

## البحث السادس

# **The Effects of Positioning and Pursed-Lip Breathing Exercise on Dyspnea and Anxiety Status in Patients with Chronic Obstructive Pulmonary Disease**

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### **Introduction:**

Chronic obstructive pulmonary disease (COPD) is a preventable and treatable disease. It is characterized by irreversible airflow obstruction. The obstruction is generally progressive and associated with chronic inflammatory response in the airways and the lung to noxious particles or gases.

Nurses have an important role in enhancing the care of patients through education and training approaches, which will help them to improve the practices and knowledge about disease and management. Therapeutic Patient Education (TPE) permits people with chronic diseases to acquired knowledge and skill related to management of disease, behavior change, energy conservation, psychosocial interventions and skills regarding COPD management leading to decrease of dyspnea and better patient outcomes.

### **Aim of the study:**

The aim of this study was to evaluate the effects of positioning and pursed lip breathing exercise on dyspnea and anxiety status in patients with chronic obstructive pulmonary disease.

### **Study design and setting:**

The study was conducted in the outpatient in Mansoura University Hospital (MUH) & Chest Hospital at Mansoura Region. A randomized controlled design was executed with a study and control groups.

### **Study subjects:**

A convenience sample of sixty patients with COPD were adult (eighteen years or older patient), mild and moderate COPD, patients free from any chronic diseases. Sample were assigned to two groups, study group (n = 30) and control group (n = 30).

### **Tools of data collection:**

**The Structured Questionnaire consists of three sections:**

**Section 1: Socio demographic data characteristics** utilized to collected personal data.

**Section 2: Dyspnea assessment scale:** using the Modified Borg Scale (MBS). It was developed by Borg, estimated of disability due to dyspnea during daily activities.

**Section 3: Anxiety assessment scale:** using the Zung Self-Rating Anxiety Scale (SAS) adopted by Zung given. It designed to measure anxiety levels based on four subscales that tap manifestations of anxiety status

**Section 4: The physical assessment sheet:** This sheet was prepared to estimate patient physical assessment based on literature review about chronic obstructive pulmonary disease.

### **The main results obtained were as follows:**

- There were statistical significant improvements of temperature, respiration and blood pressure (systolic, diastolic from initials to follow up condition ( $p < 0.001$ )).
- There were no statistically significant improved ( $p > 0.05$ ) at body weight (BW) and pulse through study phases.
- The study results revealed that anxiety improvement from pretest to follow up test in study group when compared by control group ( $p < 0.05$ ).
- There were improvement of mean scores of dyspnea from pre to post test and follow up in the study group.
- There were statistical significant correlation between anxiety and dyspnea ( $p = 0.001$ ). This attributed that improvement in anxiety leads to improvement in dyspnea.

### **Limitation of study:**

The study conducted at the one geographical area led to inability to generalize the finding of the study.

### **Conclusion and recommendation:**

This study concluded that the program of pursed lip breathing exercise and dyspnea positioning techniques display significant improvement in



physiological outcome, improve symptoms of breathlessness and strengthening respiratory muscle.

The results was recommended to established this program as a routine care in clinical setting when provide management for COPD.

توقيع مقدم البحث

مقدم البحث

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