

The relationship between self-care and quality of life of patients with Chronic Obstructive Pulmonary Disease (COPD)

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Abstract

Background: Chronic obstructive pulmonary disease (COPD) is a non-communicable disease that is expected to continue to increase and become one of the causes of death. Improving the quality of life of patients with COPD needs to be considered and improved so that good self-management (self-care) is needed. The purpose of this study was to identify the relationship between selfcare and the quality of life of patients with chronic obstructive pulmonary disease (COPD).

Method: Type of quantitative research, correlation design cross sectional approach, research location Tenayan Raya health center with sampling technique used is purposive sampling with a total sample size of 55 people.

Results: The results of the research univariate analysis obtained adequate self-care of COPD patients 56.3%, high quality of life 45.5% the results of bivariate analysis there is a relationship between selfcare with quality of life of COPD patients with p value 0.00.

Conclusion: It is hoped that health workers will always pay attention and educate COPD patients about the importance of self-care for COPD patients considering that good self-care by itself can improve quality of life.

Keywords: COPD; Self-care; Quality of Life.

INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is a non-communicable disease that causes progressive airflow limitation due to chronic inflammation of the respiratory tract and lung parenchyma as a result of exposure to harmful gases (1). In COPD, in addition to decreased lung function, extrapulmonary disorders also occur which can cause symptoms such as dyspnea, decreased appetite and activity limitations (2).

COPD can cause decreased lung function and physiologic decline associated with aging resulting in airway obstruction that affects oxygen supply, lung elasticity and impaired lung ventilation (3). COPD is a common health problem with the number of cases continuing to increase. In 2020 COPD ranks 5th of the 12 most common diseases in the world and is the 3rd cause of death in the world, while the prevalence of COPD in the world is 3-11% (4).

The World Health Organization (WHO) in the Global Status of Non-communicable

Diseases, 2010 states that COPD is included in the top four non-communicable diseases with the highest mortality and health burden after heart disease, malignancies and diabetes mellitus (5). COPD in 2020 is the third leading cause of death in the world (6).

Treatment approaches taken in patients with COPD can be in the form of pharmacological and non-pharmacological therapies with the aim of improving the quality of life of COPD patients. However, most COPD patients continue to experience significant dyspnea every time they perform daily activities. The activity limitations experienced by COPD patients have an impact on self-care. Given these declining health conditions, it is necessary for COPD patients to be self-aware about the importance of self-care (7).

The self-care ability of COPD patients refers to Orem's nursing self-care theory (1971), which is the ability to develop the abilities possessed so that they can be used appropriately to maintain optimal function.

Self-care skills acquired through the experience of suffering from chronic diseases have an impact on lifestyle changes so as to improve the quality of life (8). According to the results of research (9) that self care can improve the quality of life of COPD patients. COPD self-care consists of: smoking cessation and support, exacerbation management, exercise and physical activity, nutritional status, and shortness of breath management (10).

To be able to avoid the occurrence of COPD recurrence, an understanding of the disease and how to prevent COPD recurrence is a very important basis for a person. The goals of COPD management are to eliminate symptoms, prevent disease progression and prevent recurrence, increase physical activity tolerance and improve health status, prevent and treat complications and minimize drug side effects (11).

Some of the conditions experienced by people with COPD are limitations in daily activities, isolation from the environment, decreased self-esteem of sufferers so that it can be a cause of sufferers and multidimensional with reference to several domains, namely physical, psychological and social individual health (6).

METHOD

Type of quantitative research, cross sectional approach correlation design, research location tenayan raya health center. Research time on April 12 - September 20, 2023. The sampling technique used was purposive sampling. Data collection techniques were carried out using the COPD Self care questionnaire (COPDSC-C) (Jiang, 1999) and the COPD Assessment Test (CAT) questionnaire (PDIP, 2016) to measure the quality of life of COPD patients. Data analysis consisted of univariate data analysis and bivariate data analysis. Univariate data analysis to describe the frequency distribution of each research variable, namely variable self-care of COPD patients and variable quality of life of COPD patients. For bivariate analysis aims to see the relationship between self care and quality of life of COPD patients. Bivariate analysis using chis quare test.

The study population was all COPD patients who came for treatment to the Tenayan Raya health center. The study population during the last 4 months was approximately 120 people. The research sample was taken using the slovin formula so that a sample size of 55 was obtained. The inclusion criteria in this study are: patients diagnosed with COPD, willing to be respondents, not experiencing acute exacerbations at the time of the study, not experiencing cognitive impairment, able to communicate well verbally, not experiencing hearing loss and can read and write while the exclusion criteria respondents are not willing to be research samples.

RESULTS

Univariate Analysis

Univariate analysis describes the frequency distribution of each research variable consisting of self care variables and quality of life variables for COPD patients. The following bivariate analysis is shown in the table.

Table 1. Frequency and Percentage Distribution of Self Care Data of COPD Respondents at Tenayan Raya Health Center Pekanbaru (n=55)

| No | Self-care | f | % |
|----|------------|----|------|
| 1 | Adequate | 31 | 56,3 |
| 2 | Inadequate | 24 | 43,7 |
| | Total | 55 | 100 |

Table 1. shows that self care is categorized into 2 parts, namely adequate and inadequate. The respondents' self-care score shows that self-care in the adequate category is higher than the inadequate category, namely 31 (56.3%).

Table 2 Frequency and Percentage Distribution of Quality of Life Data for COPD Respondents at Tenayan Raya Health Center Pekanbaru (n=55)

| No | Quality of life | F | % |
|----|-----------------|----|------|
| 1 | Low | 19 | 34,5 |
| 2 | Medium | 11 | 20 |
| 3 | High | 25 | 45,5 |
| | Total | 55 | 100 |

Table 2 shows that the quality of life is categorized into 3 parts, namely low, medium and high. The value of the respondents' quality of life shows that the quality of life is in the high category, namely 25 (45.5%).

Bivariate analysis is used to determine whether or not there is a relationship between quality of life and self-care of patients with COPD which is described in the following table 3.

Bivariate Analysis

Table 3. Relationship between Self Care and Quality of Life of COPD Patients at Tenayan Raya Health Center Pekanbaru (n=55)

| Self-care | Kualitas Hidup | | | | | | Total | | P value |
|-----------|----------------|------|--------|------|------|------|-------|------|---------|
| | low | | Medium | | High | | | | |
| | N | % | N | % | n | % | N | % | |
| Adequat | 0 | 0% | 9 | 16,4 | 22 | 40 | 31 | 56,4 | 0,000 |
| Inadequat | 19 | 34,5 | 2 | 3,6 | 3 | 5,5 | 24 | 43,6 | |
| | 19 | 34,5 | 11 | 20 | 25 | 45,5 | 55 | 100 | |

Based on table 3. of 55 respondents with high quality of life most of them with adequate self care as many as 22 people (40%) and inadequate 3 (5.5%) while those who experience moderate quality of life adequate self care 9 people (16.4%) and inadequate self care 2 people (3.6%). The results of data analysis of the chi-square statistical test using the pearson chi-square test obtained a value of $p = 0.000$ ($p < 0.05$), which means that H_0 is rejected and H_a is accepted. So it can be concluded that there is a significant relationship between self-care and quality of life in high and moderate category COPD patients at the Tenayan Raya Health Center in Pekanbaru.

DISCUSSION

Based on the results of the study found that there is a relationship between self care of COPD patients and the quality of life of COPD patients, the better the self care of COPD patients will be followed by an increase in quality of life. The results of research (12). state that self care of COPD patients is in the good category. Complaints felt by COPD patients are chronic and ongoing shortness of breath, coughing with phlegm, abnormalities in breath sounds, fatigue, weight loss, edema in the legs, anxiety and even depression.

COPD sufferers need to understand the condition or condition of themselves about complaints and prognosis of their disease, so that in everyday life they must take care of themselves so that COPD is in a stable condition. COPD treatment needs pharmacological therapy but cannot be separated from non-pharmacological therapy, one of which is the ability of a patient to carry out self-care (2). A person's ability in self-care can be obtained from the experience of experiencing a chronic disease and will have an effect on lifestyle changes so that it affects quality of life (8).

To improve the self-care ability of patients with COPD, it is necessary to provide counseling and regular breathing exercises at least 2 times a week by health workers so that there is interaction between instructors and COPD patients so that self-care does not get worse (9). COPD requires long-term care so that patients need to do good self-care so that they can carry out self-care independently to achieve optimal health status (13). According to the results of research (14). On the characteristics and quality of life of patients with COPD, the results showed that the respondents' self-care was found to be more than half of the COPD respondents with a low self-care category.

CONCLUSIONS

This study aims to identify the relationship between self-care and quality of life of patients with chronic obstructive pulmonary disease (COPD). Patients with COPD experience many complaints such as progressive shortness of breath that gets worse with activity, chronic cough and phlegm so that it affects the quality of life which can result in dependence on others.

Quantitative research type, correlation design with cross sectional research type approach. Data collection using a questionnaire. Data collection used is Non Probability Sampling using Purposive Sampling technique. Univariate data was analyzed descriptively which then the results were presented in the form of frequency distribution tables while bivariate analysis to analyze the relationship between two variables using the chis quare test. The self care research instrument used the COPD self care questionnaire (COPDSC-C) (Jiang, 1999) and self care using the COPD Assessment Test (CAT) questionnaire.

The results of univariate research found that self care with COPD was found to be adequate 56.3%, high quality of life of COPD category 45.5% while for bivariate analysis found a relationship between self care and quality of life of COPD patients.

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