Improvement of osteoporosis-related behaviors in female students based on trans theoretical model

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Abstract

BACKGROUND:

Osteoporosis is one of the major problems associated with aging and is more common among women than men. This study was designed to modify osteoporosis-related behaviors in female students based on the transtheoretical model (TTM).

MATERIALS AND METHODS:

This quasi-experimental study was conducted on female secondary school students. The sample size was determined 100 by using Altman's nomogram, including 50 cases and 50 controls. Participants were completed the Demographic Information and Osteoporosis-Related Behavior Questionnaire based on TTM. Evaluation of the data showed that each participant was at what stage of change in physical activity and preventive dietary behavior of osteoporosis. The content of the training package was designed, and for the intervention group, 2-h training sessions were held weekly by the instructor in accordance with the stage of change for 2 months, and the booklet was provided with the appropriate contents of the stage of change. Three months after the completion of training, the questionnaires were completed by intervention and control groups. Statistical analysis was performed using SPSS 23 software.

RESULTS:

Concerning the stages of change in physical activity and nutrition, a significant difference was before and after the intervention in the intervention group ($P < 0.001$), while no significant difference was observed in the control group. After the intervention, there was a significant difference in the self-efficacy and some subconstruct of processes of change, but there wasnot a significant difference in the decisional balance.

CONCLUSION:

Educational intervention based on TTM has been successful in achieving the goal of modifying osteoporosis-related behaviors in female students. The results of this study can be used by health planners to plan and implement health promotion interventions that will undoubtedly help reduce the burden of disease.

Keywords: Health promotion, nutrition, osteoporosis, physical activity, self-efficacy