

A STUDY TO ASSESS KNOWLEDGE REGARDING DEEP BREATHING EXERCISE AMONG THE CHRONIC OBSTRUCTIVE PULMONARY DISEASE PATIENTS

Mr. Silambarasan R* | Dr. Dipika R Rao**

*Research Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India.

**Research Supervisor, Himalayan University, Itanagar, Arunachal Pradesh, India.

DOI: <http://doi.org/10.47211/idcij.2021.v08i04.013>

ABSTRACT:

Chronic obstructive pulmonary disease (COPD) is an inflammatory disease of airways which is irreversible airway disease characterized by emphysema and chronic bronchitis which results to increase airflow resistance leading to breathlessness, cough and sputum. Deep breathing exercise minimizes dyspnoea, improve oxygenation and maintain normal respiratory rate. A study was undertaken to assess the knowledge regarding Deep breathing exercise among the Chronic Obstructive Pulmonary Disease patients **Objectives:** To assess the knowledge of deep breathing exercise among COPD patient, to determine the association of level of knowledge scores regarding deep breathing exercise with their selected demographic variable. **Method:** A total of 100 patients were enrolled using convenient sampling in this cross sectional study. Structured questionnaire was used to collect data from the subjects **Result:** The study findings shows that majority 66% had inadequate knowledge, followed by 23% had moderate knowledge and 11% had adequate knowledge regarding deep breathing exercise among the COPD patients. In the present study there is a significant association between demographic characteristics namely; History of exposure to smoke, Duration of exposure to pollutants, Duration of Illness ($p < 0.05$) and remaining characteristics are not significant ($p > 0.05$) **Conclusion:** This study showed the Chronic Obstructive patients have inadequate knowledge regarding deep breathing exercise.

KEYWORDS: Knowledge, Deep breathing exercise, Chronic Obstructive Pulmonary Disease patients.

ABOUT AUTHORS:



Author, Mr. Silambarasan R is Research Scholar in Himalayan University, Itanagar, Arunachal Pradesh, India. He has attended various Seminars and conferences.



Author, Dr. Dipika R Rao is Research Supervisor at Himalayan University, Itanagar, Arunachal Pradesh, India.

INTRODUCTION:

The World Health Organization (WHO) presumes COPD to become the 3rd most leading cause of death and the 5th leading cause of loss of 'Disability Adjusted Life Years' (DALYs) as per projection of the Global Burden of Disease Study (GBDS). Chronic Obstructive Pulmonary Disease (COPD) is a progressive inflammatory disease characterized by chronic obstruction in the peripheral bronchus and pulmonary emphysema.

The disease is disabling with symptoms such as chronic cough, phlegm, wheezing, shortness of breath and increased infections of the respiratory passage. Changes in the lungs result in mucus hyper secretion, dysfunction of the cilia, airflow limitation and hyperinflation of the lungs, gas exchange.

Breathing exercises help entire lung and keep chest muscles active. They allow to get more oxygen with each breath and to breathe with less effort. Breathing exercises also can reduce symptoms caused by anxiety and stress. Patients knowledge enables him/her to acquire better self-management skills, reduces exacerbations and prevent hospitalizations and improves health related quality of life.

STATEMENT OF THE PROBLEM:

"Knowledge regarding Deep Breathing Exercise among the Chronic Obstructive Pulmonary Disease patients"

OBJECTIVES:

1. To assess the knowledge of deep breathing exercise among the COPD patients
2. To determine the association of level of knowledge scores regarding deep breathing exercise with their selected demographic variables

MATERIAL AND METHODS:**Research design and approach:**

Non-experimental, Descriptive survey approach

Setting of the study:

The study was conducted at Career Hospital, Lucknow.

Population:

Chronic Obstructive Pulmonary Disease patients admitted at Career Hospital

Sampling technique:

Non-probability purposive sampling technique was used.

Sample size:

100 Chronic Obstructive Pulmonary Disease patients

Description of tool**Tools and technique:****Section A:**

Socio Demographic variables of COPD patients and Clinical Characteristics of COPD patients.

Section B:

Structured knowledge questionnaire on Deep breathing exercise

Data Collection procedure:

Formal permission was obtained from concerned authorities of Career Hospital, Lucknow. The study proposal was reviewed and approved by the Research Ethical Committee. Subjects was selected according to the selection criteria and assured the confidentiality of the sample. Informed Written Consent was obtained after explaining the purpose of the study and assured the confidentiality of information by the investigator.

Data analysis:

Descriptive statistics like mean, SD, mean percentage was used for description of demographic characteristics of chronic obstructive pulmonary disease patient. Inferential statistics like chi-square test was used to find out the association of level of knowledge scores regarding deep breathing exercise with their selected demographic variables among the COPD patients.

RESULTS AND DISCUSSION:**Demographic variables**

Majority 87% of the subjects were in age group of above 65 years, highest 76% subjects were males, maximum 91% subjects were Hindus, majority 83% of the subjects were illiterate, highest 97% of the subjects belonged to rural area, majority of the subjects were coolie 72% and maximum 68% of the subjects had income below 8000/-per month. Maximum 92% of the subjects were passive smokers, followed by majority 61% of the subjects smoke above one packet per day, majority 82% of the subjects had exposure to allergens above 5 years and most of the subjects 83% had duration of illness below above 5 year.

Assessment of knowledge regarding Deep breathing exercise among COPD patients

Maximum 66% had inadequate knowledge, 23% had moderate knowledge and 11% had adequate knowledge regarding Deep breathing exercise among the COPD patients.

SECTION: C**Association of level of knowledge scores regarding deep breathing exercise with selected demographic variables of COPD patients:**

In the present study there is a significant association between demographic characteristics such as history of exposure to smoke, duration of exposure to pollutants, duration of illness ($p < 0.05$) and remaining characteristics are not significant ($p > 0.05$)

DISCUSSION:

The study findings showed inadequate knowledge regarding deep breathing exercise among the COPD patients.

CONCLUSION:

The findings of the study concludes that majority of the COPD patients had inadequate knowledge regarding deep breathing exercise. The present study indicates the need of education intervention through by the nurses to enhance the knowledge of deep breathing exercise for the management of COPD.

REFERENCES:

1. The Global Burden of Disease, 2008. www.who.int/healthinfo/global_burden_disease/inhtml
2. Holland AE, Hill CJ, Jone AJ. Et al. Breathing exercises for Chronic Obstructive Pulmonary Disease. Cochrane database of Systemic Reviews. 2012(10)
3. European COPD Coalition. Prevalence in EU 2014. Available: <http://www.copdcoalition.eu/about-copd/prevalence>. Accessed: 25 Nov 2015
4. Puhan MA, Gimeno-Santos E, Cates CJ, Troosters T. Cochrane Database Syst Rev. 2016 Dec 8; 12:CD005305. Epub 2016 Dec 8.
5. Suja Shamili. Effectiveness of structured teaching program on breathing and coaching exercise among post operative clients in Bollineni super specialty hospital, Nellore. Narayana Nursing Journal. 2016, 5(1).