Campbell, K.L., Kong, A. Et al. (2012). Effect of diet and exercise, alone or combined, on weight and body composition in overweight-to-obese post-menopausal women. *Obesity*, 20(8), 1628-1638.
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Abstract Summary:

Weight control programs incorporating group and community support are effective. After the program, the experimental group had lower body mass indexes, waist circumferences, and knee pain than before the program. The experimental group had higher mean differences in body mass indexes, waist circumferences, and knee pain than the control group.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
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<p>1. The learner will be able to identify the components of the weight control program using group and community support including four strategies: Raising community awareness, Aiming at target health outcome, Mobilizing change, and Assuring synergy.</p>	<p>The component of the Weight control program using group and community support includes four strategies: 1) Raising community awareness, 2) Aiming at target health outcome for body mass index, waist circumference, and knee pain 3) Mobilizing change focusing on food exchange, arm swing exercise, knee exercise, and modification of community environment, and 4) Assuring synergy and the outcome includes nutritional status measured by body mass index and waist circumference and knee pain measured by self report pain score.</p>
<p>2. The learner will be able to develop approaches for health promotion in nursing practice by applying the program used in this study.</p>	<p>Nurses and health team can apply the weight control program using group and community support that integrated the principle of food exchange, arm swing exercise, knee exercise, and modification of community environment in health promotion for overweight older adults with knee pain.</p>

Abstract Text:

Purpose: A common health problem in older adults is knee pain, particularly those with overweight. Weight control is an appropriate approach for overweight older adults suffering from knee pain. This study aimed to examine the effects of weight control program using community and group support on nutritional status and knee pain in overweight older adults with knee pain. The specific research purposes were to: 1) compare mean scores of nutritional status (body mass index and waist circumference) and knee pain in the experimental group before and after the program, and 2) compare mean differences of nutritional status (body mass index and waist circumference) and knee pain between the experimental and the control groups.

Methods: This study employed quasi-experimental research with 2-group pre-post design. Through convenience sampling with inclusion criteria, the sample included 60 overweight older adults with knee pain who lived in two communities in Bangkok, Thailand. The 30 subjects in the experimental group in a community participated in the 12-week weight control program including four stages: Raising community awareness, Aiming at target health outcome, Mobilizing change, and Assuring synergy through group activities. The program consisted of 14 activities addressing food exchange and behavioral modification for food consumption, arm swing exercise, knee exercise, modification of postures in daily living and arrangement of the surrounding environment in the community as well as monitor of body mass index and waist circumference. The control group received only leaflets and booklets. Data were analyzed using descriptive and inferential statistics including Chi-square test, Paired t-test, Independent t-test, and Wilcoxon Signed Ranks test.

Results: Results revealed that the mean age of the subjects was 70.8 (SD 5.8) years, ranging from 60-84 years. There were no significant differences in demographic characteristics between the control and the experimental groups. At baseline, the mean body mass index, waist circumference, and knee pain in the control group were 27.2 kg/m² (SD 3.5), 94.6 cm (SD 9.5), 5.4 (SD 1.6), respectively and those in the experimental group were 27.9 kg/m² (SD 3.5), 95.3 cm (SD 8.8), 6.7 (SD 1.9), respectively. There were no significant differences in body mass index and waist circumference between the control and the experimental groups at baseline, except for knee pain. After the program, the experimental group had

body mass index (27.2: SD 3.1), waist circumference (93.6: SD 8.7) and knee pain (4.4: SD 1.9) less than before the program with statistical significance ($t = 2.128$, $p = .042$; $t = 6.599$, $p < .001$; $Z = -4.745$, $p < .001$, respectively). Mean differences in body mass index (-.69), waist circumference (-1.74), and knee pain (-2.4) in the experimental group were more than differences in body mass index (.01), waist circumference (.44), and knee pain (.13) in the control group with statistical significance ($t = 2.124$, $p = .038$; $t = 7.209$, $p < .001$; $t = 7.447$, $p < .001$, respectively).

Conclusion: The weight control program was effective. The results suggested approaches to behavioral modification on food consumption behaviors and group support for arm swing exercise and knee exercise as appropriate for the overweight older adults with knee pain.