Development and Effects of Transtheoretical Model Exercise Program for Elderly Women with Chronic Back Pain

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Abstract: The steady and rapid increase of the older population is a global phenomenon. Chronic diseases and disabilities are increased due to aging. In general, exercise has been known to be most effective in preventing and managing chronic back pain. However, it is hard for the older women to initiate and maintain the exercise. Transtheoretical model (TTM) is one of the theories explain behavioral changes such as exercise. The application of the program considering the stage of behavior change is effective for the elderly woman to start and maintain the exercise. The purpose of this study was to develop TTM based exercise program and to examine its effect for elderly women with chronic back-pain. For the program evaluation, the nonequivalent control pre-posttest design was applied. The independent variable of this study is exercise intervention program. The contents of the program were constructed considering the characteristics of the elderly women with chronic low back pain, focusing on the process of change, the stage of change by the previous studies. The developed exercise program was applied to the elderly women with chronic low back pain in the planning stage and the preparation stage. The subjects were 50 older women over 65 years of age with chronic back-pain who did not practice regular exercise. The experimental group (n=25) received the 8weeks TTM based exercise program. The control group received the book which named low back pain management. Data were collected at three times: before the exercise intervention, right after the intervention, and 4weeks after the intervention. The dependent variables were the processes of change, decisional balance, exercise self-efficacy, backpain, depression and muscle strength. The results of this study were as follows. Processes of change (<.001), pros of decisional balance (<.001), exercise self-efficacy (<.001), back pain (<.001), depression (<.001), muscle strength (<.001) were higher in the experimental group than in the control group right after the program and 4weeks after the programs. The results of this study show that applying the TTM based exercise program increases the use of the change process, increases the exercise selfefficacy, increases the stage of changing the exercise behavior and strengthens the muscular strength by lowering the degree of pain and depression Respectively. The significance of the study was to confirm the effect of continuous exercise by maintaining regular exercise habits by applying exercise program of the transtheoretical model to the chronic low back pain elderly with exercise intention.

Keywords: chronic back pain, elderly, exercise, women

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