



The influence of expert patients on the increase of medication adherence among tuberculosis patients[☆]



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KEYWORDS

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Abstract

Objective: This study aims to analyze the relationship between the role of expert patients and medication adherence among tuberculosis patients.

Method: The research was conducted as a quasi-experiment with control. There were 34 samples selected using the probability sampling technique.

Results: The data were analyzed statistically using the Wilcoxon test and paired *t*-test. The results reveal that there was a change in knowledge and adherence before and after health education in the intervention and control groups. However, only the intervention group experienced a significant change with $p < 0.05$, while in the control group, the change was not significant with $p > 0.05$.

Conclusion: This study showed that there was a significant change in the mean of knowledge and adherence before and after health education by expert patients in the intervention group.

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Introduction

Tuberculosis (TB) is still a major health problem in the world. Globally new cases of tuberculosis amounted to 6.3 million, equivalent to 61% of tuberculosis incidents (10.4 million). Tuberculosis remains the 10th leading cause of death in the world, and global Tuberculosis mortality is estimated at 1.3 million patients.¹ Proper diagnosis, selection of drugs and the administration of the correct drug from health workers

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turned out to be not enough to guarantee the success of therapy if it is not followed by patient compliance in taking the medicine.² Seeing the high incidence of TB, appropriate treatment is needed, one of which is adherence to treatment.

One of the important points of TB patient compliance in treatment is cost. The study found that patients with low economic levels (poor) needed a subsidy/insurance program (assistance from the poor) in TB treatment and this was proven because the community eventually sought treatment as evidenced by the increase in the number of patients taking TB treatment in almost every hospital.³ Also, the factors that influence the level of compliance are knowledge, motivation to take medication, and CIE (Communication, Information, and Education). Another important factor is the level of patient education, low education resulting in low knowledge. The large number of non-compliance with treatment will result in high rates of treatment failure.⁴ Follow-up treatment implementation and the coordination system, as evidenced by direct attention when conducting treatment contribute to treatment compliance until treatment is complete.

The empowering patient had become an important part in supporting TB control strategies, including in case finding, social support, and advocacy. Patients also become equal partners in TB control. Patient alignments are very important in TB control because this is the point where the traditional topdown approach meets the bottom-up approach.⁵ Meanwhile, to achieve good empowerment, the role of expert patients is needed in the implementation of health services.⁶ The existence of expert patients in a community provides an opportunity for faster dissemination of health information, helps health workers and vice versa help patients in accessing health services, and improve the quality of services at lower costs.⁷ Therefore, based on the description above, the researchers wanted to analyze the relationship of the role of expert patients to the adherence of TB patients to treatment.

Materials and methods

Location and design of research

This research was conducted at the H. Padjonga Daeng Ngalle Hospital in Takalar, Indonesia using experimental design.

Population and sample

The population in this study were all pulmonary TB patients who attend in the research setting and by using nonprobability sampling, we recruited 485 samples, which inclusion criteria were patients who attend research setting and ≥ 15 years old.

Data collection technique

Primary data obtained by filling out the questionnaire and observation sheet data.

Table 1 Distribution of respondent characteristics based on sociodemography (age, work, gender, education, and work).

Characteristics of respondents	<i>n</i>	%
<i>Age (mean \pm SD)</i>	46.41	12.93
<i>Gender</i>		
Male	15	44.1
Female	19	55.9
<i>Education</i>		
Not completed in primary school	8	23.5
Elementary school	15	44.1
Junior high school	4	11.8
High school	5	14.7
Graduate	2	5.9
<i>Work</i>		
Farmer	11	32.4
Laborer	1	2.9
Civil servants	3	8.8
Private	1	2.9
Other	18	52.9

Analysis and presentation

Data analysis was performed using SPSS 21 for Windows and statistical tests using the Wilcoxon test and paired *t*-test. Ethical clearance approved from ethical committee, Faculty Medicine, Hasanuddin University (No. 719/H04.8.4.5.31/PP36-KOMETIK/2016).

Results

The mean age respondent who came for medical treatment was 46.41 years old (\pm SD 12.93), more than half of the respondents were female (*n*: 19, 55.9%). Almost half of the respondents were graduate from elementary school (*n*: 15, 44.1%) respondents, and the majority of respondents did not work (*n*: 18, 52.9%) respondents (Table 1).

Effect of intervention found significant in knowledge and compliance after health education. Knowledge status increase significantly ($p=0.000$) and compliance ($p=0.003$), which contrary with control group, we found no difference between pre- and post-test for knowledge ($p=0.773$) and compliance (0.157) (Table 2).

Discussion

Our finding indicates that the intervention group has a significant difference after the intervention. This finding in line with the previous study that education for patients with TB by expert patients improve compliance.⁸ Providing education by expert patients also attract patients who have the same health problems because when expert patients speak in front of them, the patient seems to see a picture of himself and the patient can take a positive side of how the expert patient goes through difficult times in his life.⁹

The second finding was that there is the improvement of compliance after education with a patient expert.

Table 2 Differences in knowledge and pre–post compliance tests in the intervention group and the control group.

Variable	Intervention group Health education (n = 17)		Control group (n = 17)	
	Mean (SD)	p	Mean (SD)	p
<i>Knowledge</i>				
Pre-test	5.18 (±1.77)	0.000*	5.82 (±1.91)	0.773**
Post-test	8.82 (±1.28)		5.76 (±1.61)	
<i>Compliance</i>				
Pre-test	2.65 (±0.78)	0.003*	2.53 (±0.71)	0.157*
Post-test	3.88 (±0.48)		2.76 (±0.66)	

* Wilcoxon test.

** Paired *t*-test test.

Treatment compliance is an important problem for controlling TB. The importance of self-efficacy in treatment must be considered by health educators when educating patients to comply with TB treatment.¹⁰ Also, adherence to treatment instructions has a significant relationship with the level of knowledge and attitudes of TB patients and thus contributes to TB treatment at the community level which has an impact on the physical, psychological, family, social and economic conditions that can be detrimental to TB itself.¹¹ This finding indicates the urgency to develop collaborative learning in TB. Collaborative learning involves collaboration between various people to involve caregivers (nurses) with patients is an effective approach to improve patient health care,¹² including an expert patient who can motivate patients to comply with their treatment regimens, improve their health status and prevent complications.

Conclusion

The results of this study indicate that the provision of education to patients performed by expert patients is very influential on patient knowledge and compliance in treatment.

Conflict of interest

The authors declare no conflict of interest.

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