



## Service Priorities and Programmes Electronic Presentations

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### **Effectiveness of Dyspnoea Management Class in Patients with Chronic Obstructive Pulmonary Disease**

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#### **Introduction**

Chronic obstructive pulmonary disease (COPD) is a serious public health problem with dyspnoea being one of the most common symptoms in all stages. Controlled breathing & relaxation exercises are common individual physiotherapeutic interventions in improving pulmonary functions. There is paucity of studies for group-based delivery model.

#### **Objectives**

The aim of this study was to investigate the effectiveness of dyspnoea management class in reducing dyspnoea symptoms in patients with COPD during hospitalization.

#### **Methodology**

A quasi-experimental one-group Pretest-Posttest design was conducted from 26 May 2015 to 8 September 2015. Inclusion criteria were in-patients with diagnosis of COPD of all stages according to the GOLD classification and medically stable. Exclusion criteria were patients who are unable to communicate, has air-borne infectious disease or unable to sit. Eligible candidates joined the dyspnoea management class included sharing, dyspnoea coping skills, practice breathing exercise, body positioning and relaxation exercise. Dyspnoea was measured by shortness of breath 100-mm visual analogue scale (SOBVAS). Respiratory rate (RR) was measured by counting the chest respiratory movement in one-minute while heart rate (HR) was measured by blood pressure monitor. Measurements were made before and after the class. A user feedback evaluation questionnaire was also conducted. Paired-samples t test was used to analyze the result.

#### **Result**

Fifty patients (2 females and 48 males) with mean age of 72.5±8.9 years completed

the program. SOBVAS improved from  $35.8 \pm 17.0$  mm to  $11.9 \pm 9.8$  mm (-66.8%,  $p=0.000$ ) which exceeded the recommended minimal clinical important difference and RR reduced from  $24.0 \pm 5.2$  to  $16.0 \pm 5.4$  (-33.3%,  $p=0.000$ ). HR also reduced from  $96.4 \pm 12.1$  bpm to  $87.9 \pm 13.1$  bpm (-8.8%,  $p=0.000$ ). The overall satisfaction was  $9.3 \pm 0.7$  out of 10 in the evaluation questionnaire. For the COPD patients, dyspnoea management should be one of the most essential interventions. In this study, it was found that dyspnoea management in group setting could improve dyspnoea and reduce both respiratory rate and pulse rate. Exercise and sharing among a group with same condition can provide positive influences, better psychosocial support and enhance motivation from peers to increase compliance in breathing and relaxation exercises. With the success of this study, clinical service can be enhanced. Further investigation is suggested to evaluate the sustained effect of dyspnoea management class in patients with COPD.