



EFFECT OF STRUCTURED TEACHING PROGRAMME ON PULMONARY REHABILITATION AMONG CLIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Nursing

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ABSTRACT

According to world health organization (WHO, 2005), 210 million people had COPD and 3 million people died of COPD. This study adopted a quantitative approach using two group pre test post test design. Sample consists of 60 clients with COPD who satisfied the criteria for sample selection. Out of 60, 30 were allotted in the experimental group and 30 were allotted in control group. The data were collected within a period of four weeks. Sixty clients admitted with the diagnosis of Chronic Obstructive Pulmonary Disease in male and female medical wards were selected for the study and oral consent was obtained from them. Assessment of knowledge was done for both the groups before structured teaching programme. Structured teaching programme on pulmonary rehabilitation was provided to the clients in the experimental group with the help of flashcards for 30 minutes and at the end of the teaching session a booklet on pulmonary rehabilitation was given. Results revealed that pre-test mean value of experimental group is 7.233 and the post test mean value was 17.76. The calculated T value is 31.68. The same of the control group without structured teaching programme 't' value is 0.69. This result indicates the effectiveness of structured teaching programme on pulmonary rehabilitation. There was no statistically significant association between level of knowledge and selected socio demographic variables.

KEYWORDS

Structured Teaching program, COPD, Rehabilitation, Pulmonary disease.

INTRODUCTION

Chronic Obstructive Pulmonary Disease (COPD) is a major cause of lung related death and disability (ACCP, 1997). The American Thoracic society (2006) defines COPD as "Preventable and treatable disease" state characterized by air flow limitation that is not fully reversible.

According to world health organization (WHO, 2005), 210 million people had COPD and 3 million people died of COPD. The WHO predicts that COPD will become the third leading cause of death world wide by 2030, and that COPD related will go from the ninth to the fifth place in terms of disability adjusted life years in 2020. Clients with COPD often decrease their physical activity and this is one of the main causes of hospitalization and death. Pulmonary rehabilitation has been shown to be effective in improving exercise capacity, physical function, and quality of life and in reducing dyspnoea and fatigue in people with COPD (Diane U. Jetta 2006).

Pulmonary rehabilitation is a multidisciplinary programme of care for patients with chronic respiratory impairment that is individually tailored and designed to optimize physical and social performance and autonomy (Morgan 2001). In the management of chronic lung disease, and particularly chronic obstructive pulmonary disease, it has been shown to be one of the most effective interventions (Berry 1999). It increases exercise tolerance, improves walking performance, raises the quality of life, reduces symptoms and brings patients in to a community of support and shared experience. This benefit is seen equally in those suffering with mild, moderate (Berry 1999).

To demonstrate links between outcomes and patient education program components, there is a need for more trials which combine process and outcome evaluation. Programs to date have relied too heavily on the provision of medical information to patients. Program which also aims to improve disease management self-efficacy hold promise but further determinants of health behaviour should be included also, as part of more systemic programme design. Programme components need to be clearly described and the rationale for their justified in trial reports. This will produce an evidence base that should show what role education programs can play in improving outcomes, and inform the development of more effective programs (Lona Hilling 2008).

Now the burden of COPD is high. On a patient level, the burden of COPD to patients and their families and covers is high, both in terms of health related quality of life and health status. Reducing the burden of COPD requires better education program evaluation and diagnosis as well as improved management of chronic symptoms. (David M.G. Halpin and Marc. Miravittles). Education program on pulmonary rehabilitation appears to be a highly effective and safe intervention in clients with COPD (Troosters. T 2009). This becomes an inspiration for the researcher to start this study to find out the effectiveness of structured teaching programme regarding pulmonary rehabilitation among clients with COPD.

MATERIALS AND METHODS

The present study was conducted at Sree Mookambika Medica 1 College Hospital Kulasekharam in, Kanyakumari District, Tamil Nadu. It is a 500 bedded Multi speciality hospital. Study adopted a quantitative approach using two group pre test post test design. Sample consists of 60 clients with COPD who satisfied the criteria for sample selection. Out of 60, 30 were allotted in the experimental group and 30 were allotted in control group. The data were collected within a period of four weeks. Sixty clients admitted with the diagnosis of Chronic Obstructive Pulmonary Disease in male and female medical wards were selected for the study and oral consent was obtained from them. Assessment of knowledge was done for both the groups before structured teaching programme. Structured teaching programme on pulmonary rehabilitation was provided to the clients in the experimental group with the help of flashcards for 30 minutes and at the end of the teaching session a booklet on pulmonary rehabilitation was given. The control group clients not received the teaching and on the seventh day post test was conducted among both the groups with the same pre-test questionnaire tool. The study was conducted after getting approval from the dissertation committee of Sree Mookambika College of Nursing, written permission for conducting the study is obtained from the hospital authorities. Oral consent was obtained from each participant before study.

RESULTS

• Socio demographic data of study subjects

Study reveals that distribution in frequency and percentage of a study subjects according to their demographic variables. Regarding age in the experimental group, 6.66% are belongs to 35- 45 years, 20% belongs to 45-55 years, and 73.33% are belongs to 55-65 years. In the control group, 6.66% are belongs to 35-45 years, 23.33% are belongs to 45-55 years, 70% are belongs to 55-65 years. In respect of sex, in the experimental group 20% are males and 80% are females. In the control group 40% are males and the remaining 60% are females. Regarding occupation, in the experimental group 33.33% are employees, 66.66% are unemployed. In the control group 23.33% are employees and 76.66% are unemployed. Thus in respect of the demographic variables both the groups were similar thus they were comparable.

• Effect of structured teaching programme on knowledge regarding pulmonary rehabilitation.

Group	Pre test		Post test		Difference		't' value
	Mean	SD	Mean	SD	Mean	SD	
Exp	7.233	1.648	17.76	5.05	10.527	3.402	*31.68
Control	6.333	1.355	7.466	13.338	0.833	0.017	0.69

Table 1 explains the effectiveness of structured teaching programme on pulmonary rehabilitation. The pre-test mean value of experimental group is 7.233 and the post test mean value is 17.76. The calculated T value is 31.68. The same of the control group without structured teaching programme 't' value is 0.69. This result indicates the effectiveness of structured teaching programme on pulmonary rehabilitation.

• **Association between selected demographic variables and level of knowledge.**

There was no statistically significant association between level of knowledge and selected socio demographic variables.

DISCUSSION

The mean increase in knowledge of both the groups were compared and found that the mean improvement in the knowledge of experimental group was significantly greater than that of control group $10.527 \pm 3.402 > 0.833 \pm 0.017$ with the difference of 9.694 ($t=31.68$, $df=29$ $P<0.05$). The result showed that there was significant improvement in the knowledge level of patients in experimental group, who received the structured teaching programme and the mean score was very high in experiment group than in control group. Thus the structured teaching programme on pulmonary rehabilitation found to be very effective in improving knowledge level.

Physical inactivity is common in patients with chronic obstructive pulmonary disease (COPD) compared with age-matched healthy individuals or patients with other chronic diseases. Physical inactivity independently predicts poor outcomes across several aspects of this disease, but it is (at least in principle) treatable in patients with COPD. Pulmonary rehabilitation has arguably the greatest positive effect of any current therapy on exercise capacity in COPD; as such, gains in this area should facilitate increases in physical activity. Furthermore, because pulmonary rehabilitation also emphasizes behavior change through collaborative self-management, it may aid in the translation of increased exercise capacity to greater participation in activities involving physical activity.

There was no significant association observed between the knowledge and selected demographic variables. This study finding is congruent with the study conducted by Milne S et.al (2006) Australia. There was no significant association between the selected demographic variables and level of knowledge on pulmonary rehabilitation measures in pre test as well in post test.

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