Evaluation of An Intensive In-patient Low Back Pain Education Program for Female Elderly with Low Back Pain

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Introduction
Low Back Pain (LBP) is a great concern in local healthcare. Female aged 55 or above were more afflicted. Pain self-efficacy is a person's confidence in his or her ability to cope with pain and participate in daily activities despite pain. Higher self-efficacy is significantly related to lower disability and enhances the effects of rehabilitation. Pain self-efficacy can be changed by education. Therefore, an education program encouraging self-care and to improve self-efficacy was formulated. According to international literature, the education programs were delivered with duration of at least 1 month. This is not practical in Hong Kong hospital settings with shorter length of stay. Moreover, patients have to wait to form a group for the program, therefore it is often not possible for patients to complete even a 2-week education program. Therefore, a cohort study to explore the feasibility of a condensed LBP education program with the same contents that could be fitted into 1 week was necessary.

Objectives
To compare the effectiveness of an intensive 1-week LBP education program with that of a 2-week program for older female in-patients admitted for LBP.

Methodology
A structural education program was conducted to improve self-management of LBP. The content included common causes of LBP, back care techniques when performing daily activities and practical sessions. Group 1 received total 2 sessions of education program, with 1 session per week. Group 2 received total 2 sessions of education program with the same content, but delivered in a higher intensity of 2 sessions in 1 week. The Pain Self-Efficacy Questionnaire (PESQ) and the Back Care Knowledge Questionnaire (BCKQ), were measured immediately before and after the program. The effectiveness of the program with two different intensities was compared.

Result
Concerning the outcome measures, the subjects' pain self-efficacy was measured by the Chinese version of PESQ. The patient was asked to rate how confident he or she felt to perform different daily activities despite of pain. The back care knowledge was measured by the BCKQ. It included true-false-not known questions. Concerning the results, a total of 40 patients, with 20 in each group, were recruited from August 2016 to March 2017. The dropout rate in Group 1 due to discharge was significantly higher (27.6%) than that in Group 2 (4.3%). Wilcoxon Signed Ranks Test was used to compare the pre and post outcome scores. Back Care Knowledge scores were significantly improved immediately after attending both Group 1 (p = 0.002) and Group 2 (p < 0.001). However, no significant difference was observed in the participants' Pain Self-efficacy scores after attending both Group 1 (increased 5.0%) and Group 2 (increased 6.3%). Mann-Whitney U Test was used to compare the difference (Post-test score - Pre-test score) in outcome scores in Group 1 when comparing to Group 2. There was no significant difference in improvement of Back Care Knowledge scores (p = 0.547) and Pain Self-efficacy (p = 0.871) between these 2 groups. To conclude, a 1-week high intensity LBP education programs was as effective as a 2-week program in enhancing the back care knowledge of female elderly patients with LBP, but (Group 2) with significantly lower dropout rate due to discharge. In order to improve their pain self-efficacy, extension of the intervention and practice time is recommended as the change of pain self-efficacy takes time. It can be achieved by setting up a home program and phone follow-up to monitor their progress after their discharge.