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Implementation of Health Belief Models (HBM) Education for Tuberculosis patients at the Tamansari Primary Health Care, Tasikmalaya City

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ABSTRACT

Tuberculosis (TB) is an infectious disease that continues to increase not only nationally but also globally. Tuberculosis is a problem for sufferers both physically and psychologically, it can even cause negative stigma from themselves and society, so the disease affects the quality of life of the sufferer. Tuberculosis treatment that is long enough and requires compliance can cause susceptible to drop out (DO), finally will increase the risk of cases of Multi Drug Resistance (MDR). The role of nurses is needed in ensuring tuberculosis patient adherence in treatment. Patient will be understand that tuberculosis is important in the treatment process. Education is a strategy in increasing patient understanding to change positive behavior for tuberculosis sufferers. The aim of this community service is to implement Health Belief Models (HBM) Education in Tuberculosis patients. This method used lectures, interviews and practice. The results found that the implementation of HBM on 19 patients who visited Tamansari primary health care for 3 months showed a significant result in behavior and quality of life. HBM education can change the quality of life of tuberculosis sufferers by changing perceptions of the disease which includes perceptions of vulnerability, perception of severity, perceived benefits, perceptions of barriers and a person's belief in healthy behavior. It is recommended that HBM education should continue to be implemented for tuberculosis sufferers so that they can maintain their survival.

Keywords: Education, Health Belief Models, Tuberculosis

INTRODUCTION

Tuberculosis (TB) is an infectious disease that causes high mortality rates in the world. TB is a public concern because it is the third largest cause of death after cardiovascular and respiratory diseases and is the number one infectious disease [16]. In 2015 it is estimated that there were 10.4 million TB cases worldwide, of which 5.9 (56%) were men, 3.5 million (34%) were women, and 1 million (10%) were children. child. People living with HIV account for 1.2 million (11%) of all new TB cases, and are the leading cause of death in HIV. In addition, 1.5 million deaths due to TB, 1.1 million of them HIV negative and 0.4 million HIV positive. Six countries account for about 60% of new cases sequentially, namely India, Indonesia, China, Nigeria, Pakistan and South Africa [15]. Indonesia is facing tuberculosis cases totaling 330,910 cases. Java Island is the largest contributor to cases with 38% of the total cases [9].

The high prevalence of tuberculosis has an impact on society, the economy and the environment. One study from Nigeria found that friends of TB patients often have discriminatory attitudes towards them [1] because of the stigma associated with the disease [2]. The disease has social implications: most patients in one study conducted in Mexico reported a loss of their sense of identity, including loss of productivity and connection with family, resulting in perceptions of severe isolation [12]. In addition, one study found that the costs associated with disease impoverished many households, as many patients accumulated debt and experienced a loss of income and productive agricultural assets. Among the 160 TB cases in this study conducted in China, most of the TB patients were the head of the household, their main source of household income. Once diagnosed, they lose job opportunities due to social stigma and the effects of

disease. As a result, 30% of the cases in the study earned income below the official poverty line [7].

The Health Belief Model (HBM) is a psychosocial model for behavior change. It is commonly used to describe the relationship between health beliefs and healthy behavior.HBM assumes that an individual's participation in the prevention, early detection and treatment of a particular health problem depends on their perception that they are at risk for this condition even though they do not experience symptoms (perceived vulnerability). They understand that TB is a significant health problem that can lead to serious complications (perceived severity); they believe in the benefits of the suggested countermeasures (perceived benefits) and recognize that the benefits exceed the expected barriers associated with these actions (perceived barriers). In addition, they believe that they have the motivation to adopt a healthy lifestyle and the ability to perform protective behaviors (self-efficacy). Furthermore, HBM assumes that cues to act can act as behavioral stimuli which can be classified into internal and external cues. Internal cues as a history of disease while external cues serve as media, and health team interventions that increase involvement in these protective and preventive behaviors [5].

There are many things can be done by community nurses in overcoming TB, starting from promotive, preventive, curative and rehabilitative efforts. Through home care, it can reduce the burden on TB sufferers physically, psychologically, and socio-economically. The implementation of home care by community nurses will facilitate the process of health services for sufferers, so that the presence of nurses in the midst of sufferers and their families will help in improving their physical and psychological conditions, which in turn will reduce social stigma, the patient's quality of life will be better and in the end productivity will increase according to the conditions. However, the role of community nurses in TB disease control does not appear to be optimal.

One of the programs for controlling pulmonary tuberculosis is by providing health education, in which self-education is an activity procedure that explains the principles of learning in life for individuals or communities in achieving a healthy lifestyle by means of maintenance and protection in improving health. According to the theory of the Health Belief Model (HBM), individuals take health actions such as taking medication and prevention to improve their health status that influenced by factors such as feelings and a person's belief in carrying out healthy behaviors.

METHOD

The aim of this community service is to implement Health Belief Models (HBM) Education in Tuberculosis patients. The sample was 19 patients at Tamansari Primary Health care. This method used lectures, interviews, and practices on patients in the working area of Tamansari's public health, Tasikmalaya City.

RESULT

Table 1. Self Efficacy

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
PreSelfEfficacy - PostSelfEfficacy	-4,26316	1,40800	,32302	-4,94179	-3,58452	-13,198	18	,000

Table 2. Quality of Life

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
PreQoL - PostQoL	-4,68421	2,40492	,55173	-5,84334	-3,52508	-8,490	18	,000

These results of the implementation of HBM on 19 patients who visited the Tamansari Primary Health Care for 3 months showed showed a significant result in behavior and quality of life after intervention. HBM education can change the quality of life of tuberculosis sufferers by changing perceptions of the disease which includes perceptions of vulnerability, perception of severity, perceived benefits, perceptions of barriers and a person's belief in healthy behavior.

DISCUSSION

This study found an increase in knowledge, changes in behavior and quality of life. The results are in line with the research of [14] which reported that there were significant differences in knowledge and perception before and after being given Health Belief Model (HBM) education. The same data was found by [8], by conducting educational interventions for 2 months in the control group without intervention. After 1 month of intervention, a post test was carried out and the results obtained showed that providing education with the Health Belief Model had a strong effect on knowledge. Health education has a good influence in increasing knowledge so that it is hoped that it can form a TB care society which in turn can help reduce the incidence of TB, although knowledge is also influenced by gender and education [4].

In addition to affecting knowledge [13], HBM also affects the quality of life of patients. As research conducted by [11] found the influence of Health Belief Model-based education on improving the quality of life of tuberculosis patients. Reinforced by [6] who found that intervention programs based on the Health Belief Model can improve the quality of life of patients with multiple sclerosis, with the results of research using paired-sample T test analysis showing that different scores are aspects of quality of life such as general health, physical function, mental health, physical role, emotional role, vitality, social function and body pain were significantly increased compared to before HBM intervention.

HBM-based audiovisual health education interventions have an effect on increasing perceptions of vulnerability and seriousness, increased perceived benefits, decreased perceptions of inhibition, self-efficacy, adherence to taking medication, nutrition and prevention of transmission with value. So that it can be concluded that HBM-based audiovisual health education interventions are effective in improving adherence behavior of TB patients. This intervention can be used as an independent nursing intervention to increase adherence to TB patients [10].

Not only affects TB sufferers, but also on other disease. For example, research on nursing student awareness of covid-19 can be increased through HBM. This research can increase their vulnerability, severity, and perceived benefits. In addition, it can increase their self-efficacy to overcome perceived barriers to practicing protective and preventive measures when dealing with covid-19 [3].

CONCLUSION

HBM education can change the quality of life of tuberculosis sufferers by changing perceptions of the disease which includes perceptions of vulnerability, perception of severity, perceived benefits, perceptions of barriers and a person's belief in healthy behavior. It is recommended that HBM education should continue to be implemented for tuberculosis sufferers so that they can maintain their survival.

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APPENDIX

Figure 1. Orientation

Figure 2. preparation of interview

Figure 3. Interview Process

Figure 4. Lecturer process