

Conference Paper

A descriptive analysis of Nursing Care Intervention for Patients with Tuberculosis at Public Health Center in Bandung

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Abstract

Background: Currently Tuberculosis still being a significant threat to human health, tuberculosis has killed around 1.5 million people worldwide. This disease is also the highest cause of death and morbidity in developing countries, such as Indonesia. Documentation is comprehensive information about the patient's health status and the needs. If the nursing care documentation is not done properly, completely and accurately it can reduce the quality of nursing services because it cannot identify the extent of the success rate of nursing care that has been given. **Objectives:** The study aims to determine the overview of the nursing care intervention in tuberculosis patients using the Indonesian Nursing Care Standard in Bandung Public Health Center. **Method:** This research is a quantitative descriptive study using a cross sectional design. The research was done in June 2019, with the subjects of research use 119 medical records at the health center in Bandung City determined by purposive sampling technique. The instrument used was the Medical Record of tuberculosis patients. **Results:** From all the 18-nursing care planned by nurses; all nursing care were only included in the 7 nursing interventions contained in the Indonesian Nursing Care Standards (SIKI). book. The seven nursing care standard including compliance support of treatment programs, infection prevention education, Hyperthermia management, effective cough exercises, airway management, nutritional management and relaxation therapies. Suggestion: Nurse is expected to use the latest nursing care in accordance with the use of SIKI.

Keywords: Indonesian Nursing Care Standard, Nursing Care, SIKI, Tuberculosis,

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1. Introduction

Pulmonary tuberculosis (TB) is an infectious disease that attacks the lung parenchyma, caused by Mycobacterium tuberculosis. These bacteria or germs are rod-shaped, with size of 1-4 μm and a thickness of 0.3-0.6 μm [1]. In Southeast Asia and Africa three countries with most Tuberculosis cases in 2015 are India (23%), Indonesia (10%), and China (10%). While in the world 9.6 million people in the diagnosis of tuberculosis disease

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and 1.5 million people died from this disease [2]. Based on the data and information by Indonesian Health Profile in 2017, from 261,890,872 people of Indonesia, the numbers of 360,770 people suffer tuberculosis disease. And 49.35% of it occurred at a productive age 15-44 years with male (58.11%) most have tuberculosis than women (41.89%) [3]. In Bandung city the number of new cases of positive tuberculosis in sufferers who can be had in the administration in the year 2017 as many as 1,003 cases. In addition, there are positive tuberculosis patients who are served in a variety of health facilities that cannot be had in the administration area as much as 990, so that the total cases of positive tuberculosis in the year 2017 in Bandung City are 1,993 cases [4].

Documentation is a complete information covering the patient's health status, patient's needs, nursing activities and patient response to the care received [5]. Nursalam (2001) highlighted that if the nursing care documentation is not done properly, completely and accurately it can reduce the quality of nursing services because it cannot identify the extent of the success rate of nursing care that has been given [6].

Based on the description, researcher is interested in conducting research and writing a final project entitled: "Nursing Care Study in Tuberculosis Patient Using the Indonesian Nursing Care Standard in Bandung City Public Health Center". The purpose of this study was to determine the description of the study of Nursing Care in tuberculosis patients using the Indonesian Nursing Care Standard in Bandung City Public Health Center.

2. Method

Type of research is a quantitative descriptive using a cross sectional design. The research was done in June 2019, with the subjects of research used 119 medical records at the health center in Bandung City determined by purposive sampling technique. The instrument used was the Medical Record of tuberculosis patients.

3. Result

The results showed that the characteristics of tuberculosis patients according to sex were almost balanced, in the number of 60 men (51%) and 59 women (49%). Meanwhile, in the characteristics of tuberculosis patients by age there was no significant difference, 37 tuberculosis patients aged 14-24 years, 39 tuberculosis patients aged 25-34 years and 43 patients aged 35-44 years (Table 1).

The results showed that the most frequently written intervention by nurses in tuberculosis patients was: Teach patients not to stop anti-TB drugs until they are cured

TABLE 1: Age and Sex distribution of patients with Tuberculosis in Juni 2019 (n = 119).

Variables	n	%
Sex		
Male	60	51
Female	59	49
Age		
15-24	37	31
25-34	39	33
35-44	43	36

TABLE 2: Frequency distribution of nursing care in patients with TB at Public Health Center in Bandung, June 2019 (n = 119).

Nursing intervention	n	%
Assess the quality of deep breathing, the use of respiratory muscles	17	14.28
Assess the quality of sputum: color, odor and consistency	3	2.5
Auscultation of breath sounds	18	15.12
Suggest patient to have more drink	85	71.24
Inform patient to have an effective cough	66	55.46
Monitor temperature, pulse and inhalation every 4 hours	0	0
Give frequent breaks and exercise according to tolerance	14	11.76
Assess nutritional status	13	10.92
Monitor food intake	1	0.84
Maintain a high-protein, carbohydrate diet	15	12.60
Assess the causes of malnutrition	0	0
Asses the Albumin rate	1	0.84
Give food in small portions but often	14	11.76
Discussions the importance of maintaining respiratory isolation: avoid direct contact with sputum	3	2.5
Inform the patient to have an effective cough, in way cover the mouth with tissue / handkerchief; turning head when coughing, get rid of tissue properly, use a mask when patients are unable to carry out instructions	76	63.86
Instruct the patient to collect and handle sputum for culture examination according to implementation	0	0
Inform patients not to stop anti-TB drugs until they are cured	119	100
Encouraging families and clients to improve environmental cleanliness in efforts to prevent transmission	113	94.95

(100%), Encouraging families and clients to improve environmental cleanliness in efforts to prevent transmission (94,95%), Suggest to have much more drink (71,24%), Inform the patient to have an effective cough, in way cover the mouth with tissue / handkerchief; turning head when coughing, get rid of tissue properly, use a mask when patients are unable to carry out instructions (63,86%) and inform patient to have an effective cough (55,46%).

TABLE 3: Link between Indonesian Nursing Care Standard and Nursing Care in Public Health Center.

SIKI	No	Public Health Medical Record	Percentage (n=119)
Adherence support of Treatment Programs	17	Inform patients not to stop anti-TB drugs until they are cured	100% (119)
Education of Preventing Infections	18	Encouraging families and clients to improve environmental cleanliness in efforts to prevent transmission	94,95% (113)
	15	Inform the patient to have an effective cough, in way cover the mouth with tissue / handkerchief; turning head when coughing, get rid of tissue properly, use a mask when patients are unable to carry out instructions	63,86% (76)
Hyperthermia Management	4	Suggest patient to have more drink	71,24% (85)
Effective Cough Exercise	5	Inform patient to have an effective cough	55,46% (66)
Railway Management	3	Auscultation of breath sounds	15,12% (18)
	1	Assess the quality of deep breathing, the use of respiratory muscles	14,28% (17)
	2	Assess the quality of sputum: color, odor and consistency	2,5% (3)
	14	Discuss the importance of maintaining respiratory isolation: avoid direct contact with sputum	2,5% (3)
	16	Instruct the patient to collect and handle sputum for culture examination according to implementation	0% (0)
	6	Monitor temperature, pulse and inhalation every 4 hours	0% (0)
Nutritional Management	10	Maintain a high-protein, carbohydrate diet	12,60% (15)
	13	Give food in small portions but often	11,76% (14)
	8	Assess nutritional status	10,92% (13)
	9	Monitor food intake	0,84% (1)
	12	Asses the Albumin rate	0,84% (1)
	11	Assess the causes of malnutrition	0% (0)
Relaxation therapies	7	Give frequent breaks and exercise according to tolerance	11,76% (14)

4. Discussion

The results showed that the most common nursing care in tuberculosis patients was to teach patients not to stop anti-tuberculosis drugs until they were 100% cured. According to the book of Indonesian Nursing Care Standard (SIKI) the writing of the caring standard entered into the Nursing Care Standard; support for compliance with treatment programs, with code I.12361. The Nursing care is planned because if the patient does not complete treatment (for 6 months) it causes germs become resistant to the drug

and the treatment must be repeated. The Repetitions treatment requires a longer time than the previous treatment which take 9-12 months. Therefore, to avoid the repeated treatment of tuberculosis patients must have support for treatment program compliance.

The Ministry of Health of the Republic of Indonesia has established a program to support the treatment of tuberculosis patients, which is in the form of a Drugs Supervisor (PMO). The task of PMO is to make sure tuberculosis patients drink the drug regularly until treatment is done and give encouragement to patients to make them go to have treatment regularly. The role of PMO is very large and it is very important for tuberculosis patients to reduce the number of disabilities and deaths due to tuberculosis. The second Nursing care was encouraging families and clients to improve environmental cleanliness in efforts to prevent transmission, in way cover the mouth with tissue / handkerchief; turning head when coughing, get rid of tissue properly, use a mask when patients are unable to carry out instructions. Both nursing care are included in the Standard Book; infection prevention education in SIKI book with code I.12406. Environmental cleanliness is an important problem in the risk of transmission. A dark, humid environment, lack of ventilation and absence of sunlight house will make tuberculosis germs can last for days or even months. Therefore, patients must know the importance of opening window. When the patient opens the window of the house, air circulation can help push the germs of tuberculosis out of the house and sunlight can enter the room to kill the germs of tuberculosis that may reside in the patient's home. In addition to environmental cleanliness, prevention can also be done when the patient coughs. Tell the patient the importance of the effective cough technique such as the above nursing care. Because when patients know, transmission of disease can be prevented as much as possible.

Fever is a symptom of tuberculosis infection, usually occurring in the afternoon and evening. Fever can occur due to the infection process or the effects of anti-tuberculosis drugs. Therefore, results of the research is nurse in Public Health Center need to do Hyperthermia management in order to minimize the increase of body's temperature in example suggest the patient to have much more drink. Beside it, the management can also be done by compressing the axilla, forehead, nape and groin. The code Hyperthermia management in the SIKI book is I.15506.

The next most planned caring programs by the Public Health nurse is effective cough exercise, this caring program is in accordance with SIKI book with code I.01006. Effective cough training interventions aim to expel sputum or phlegm. In addition, an effective cough exercise intervention is also an effort in establishing the diagnosis of tuberculosis through sputum examination. When the patient can do an effective cough correctly,

sputum can be obtained for laboratory tests, not saliva or nasal discharge. So that when the sputum examination is done it will get maximum results.

The fifth most frequently planned caring programs by Public Health nurses on tuberculosis patients is: airway, divided into several programs by the nurses: auscultation of breath sounds, assess the quality of deep breathing, the use of respiratory muscles, Assess the quality of sputum: color, odor and consistency, discussions the importance of maintaining respiratory isolation: avoid direct contact with sputum, Instruct the patient to collect and handle sputum for culture examination according to implementation and monitor temperature, pulse and inhalation every 4 hours. The six planned interventions are included in one Standard Programs in the SIKI book, namely the management of the airway with code I.01011. Patients with tuberculosis who cannot cough effectively will cause an increase and buildup of sputum in the respiratory tract. This intervention should get serious treatment because in patients with sputum buildup and airway obstruction, they can experience shortness of breath which can interfere the oxygenation process, if the oxygenation process is not met, it will disrupt cell metabolism and damage brain tissue, and if it takes a long time can cause death.

The next most planned caring programs by the Public Health nurse is: Maintain a high-protein, carbohydrate diet, give food in small portions but often, assess nutritional status, monitor food intake, asses the Albumin rate and assess the causes of malnutrition. The six caring program in the public health center are included in one of the standard program in the SIKI book, nutrition management. Nutrition in tuberculosis patients will usually decrease due to the effects of drugs consumed such as decreased appetite, anorexia, nausea and vomiting. On the other hand tuberculosis patients must have good nutrition to strengthen the patient's immune system. So nutrition management interventions really need to be done, because with nutrition and good immunity will help the healing process.

5. Conclusion

Relaxation therapy such as rest enough is an effort to prevent the recurrence of tuberculosis. Patients with bad activities such as working overtime from morning to morning will make the immune system become worse, this poor immune system can trigger a recurrence of tuberculosis. Therefore, tell the patient the importance of take an enough rest, such as sleeping eight hours a day. With enough rest, the immune system will be good and can minimize the possibility of tuberculosis recurrence.

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