

Healthy Home Education “Door To Door System” Increases Knowledge, Attitudes and Behavior of Families of Pulmonary TB Patients

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ABSTRACT

Pulmonary TB disease is still a global health problem. Various prevention efforts have been made, but until now pulmonary TB disease has not been completely treated. Transmission of pulmonary TB disease is influenced by two dominant factors, namely the environment and behavior. The proposed study aims to measure the effectiveness of healthy home education "door to door system" in improving knowledge, attitudes and behavior of pulmonary TB prevention. Pre-experimental research with pre and post-test design. The sample was a total population of 32 respondents of families with pulmonary TB. Healthy home education can increase average knowledge before 7.8 and 14.0. Attitude before 5.5 and after 6.5. Behavior before 5.2 and after 5.8. The increase in knowledge reached 72.9%, attitude 18.3% and behavior 11.4%. Statistical tests showed that there was a difference in the average value of knowledge, attitude and behavior of preventing pulmonary TB before and after providing healthy home education, with a p value for knowledge: 0.000, attitude: 0.002 and behavior: 0.006. Healthy home education “door to door system” is quite effective to improve knowledge, attitude and behavior of families of patients in preventing pulmonary TB. The health center is advised that direct education “door to door system” be one of the alternative counseling activities to involve family participation in preventing pulmonary TB.

Keywords: Healthy; home ; education; prevention ;TB.

ABSTRAK

Penyakit Tb. paru masih menjadi masalah kesehatan global. Berbagai upaya pencegahan telah dilakukan, namun sampai saat ini penyakit Tb. paru belum bisa ditangani secara tuntas. Penularan penyakit Tb. paru dipengaruhi oleh dua faktor dominan yaitu lingkungan dan perilaku. Penelitian ini bertujuan untuk mengukur efektivitas edukasi rumah sehat “door to door sistem” dalam meningkatkan pengetahuan, sikap dan perilaku pencegahan Tb. paru. Penelitian pre eksperimen dengan rancangan pre and postes desain. Sampel adalah total populasi sebanyak 32 responden keluarga penderita Tb paru. Edukasi rumah sehat dapat meningkatkan pengetahuan rerata sebelum 7,8 dan 14,0. Sikap sebelum 5,5 dan sesudah 6,5. Perilaku sebelum 5,2 dan sesudah 5,8. Peningkatan pengetahuan mencapai 72,9%, sikap 18,3% dan perilaku 11,4%. Uji statistik menunjukkan ada perbedaan rerata nilai pengetahuan, sikap dan perilaku pencegahan Tb. paru sebelum dan sesudah pemberian edukasi rumah sehat, dengan nilai p untuk pengetahuan : 0,000, sikap : 0,002 dan perilaku : 0,006. Edukasi rumah sehat “door to door sistem” cukup efektif untuk meningkatkan pengetahuan, sikap dan perilaku keluarga penderita dalam mencegah Tb. paru. Pihak puskesmas disarankan agar edukasi langsung “door to door sistem” menjadi salah satu alternatif kegiatan penyuluhan untuk melibatkan partisipasi keluarga dalam pencegahan penyakit Tb. paru.

Kata kunci: Edukasi ; rumah ; sehat ; pencegahan ;Tb

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INTRODUCTION

Tuberculosis (TB) is an infectious disease that is still a global health problem and one of the leading causes of death worldwide. It is predicted that around a quarter of the world's population has been infected with *M. tuberculosis*, but in fact TB can be cured and prevented. Most TB germs attack the lungs, better known as pulmonary TB. TB prevention efforts emphasize multisectoral actions by involving communities in high-risk groups (1). Indonesia is the country with the second highest TB burden in the world after India. It is estimated that each year there are 845,000 cases of TB with a fairly high mortality rate of 98 thousand or equivalent to 11 deaths in 1 hour. The distribution of the number of TB cases in Indonesia tends to be high in the productive age group (2).

The number of TB cases in Tabanan Regency in the last three years has continued to increase, namely: 186 (2020), 194 (2021) and 237 (2022). Reports from the Tabanan Regency Health Office, TB sufferers are currently shifting, not only attacking adults but also attacking young people or children. Data in 2020 in Tabanan Regency found 184 cases of TB in adults and 8 cases in children aged 0-14 years. Kediri District and Kediri Health Center 1. (3).

The occurrence of disease and the process of transmission of TB disease is determined by three interrelated factors, namely the causative germ, people and the environment (4) (5). The extent of the influence of behavior and environmental factors in the transmission of TB has been widely studied. The results of research in the Kediri I Tabanan Health Center area showed that there was a relationship between behavior and the physical quality of the house with the incidence of Pulmonary TB (6). Likewise, research in Makasar City showed that there was a relationship between the physical condition of the house and the incidence of TB (7).

Reviewing the results of the above research, it is clear that the role of behavior contributes positively to the transmission of TB, especially Pulmonary TB. A person's behavior is influenced by knowledge and attitudes that encourage them to take action (8). Thus, it is very important that efforts to promote and educate the community in

preventing Pulmonary TB are carried out continuously (9). It is realized that implementing education in the community that is gathered in groups or en masse in one place is often also constrained. In addition to the problem of place, there is also a problem of implementation time because the busyness of the target community varies greatly. Education that is not carried out on time will reduce the optimization of the expected behavioral changes. According to the results of Pratiwi's research, 2024, it was concluded that direct home sanitation counseling can increase the knowledge and actions of mothers of stunted toddlers in Tabanan Regency (10). It is realized that the busyness of the target is an obstacle in itself if you have to gather the community to get education, so direct education to houses or "door to door" is an alternative choice.

MATERIALS AND METHODS

This type of research is field research, namely Pre Experimental with a pre and posttest design (11). Direct education with leaflet media door to door as a form of intervention to improve family knowledge, attitudes and behavior in preventing pulmonary TB disease. The sample is the total population of pulmonary TB sufferers for the last three months, namely August-October 2024. The number of samples is 32 families of pulmonary TB sufferers, as respondents who have met the inclusion and exclusion requirements. Univariate and bivariate data analysis using parametric statistical tests based on computer applications.

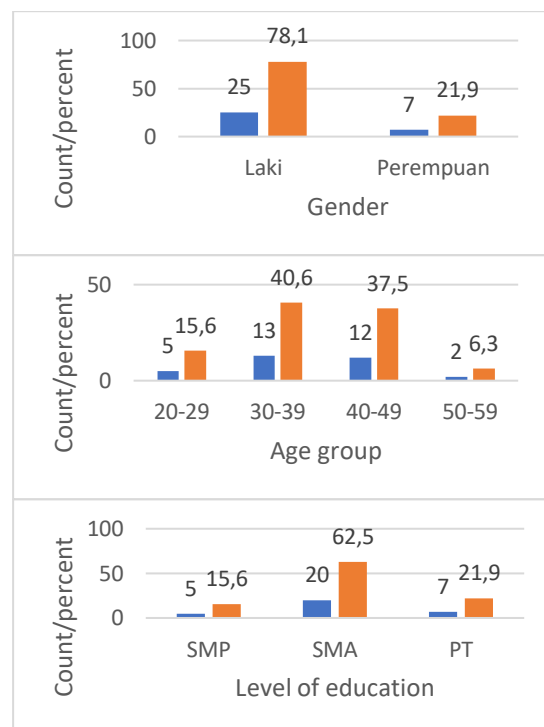
RESULTS AND DISCUSSIONS

The Kediri I Health Center area is part of the Kediri District area, located in the eastern part of Tabanan Regency. There are six villages that are the working areas of the Kediri I Health Center, namely: Abian Tuwung Village, Banjar Anyar, Kediri, Pandak Bandung, Nyitdah and Pejaten. Each village already has an assistant health center as a form of health service approach to the community. As a health service facility, the Kediri I Health Center organizes various public health efforts, both essential, development and individual.

In the period from August to November 2024, there were 35 sufferers recorded as the target population. The determination of

respondents who met the inclusion and exclusion criteria was 32 respondents. The distribution of respondents by gender, age group and education level is as shown in diagram 1.

Diagram 1. Characteristics of Respondents



From diagram 1, it can be seen that the respondents are predominantly male, the dominant age ranges from 30-39 and the dominant education level is high school/equivalent. The results of data collection on the level of knowledge, attitudes and behavior of respondents in preventing TB before and after education are as stated in table 1 and table 2.

Table 1. Category of Knowledge Level, Attitude and Behavior of Respondents before Education

Catagory	Knowladge	Attitude	Behavior
Good	0	7	0
Enough	20	25	32
Less	12	0	0
Count	32	32	32

Table 2. Category of Knowledge Level, Attitude and Behavior of Respondents after Education

Catagory	Knowladge	Attitude	Behavior
Good	16	9	14
Enough	16	23	18
Less	0	0	0
Count	32	32	32

To analyze the differences in the level of knowledge, attitudes and behavior before and after the education was done by comparing the increase in average values and using statistical tests. The results of the statistical test showed that the data on knowledge, attitudes and behavior were normally distributed, so the difference test was carried out using a parametric statistical test, namely the Paired T Test. The complete analysis results are shown in table 3.

Table 3. Increase in Knowledge, Attitudes and Behavior of Respondents Before and After Education

Variable	Average		Increase (%)	p
	Pre	Post		
Knowledge	7,8	14,0	79,2	0,000
Attitude	5,5	6,5	18,3	0,002
Behavior	5,2	5,8	11,4	0,006

The level of knowledge, attitude and behavior of families of pulmonary TB patients in the Kediri I Tabanan Health Center area before education was carried out was classified as sufficient and tended to be lacking. The lack of family knowledge about pulmonary TB prevention was influenced by several factors, including the lack of information received and the low desire to obtain information on disease prevention. Motivation to obtain information on disease prevention was also influenced by the level of education. The higher the level of education, the access and need to obtain information also increased. The results of research in the Teladan Medan Health Center area showed that the majority of family knowledge about preventing TB was categorized as good, because health center officers actively provided counseling about TB and its prevention (12).

Increasing family knowledge in preventing TB will encourage positive attitudes and behavior to prevent transmission of TB. Increasing knowledge needs to be attempted to increase family participation in disease prevention. Knowledge factors, both individual, group and community, influence disease prevention efforts (13).

By conducting direct counseling education to the families of patients, it has been able to improve knowledge, attitudes and behavior in preventing pulmonary TB. The level of knowledge, attitudes and behavior of preventing TB after education is dominantly sufficient and tends to be good. Education with direct counseling "door to door system" is carried out by researchers and teams using leaflets as the main media. On several occasions, educational activities were also accompanied by officers from the Kediri I Tabanan Health Center. This opportunity was widely used by families of patients to ask questions directly and discuss the follow-up of their family's treatment. By comparing the results of the pretest and posttest, this educational activity can increase the level of knowledge by 79.2%, attitudes by 18.3% and behavior by 11.4%.

The high results of achieving increased knowledge, attitudes and behavior are very much determined by the health promotion model and strategy. An individual approach and closeness to the target community will increase the achievement of the health promotion program. The leaflet media is designed with simple and easy-to-understand language so as to increase the understanding of the target community (14).

From the data of the results of increasing knowledge, attitudes and behavior before and after education, analyzed using the Paired T Test statistical test. The results of the statistical test showed that there was a significant difference between knowledge, attitudes and behavior before and after education. The significance value (p) of the level of knowledge: 0.000, attitude: 0.002 and behavior: 0.006. Thus it can be said that direct counseling education "door to door system" can effectively improve knowledge, attitudes and behavior in preventing pulmonary TB. This is in line with the results of research in Tabanan Regency which concluded that direct home sanitation counseling can improve the knowledge and sanitation actions of stunted toddler mothers (10)

Family support and community participation in disease prevention will increase if the family or community understands what efforts must be made to prevent it (15). Increasing knowledge, attitudes and behavior of families and communities in preventing disease is important. Therefore, to increase community knowledge in disease prevention efforts, this can be done by providing educational and innovative information (16).

CONCLUSIONS

Direct education through home visits "door to door system" using leaflet media can improve knowledge, attitudes and behavior of families of patients in preventing pulmonary TB in the Kediri I Tabanan Health Center area. It is recommended to the Kediri I Tabanan Health Center to make direct education "door to door system" as an alternative to involve family and community participation in preventing pulmonary TB.

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