

DOI: <http://dx.doi.org/10.33846/hn30702>
<http://heanoti.com/index.php/hn>



RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn30702>

The Development of Home Nursing Care Module for Patients with Pulmonary TB in Bima City, West Nusa Tenggara

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ABSTRACT

The complete treatment was one of the main strategies in controlling and terminating the chain of transmission of pulmonary TB. Self-care behavior carried out by patients and families during the treatment process was the key to the success of pulmonary TB treatment. One effort to improve sufferers' self-care was through health education which was combined with the module as the patient's handler. Using the action research method with quantitative and qualitative approaches, this study involved health workers, PMOs and pulmonary TB patients undergoing treatment, with quantitative data analysis using triangulation techniques. The results of the study addressing the needs of nursing care for patients with pulmonary tuberculosis based on the results of a focus group discussion include knowledge about pulmonary TB disease, how to deal with symptoms that were often experienced, and actions or skills in self-care while at home. The conclusion of this study was the development of nursing care modules at home for pulmonary TB patients intended to improve the ability of self-care patients to cure illness.

Keywords: nursing care module; pulmonary TB

INTRODUCTION

Tuberculosis (TB) was an old disease that has affected humans for thousands of years⁽¹⁾, until now TB disease was still a public health problem throughout the world despite the burden of disease which shows a declining trend globally in most countries in all WHO regions, but not fast enough to reach the first milestone of the End TB Strategy by 2020⁽²⁾.

The complete treatment was one of the main strategies in controlling and terminating the chain of transmission of pulmonary TB⁽³⁾. Nurses as part of health workers play an important role in changing the behavior of patients and families so that balance and independence occur in self-care activities⁽⁴⁾. Self-care and self-care behavior carried out by patients and families during the treatment process was the key to complete recovery and successful treatment of pulmonary TB that lasts 6 to 9 months⁽⁵⁾.

The nurse was responsible for providing nursing care to the family. Thus, they must be able to design interactive nursing interventions that can help families optimize family resources to care for their family members independently⁽⁶⁾. The independence of patients in managing pulmonary TB and their compliance in undergoing treatment was obtained if individuals have knowledge, skills and self-care behavior in conducting TB management and self-care at home. One of the efforts to improve self-care for pulmonary TB sufferers was through health education provided and combined with modules that are the mainstay of sufferers while undergoing pulmonary TB treatment.

METHODS

This study used action research methods with quantitative and qualitative approaches. The action research design in this study consists of three stages, namely problem identification (stage I), module

development (stage II), module testing (stage III), and module effectiveness evaluation (stage IV). This article focused on the discussion of stage I and phases II action research. The problem identification phase was carried out through Focus Group Discussion (FGD) activities involving pulmonary TB sufferers, drug swallow supervisors and health workers who were involved in the treatment and eradication of pulmonary TB in the work area of the Bima City Health Office. In the development phase of the module, the researcher carried out the preparation and development of modules based on the results of identification of problems and needs of nursing care, literature studies, and input from experts. Data from the research results were analyzed using qualitative analysis.

RESULTS

Identify Problems

The purpose of the first phase of research was the identification of problems or needs of nursing care for pulmonary TB sufferers based on data collected from various sources and methods of data collection. Based on the results of the focus group discussion, input from the Bima City Health Office staff and the results of documentation studies and literature studies illustrated the problems often experienced by patients during pulmonary TB treatment including problems related to the knowledge of patients about pulmonary TB, treatment skills in dealing with symptoms Pulmonary TB, as well as prevention of transmission of pulmonary TB.

The first problem identified was the knowledge of patients related to pulmonary TB disease, namely knowledge of TB signs and symptoms, how to diagnose TB, methods of transmission and how to prevent TB. Furthermore, the problem obtained from the results of the FGD was the treatment of pulmonary TB patients, among others, how to deal with symptoms often experienced by participants such as coughing, fever, and shortness of breath. Besides that, the nursing needs of patients identified are the management of diet for patients, the regulation of the home environment and the utilization of health facilities. Other problems obtained are nursing actions or self-care skills needed by sufferers and their families such as the act of giving warm compresses, deep breathing techniques, effective coughing techniques and how to make sputum storage containers.

Module Development

Home nursing care modules for pulmonary TB sufferers are developed based on identified problems, literature studies, and input from health workers who have work experience in carrying out pulmonary TB treatment at the level of community health centers and health services. Module preparation refers to the Self Care nursing theory from Dorothea E. Orem and the concept of family-centered care in providing nursing care. The initial design of the developed module was discussed in a small group discussion involving Mpunda health center nurses and Bima City health office staff to get input and improvement.

Some important inputs obtained from small group discussions are the need to add information about the concept of pulmonary TB disease which is presented in simpler languages so that it is easily understood by sufferers. Besides that, the discussion participants also conveyed the need to provide information regarding how to prevent pulmonary TB transmission, this information has actually been frequently conveyed by officers when providing health counseling to patients and their families, but is still ignored. Furthermore, the officer suggested that you enter information regarding the side effects of OAT (*Obat Anti Tuberculosis* = anti-tuberculosis drugs) and how to manage them.

Based on the problems identified when conducted FGDs with pulmonary TB patients, PMOs (*Pengawas Menelan Obat* = drug swallow supervisors) and health workers, as well as the results of small group discussions with officers regarding the initial design of the modules developed, the outline of the module contents, was developed as follows:

- 1) Chapter I about pulmonary tuberculosis which includes: understanding, causes, modes of transmission, signs, and symptoms, how to diagnose, people at risk of contracting TB, prevention of transmission of pulmonary TB, treatment of pulmonary TB, OAT side effects and management, monitoring treatment progress and danger of pulmonary TB disease.
- 2) Chapter II concerning the care of pulmonary TB patients including how to deal with the symptoms of TB, the home environment for pulmonary TB sufferers and the utilization of health facilities.
- 3) Chapter III concerning nursing actions for pulmonary TB sufferers at home which include: giving warm compresses, deep breathing exercises, effective coughing exercises, and how to prepare sputum storage pots.

The modules that have been compiled are then re-discussed in the Phase II FGD involving pulmonary TB sufferers, PMOs, and health workers to obtain input regarding the contents, composition, and appearance of the module. The results of the Phase II FGD are more input related to the content and appearance of the module,

among others, you should add pictures or illustrations to facilitate the understanding of the module users, writing using larger and clearer letters, and colors and appearance with attractive designs.

DISCUSSION

Nurses were responsible for provided nursing care to families by designing interactive nursing interventions that can help optimize family resources to care for their members. The nursing care module at home as a source of reference and guidance for pulmonary TB patients and their families while undergoing TB treatment and treatment, was developed with an action research approach involved various related parties⁽⁷⁾. The involvement of various parties in the study can facilitate the changes made in this case pulmonary TB sufferers, drug swallow supervisors and related health workers involved since the identification of the problem up to problem-solving.

Problem identification was the first step in this research, focused discussion was chosen to get information related to nursing care needs for patients with pulmonary TB. As for some of the problems identified based on the results of focused discussions, among others, problems related to patient knowledge, namely knowledge of signs and symptoms of TB, how to diagnose TB, modes of transmission and ways to prevent TB. Furthermore, the problems related to the care of pulmonary TB patients include ways to deal with symptoms that were often experienced by participants such as coughing, fever, and shortness of breath. Besides that, the nursing needs of patients identified are the management of diet for patients, the regulation of the home environment and the utilization of health facilities. Other problems obtained are nursing actions or self-care skills needed by sufferers and their families such as the act of giving warm compresses, deep breathing techniques, effective coughing techniques and how to make sputum storage containers.

Modules are developed based on identified problems, literature studies, and input from health workers who have work experience in carrying out pulmonary TB treatment at the health center and health services levels. Module development refers to the family-centered nursing concept with the assumption that families have a degree of closeness and involvement in health services⁽⁸⁾, in this case the family is involved in the care of pulmonary TB patients. The module preparation also considers the patient's self-care needs while undergoing treatment for TB disease because the researcher also refers to the Self Care nursing theory from Dorothea E. Orem who views each individual as having self-care needs that require someone to be able to fulfill towards self-care independently and acting as a self-care agency⁽⁹⁾.

The design of the developed module was then discussed in a group discussion involving health workers, TB patients, and supervisors taking medication to get input and improvement. Some important inputs obtained from small group discussions are the need to add information about the concept of pulmonary TB disease, ways to prevent transmission of pulmonary TB, side effects of anti-tuberculosis drugs and how to manage them. Other inputs related to the arrangement and appearance of the module such as the need added images or illustrations to facilitate the understanding of the module users, writing using larger and clearer letters, and colors and appearance with attractive designs.

CONCLUSION

Based on the results of research and discussion, conclusions can be taken as follows: (1). The need for nursing care for patients with pulmonary tuberculosis based on the results of a focus group discussion includes knowledge about pulmonary TB disease, treatment of pulmonary TB patients, and self-care skills needed by patients and their families while undergoing TB treatment programs. (2). Modules were developed based on identified problems, literature studies, and input from health workers who have work experience in carrying out pulmonary TB treatment at the health center and health services levels.

Suggestions from research for the Bima City Health Office and health center in their working areas should optimize the implementation of health education through home visits with various health education media such as nursing care modules in an effort to improve the ability and independence of pulmonary TB patients in the treatment and treatment of their diseases.

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