Effectiveness of A Non-pharmacological Symptom Controlled Based Fatigue Management for Patients with Advanced Chronic Illness

Wong CHE(1), Wong KH(1), Chan WY(1), Ching HW(1), Poon YHP(1), Chen WTT(2)
Physiotherapy Department, Tuen Mun Hospital Department of Medicine and Geriatrics, Tuen Mun Hospital

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Introduction
Fatigue is a common symptom encountered by advanced chronic illness patients. It affects patients’ mobility, exhausts patients, reduces social interactions and induces depressed or anxiety mood. Evidence based literature showed that non-pharmacological based physiotherapy fatigue management optimized mobility functions, improve the quality of life of patients and enhanced patients' self-control throughout the disease process.

Objectives
To evaluate the effectiveness of a non-pharmacological symptom-control based fatigue management developed by physiotherapists.

Methodology
All patients were referred by the medical palliative medicine (MPM) clinic. Patients with advanced chronic illnesses including pulmonary diseases, heart failure, renal failure and motor neuron disease received three domains of physiotherapy fatigue management: 1. Symptom-control management with manual therapy or electrotherapy on acupoints, 2. Mobility training and 3. Carer education on symptom management and mobility enhancement. Patients were assessed on the level of pain, level of tiredness, self-efficacy level by using the palliative performance scale (PPS) before and after the fatigue management. In the scale, pain and tiredness was assessed with scale from 0 (none) to 10 (intolerable/ maximal exhaust). Self-efficacy level was rated with 1 (poor), 2 (fair), 3 (good) or 4 (full confidence) by patients or carers. Paired t-test and Pearson Correlation were used to analyze the effectiveness of this management.

Result
Eighteen patients including 9 male and 9 female aged from 51 to 94 were recruited into this program from Jan 2012 to Jan 2013. They received an average of 6 sessions of physiotherapy. Pain level was significantly decreased from 4±1 to 2±1, with p<0.001. Tiredness level was significantly improved from 4±1 to 2±1, with p<0.001.
Self-efficacy level changed significantly from 2±0 to 3±0.5, with p=0.001. Palliative performance scale improved from 40±4 to 50±14, with p=0.007. Correlation analysis showed that pain level (Pearson=-0.66, p=0.01), tiredness level (Pearson=-0.54, p=0.05), self-efficacy level (Pearson=0.73, p=0.01) and PPS (Pearson=0.75) correlated with the number of therapy sessions. With more therapy sessions, pain, tiredness and self-efficacy level was more positively controlled. Despite the fact that the underlying advanced illnesses is expected to deteriorate over time, this program did showed an improvement in the parameters throughout the program. The Non-pharmacological symptom-control based fatigue management for patients with advanced chronic illness introduced by physiotherapists in NTWC optimized mobility functions, improved the patients' quality of life and their self-control throughout the disease process.