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Research article

Effectiveness of VATP in terms of knowledge and attitude regarding assistive respiratory home care management

Hariprasath Pandurangan[1], Geeta Parwanda[1], Rajni Emanel[2]

[1] Subharti Nursing College, Subharti University, Meerut, India.
[2] Nurse Educator, Medicity Hospital, Delhi, India

Abstract

Introduction: Chronic Obstructive Pulmonary Disease (COPD) is not a single disease but an umbrella term used to describe chronic lung diseases that cause limitations in lung airflow. The more familiar terms 'chronic bronchitis' and 'emphysema' are no longer used but are now included within the COPD diagnosis. COPD is the fourth leading cause of the death worldwide, and it will become the 3rd leading cause of the disease by 2020. As per the estimation is done by the WHO around 2.74 million deaths occur due to COPD, which is 5% of the total death worldwide.
Aim: The present aims at evaluation of the effectiveness of Video-assisted teaching programme in terms of knowledge & attitude regarding assistive respiratory home care management among patients with COPD.
Materials and methods: This study was a pre-experimental study conducted among patients with COPD. A total of 30 samples were selected by using non-probability purposive sampling technique. The data were collected by using structured knowledge interview schedule and modified standardized self-efficacy attitude scale.
Results: The mean post-test score of knowledge (21.96), attitude (60.10) is higher than mean pretest score of knowledge (17.23), attitude (47.51) among patients with COPD. The Video-assisted teaching was found to be effective in increasing the knowledge and developing a favorable attitude of the COPD Patients.
Conclusion: The result of the study reveals that knowledge deficit and less favorable attitude existed regarding assistive respiratory home care management. The VATP was found to be effective in increasing the knowledge and developing a favourable attitude of the COPD Patients.

Key Words: Knowledge, Attitude, COPD, Video-assisted teaching Programme (VATP), Assistive Respiratory Home Care Management.

***Corresponding author: Mr. Hariprasath Pandurangan,** Lecturer Subharti Nursing College, Subharti University, Meerut, email id: hariprasath173333@gmail.com

1. Introduction

Chronic obstructive pulmonary disease (COPD) is a major public health problem in India. Although several International guidelines for diagnosis and management of COPD are available, yet there are a lot of gaps in recognition and management of COPD in India due to vast differences in availability and affordability of healthcare facilities across the country. The Indian Chest Society (ICS) and the National College of Chest Physicians (NCCP) of India have joined hands to come out with these evidence-based guidelines to help the physicians at all levels of healthcare to diagnose and manage COPD in a scientific manner. [1]

COPD is the fourth leading cause of the death worldwide, and it will become the 3rd leading cause of the disease by 2020.As per the estimation is done by the WHO around 2.74 million deaths occur due to COPD, which is 5% of the total death worldwide. Out of this death rate around 90% of the death occurs due to smoking. This shows that smokers are at the high risk of developing COPD in their lifespan. The main reason for this much higher mortality is lack of awareness of the disease worldwide. COPD is the disease, which develops gradually, and generally, it is very silent in the initial stages of the disease, so when the people come to know about the severity and risk of the disease them lose their 50% of the lung functions. [2-4]

The Indian Council of Medical Research (ICMR) took the initiative to study the epidemiology of chronic respiratory diseases and sponsored the Indian study on Epidemiology of Asthma, Respiratory symptoms and chronic bronchitis (INSEARCH) which included 4-centers in Phase I and 12 other centers in the Phase II study. The results of the Phase I study from Chandigarh, Delhi, Kanpur, and Bangalore reported the overall prevalence rates of 5.0 and 3.2 percent respectively in men and women of, and over 35 years of age. The total burden of COPD has more than doubled to about 14.84 million in 2011 from about 6.45 million in 1971. This is generally attributable to the overall increase in the population of India. [5]

The role of the nurse in caring for patients with COPD is, to a large extent, dependent on her area of work. Many nurses will have few contacts with these patients, while those in primary care and in respiratory wards will have frequent contacts. Although medical interventions are limited, nurses have a huge role in promoting healthy behavior in patients with COPD. For example, they provide advice and support to patients and their families and, at the same time, educate and encourage patients to manage their disease proactively. Because the change in lung function in response to interventions is minimal, nurses should be assessing response in terms of improvements in patients' ability to manage their daily life. [6-10]

It has been observed by the Researcher, the COPD patients are suffering more due to the lack of knowledge regarding the management of COPD in the aspect of reducing the symptoms and recurrence at home. So, it is an important responsibility of the healthcare team members, especially the nurses to play a major role to create the awareness regarding assistive respiratory home care management, among patients with COPD, for improving their quality of life. Therefore, the researcher has planned to conduct a study regarding home care management of COPD.

Objectives

1. To assess and evaluate knowledge & attitude regarding assistive respiratory home care management among COPD patients before and after the administration of video-assisted teaching programme.
2. To determine the relationship between post-test knowledge & attitude score regarding assistive respiratory home care management among COPD patients.

2. Research methodology

This study was a pre-experimental study conducted among patients with COPD. A total of 30 samples were selected by using non-probability purposive sampling technique. The data were collected by using structured knowledge interview schedule and modified standardized self-efficacy attitude scale.

Before conducting the study, the researcher introduces himself and explained the purpose of the study. A Pre-test was conducted by using structured interview questionnaire to assess the knowledge regarding assistive respiratory home care management of patient with COPD, modified COPD self-efficacy scale was used to assess the attitude regarding assistive respiratory home care management and video-assisted teaching was administrated regarding assistive respiratory home care management for patients with COPD for 40 minutes by using projector. A period of 10 -15 minutes was given to clarify doubts. Post-test was conducted after 5 days by using the same questionnaire on assistive respiratory home care management.

Description of tools

The tool the consisted of three sections

1. Section I: Demographic data:
2. Section II: Structured knowledge questionnaire
3. Section III: Attitude scale

Section I: Demographic data

It deals with demographic data of patients, which consist of baseline Performa like age, gender, Education, occupation, marital status, types of family, monthly income, personal history, and source of information, dietary pattern, family history and duration of illness.

Section II: Structured questionnaire knowledge on assistive respiratory home care management

The Structured knowledge questionnaire includes the general aspect of COPD, Oxygen therapy, comfortable position, nebulization, inhalation therapy, chest physiotherapy, breathing exercise, controlled coughing exercise Spirometry, Bi-PAP and diet. There were a total 30 of questions. The questionnaire was of multiple-choice formats. Each question had a choice of with one correct response and three wrong responses. A score of 1 for the correct answer, a score of 0 for wrong response was given.

Section III: Attitude scale

Modified COPD self-efficacy scale was used in this study to assess the attitude regarding home care management of COPD. There were 15 components in the scale. Each component had a choice of strongly agree, agree, neutral, disagree, strongly disagree were given.

3. Results

Table No 1: Frequency and Percentage Distribution of Demographic Characteristics of the sample.

n =30

S. N	Sample characteristics	Frequency	%
1.	Age in years		
	45-49	1	3.3
	50-54	7	23.3
	55-60	22	73.4

S. N	Sample characteristics	Frequency	%
	Gender		
	Female	5	16.6
2.	Male	25	83.4
	Education		
	No formal education	17	56.6
3.	Primary	9	30
	Secondary	1	3.3
	Higher education	3	10
	Occupation		
	Unemployed	11	36
	Business	2	6.6
4.	Govt. Employee	1	3.3
	Private employee	3	10
	Others (retired, pensioner, coolie)	13	43.3
	Marital status:		
5.	Married	8	93.44
	Unmarried	2	6.66
	Types of family		
6.	Nuclear family	4	13.4
	Joint family	6	86.6
	Income monthly		
7.	Rs 2,000-5,000/-	6	20
	Rs 5001-8,000/-	13	43.3
	Rs 8,001 above	11	36.6
	Personal history		
	Alcohol	1	3.33
8.	Smoker	14	46.66
	Nonalcoholic/ nonsmoker	15	50
	Source of information about COPD		
	By t v / radio	1	3.4
9.	By health personnel	26	86.6
	By family members or friends	3	10
	Dietary pattern		
	Vegetarian	8	26.6
10.	Non- vegetarian	16	53.4
	Eggetarian	6	20
	Family history of COPD		
11.	Yes	3	10
	No	27	90
	Duration of illness		
	Less than 2years	10	33.3
12.	2-3 years	6	20
	3-4 years	8	26.6
	4-5 years	6	20

The sample distribution shows 73.4% were in the age group between of 50-60 years, 83.4% were male, 56.7% were had no formal education, 43.4% were others (retired pensioner coolie), 93.4% were married, 86.6% were living in joint family, 43.3% of them were having monthly income 5001-8000 , 50% was not a smoker or alcoholic, 86.6% was obtained information from the health personnel, 53.4% were not vegetarian, 90% didn't have family history of COPD, 33.3% were having duration of illness less than 2 years.

Table No 2: effectiveness of VATP on knowledge regarding assistive respiratory home care management among patients with COPD

n= 30

Know-ledge test	Mean	Standard deviation	Mean Difference	SD_D	SE_D	Paired 't' value
Pre test	17.23	3.15	4.73	1.98	0.36	13.35
Post-test	21.96	2.25				

The paired 't' test value was 13.35 was greater than the table value 1.699 which was statistically significant at $P < 0.05$. It can be inferred that the VATP regarding Assistive respiratory home care management among patients with COPD was effective in improving the knowledge, which was statistically significant at $P < 0.05$.

Table No 3: Effectiveness of VATP on attitude regarding assistive respiratory home care management among patients with COPD

n=30

Know-ledge test	Mean	Standard deviate-on	Mean Diffe-rence	SD_M	SE_{MD}	Paired 't' value
Pretest	47.51	3.766	12.59	3.1	0.57	21.39
Post-test	60.10	3.703				

The paired 't' test value was (21.39) was greater than the table value 1.699 which was statistically significant at $P < 0.05$. It can be inferred that the VATP on attitude regarding Assistive respiratory home care management among patients with COPD was effective in developing a favourable attitude, which was statistically significant at $P < 0.05$.

Table No 4: Correlation between post-test level of knowledge and attitude.

n=30

Scores	Mean	SD	'r' value	'P' value
Post knowledge	47.57	2.25	0.42	0.05
Post Attitude	60.10	3.703		

There was a significant relationship between post-test knowledge and post test attitude with 'r' value of 0.42, which was statically signification at $P < 0.05$. It also implies that knowledge and attitude were directly proportional to each other i.e. with the enhancement of knowledge, attitude becomes favorable.

4. Discussion

These study aims assess the effectiveness of video assisted teaching on knowledge and attitude regarding Assistive

respiratory home care management among patients with COPD. This present study video assisted teaching effectively in improving knowledge and attitude regarding homecare management among patients with COPD. This was supported by a study conducted on Self-management for patients with the chronic obstructive pulmonary disease. Self-management interventions help patients with chronic obstructive pulmonary disease (COPD) acquire and practice the skills they need to carry out disease-specific medical regimens, guide changes in health behavior and provide emotional support to enable patients to control their disease. A statistically relevant effect of self-management on HRQOL was found (St George's Respiratory Questionnaire (SGRQ) total score, mean difference (MD) -3.51, 95% confidence interval (CI) -5.37 to -1.65, 10 studies, 1413 participants, moderate-quality evidence). [11]

The present study shows that there was a strong correlation between knowledge and attitude. This was supported by a study conducted to assess knowledge, attitude, correct metered dose inhaler (MDI) use and compliance with self-management among patients with the chronic obstructive pulmonary disease. Data were measured using self-administered questionnaires and observational checklist. The results show that there were significant relationships between knowledge and attitude ($r=.33$, $p<.001$), between knowledge and correct MDI use ($r=.37$, $p<.001$), and between knowledge and self-management compliance ($r=.28$, $p=.003$). There was a significant relationship between attitude and self-management compliance ($r=.33$. $p<.001$). [12]

Conclusion

The result of the study reveals that knowledge deficit and less favorable attitude existed regarding assistive respiratory home care management. The VATP was found to be effective in increasing the knowledge and developing favorable attitude of the COPD Patients.

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