ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2017; 3(4): 430-433
www.allresearchjournal.com
Received: 02-02-2017
Accepted: 03-03-2017

Chithra RA
Research Scholar, Department of Nursing, JJT University, Jhunjhunu, Rajasthan, India

Janula Raju
Department of Nursing, College of applied Medical science, Mohayil, King Khalid University, KSA

Correspondence
Chithra RA
Research Scholar, Department of Nursing, JJT University, Jhunjhunu, Rajasthan, India

Effectiveness of structured teaching programme on knowledge regarding respiratory therapy among the patients with respiratory disorders

Chithra RA and Janula Raju

Abstract
Background of the study: Acute respiratory infections are the leading cause of morbidity and mortality in India. According to the ministry of health and family welfare, India has seventeen million persons living with respiratory disorders, estimated to rise to twenty two million by 2017.
Objective: To determine the existing knowledge and to evaluate the effectiveness of structured teaching programme regarding respiratory therapy among patients with respiratory disorders.
Materials and methods: A pre test and post test was adopted in the present study to accomplish the objectives. Convenient sampling technique was used to select samples. The sample consists of 40 patients with Respiratory disorders. The pre test assessment of knowledge of the patients was carried out using the self administered questionnaire followed by STP session regarding respiratory therapy. The tool consists of two sections. Section A consists of demographic data, Section B comprised of thirty items to assess the knowledge. The data obtained was analyzed and interpreted in terms of the objectives.
Results: The findings of the study revealed that there was a marked increase in the overall knowledge score of post-test than pre-test score which represents the effectiveness of structured teaching programme. The calculated t test value was found to be 17.24 which are highly significant at 0.01. Thus the structured teaching programme was effective in improving the knowledge of patients with respiratory disorders regarding respiratory therapy.
Conclusion: On the basis of findings the investigator concluded that the STP has improved the knowledge of the patients with respiratory disorders.

Keywords: Effectiveness, structured teaching programme, Knowledge, patients with respiratory disorder, respiratory therapy

1. Introduction

***''Prevention is better than cure''* -Indian Proverb**

The human respiratory system not only provides oxygen to each cell of the body but also removes body wastes, filters out infectious agents, and provides air needed for speech. Although the lungs are able to withstand abuse in the form of smoke and other pollutants, a number of disorders impair its function [1]. Some of these maladies are temporary and relatively harmless while others may be life-threatening. Any chronic breathing problem or other cough should be checked [2]. Respiration in simple terms is the act of breathing, a vital function of the body which helps to supply oxygenated blood to the various organs, and aids in elimination of carbon dioxide from the body [3].

The respiratory tract infections are mainly divided in to upper respiratory tract infection and lower respiratory tract infection. The common causes of respiratory diseases include exposure to allergens, airway irritants, weather changes, air pollution, exposure to chemicals, certain medications, active and passive smoking, droplet infection and overcrowding [4]. Respiratory integrity is the foundation for maintenance of health and well being. The ability to accurately evaluate respiratory disorders will depend upon the knowledge of respiratory physiology [5]. The knowledge of normal physiology will help to identify the alterations that may threaten the life of patients and determine the interventions required [6].

Respiratory therapy refers to the medical treatment of a diseased lung. It encompasses all non-surgical efforts directed at maintaining, improving or restoring lung function [7].

The newer trends in therapeutic respiratory therapy interventions can be grouped into four major categories: Oxygen therapy, aerosol therapy, physical therapy, mechanical aids to lung inflation to treat respiratory infections [8].

The percentage distribution of five yearly moving averages for tuberculosis, asthma and bronchitis and pneumonia together reveals that in last three decades, these diseases have slightly reduced from 24.7 to only 19.2 in late nineties [9]. Estimates indicate that India accounts for twenty five million asthma and fifteen million Chronic Obstructive Pulmonary Disease patients which means that India accounts for eight-nine percent of total global asthma and Chronic Obstructive Pulmonary Disease burden [10].

Most of the studies show that respiratory therapy has a great role in respiratory problems. So patients and their family must have adequate knowledge regarding respiratory therapy. But in present status of India, there is no effective studies conducted regarding respiratory therapy. That motivated the researcher to do the study in this area.

2. Materials and methods

The study was conducted in Government hospital situated in Nelamangala, it is two hundred and fifty bedded hospital. The population of this study includes all the patients with respiratory disorders who are admitted in Government hospital. The sample size for the study was sixty patients with respiratory disorders, who were available at the time of data collection. Non-probability convenience sampling technique, was used to select the samples.

The investigator selected the samples from Government hospital. A data collection instrument is a formal document like questionnaire is used to collect and record information. The tool for data collection was self administered structured questionnaire which is used to assess the knowledge of patients with respiratory disorders on respiratory therapy, based on extensive review of literature and expert opinion. The investigator has given one mark for every correct response and zero mark for wrong answer. The maximum score was thirty and minimum score was zero.

The data obtained was analyzed on the basis of the objectives of the study using descriptive and inferential statistics. Frequency and percentage distribution of demographic variables were done. Mean and standard deviation were used to determine pre-test and post test knowledge. Distribution of scores on level of knowledge on patients with respiratory disorders regarding respiratory therapy is to be interpreted by summarizing into three categories such as inadequate, moderate and adequate. Paired‘t’ test was used to determine the effectiveness of structured teaching programme on respiratory therapy among patients with respiratory disorders. Chi-square test was used to determine the relationship between level of post test knowledge and corresponding demographic data.

3. Ethical consideration

Prior information was obtained from the higher authorities. Informed consent was obtained from the study samples. The subjects were informed that the confidentiality of the data will be maintained. The subjects were also informed that their participation was purely on voluntary basis and they can withdraw from the study at any time.

4. Result

The percentage distributions of the selected demographic variables are represented in graphical forms below:

In the present study, age wise distribution showed that maximum number 20 (33.33%) belongs to 36-45 years, minimum number 12 (20%) was 25-36 years of age, In relation to the gender most of them are males 39(65%) remaining 21(36%) are females. In relation to educational status majority 26(43.33%) subjects were studied up to primary, 14(23.33%) were studied secondary, 12(20%) were studied up to degree and 8(13.33%) were up to higher secondary.

In relation to the occupation majority of them 18(30%) are coolie workers, 16(26.67%) of them are unemployed, 10(16.67%) are daily wagers, nine (15%) are working aa private employees, seven (11.67%) are working as a government employees. In relation to family income majority 23(38.67%) were comes with the income of 5501, 21(35%%) comes under the income of 4501-5500, nine(15%) were comes under the income of below 2500-3500 and seven (11.7%) were comes under the income of 3501-4500.

In relation to type of respiratory disorders 22(36.67%) are having asthma, 17(28.33%) are having Chronic obstructive pulmonary disease, 12(20%) are having lower respiratory tract infection, nine (15%) are having upper respiratory tract infection. With regard to the source of information 37(61.67%) were getting information from health professional, 12(20%) were getting information from mass media, seven (11.67%) were getting information from magazine and four (6.67%) are getting information from relatives and friends.

4.1 Level of knowledge - Pre and post-test Knowledge among patients with Respiratory disorder.

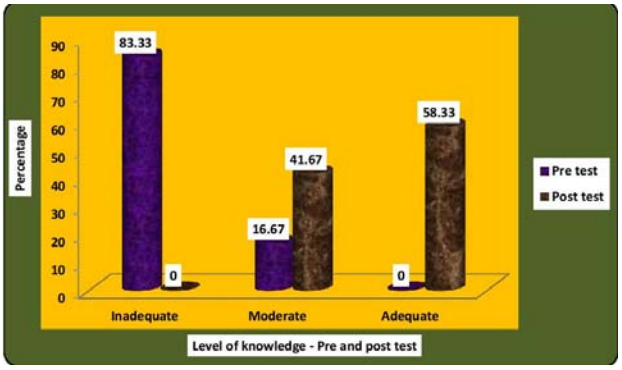

Fig 1

The above table shows that in the pre-test out of 60 subjects majority of them 50(83.33%) had inadequate knowledge, 10(16.67%) of them had moderate knowledge and none of them had adequate knowledge. In the post test majority of them 35(58.33%) had adequate knowledge, 25(41.67%) had moderate knowledge and none of them had inadequate knowledge.

4.2 To evaluate the effectiveness on STP on respiratory therapy among patients with respiratory disorders

Table 1: The mean pre and post-test knowledge regarding respiratory therapy, n=60

Domain	Mean	SD	Mean%	Paired 't' test
Pre-test	8.3	4.74	27.67	17.24**
Post-test	22.91	3.64	76.37	
Enhancement	14.61	6.56	48.7	

**Significant at 1% level (i.e., 0.01level) df 59

Table 1 represented the mean pre and post-test knowledge regarding respiratory therapy. The paired t-test was carried out and it was found to be invariably significant at P< 0.01 level of significance, hence null hypothesis (H_0) is rejected and research hypothesis H_1 was accepted. It evidence that the structured teaching programme is significantly effective on improving the knowledge regarding respiratory therapy.

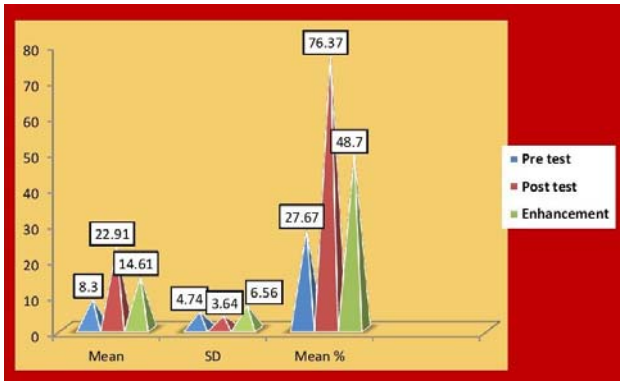

Fig 2: Mean, standard deviation and mean score percentage of pre and post-test knowledge level of patients with respiratory disorder regarding respiratory therapy.

The study results showing that the educational programme given to the patients was effective to improve their knowledge.

5. Discussion

The primary aim of the study was to evaluate the effectiveness of structured teaching programme regarding respiratory therapy among patients with respiratory disorders.

Acute respiratory tract illnesses are the most frequent illnesses of humans and are an important cause of disability [11]. The studies on upper respiratory tract infections are important in hospital and in community settings due to their incidence all over the world. Few studies have associated bacterial and viral infections, hindering the relation of the agents and their epidemiology [12].

In 2008, a randomized controlled trial of self-management programme was conducted for patients with chronic obstructive pulmonary disease. The study showed that the participants reported favorable satisfaction with the programme and also showed positive improvements in self-management of chronic obstructive pulmonary disease [13].

An exploratory study was done to assess the self-management, learning needs, experiences and perspectives of chronic obstructive pulmonary disease patients treated at a certified federal rural health clinic in India. Patients reported a lack of knowledge and skill development related to purse lipped breathing, controlled coughing, and stress management while, medical management skills were found to be adequate [14]. These studies concluded that, an educational technology aimed at improving quality of life is necessary to create awareness and improving the self-management skills.

People with chronic obstructive pulmonary disease (COPD) continue to experience Dyspnea with activities of daily living (ADL) despite optimal medical management. Information and communication technologies may facilitate collaborative symptom management and could potentially increase the reach of such interventions to those who are unable to attend face-to-face pulmonary rehabilitation or self-management programs [15].

There was also associate level of knowledge score regarding respiratory therapy with selected demographic variables. The association was done between pre-test level of knowledge and demographic variables among patients with respiratory disorder using chi square test. The demographic variable that is, occupation alone had showed significant association with the pre-test level of knowledge of patients with respiratory disorder.

A comparative study was conducted on knowledge and practice of young adults regarding prevention of respiratory infections. The planned teaching programme was used as a intervention the results showed that there is a marked improvement in the knowledge and practice. The association was found related to education and occupation [16].

The overall study indicated that the knowledge of patients with respiratory disorders on respiratory therapy was inadequate and it is necessary for the investigator to improve the knowledge of subjects by giving specific information on respiratory therapy which would enable them to improve their knowledge.

6. Limitation

- Only pre experimental design was used.
- Only patients with respiratory disorders were selected for the study.

7. Recommendation

- A similar study can be under taken by utilizing other domain like attitude and practice.
- A similar study can be undertaken on a larger scale.
- A descriptive study may be conducted to assess the benefits of respiratory therapy.
- An explorative study may be conducted to identify the awareness, knowledge and practice of health personnel regarding respiratory therapy.
- A similar study can be undertaken by using different teaching methods.

8. Conclusion

The findings of the study revealed that there was a marked increase in the overall knowledge score of post-test than pre-test score, which represents the effectiveness of structured teaching programme. Thus the structured teaching programme was effective in improving the knowledge of patients with respiratory disorders regarding respiratory therapy. On the basis of findings, the researcher

concluded that the structured teaching programme was very effective.

9. Reference

1. Maton Anthea, Hopkins Jean Susan, Johnson Charles William, McLaughlin Maryanna Quon, Warner David, LaHart Wright Jill. Human Biology and Health. Englewood Cliffs: Prentice Hall. 2010, 108-118.
2. Porth CM, Matfin G. Pathophysiology: Concepts of altered health states (8th ed.). Philadelphia: Lippincott Williams & Wilkins. 2009.
3. West JB. Respiratory physiology: The essentials. Edn 8 Philadelphia: Lippincott Williams & Wilkins. 2008.
4. Eccles MP, Grimshaw JM, Johnston M *et al*. Applying psychological theories to evidence-based clinical practice: identifying factors predictive of managing upper respiratory tract infections without antibiotics. Implement Sci. 2007; 2:26.
5. Kacmarek RM, Dimas S, Mack CW. The essentials of respiratory care. 4th Edn St. Louis: Elsevier Mosby, 2005.
6. Ross A, Crumpler J. The impact of an evidence-based practice education program on the role of oral care in the prevention of ventilator- associated pneumonia. Intensive & Critical Care Nursing, 2007; 23(3):132-136.
7. Barnes TA, Kacmarek RM, Kageler WV, Morris MJ, Durbin CG. Transitioning the respiratory therapy workforce for 2015 and beyond. Respiratory Care. 2011; 56(5):681-90.
8. Morton PG, Fontaine DK, Hudak CM *et al*. Critical care nursing: A holistic approach. 9th Edn. Philadelphia: Lippincott Williams & Wilkins. 2009
9. Ramanakumar A, Aparajita C. Respiratory Disease Burden In Rural India: A Review From Multiple Data Sources. The Internet Journal of Epidemiology. 2004; 2(2).
10. Sushma Jaiswal. Respiratory Diseases: The Insurance Perspective, X-CLAIM Insurance, http://www.x-claim.in/respiratory_diseases, Retrieved on 12/4/2017.
11. Monto AS. Occurrence of respiratory virus: time, place and person, Pediatric Infectious Disease Journal. 2004; 23(1):S58-S64.
12. Wong DM, Blumberg DA, Lowe LG. Guidelines for the use of antibiotics in acute upper respiratory tract infections. Am Fam Physician. 2006; 74(6):956-66.
13. Huong Nguyen Q, Dor Anne Donesky-Cuenco *et al*. Randomized Controlled Trial of an Internet-Based Versus Face-to-Face Dyspnea Self-Management Program for Patients With Chronic Obstructive Pulmonary Disease, Journal of Medical Internet Research, 2008; 10(2).
14. Michael Stellefson, Beth Chaney H, Don Chaney J. Using Exploratory Focus Groups to Inform the Development of Targeted COPD Self-Management Education DVDs for Rural Patients. International Journal of Telemedicine and Applications, 2010. Article ID 450418, 2010, 7-13.
15. Lorig KR, Holman H. Self-management education: history, definition, outcomes, and mechanisms. Ann Behav Med. 2003; 26(1):1-7.
16. Nadir A, Reddy D, Van Thiel DH. Knowledge and practice of young adults regarding prevention of respiratory infections. Am. J. Gastroenterol. 2010; 95(12):3634-7.