

Adaptation, validation and feasibility evaluation of mindful standing yoga combined with Baduanjin for older patients with primary osteoporosis

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ABSTRACT

Objective: The aim of the study was to validate and evaluate the feasibility of an adapted mindful exercise program (Mindful Standing Yoga combined with Baduanjin) for older patients with primary osteoporosis. **Materials and Methods:** This study is conducted in 3 stages. Stage 1, a qualitative method using focus group discussion composed of six experts to gather the viewpoints on modifying the exercise program. Stage 2 involved validation of the exercise program using a Delphi approach with another six experts. In Stage 3, a feasibility study with a single-group pre- and post-test was conducted with 20 eligible patients in a traditional Chinese medicine hospital. The effects of the adapted exercise were assessed using Global Pain Scale (GPS), Five Facets Mindfulness Questionnaire-Short Form (FFMQ-SF), Tampa Kinesiophobia-11 Scale (TSK-11) and Timed Up and Go (TUG) test. Patient satisfaction and their feedback were also collected. **Results:** The modified program includes 9 motions and takes 30 minutes to complete. Experts validated the program and deemed it to be suitable, safe and helpful for practice. Most participants were satisfied with the protocol. The measurement of heart rate and perceived exertion rate indicated that this program is a low-intensity exercise and not strenuous for the study population, which has statistical significance in improving back pain, and mindfulness in the feasibility study. **Conclusion:** Experts and participants confirmed that the program was appropriate and satisfactory for older patients with primary osteoporosis, particularly those with back pain. High-quality randomized controlled trials are needed to future verify its effectiveness.