



Family and Client Approches to Improve Family Support and Tuberculosis Client Compliance in Self Care

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Abstract

Background Indonesia ranks fifth for tuberculosis (TB) incidents in the world after India, China, Nigeria and Pakistan with a total of 460,000 new cases and prevalence reaching 680,000. Clients with pulmonary TB disease generally have a low understanding on the treatment of pulmonary TB. This condition make the client not adhering to the treatment program. Nurses who care for TB clients more effective with discussions, participatory approaches than traditional approaches, meanwhile lectures only focus on disseminating information. Participatory approaches can be done through home visits to increase family support and improve compliance in self care.

The objective of this study was to assess the effectiveness of family and client approach to improve family support and client compliance in self care.

Methods The desainof this study was *Quasi Experiment with a control group*. This research was conducted in Bogor city with a total sample of 28 people in the intervention group and 28 in the control group.

Results showed that the family and client approaches could increase family support with P value 0.001 and also improve self-care compliance with p value 0.001. In multivariate analysis there was no effect of age, job, education of client on family support, there was an effect of source of information on family support with p value of 0.023.

Conclusions: The family and client approaches can be implemented in order to improve family support and TB client self care compliance in Public Health Centre.

Keyword: Tuberculosis, family support, compliance, self care.

Introduction

Pulmonary TB is still a burden on health of people and become the biggest health problem in the world after HIV, so it must be dealt with seriously. Based on data from the World Health Organization (WHO), in 2014 TB cases in Indonesia reached 1,000,000 cases and the number of deaths from TB was estimated at 110,000 cases each year. Indonesia ranks fifth for TB incidents in the world after India, China, Nigeria and Pakistan with a total of 460,000 new cases and prevalence reaching 680,000 (WHO, 2013). For this reason, the government has designed a program to control TB which aims to reduce morbidity and mortality due to TB disease by breaking the chain of transmission and

preventing the occurrence of multi-drug resistant TB (MDR).

Pulmonary TB disease can cause death. The death rate reaches 1.1 million worldwide, and reaches 64,000 deaths in Indonesia (WHO, 2013). Another problem arising from pulmonary TB is the loss of the average working time of pulmonary TB clients by three to four months. About 75% of TB clients are identified as being of productive age at the age of 15-50 years. Another problem with pulmonary TB is the stigma against clients of pulmonary TB which causes various social and psychological problems. Stigma that is not resolved can result in clients choosing not to continue the treatment. If this happens, then TB patients are resistant to TB drugs, and become MDR TB (Nursasi, 2015).

In Indonesia, clients with pulmonary TB disease problems generally have a low understanding about the treatment of pulmonary TB. This resulted in the client not adhering to the treatment program. According to Riskesdas (2010) in Nursasi (2015) that the rate of non-compliance of TB clients in carrying out treatment was 19.3%. This was because the access to health services including individual information related to pulmonary TB and treatment is not yet available. So that the community decides to choose the method of self-medication.

The government has carried out various TB prevention and control efforts, such as the launching of the TB TOSS Movement in Jakarta at the commemoration of the World TB Day in 2016. The TOSS TB movement is carried out pro-actively and the expansion of TB TOSS is expected to be implemented throughout Indonesia as a massive activity to realize Indonesia TB-free in 2035. In addition, the aim of the United Nations Millennium is to stop the occurrence of TB in 2015. One of the recommendations by WHO in the 2015 Global plan to cease TB disease is to involve clients in contributing to effective TB management (William, et al. 2007).

Clients have different levels of knowledge and understanding of TB, depending on what is heard and seen. For this reason, it is very important for nurses to provide the information they need, to correct misunderstandings and contribute to what they are concerned about. Contributions to clients can be done through home visits, providing early time for clients to avoid treatment failure. For this reason, it is necessary to increase the client's ability to care, including treatment. Efforts to control pulmonary tuberculosis have not increased care independence. The client's stigma is embarrassed in seeking information in caring for him so that it has a negative impact on treatment and adherence to care (Nursasi, 2015).

Nurses as health workers, care for TB clients more effectively with discussions than traditional approaches. Participatory education, including discussion is more effective than traditional approaches. Lectures only focus on disseminating information. Participatory approaches can be carried out through home visits to improve compliance. The client-centered model links the nursing

process and the DOTS management strategy. Nurses must carry out repeated evaluations and assessments, ensuring appropriate handling at each stage in improving client care compliance (William, et al. 2007).

Client treatment take time between 6-8 months, and treatment of TB clients is complex. Therefore, clients need family support. Nursasi (2000) suggested that families cannot provide adequate support for improving the health status of family members suffering from pulmonary TB. Likewise with pulmonary TB clients, not yet optimal in treatment, among others, due to readiness to accept the disease, lack of information about treatment, and adherence to treatment of pulmonary TB and motivation that is still low to carry out treatment (Nursasi, 2002).

Nagarkar, et al. (2012) in a qualitative study of 11 respondents who conducted 15 FGDs found that the results of support and care that were well considered by respondents as a concern in helping daily care, providing emotional support, and motivation. Therefore, family preparedness to provide support needs to be strengthened by nurses. Giving motivation to each visit is the key to the success of completing treatment or compliance with care for clients.

Another study in West Sumatra found that the compliance with medication for TB clients who received family support was far higher than those who did not get family support. Hutahaean (2013), in his research in Denpasar suggested that there was a significant relationship between quality of life and social support. The higher the family support, the higher the quality of life of TB clients (Siswanto, et al. 2015).

The results of these studies indicate that family support is needed for TB clients. Family is one system of social support as a system that is naturally related to health (Pender, et al. 2002). Many family opportunities contribute to caring for individuals, providing support and helping the healing process (Department of educational and training, 2008). For this reason, research on family and client approaches through home visits needs to be done in an effort to improve family support and compliance in the care of clients of pulmonary TB.

The Objective

The objective of this study was to assess the effectiveness of family and client approach to improve family support and client compliance in self care.

Discussion

The design of this study was Quasi Experiment with a Control Group. This research was conducted in Bogor city in 2017 with the total

Results

Table 1. The difference of family support and client compliance in self care between intervention group and control group, 2018

| Variable | Intervention (n=28) | Control (n=28) | | p-value* |
|-------------------------------|---------------------|----------------|--------|----------|
| | Mean | Mean | SD | |
| Family support (post-test) | 150 | 134.43 | 17.227 | 0.001 |
| Client compliance (post test) | 29.46 | 25.66 | 4.792 | 0.002 |

There are significant differences in family support that have received client and family approach interventions compared to the control group

Table 2. Multivariate analysis of the effect of respondent's characteristic on TB client compliance and family support in Bogor Municipality.

| Variable | B | St-error | T | P-value | 95% CI |
|---|-------|----------|-------|---------|-------------|
| Family support Source of information | 6,176 | 2,537 | 2,435 | 0,023 | 0.928-11.42 |

Based on the result of Mancova test, there was no effect of respondent's characteristics (age, education, job, source of information) on the TB client compliance. However, there was an effect of information source on family support.

Families as a support group can motivate and increase family independence in caring for and dealing with family members' problems with TB problems. Ariani and Sudja (2017) reveal that family support is able to increase family independence in caring for pulmonary TB clients. Someone who gets strong family support tends to adopt and maintain good health behavior. Families need to be provided with complete information about pulmonary TB, and need to be involved in the care of family

Method

number of sample of 28 people in the intervention group and 28 persons in the control group. Home visit was done 6 times. The intervention was given to the clients and families who did TB care at home. The data analysis was done by using dependent T test as well as independent T test. The multivariate test was done using Mancova test.

members suffering from pulmonary TB

(Wahyudi, Upoyo & Kuswati, 2008).

The client and family approach besides being able to increase family support also increases client compliance in TB care. Siswanto, Yanwirasti, and Usman (2015) revealed that there was a very significant relationship between knowledge and adherence to taking medication. Increased knowledge and skills in the care of pulmonary TB can be done through home visits.

This research is in line with the Nursasi research (2015) that the empowerment model of nurses, cadres, clients and families is able to improve client assessment of family support. Support felt by clients from the family is informational support, appreciation, instrumental and emotional support. With optimal family support able to improve client compliance in completing TB treatment and care. With regular support once a week, clients and families feel that they are getting continuous support as long as TB clients take a treatment program. This is in line with the Community Based Care Model which is a guide aimed at bridging the gap between health services in hospitals / health centers and in the community so that continuity of TB care can be maintained

Family and client approaches aside from being able to increase family support, compliance with care, also finding new TB cases, and conducting referrals. The TOOSTB Government Program is a joint movement with the community, finding TB cases actively and massively and treating all of them until they recover. The family and client approach is very appropriate to be applied to pulmonary TB clients from the beginning of treatment, until completion of treatment. In the control group, it was found that there was a very significant influence on the decrease in the level of compliance of TB clients at posttest

The decrease in TB client adherence to nonadherent clients is largely due to the client's two months of treatment feeling his condition is better. Weight has increased, complaints of tightness, coughing has not been felt. Then the client does not experience obstacles in the activity. This can cause the client at risk of not continuing his treatment.

Data from Riskesda (2010) showed the number of non-compliance of TB clients in carrying out treatment was 19.3%. This noncompliance is caused by less access to health services, individual information from other clients related to TB, so that people choose their own treatment methods. For this reason, the importance of clients and families to get information from health workers in order to increase the client compliance in self care (Syah, Yasmin, Gul, Ali, 2015).

The Prasetya (2009) study at the Genuk Semarang Public Health Center showed that of 58 respondents only 15 respondents (25.86%) met compliance criteria, and 74.14% did not comply, the level of adherence to medication in the advanced phase was lower (86.67%) compared to medication adherence in the intensive phase of (94.44%). Nationally, the success of treatment in 2016 was 84%, the highest was North Sulawesi (93%), the lowest in Central Kalimantan (37%). The same study in Ethiopia showed that noncompliance with taking medication would be higher in the advanced phase (Adane, Alene, Koye, Zeleha (2013). To anticipate disobedience in treatment, the need for the delivery of information as accurately and continuously as possible. Compliance issues are very important in TB management. Low compliance in self-care, especially in taking medication will result in treatment failure, recurrence and the emergence of tuberculosis-resistant drugs. With the progress of information through social media the level of compliance can be minimized by reminding client to control and taking drugs by the person in charge of the program.

In the multivariate analysis the characteristics of the client's age, occupation, education, did not affect family support and adherence to the care of clients of pulmonary TB. However, information sources also influence family support with P value (0.023). The rapid and easy flow of globalization allows families to get information from various sources. Information is freely available, easily accessible to families. The progress of globalization has changed aspects of human life in all fields, especially communication and information. Information technology is developing very rapidly allowing access to information without limits of space and time. The government also seeks to control TB. One of the activities is to disseminate information as widely as possible to the community about concern, prevention of TB starts with oneself and family. Therefore, it is possible for families to get information about pulmonary TB, especially about family support from social media.

The family and client approach to clients with pulmonary TB is effective in increasing family support and compliance after being controlled by information sources. The source of information is easily available, so that technological advances in this digital era need to be utilized as well as possible to get the right and appropriate information regarding pulmonary TB. Communities are expected to get easy and accurate information to get to TB-free Indonesia. Assistance to TB clients through home visits is felt to be very much needed by the community, so the community health care program needs to be improved and synergized with the government's progress towards TB-free Indonesia. **Conclusion**

The community is expected to get easy and accurate information to get to TB-free. Assistance to TB clients through home visits is felt to be very much needed by the community, so that community health care programs (Perkesmas) need to be improved. The approach of clients and families through home visits is disbursed in the Perkesmas program towards TB-free Indonesia

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