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The relationship between family's informational support and self-efficacy of pulmonary tuberculosis client☆

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KEYWORDS
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Abstract
Objective: This study purposed to determine the relationship of informational support from family with self-efficacy of tuberculosis clients.
Method: It applied cross sectional design to 99 tuberculosis clients as purposive samples at one Public Health Center in South Jakarta. The result showed that there was a relationship between informational support and self-efficacy (p value 0.002, α 0.05).
Results: The TBC clients with less family support were at risk of 4.047 times of low self-efficacy compared to clients with good family supports (95% CI OR: 1.721; 9.519).
Conclusion: The study concluded that informational support is important for tuberculosis treatment. This study recommends empowering family in providing informational support to increase the self-efficacy among tuberculosis clients.

Introduction

Tuberculosis (TBC) is still become a worldwide health problem. The total of TBC cases was 9 million people in the world.[1] TBC also still becomes health problem in Indonesia. The number of TBC cases found in Indonesia was 330,910 people in 2015 and it was increasing from 2014 that 324,539 people were diagnosed TBC. The number of TBC cases in Indonesia was also found as many as 10% of all cases in the world.[2]

South Jakarta is the region with the second largest number of TBC in DKI Jakarta Province. It was about 1736 people get the disease but only 500 people who had been recovered.[3] Spatial analysis of smear positive pulmonary TBC showed that TBC cases in South Jakarta have increased during the last five years.[4] Based on 2014 survey of the Central Bureau of Statistics, TBC incidence with

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smear positive at Jagakarsa, a sub-district of South Jakarta City was about 229 people and clinical TBC was 166 people.[5] Jagakarsa Public Health Center has achieved TBC indicator but has not reached yet the National target (67%). Data of TBC clients who underwent treatment and experienced drug withdrawal was about 12% and TSR 80% (personal communication with doctors and nurses).

Self-efficacy is an assessment of one's ability to perform at a certain level.[6] The self-efficacy determines the TBC client in their treatment management. Research by Arias et al. expressed that perception about the severity of the disease affecting the self-efficacy of TBC clients.[7] Self-efficacy of TBC clients consists of efficacy to communicate with physicians, diagnosis disclosure, seeking support and treatment adherence.[8] This study focused on treatment adherence self-efficacy. Family support is very important for TBC clients considering their long-term treatment. Chen et al. showed that unmarried TBC clients who have smaller families and lower family incomes received less social support.[9] This suggests that family has role in providing care for TBC client at home. Informational support is one of family support that needed by TBC clients during treatment. Many things may influence TBC clients' self-efficacy during treatment. Regarding these facts, it is necessary to conduct research about the relationship of informational support from family to TBC clients' self-efficacy using cross sectional approach.

Methods

This study applied cross sectional design.[10] The sample size was 99 TBC clients at Jagakarsa Public Health Center South Jakarta. Respondents in this study were recruited by purposive sampling technique. Applied inclusion criteria consisted of TBC clients who have completed intensive treatment or already finished TBC regimen, age range 18–60 years, staying with family and willing to be respondent. The ethics of this research covers respect to the human dignity and prestige, subject privacy and confidentiality, justice and inclusiveness and give benefit and minimize disadvantages which were approved by the Faculty of Nursing Universitas Indonesia Ethics Committee numbered 0556/UN2.F12.D/HKP.02.04/2016.

Variables of study were family's support that was derived into emotional, instrumental, informational, and appraisal support and also self efficacy. These variables were measured by the family support questionnaire that was adopted from Biswas, Thaniwattananon and Nilmanat with reliability score 0.917[11] and self-efficacy questionnaire for Medication Adherence from Mason et al. with reliability score 0.839.[8] The data was collected by research assistants who experienced in conducting TBC research. They collected TBC clients information from Jagakarsa Public Health Center South Jakarta, and subsequently reach and made appointment to meet clients and do data collection.

Data was analyzed by univariate that presented in frequency and percentage of family support and self-efficacy. Then, bivariate analysis applied to identify relationship among types of family's support. All data in this study was normally distributed. Informational support was categorized into less (total score < 22) and good (total score ≥ 22).

Table 1 Frequency distribution of family information support to TBC clients in Jagakarsa Public Health Center, December 2016 ($n = 99$).

Information support	*F*	%
Poor	39	39.4
Good	60	60.6
Total	99	100

Table 2 Frequency distribution of TBC clients' self-efficacy at Jagakarsa Public Health Center, December 2016 ($n = 99$).

Self-efficacy	*F*	%
Poor	41	41.4
Good	58	58.6
Total	99	100

Self-efficacy data was categorized into less (score total < 38) and good (score total ≥ 38). Bi-variate analysis used Chi Square test. The significance level (α value) used 0.05 with 95% CI and closeness of the relationship applied odds ratio (OR) value.

Result

Table 1 shows that most of TBC clients (60.6%) have good informational support. Table 2 shows that half of TBC clients (58.6%) have good treatment adherence. Table 3 shows that 24 respondents (61.5%) who get less informational support demonstrated low self-efficacy. The result of statistical test showed that self-efficacy was influenced by informational support (p value 0.002; α 0.05). It can be concluded that respondents with low informational support possible to have 4.047 times lower of self-efficacy than respondents who received good informational support (95% CI OR: 1.721; 9.519).

Discussion

This study results indicated that 39.4% of TBC clients got low informational support. Providing informational support related to families' ability in collecting information about prevention of TBC transmission from health workers including doctors. This is also corroborated from researcher's observation that some TBC clients were not accompanied by the family when coming to the public health center.

In line with the research of Biswas, Thaniwattananon and Nilmanat which explained that informational support from family was low.[11] According to them, the lack of informational support was caused by family's limited access to information from health providers. According to the researchers, informational support in this study has been provided by healthcare workers to clients and families in early treatment but there was no repetition for information sessions that given to TBC clients and family when they do control and taking Anti-TBC drugs (OAT). It can be concluded that health education session about TBC and the regimen need to be improved.

Table 3 Analysis of information support relationship with self-efficacy of respondents in Jagakarsa Community Health Working Area, December 2016 ($n = 99$).

Information support	Self-efficacy		Total		OR	*p* value
	Poor	Good	*F*	%		
Poor	39	39.4	39	100	4.047 (1.721–9.519)	0.002
Good	60	60.6	60	100		
Total	99	100	99	100		

The results showed that 41.4% of TBC clients had low self-efficacy. This is different with previous study. Most of TBC clients (71%) have high self-efficacy. This may occur because 63% of health workers become source of health information for TBC clients in previous study.[7] The difference with this study was nurses and doctors could not perform roles as sources of information for TBC clients and families adequately.

This situation needs attention because TBC clients need self-efficacy to adhere to the treatment. The TBC TSR scores of TBC clients at the study sites were lower than the national indicator target (80%) and the 12% drop-out rate. It was because there were TBC clients who have poor self-efficacy in treatment adherence. Inadequate treatment adherence demonstrated behavior of TBC clients. It increases the number of TBC clients who drop out. Furthermore, it can affect the outcome of failed treatment and result in low TSR lift.

TBC clients who take medicine regularly are TBC clients who have good self-efficacy.[12] The main reasons of treatment disobedience are access to health care facilities, clients already feeling well, lack of family support, lack of nutrition and side effects of the drug.[12] According to the researchers, self-efficacy plays an important role in TBC clients who undergo TBC treatment. Clients with high self-efficacy have confidence to have treatment until healed.

This study showed that 24 respondents (61.5%) who got less informational support showed low self-efficacy. The result of statistical test showed that there was relationship of informational support with self-efficacy (p value 0.002; α 0.05). It can be concluded that informational support is essential for TBC clients. The TBC clients who received informational support from family will suppress the stressor and make positive suggestions about the treatment undertaken. Therefore, TBC clients with poor informational support will have negative perception of their illness and low self-efficacy.

The study results similar issue with the previous research.[11] There was a relationship of informational support with the TBC client's healthy behavior. Providing informational support may help TBC clients to show better health behaviors. The provision of informational support is a form of motivation given to TBC clients during treatment.[13] Provision of suggestions for TBC clients is a form of verbal persuasion from families that can convince TBC clients in performing actions that can support the treatment. Someone who gets verbal persuasion will survive when faced challenges and difficulties. The self-efficacy will be difficult to establish if not get verbal persuasion from others.[14]

Based on the OR value, it can be concluded that respondents with low informational support possible to have 4,047 times self-efficacy lower than respondents with good informational support (95% CI OR: 1.721; 9.519). Lack of information support from the family related with the family ability in providing support. Nursasi explained that in terms of increasing the family's ability, the family needs education and assistant from health workers and trained health volunteers.[15] Education about disease and treatment can be given to family. According to researchers, educational efforts have been done by health workers at the initial treatment but not all the TBC clients were accompanied by families. There is also no repetition of informational session that given during treatment process. The families as treatment supervisors rarely received optimum accompany from health personnel. It makes them are not confidence to provide information for clients.

There is a relationship between informational support and self-efficacy of TBC clients. This study recommends family empowerment in the context of providing informational support to improve self-efficacy of TBC clients.

Conflict of interests

The authors declare no conflict of interest.

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