International Journal of Practical Nursing

Volume 7 Number 2, May - August 2019
DOI: http://dx.doi.org/10.21088/ijpn.2347.7083.7219.3

ORIGINAL ARTICLE

Assessment of the Quality of Life of the Patients of Chronic Obstructive Pulmonary Disease (COPD) in Selected Hospitals

Mayuri Padole[1], Mamta Mundhare[2], Neha Narad[3], Pratik Nagrale[4], Rashmi Naranje[5], Ranjana Sharma[6]

[1-5]Basic B.Sc. Nursing Final Year (Student), [6]Associate Professor, Department of Medical and Surgical Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Sawangi (Meghe) Wardha, Maharashtra 442001, India.

How to cite this article:

Mayuri Padole, Mamta Mundhare, Neha Narad *et al.* Assessment of the Quality of Life of the Patients of Chronic Obstructive Pulmonary Disease (COPD) in Selected Hospitals. Int J Practical Nurs. 2019;7(2):73–75.

Abstract

Background: Chronic Obstructive Pulmonary Disease (COPD) occurs when permanent blockages form within the pulmonary system that interfere with the transfer of vital gasses. To be diagnosed with COPD means that some portion of one's bronchi or alveoli have become permanently obstructed, reducing the volume of air that can be handled by the lungs. As this process progresses, the overall efficiency of the gas exchange process is reduced [1]. *Objectives:* 1. To assess the quality of life of the patients with Chronic Obstructive Pulmonary Disease (COPD). 2. To find out the association between quality of life of the patients of COPD with selected demographic variables. *Material and Methods:* In the present study, cross-sectional research design was used. The total size of the sample was 60 that comprised the quality of life of the patients of chronic obstructive pulmonary disease (COPD) in selected hospital of Wardha district. Purposive sampling technique was used for current study. The tool used for this study is modified SF-36 questionnaire scale. The total score varied from 0 to 100. The data were analyzed using descriptive and inferential statistics. *Results:* Patients with chronic obstructive pulmonary diseases have a slightly reduced quality of life in the following dimensions: physical functioning, emotional well-being, general health. In areas such as role function/physical, role function/emotional, energetic or fatigue, social functioning, pain, health change, patients rated their quality of life as lower than average (Table 2). *Conclusion:* Patients with chronic obstructive pulmonary disease have an impaired quality of life on physical function as compared to emotional and general health because of severity and limitations on physical activities.

Keywords: Quality of Life; Chronic Obstructive Pulmonary Disease; Patient and Modified SF 36 questionnaire.

Introduction

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) can suggest the guideline of treatment for the COPD patient that includes to improve exercise tolerance, emotional function and important clinical goals such as prevention, prognosis and to minimize the symptoms. Anxiety and depression frequently occur with COPD and with acute and chronic respiratory diseases also. Whereas the anxiety appears earlier than depression, Quality of life (QOL) is the vital measure to destroy the chronic diseases. The general and disease specific instrument are measure in QOL with the COPD patient. Health connected Quality of life can measure the efficacy of medical intervention with detection of high risk group of psychological and behavioral problems [2].

Corresponding Author: Ranjana Sharma, Associate Professor, Department of Medical and Surgical Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Sawangi (Meghe) Wardha, Maharashtra 442001, India.

E-mail: ranjanasharma1234@rediffmail.com

Received on 13.06.2019, **Accepted on** 24.07.2019

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The prevalence and burden of COPD are projected to increase in the coming decades because of the continuous exposure to tobacco use, indoor air pollution (such as biomass fuel used for cooking and heating) and the changing age structure of the world's population (with more people living longer and, therefore, experiencing the long-term effects of exposure to COPD risk factors) [3].

The World Health Organization (WHO) estimates that 65 million people have moderate to severe COPD worldwide and more than 3 million people died of COPD in the year 2005. The total deaths from COPD are projected to increase by more than 30% in the next 10 years unless urgent action is taken to reduce the underlying risk factors, especially tobacco use [4].

Materials and Methods

Research design: Cross sectional research design.

Samples: Chronic obstructive pulmonary disease patient in selected hospitals of Wardha district.

Sample size: 60 patients.

Sampling technique: Non-probability purposive sampling.

Description of the tool:

Section A: Consist of demographic characteristic of COPD patients.

Section B: There is Modified SF-36 Questionnaire Scale to assess the quality of life, it consists of 9 components with 36 items (Table 2).

Data collection: The subject was explained about nature and purpose of the study. A written consent was obtained from the participant prior to their recruitment in the study. They were assured about their quality confidentiality of the data. The validated tool used was Modified SF-36 Questionnaires Scales. The tool was translated into Marathi and data was collected one time only. It took on an average 30 minutes for the subject to answer the each item. Any queries raised by the subject were clarified after the assessment.

Results

Out of 60 patients of chronic obstructive pulmonary diseases have a slightly reduced quality of life in the following dimensions: Physical function (mean 415.00, SD ± 139.399), Role function/ physical (mean 56.72, SD ± 76.823), Role function/emotional (mean 70.00, SD ± 74.333), Energetic or Fatigue (mean 196.67, SD ± 46.164), Emotional well-being (mean 283.00, SD ± 51.133), Social functioning (mean 127.08, SD ± 28.108), Pain (mean 101.58, SD ± 36.517), General health (mean 260.83, SD ± 124.224) and Health change (mean 51.25, SD ± 29.265).

Table 1: Distribution of subjects with regard to their demographic variables n=60

Sr. no.	Demographic variable	Frequency	Percentage %
1.	*Age of participants*		
	18–28 years	01	1.67%
	29–38 years	06	10.00%
	39–48 years	08	13.33%
	49–58 years	13	21.67%
	59 and above	32	53.33%
2.	*Gender*		
	Male	26	43.33%
	Female	34	56.67%
3.	*Education*		
	Illiterate	14	23.33%
	Primary	15	25.00%
	Secondary	22	36.67%
	Higher education	07	11.66%
	Degree	02	3.33%
4.	*Occupation*		
	Farmer	10	16.66%
	Daily wager	18	30.00%
	Private employee	07	11.67%
	Govt. employee	13	21.67%
	Not employed	09	15.00%
	Self employed	03	5.00%
5.	*Duration of COPD (In years)*		
	0–1 year	07	11.67%
	2–5 year	16	26.67%
	6–10 years	22	36.67%
	11–15 years	08	13.33%
	16–20 years	05	8.33%
	21–25 years	02	3.33%
6.	*Hospitalization*		
	Yes	15	25.00%
	No	45	75.00%
7.	*Smoking*		
	Yes	15	25.00%
	No	45	75.00%
8.	*If yes, then how much per week*		
	0 packet	45	75.00%
	1–5 packets	13	21.67%
	6–10 packets	02	3.33%

9.	*Duration of smoking (In years)*		
	0-10 years	07	11.67%
	11-20 years	16	26.67%
	21-30 years	22	36.67%
	31-40 years	08	13.33%
	41-50 years	05	8.33%
	50 above	02	3.33%

Table 2: Assessment of quality of life of the patients with Chronic Obstructive Pulmonary Diseases (COPD) by using Modified SF-36 Questionnaire Scale. n=60

Components in the Scale	Items	Alpha (p)	Mean	SD (±)
Physical function	10	0.000	415.00	139.399
Role function/physical	4	0.000	56.72	76.823
Role function/emotional	3	0.000	70.00	74.333
Energetic or Fatigue	4	0.000	196.67	46.164
Emotional well-being	5	0.000	283.00	51.133
Social functioning	2	0.000	127.08	28.108
Pain	2	0.000	101.58	36.517
General health	5	0.000	260.83	124.224
Health change	1	–	51.25	29.265

Discussion

Present study reveals that majority of participants belongs to the age group of 59 years and above (Table 1). Study conducted by M.A. Zamzam *et al.*, reported that the mean age of the patients was 59.9 ± 4.7 years, there was a non statistically significant difference between different grades of COPD severity regarding their age [5], The mean ± SD age was 68.5 ± 10.9 (range 41–97) years [6].

In present study no significance of difference found on quality of life of COPD patients in relation to smoking. Current study is supported by Sharma Kalpana and Joshi Sarala they also found no difference on QOL between current smokers and nonsmokers [7].

In present study impaired quality of life found in COPD patients. COPD is associated with significant reductions in QOL, even among patients with mild airway obstruction. A poor QOL has been shown to be associated with high levels of dyspnea, physical impairment, depression, and anxiety, and a poor prognosis in terms of readmission to hospital and death [8]. In current study no association found between QOL and age, gender, education, duration of COPD, hospitalization and smoking habits.

Present study is supported by study conducted by Malik Shanawaz Ahmed *et al.*, they also reported, No association between QOL and education, body mass index (BMI), and gender was observed [9].

Conclusion

In present study researcher found that, quality of life is impaired in patients with COPD. Management of COPD patients not based on only the respiratory dysfunction, it should includes the physical as well as psychological aspects to improve the quality of life of the COPD patients.

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