

ABSTRACT

Relationship Between The Role Of Nursing Educators With Compliance With Lung Tuberculosis Control In Medika Mulia Hospital Patients

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The compliance control of Lung Tuberculosis patients to Poli Paru is influenced by several factors one of which is the Hospital environmental factors (doctors, nurses, midwives and other health teams). Nurses are a profession very close to patients, one of the approaches used by nurses is the role of the nurse as an Educator. The purpose of this study was to identify tuberculosis patient compliance for back control and to know the relationship between the role of the Nurse Educator with the compliance control of pulmonary tuberculosis patients to Medika Mulia Hospital Tuban

The method used in this research is correlation analytic method with cross sectional research design. The research in this study involved 66 pulmonary TB patients in Pulmonary Hospital Medika Mulia Tuban, with the determination of the sample using a systematic random sampling method. Data collection was carried out by questionnaire using Sphman RHO test data analysis.

From the results of the analysis obtained data with a significance value of 0.003 ($p < 0.05$) which means there is a positive relationship between the role of Educator nurses with compliance with Lung Tuberculosis patient compliance. Therefore, HI was accepted, namely the close relationship between the role of the Educator nurse and the compliance control of Lung Tuberculosis patients in the Pulmonary Poli Medika Mulia Tuban Hospital.

The results of this study provide input to nurses in the development of nursing knowledge, specifically the role of nurses as educators in the Pulmonary Poli Medika Mulia Tuban Hospital in order to improve control compliance in pulmonary TB patients.

Keywords : Lung TB, patient compliance, the role of educator nurses

PRELIMINARY

Pulmonary tuberculosis (pulmonary TB) is a disease caused by mycobacterium tuberculosis, a germ measuring one to five micrometers, spreading through the air through a droplet from a pulmonary TB patient that spreads when the patient coughs, sneezes, and talks (Utomo et al, 2013). Lack of knowledge of patients with pulmonary TB about the way of transmission, the dangers and ways of treatment will affect the attitudes and behavior as a sick person and ultimately result in becoming a source of transmission for the people around him. Health or healing is the main need for these individuals. When sick and in the hospital, the individual is a client who needs communication and interaction with health workers to facilitate the healing process (Nurjanah, 2001).

Patient compliance for control to hospital is influenced by several factors, one of which is hospital environmental factors (doctors, nurses, midwives and other health teams). Compliance with the control of undergoing regular treatment for 6 months and taking medication regularly is the main key to the success of healing TB patients because if not done, then this TB disease will become multi drug resistant Tuberculosis (MDR-TB) that is drug resistant. Thus explained the chairman of the Working Group Direct Observed Treatment Short-course (DOT'S) and MDR TB of Dr. Dr. dr. Erlina Burhan, MSc, Sp P (K) in media meetings on TB and lung disease. Most patients refuse to be treated for reasons of work so patients cannot come in control. Patients who refuse treatment will become a source of transmission for others and may even die. Many TB patients stop treatment because they feel their body

is better than before, their weight has gone up, before the 6 month treatment period ends, even though the negligence of TB patients causes the TB mycobacterium bacteria in their body to become resistant to the drug or multi drug resistant

Nurses are a profession that is very close to clients (Nurjanah, 2009). The role of the nurse here is very important in preventing transmission of pulmonary TB infection in the hospital, because the one who provides care for 24 hours consistently to the patient is the nurse, which also means accountability for the relationship between the nurse and client, where the nurse helps client participation, helps gain knowledge and improves health , in this case the prevention of TB transmission through the use of compliance control in pulmonary TB patients. Communication between nurses with clients or clients' families includes client problems, control procedures, nursing actions to be carried out as educators, facilitators, and providers of information needed by clients related to client treatment programs. The nurse's relationship with the patient is a mutual learning experience and emotional emotional experience for the client. The key relationship between nurse and client activities is encouragement and support for healing, so that clients do activities based on needs. Nurses use certain techniques at work to improve the appreciation and change in client behavior (Stuart and Laraia, 2001).

Masriadi, (2011) explained that pulmonary tuberculosis (pulmonary TB) is a chronic disease that can seriously reduce the physical endurance of sufferers. In destruction and the process of restoration or healing of lung tissue occurs simultaneously, resulting in structural changes that are permanent and varied

that cause various kinds of fatal lung abnormalities.

Tuberculosis is an important health problem because one third of the population has been infected by *Mycobacterium tuberculosis* and causes of death. The prevalence of world pulmonary TB in 2008 was around 5-7 million cases, both new cases and relapsed cases. The prevalence is 2.7 million of which are new positive smear and 2.1 million of new negative smear cases (WHO, 2009). The total number of pulmonary TB cases in 2009 was 292,753 cases, of which 169,213 were new smear positive TB cases, 108,616 were smear negative TB cases, 11,215 were Extra Lung TB cases, 3,709 were relapsed TB cases (WHO, 2010). The number of pulmonary TB cases in 2010 was 8.8 million cases of new pulmonary TB worldwide with a mortality rate of 1.1 million people. 59% of pulmonary TB sufferers are in Asia, followed by Africa as much as 26%, the rest are in the eastern Mediterranean, Europe and America (WHO, 2011).

Indonesia is in the fourth position in the world in the number of people with Tuberculosis, after China and Pakistan. The number of new case findings (Case Detection Rate / CDR) in 2008 in Indonesia was 72.8 per 100 population (72.8%) or found 166,376 new patients with smear positive.

The cause of pulmonary TB disease is *Mycobacterium tuberculosis*, the bacterium was first described by Robert Koch on March 24, 1882. *Mycobacterium tuberculosis* is a straight or slightly bent rod with a size of 0.2-0.4 x 1-4 μm . Ziehl-Neelsen's staining is used to identify the bacteria.

These bacteria have special properties, namely resistant to washing colors with acids and alcohol, so it is often called acid-resistant bacilli (AFB). Tuberculosis bacteria are also

dormant and aerobic. *Mycobacterium tuberculosis* die on heating 100 C for 5-10 minutes while with alcohol 70-95% for 15-30 seconds. These bacteria hold for 1-2 hours in the air, especially in damp and dark places (can be for months), but are not resistant to light or air flow. These tuberculosis bacteria die at 100 C for 5-10 minutes or at 60 C for 30 minutes, and with 70-95% alcohol for 15-30 seconds. These bacteria hold for 1-2 hours in the air, especially in damp and dark places (can be for months), but are not resistant to light or air flow (Masriadi, 2012).

The new DOT'S strategy, (directly observed treatment short course), the main symptom is coughing up phlegm and / or continuously for 3 weeks or more. Based on these complaints, someone can already be named as a suspect. Other symptoms are additional symptoms. Phlegm of the patient must be examined by microscopic examination. The incubation period from exposure to the appearance of major lesions or significant pulmonary TB reaction is 4-12 weeks. (Masriadi, 2011).

RESEARCH METHODS

Research design

This research is a correlation analytic study because it connects the independent variable (the role of the nurse) and the dependent variable (control compliance).

Population and Sample

Population is the whole object or subject that has the quality and characteristics of the research to be studied (Notoadmojo, 2009). The population in this study were 66 patients with pulmonary tuberculosis in Pulika Mulia Hospital.

So the sample size for this study was 66 respondents.

Research Instruments

The instrument used in this study was a questionnaire sheet to identify the role of nurses in adhering to patient control.

Data Analysis

After all the research data has been collected, the data is processed using several stages, namely: editing, coding, scoring, tabulatin.

Data analysis is a process carried out systematically on data that has been collected with the aim that trends and relationships can be investigated (Nursalam, 20011) After the data is collected, data processing is done then the technique used to process this data is a statistical test, using the test " Spearman rho ". The researcher uses SPSS version 16.0 to analyze the relationship between the two variables. The decision making provisions whether the hypothesis is accepted or rejected by looking at significance. The level of significance = 0.05, meaning that if $p < a$ (0.05) then H_0 is rejected, meaning that there is a significant relationship between the two variables measured, but if $p > a$ (0.05) then H_0 is accepted meaning there is no relationship between two variables measured.

RESEARCH RESULT

General data

Table 5.1 Distribution of Frequency of Respondents by Gender in Pulmonary Pols Medika Mulia Hospital in Tuban June - July 2019

No	Type Gender	Frequency	Percentage
1	Male	30	45,5
2	Female	36	54,5
Amount		46	100

Based on table 5.1 it can be seen that the majority (54%) of respondents in lung poly are female

Table 5.2 Distribution of Frequency of Respondents by Age in Lung Pols Medika Mulia Hospital in Tuban June - July 2019

No.	Age	Frequency	Percentage
1.	16-35 Years Old	15	22,7%
2.	36-65 Years Old	41	62,1%
3.	>65 Years Old	10	15,2%
Amount		66	100

Based on table 5.2 it can be seen that the majority (62%) of respondents in pulmonary poly aged 36-65 years old.

Table 5.3 Distribution of Respondents Based on Marital Status in Lung Poly Medika Mulia Hospital in Tuban June - July 2019

No.	Marriage	Frequency	Percentage
1.	Married	46	69,8%
2.	Single	11	16,6%
3.	Widow/Widowed	9	13,6%
Amount		66	100

Based on table 5.3 it can be seen that the majority (70%) of respondents in pulmonary poly have married status.

Table 5.4 Distribution of Frequency of Respondents by Education in Lung Pol Hospital Medika Mulia Tuban in June - July 2019

No	Education	Frequency	Percentage
1	No school	2	3,0
2	Elementary school	7	12,1
3	Middle school	4	6,1
4	High school	23	34,8
5	DIII / S1	29	43,9
Amount		66	100

Based on table 5.4 it can be seen that the majority (44%) of respondents in pulmonary poly education DIII / S1.

Table 5.5 Distribution of Frequency of Respondents by Occupation in Lung Poly Medika Mulia Hospital in Tuban June - July 2019

No	Pekerjaan	Frequency	Percentage
1	Does not work	19	28,8
2	Student	5	7,6
3	Private	27	40,9
4	Labor	10	15,1
5	Pension	5	7,6
Amount		66	100

Based on table 5.5 it can be seen that the majority (41%) of respondents in pulmonary poly have private / entrepreneurial work.

Special Data

Table 5.6 Frequency Distribution of Respondents by Role of Nurses in Lung Poli Medika Mulia Tuban Hospital in June - July 2019

No	The role of the nurse	Frequency	Percentage
1	High	18	27,3
2	Medium	28	42,4
3	Low	20	30,3
Amount		66	100

Based on table 5.6 it can be seen that almost half (42%) of respondents consider that the role of nurses is categorized as moderate

Table 5.7 Frequency Distribution of Respondents Based on Patient Control Compliance in Medika Mulia Hospital in Tuban, June - July 2019

No	Compliance control	Frequency	Percentage
1	Obedient	17	25,7
2	Not obey	49	74,3
Amount		66	100

Based on table 5.7 it can be seen that the majority (74%) of respondents are not compliant to control.

Table 5.8 Cross Table of Relationships between the Role of Nurses and Patient Control Compliance in Pulmonary Poli Medika Mulia Hospital in Tuban in June - July 2019

		Compliance Control		Total
		Obedient	Not obey	
the role of the nurse	High	0 (0%)	1 (1,5%)	1 (100%)
	Medium	9 (13,6%)	25 (37,9%)	34 (100%)
	Low	0 (0%)	31 (46,9%)	31 (100%)
Total		9 (13,6%)	57 (86,4%)	66 (100%)

From table 5.8 it can be seen that almost half (47%) of respondents who have disobedient control compliance believe that nurses have a low role.

DISCUSSION

The Role of Nurses as Educators Based on Patient Ratings in Medika Lung Hospital of Medika Mulia Tuban in June - July 2019

Table 5.6 shows that almost half of the implementation of the role of the nurse educator in Medika Mulia Hospital in Tuban were perceived as being in the medium category, namely 28 people (42.4%), 20 people (30.3%) perceiving in the low category and 18 people (27.3%) perceive with a high category. The personal character of the nurse plays an important role in determining the outcome of interactions in the health education process. Low teaching awareness and lack of confidence in teaching can make the goals in the education provided not achieved, but in this study it has been shown that almost half (42.4%) of respondents perceive the role of nurse educators in the medium category.

Nurses in carrying out the role of educator help patients to improve their health through the provision of knowledge related to nursing and medical actions received so that patients or families can accept responsibility for the things they know (Doheny, 1982 in Kusnanto, 2011). Factors influencing the role of the nurse educator are that patient education is still a low priority and the personal character of the educator nurse (Bastable, 2012). The role of the educator nurse plays a more important role to ensure continuity of care in all environments (Dessy, 2011).

Nurses who have not delivered education or educator of all components of knowledge clearly and completely can cause an increase in the number of relapses and transmission of patients in the home environment, because

patients and families have not been able to perform care independently and do not know the importance of treatment until completion. Many things can cause a decrease in the role of nurses in doing good education, one source that can cause it is work stress. Increased work stress can reduce the quality of nurses in providing education and other forms of service.

Compliance Control of Pulmonary TB Patients Based on Patient Evaluation in Pulmonary Poli Medika Mulia Hospital Tuban June - July 2019

Researchers looked at the level of compliance in this study by distributing questionnaires to respondents in the outpatient installation at Medika Mulia Hospital in Tuban. The level of patient compliance for control seen from the questionnaire distributed to respondents that have been determined by researchers as many as 66 respondents, it is known that more than 50 percent, namely 49 people (74.3%) are not compliant to control, the remaining 17 people (25.7%) obedient to control.

Obedience is obedience or surrender to predetermined goals. Compliance is directly proportional to the goals achieved in the prescribed treatment program. Adherence to a health program is observable behavior and can be directly measured (Bastable, 2002). Factors that influence compliance are environmental variables (distance affordability) and ability to access existing sources (affordability costs) (Carpenito, 2009).

Affordability of distance and costs incurred for control are also a problem in the field. Respondents said that they were not compliant with control because their homes were far away and no one was ushering in for control, and the costs used for control would

increase this month (July 2019) to coincide with children entering school and approaching the August celebrations which made spending also increase. From the data distribution of respondents obtained by the majority of female respondents suffering from Tuberculosis that is not obedient to control due to various activities in the household role. The level of education also affects the level of compliance with tuberculosis control because education level greatly influences the level of understanding of tuberculosis, the higher the level of education the higher the level of patient control compliance. Marital status also affects the level of control compliance because there is a controller whose role is to provide control and support in the process of treating tuberculosis patients.

The effect of health promotion on community perceptions about Ponkesdes services in Senanghaji Village, Merakurak District, Tuban Regency

In this study found 17 (25.7%) of respondents adhere to control, this is due to several factors including the level of education most of the respondents have a college education level so that respondents understand more about health and the importance of control, other things that affect Patient control adherence is support from the family, because the family's role is to motivate patients when at home. The role of the nurse educator perceived by 66 respondents in the medium category was mostly obedient to carry out the control of 57 people (86.4%), the remaining 9 people (13.6%) were not compliant for the control.

Statistical test results show the value of $p = 0.003$. H_a is accepted if H_0 is rejected, where H_0 is rejected if

the value of $p \leq \alpha$, $0.003 \leq 0.05$. The results of the statistical analysis found that there was a significant relationship between the role of the educator nurse and the level of compliance with the control of pulmonary tuberculosis patients at Medika Mulia Hospital in Tuban.

These changes indicate that the role of nurses influences the control of pulmonary TB patients.

Measuring adherence made to a treatment program is more effective with a communication model for education provided to patients. Communication between nurses and patients / families in health education is very important in the planning of repatriation that will facilitate patients in receiving or understanding instructions given to patients when at home that can independently maintain or improve their health (Fisher 1992 in Bastable, 2013).

LIMITATION

Researchers still find several limitations of the study. The results of this study have research limitations related to data collection techniques using research instruments in the form of questionnaires that measure the role of the nurse educator role in patient control compliance, while other obstacles in the study are some respondents who cannot read so the researcher must read one by one question.

Data collection using a questionnaire tends to be subjective so that the honesty of respondents determines the truth of the data provided.

KESIMPULAN DAN SARAN

Kesimpulan

Dari hasil penelitian ini dapat disimpulkan bahwa:

1. Sebagian besar peran perawat pada poli paru RS Medika Mulia Tuban cenderung di nilai sedang dalam memberikan edukasi pada pasien pendireta tuberkulosis.
2. Kepatuhan kontrol pederita tuberkulosis paru di poli paru RS Medika Mulia Tuban cenderung dinilai rendah ditandai banyaknya penderitanya yang tidak patuh dalam kontrol sesuai jadwal yang sudah ditentukan .
3. Terdapat hubungan antara peran perawat terhadap kepatuhan kontrol pasein di poli paru RS Medika Mulia Tuban tahun 2019.

Saran

Teoritis : Diharapkan hasil penelitian ini dapat dipergunakan sebagai informasi ilmu pengetahuan khususnya ilmu keperawatan manajemen terkait dengan peran perawat *educator* dengan kepatuhan kontrol pasien tuberkulis paru.

Praktis :

1. Bagi penderita
Diharapkan masing-masing pasien dapat menerima dan memahami peran perawat *educator* karena setiap individu mempunyai karakter yang berbeda-beda, sehingga untuk meningkatkan kepatuhan kontrol pasien..
2. Bagi institusi
Diharapkan bagi institusi pendidikan diharapkan hasil penelitian ini dapat dipergunakan sebagai informasi ilmu pengetahuan keperawatan di bidang manajemen.

3. Bagi Rumah Sakit
Pihak Rumah Sakit sebaiknya selalu mengawasi terkait dengan peran perawat *educator* agar kepatuhan kontrol pasien semakin meningkat.
4. Bagi Peneliti Selanjutnya
Peneliti selanjutnya diharapkan dapat meneliti tentang faktor yang mempengaruhi kepatuhan kontrol pasien yaitu tentang peran perawat yang belum sempat di teliti
5. Perawat harus mampu menggunakan bahasa dan cara yang mudah dipahami dalam memberikan edukasi tentang kepatuhan kontrol agar meningkatkan angka keberhasilan pengobatan tuberkulosis

CONCLUSIONS AND SUGGESTIONS

Conclusion

From the results of this study it can be concluded that:

1. Most of the roles of nurses in pulmonary poly at Medika Mulia Tuban Hospital tend to be of moderate value in providing education to patients suffering from tuberculosis.
2. Compliance with control of pulmonary tuberculosis sufferers in pulmonary poly at Medika Mulia Tuban Hospital tends to be underestimated, marked by the number of patients who are not compliant in control according to a predetermined schedule.
3. There is a relationship between the role of nurses in compliance with patient control in pulmonary poly Medika Mulia Tuban Hospital in 2019.

Suggestion

Theoretical: It is hoped that the results of this study can be used as scientific information, especially nursing management related to the role of nurse educators with compliance with control of pulmonary tuberculosis patients.

Practical:

1. For sufferers
It is expected that each patient can accept and understand the role of the educator nurse because each individual has a different character, so as to improve patient control compliance.
2. For institutions
It is expected that for educational institutions it is expected that the results of this study can be used as information about nursing science in the field of management.
3. For Hospitals
The Hospital should always supervise related to the role of the nurse educator so that patient control compliance increases.
4. For Further Researchers
The next researcher is expected to be able to examine the factors that influence patient control control, namely the role of nurses who have not been examined
5. Nurses must be able to use language and ways that are easily understood in providing education about control compliance in order to increase the success rate of tuberculosis treatment

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