

## **SOCIAL SUPPORT IN NURSING CARE OF TUBERCULAR PATIENTS IN CENTRAL JAVA, INDONESIA TOWARDS IMPROVED PATIENT'S WELL-BEING**

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**Abstract:** Social support is essential factor that support tubercular patient in maintaining self-care. The availability of support from other people will provide positive emotional effect on tubercular patient particularly on making healthier choices during treatment. While, nurses provide comprehensive nursing care plan to accommodate patient and family needs, their most important roles are to provide information to ensure that families and patient understand the treatment of tuberculosis. Thus, this study aims to identify social support that is extended to tubercular patients. Findings were beneficial in improving patient's well-being. This study used quantitative-descriptive research design which included a total sample of 40 respondents that were purposively selected from the tubercular inpatients and outpatients at Dr. Ario Wirawan Pulmonary Hospital. The results showed that Majority of the respondents were between the age of 41 – 50 years old, of which 40% are inpatients and 45% are outpatients. Incidence of tuberculosis is greater among male patients with about 70% for the inpatients and 55% for outpatients. Both inpatient (75%) and outpatient (90%) tubercular patients are married in which their spouses are the principal supplemental care providers from the family in addition to nurses and doctors. Most of the respondents present new cases of tuberculosis for both inpatients (30%) and outpatients (35%). Based on the results of the study, self-assessed social support among tubercular respondents showed that they receive high support of social

support from their care providers and families. On significant difference in the self-assessed social support among selected inpatient and outpatient tubercular respondents, statistical analysis confirmed there is no significant difference in the self-assessed social support selected inpatient and outpatient tubercular respondents. Information education and communication (IEC) materials were developed for health promotion to improve patients well-being.

**Keywords: Social Support, Tubercular Patients**

## **INTRODUCTION**

The capability of a person to maintain health is not just about fulfillment of physical needs but also physiological aspect. Interaction with others is needed especially for people with illness. The process of health recovery entails interaction with friends and professional care providers as well as involvement of family in decision-making process (Van Hoorn et al., 2016). The community surrounding patient such as family, friends and significant others, are the most significant provider of social support that important particularly for those patients with infectious disease like tuberculosis (TB) that require long-term care and extended treatment (Aydemir, 2015).

Patients with tuberculosis may experience anxiety leading to mental health disorder because of the nature of treatment and the burden of infectious disease, hence coping becomes ineffective in the curative process. Mechanisms for delivery of integrated tuberculosis patient care and other services need to be established not only to address medical issues, but also keep in mind concurrent social care and support needs (Amiya, 2014). Implementing integrated services is intended to increase access to TB services, improve the timeliness of service delivery as well as increase the effectiveness of efforts to prevent infectious diseases and disorders that share common risk factors, behaviours, and social determinants.

According to Dwyer (2002), support can be enhanced by social relationship that is essential to health recovery of tubercular patient. Social support comes from people surrounding the patients, that give positive

support to the patient. This interaction, has a tremendous impact among TB patients because it encourages patients to sustain continuous treatment and eventually get motivated to maintain self-care (University Research Co.,LLC, 2017).

Some of the nursing management for patients with chronic pulmonary disease such as TB primarily include social support (University Research Co.,LLC, 2017). Family needs to know patient's exact condition to be able to partake in providing care from hospital confinement to home rehabilitation. Lack of knowledge about TB has a correlation with sustained and managed treatment especially on administering medications (Masry et al., 2014). Study in South Western Utopia (Bati, 2013) had indicated that community knowledge about causative agent and symptom of TB can also impact practice and outcome of preventive care of tuberculosis.

Social support in nursing care is essential factor that support tubercular patient in maintaining self-care. The availability of support as a positive assistance from other people will provide positive emotional effect on tubercular patient. Social support plays a significant impact one's ability to make healthier choices during treatment. Thus, this study aims to identify social support in nursing care that are extended to tubercular patients. Findings are expected to be beneficial in improving patient's well-being.

## **LITERATURE REVIEW**

### **Epidemiology of Tuberculosis in Indonesia**

Surveys about tuberculosis in Indonesia, have been conducted since 1983-1993 in six provinces. This study showed that the prevalence of TB in Indonesia ranges from 0.2% until 0.65%. Meanwhile, according to the global tuberculosis control report issued by WHO in 2004, the TB incidence rate in 2002 reached 555,000 cases (256/100,000 population), and 46% of them thought to be new cases. Estimates of the prevalence,

incidence and mortality from tuberculosis is based on the analysis of all available data, such as the reporting of cases, the prevalence of infection and illness, duration of illness, the proportion of smear- positive cases, the number of patients who received treatment and who did not receive treatment, the prevalence and incidence of HIV, mortality rates and demographics. (Kementrian Kesehatan Republik Indonesia, 2017).

According to Information and Data Center of Indonesia Health Ministry (2016), tuberculosis (TB) is the one of infectious disease that increase morbidity and mortality in Indonesia. The rapid of transmission, longer time for treatment, or death become triggering factors to make this disease as main intervention especially for the developing countries like Indonesia. However, Indonesia has an opportunity in 2015 to decrease number of morbidity and mortality of tuberculosis in range 50% lower than total cases in 1990. The prevalence of cases in 1990 are 443 per 100,000 inhabitant, while reducing target in 2015 are 280 per 100,000 inhabitant (Pusat Data dan Informasi, Kementrian Kesehatan RI, 2016).

TB is complex health problem. TB is influence by socio demographic factor such as age, gender, culture, education level and financial economic in the countries. That factors becoming resistor for healing of the patients with TB and increasing other complication of disease that is Multi Drug Resistant Tuberculosis (MDR- TB). MDR- TB is a condition where patient become resistant to antibiotic of TB. Besides that, number of MDR-TB is around 2% from tor total new cases. This number is lower than regional estimate which is 4% and 20% from TB cases with repeat treatment. Indonesian Health department was estimated that MDR-TB cases in Indonesia around 6,300 cases. This is the reason that Indonesia in the fifth place as a as a higher prevalence of tuberculosis in the world in 2010.

### **Knowledge, Attitude and Behaviour About Tuberculosis**

Prevention and rehabilitation of patients with tuberculosis are supporting by community. Based on the report about knowledge, attitude and behaviour, 96 % of families are taking care of tubercular patient, and only

13% families are hiding the cases. Besides that, families were informed about tuberculosis and made aware that tubercular patient can be healed, however 26% families from total respondents can identify only two signs and symptoms of tuberculosis. On knowledge about tuberculosis, 51% families understand about transmission of disease and only 19% families know that tuberculosis drugs are free. Community understanding about transmission of Tuberculosis disease is related with myth in communities. Communities believe that tuberculosis can be infected by smoke, alcohol consumption, tired, eating junk food, sleep on the floor and sleep latently.

Masry et al. (2014), presented that family support has an impact to the treatment of tuberculosis. The research was an observational study with cross sectional design. From the findings of the research, it was concluded that: There was family support influence to compliance rate to take anti tuberculosis drugs. Further analysis showed that 4 variables of family support in this research (encouragement to go to clinic, family not staying away from the sufferer, transportation support, and attention to success of medical treatment) towards compliance to taking anti tuberculosis drugs, the biggest effort variable was attention to success of medical treatment, transportation support, encouragement going to clinic, and the last family not avoiding the sufferer.

Families and relatives are taking part of social support for tubercular patients. Theory of Cohen (as cited in Petterson and Bredow, 2013) presented the conceptual framework of social and interpersonal support by Peterson and Bredow (2013) that addresses the structure and in an interactive relationship which correlates the impact towards health status, health behaviour and utilization of health services towards patient's healing process. Poor compliance to the treatment is most frequently encountered during treatment process due to lack of social and family support compounded by the associated stigma of the illness (Peterson and Bredow, 2013). Social supports are often differentiated in four types of resources (Cohen, as cited in Petterson and Bradow, 2013). These include:

- *Tangible support* refers to provision of material aid or assistance with daily tasks
- *Appraisal support* refers to provision of guidance/ advice, sharing knowledge as a problem solving
- *Belonging support* refers to presence of companions to engage in shared social activities
- *Emotional support* refers to empathy, caring, acceptance, concern, reassurance, and trust that provides opportunity for emotional venting

The relationship of social to the physical and physiological process is presented through a framework illustrated below:

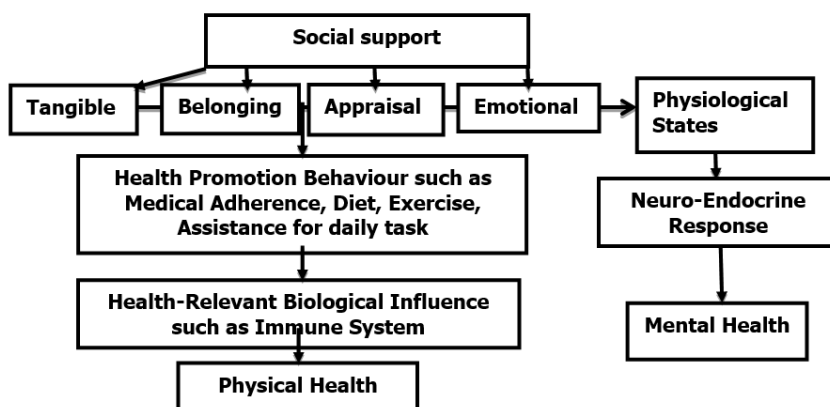


Figure 1: Conceptual Framework of Social and Interpersonal Relationship Influence Physical and Physiological Health

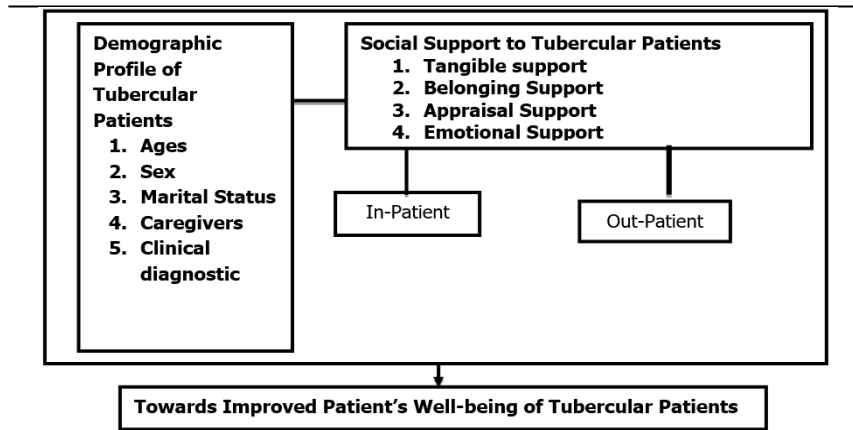


Figure 2: Research Paradigm

This study was conducted among inpatient and outpatient tubercular patients. The demographic profile of the participants was considered in assessing the social support and interpersonal relationship in nursing care of tubercular patients. Social support to tubercular patients, included: 1) *tangible support*, 2) *belonging support*, 3) *appraisal support* and 4) *emotional support*. Significant different between two variables were evaluated among tubercular inpatient and outpatients to improve their well-being.

## METHODOLOGY

In this study, descriptive method was used to assess the social support in nursing care among tubercular patients in Central Java, Indonesia which provided evidence towards improved patient's well-being. Cross sectional analysis was used to analyse data from a population of TB patients at a specific point in time (Wood & Haber, 2014). This study involved total enumeration of in-patients and out-patient with tuberculosis who are being treated at Dr. Ario Wirawan Pulmonary Hospital in Salatiga City, Central Java Indonesia. Purposive sampling considered tubercular patients in good physical condition and able to communicate especially in completing survey questionnaires. Moreover, research study involved adult

respondents (>18 years old) who are able to make decision as well as able to make objective comprehension in accomplishing the questionnaire.

The Questionnaire was used as primary research tool to identify presence of social support that might be related to psychological status of tubercular patients. To assess social support, the researcher adopted the 40-item social support questionnaire developed by Cohen et al. (as cited in Fetzer Institute, 2015). The study adopted a validated research tool; hence pilot-testing was no longer conducted. According to Cohen (as cited in Fetzer, 2015), author of the Social Support Questionnaire, the internal reliability of the questionnaire has an impressive Cronbach alpha of .87. Statistical Treatment of Data are Weighted mean and Mann-Whitney U.

## **RESULT**

### **The demographic profile of tubercular patients**

Data analysis reveals that majority of the respondents were between the ages of 41 – 50 years old, of which 40% are inpatients and 45% are outpatients. According to the TB Report by the World Health Organization in 2016 (WHO, 2017), incidence of tuberculosis is usually evident to people who are > 14 years old because of the physical condition that had been decreasing in older period such as immune system. Besides that, the majority of the tubercular patients are male with 70% for the inpatients and 55% for outpatients.

Based on the categories of marital status, majority of the tubercular patients were married with 75% for the inpatients and 90% for the outpatients. Frequency and percentage distribution of single patients are very minimal. In the case of tuberculosis, most of the respondents present new cases of tuberculosis for both inpatients (30%) and outpatients (35%). This implies that most of the tubercular patients who came for initial consultation in the hospital are diagnosed as first-time case of tuberculosis. On the other hand, incidence of tuberculosis relapse among tubercular inpatients and outpatients are also increasing. Meanwhile, cases of multi-



drug resistant tuberculosis are on the rise with about 20%. Tuberculosis re-treatment is a patient who endures tuberculosis treatment and become healed from the disease, but the acid-fast bacilli get detected positive on the next sputum analysis, hence readmitted for treatment.

### **Social Support between Tubercular Inpatients and Outpatients**

The table 1 presents the summary of social support in type of tangible support by tubercular patient. The overall mean 2.14 with interpretation probably true by tubercular inpatient and overall mean 2.12 with interpretation probably true by tubercular outpatient, are indicated that both participants were receiving high tangible support from their caregivers.

Tangible support is practical help from caregivers when practical assistance is needed because of limited capacity on care. Family members including wife, sister or brother usually provide money for incidental expenses, household goods, tools, transportation, child care, assistance with cooking, cleaning, shopping, and repairs (Cohen as cited in Petterson and Bredow, 2014). These financial resolves practical problems and gives time to the patient to take rest.

Table 1: Summary of Values Showing the Mean and Verbal Interpretation of Self-Assessed Social Support among the Respondents in Terms of Tangible Support

No	Social Support	Inpatient		Outpatient	
		Mean	Verbal Interpretation	Mean	Verbal Interpretation
2	If I needed help fixing an appliance, there is someone who would help me.	2.45	Definitely True	2.35	Definitely True
9*	If I needed a ride very early in the morning, I would have a hard time finding someone to take me.	1.55	Probably False	1.90	Probably False
14*	If I were sick and needed someone to take me to the doctor, I would have trouble finding someone.	2.30	Definitely False	2.35	Definitely False
16	If I needed a place to stay for a week I could easily find someone who would put me up.	2.25	Probably true	2.15	Probably true
18	If I were sick, I could easily find someone to help me with my daily chores.	2.30	Definitely True	2.45	Definitely True

23	If I needed an emergency loan, there is someone (friend, relative, or acquaintance) I could get it from.	2.20	Probably true	2.40	Definitely True
29*	If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house.	1.85	Probably False	1.90	Probably False
33	If I was stranded from home, there is someone I could call who would come and get me.	2.35	Definitely True	1.85	Probably true
35*	It would be difficult to find someone who would lend me their transportation for a few hours.	1.95	Probably False	1.80	Probably False
39*	If I needed some help in moving to a new house I would have a hard time finding someone to help me.	2.25	Probably False	2.10	Probably False
Overall mean		2.14	Probably True/ probably False	2.12	Probably True/ probably False

Table 2 presents the overall mean and verbal interpretation of belonging support of tubercular patients. With an overall mean of 2.39, verbally interpreted as definitely true/ definitely false (inpatients) and overall mean of 2.28, verbally interpreted as definitely true/ definitely false (outpatients), it confirms that tubercular patients receive very high of belonging support from their caregivers. The belonging support develop with social interaction between tubercular patients and people surrounding them. In their interaction, patients feel that their involvement are important and meaningful for other peoples.

**Table 2: Summary of Values Showing the Mean and Verbal Interpretation of Self-Assessed Social Support among the Respondents in Terms of Belonging Support**

No	Social Support	Inpatient		Outpatient	
		Mean	Verbal Interpretation	Mean	Verbal Interpretation
5	When I feel lonely, there are several people I can talk to.	2.40	Definitely True	2.55	Definitely True
7	I often meet or talk with family or friends.	2.60	Definitely False	2.50	Definitely False
10*	I feel like I'm not always included by my circle of friends.	2.25	Probably False	2.00	Probably False
12	There are several different people I enjoy spending time with.	2.70	Definitely True	2.35	Definitely True
15*	If I wanted to go on a trip for a day, I would have a hard time finding someone to go with me.	1.80	Probably False	1.80	Probably False

21	If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.	2.45	Definitely True	2.20	Probably true
25*	Most people I know do not enjoy the same things that I do.	1.90	Probably False	2.00	Probably False
27*	I don't often get invited to do things with others.	2.40	Definitely False	2.00	Probably False
31	If I wanted to have lunch with someone, I could easily find someone to join me.	2.65	Definitely True	2.70	Definitely True
34*	No one I know would throw a birthday party for me.	2.80	Definitely False	2.75	Definitely False
Overall mean		2.39	Definitely True/Definitely False	2.28	Definitely True/Definitely False

Table 3 summarizes the overall mean and verbal interpretation of appraisal support of tubercular patients. With an overall mean of 2.18, verbally interpreted as probably true/ probably false (inpatients) it confirms that tubercular patients receive high appraisal support, while with overall mean of 2.26, verbally interpreted as definitely true / definitely false (outpatients), it confirms that tubercular patients receive very high of appraisal support from their caregivers. Based on the findings, there is one interesting point that tubercular inpatient and tubercular outpatient having a different reaction. In the table, at the point about “sharing their personal intimate problems”, participants (tubercular inpatient and outpatient), present the lowest rather than others items in aspect of appraisal support which score 1.50 means “probably true” for tubercular inpatient and 1.75 means “probably false” for tubercular outpatient. The different experience between two categories participants influence by their feelings during treatment.

**Table 3: Summary of Values Showing the Mean and Verbal Interpretation of Self-Assessed Social Support among the Respondents in Terms of Appraisal Support**

No	Social Support	Inpatient		Outpatient	
		Mean	Verbal Interpretation	Mean	Verbal Interpretation
1	There are several people that I trust to help solve my problems.	2.30	Definitely True	2.10	Probably true

6*	There is no one that I feel comfortable to talking about intimate personal problems.	1.50	Probably True	1.75	Probably False
11*	There really is no one who can give me an objective view of how I'm handling my problems.	2.05	Probably False	2.15	Probably False
17*	I feel that there is no one I can share my most private worries and fears with.	2.05	Probably False	2.05	Probably False
19	There is someone I can turn to for advice about handling problems with my family.	2.50	Definitely True	2.45	Definitely True
22	When I need suggestions on how to deal with a personal problem, I know someone I can turn to.	2.35	Definitely True	2.30	Definitely True
26	There is someone I could turn to for advice about making career plans or changing my job.	2.50	Definitely True	2.65	Definitely True
30*	There really is no one I can trust to give me good financial advice.	2.15	Probably False	2.20	Probably False
36*	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.	1.95	Probably False	2.30	Definitely False
38	There is at least one person I know whose advice I really trust.	2.45	Definitely True	2.65	Definitely True
	Overall mean	2.18	Probably true/ Probably False	2.26	Definitely True/ Definitely False

Table 4, summarizes the overall mean and verbal interpretation of emotional support of tubercular patients. With an overall mean of 2.10, verbally interpreted as Probably true/ probably false (inpatients) it confirms that tubercular patients receive high emotional support, while with overall mean of 2.04, verbally interpreted as probably true/ probably false (outpatients), it confirms that tubercular patients receive high of emotional support from their caregivers. Emotional support refers to intimacy attachment through presence of one or more persons who can listen sympathetically when an individual is having problems and can provide indications of caring and acceptance (Cohen, as cited in Peterson, 2014). Emotional support form by discussion of feelings, expression of concerns/worries; indicate sympathy, approval, caring, acceptance of person. This support has a purpose to alter threat appraisal of life events, enhances self-esteem, reduces anxiety/ depression, motivates coping.

Table 4. Summary of Values Showing the Mean and Verbal Interpretation of Self-Assessed Social Support among the Respondents in Terms of Emotional Support

No	Social Support	Inpatient		Outpatient	
		Mean	Verbal Interpretation	Mean	Verbal Interpretation
3*	Most of my friends are more interesting than I am.	1.75	Probably False	1.70	Probably False
4	There is someone who takes pride in my accomplishments.	2.40	Definitely True	2.50	Definitely True
8	Most people I know think highly of me.	2.30	Definitely True	2.15	Probably true
13*	I think that my friends feel that I'm not very good at helping them solve their problems.	1.85	Probably False	1.75	Probably False
20	I am as good at doing things as most other people are.	2.40	Definitely True	2.40	Definitely True
24	In general, people do not have much confidence in me.	1.95	Probably true	1.90	Probably true
28	Most of my friends are more successful at making changes in their lives than I am.	1.90	Probably true	1.80	Probably true
32	I am more satisfied with my life than most people are with theirs.	2.35	Definitely True	1.95	Probably true
37	I am closer to my friends than most other people are to theirs.	2.00	Probably true	2.10	Probably true
40*	I have a hard time keeping pace with my friends.	2.10	Probably False	2.15	Probably False
	Overall mean	2.10	Probably true/ Probably False	2.04	Probably true/ Probably False

The computed Mann Whitney U Test is 180 with a p-value of .588. Since the p-value is greater than the  $\alpha$  (.05), the null hypothesis is accepted. This means that there is no significant difference in the self-assessed social support among selected inpatient and outpatient tubercular respondents.

Table 5: Summary of Values Showing the Significant Difference in Self-Assessed Social Support between Inpatient and Outpatient Tubercular Respondents

Mann Whitney U Result	P-Value	Decision
180	.588	Accept Ho

## DISCUSSION

There are so much factors that interact with one another that influence psychological condition of tubercular patients thus impact the outcome of tuberculosis treatment including sex, age, socio- economic, and marital status. Mostly, tubercular patients are male with range of ages around 41-50 years old. In Development countries, incidental of tuberculosis among male associated to patient's lifestyle in which more males are exposed to unhealthy practices, such as smoking and drinking alcohol (Soh et al., 2017). Smoking is a serious factor for patients with tuberculosis because it can irritate the lung and decrease the pulmonary function for gas exchange. One study depicted that tuberculosis is not only higher in elderly but also among men (Soh et al., 2017).

Based on ages, mostly tubercular patients are productive to work. Meanwhile, participants in this age group are responsible to support their family needs. However, according to the interview with 3 participants, they were losing their job because of their health problem despite their lower economic status. According to National Guidelines of Tuberculosis 2011 (as cited in Karuniawati et al., 2015), tuberculosis cases in Indonesia are inclined to financial loss that become another burden for the patients and families. Based on economic problem, in this study, tubercular patients showed two different reactions. First, tubercular patients are motivated to be healed and they can work as usual. Second, they have psychological distress because of their problem and they thought to stop the treatment because they do not want to be of burden to their families. The same cases were found in other developing countries like Ethiopia with low economic status associated with psychological distress (Tola et al., 2015). In Indonesia, treatment of tuberculosis is subsidized by the government especially for patients with MDR-TB. Moreover, all Indonesian people have a right to take public insurance to help their health funding. Therefore, the roles of nurses are important to assess the possibilities of health insurance for tubercular patients and also provide clear information about the treatment of the patients and guide the family to give motivation to the patients in order to prevent patients from relapsing or re-treatment.

Another factors that impact for prevalence of TB in Indonesia is social support. According to Tola et al. (2015), in Ethiopia, one of the factors of physiological condition of tubercular patients is marital status. In tubercular cases, physiological distress is higher among unmarried patients than those married tubercular patients. Marriage is related to the feelings of attachment and belonging, which are thought to affect mental health. These caregivers support the patients by means of supplemental nursing care during hospitalization. Incidentally, the most dominant and principal supplemental care providers from the family are the wives of the tubercular patients. While families (relatives, brothers, sisters, cousins or brother-in-law or sister-in-law) make the most dominant support system for tubercular outpatients besides their partner (husband or wife) and their parents. According to Indonesian Health Department (2014), the roles of caregiver in tuberculosis rehabilitation is important. In Indonesia, families and communities become partners of health care workers in supporting patient to complete their treatment (Kementerian Kesehatan Republik Indonesia Direktorat Jenderal Pengendalian Penyakit dan Penyehatan Lingkungan, 2014).

Indonesian government in management of tuberculosis refers to World Health Organization program (STOP TB Strategy). One of the programs is community and tubercular patient empowerment (Kementerian Kesehatan Republik Indonesia, 2017). This program means that communities and families as a partners of health care professional to care the patient with tuberculosis. Community role as caregiver has been implemented as drugs supervisor. In this case, family or other relatives will provide attention and support to tubercular patients by taking medicines regularly. Tuberculosis partners include people or community that have got concern, desire, ability and commitment to support tuberculosis control strategy and program based on specialty. In cases of MDR-TB, patients have to get their medicines from Primary Health Care Center (*Puskesmas*) near their residence and assisted by their families to observe adherence to medications. In addition, health care professionals

and The Indonesian Government make a network for MDR-TB survivors as a motivator for other MDR TB Patients.

According to the result about patient's diagnostic, mostly tubercular patient dominated by new cases of tuberculosis, and some patients with Multi-drug resistant (TB-MDR), TB with HIV and TB with Diabetics. TB-MDR is a case where tuberculosis patient becomes resistant to one or more type of tuberculosis medication. This problem is actually an important concern on TB End Strategy in Indonesia; hence, tubercular patients get subjected to Xpert/MTB RIF (an automated diagnostic test that can identify *Mycobacterium tuberculosis* (MTB) DNA and resistance to rifampicin (RIF). In other hands, tuberculosis is a complication of disease related to decline of immune system of tubercular patients is caused by complications with other diseases such as diabetic mellitus, pleura effusion, lung cancer, and HIV. Tuberculosis looks higher in Indonesia because this infectious can happen to the people with immune system depression causes by HIV/AIDS.

Indonesia is the country with acceleration increasing of HIV epidemic than among other countries in Asia. Indonesian Health department (2016) estimating that around 190.000- 400.000 number of people with HIV/AIDS in Indonesia. Prevalence of new cases HIV is 2.8%. The complications of the disease make tuberculosis require longer time of treatment for tubercular patients with diabetes. Some of the tuberculosis medications have adverse reaction to diabetes drugs. The *Rifampicin* can reduce effectiveness of *Sulfonileurea* if taken at the same time. Therefore, the dose of tuberculosis medicine has to be increased. In other cases, *Ethambutol* has to be controlled accurately because it results to the *diabetic retinopathy*. Consumption of insulin becomes an alternative therapy for the tubercular patients with diabetes during tuberculosis treatment than oral diabetic medication (Departemen kesehatan Indonesia as cited in Karuniawati et al., 2015).



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## **Social Support for Tubercular Inpatients and Outpatients Based on Support Aspects**

### ***Tangible Support***

Family members including wife, sister or brother usually provide money for incidental expenses, household goods, tools, transportation, child care, assistance with cooking, cleaning, shopping, repairs. (Cohen as cited in Petterson & Bredow, 2014). These financial resolves practical problems and gives time to the patient to take rest. Tangible support is practical help from caregivers when practical assistance is needed because of limited capacity on care.

During data gathering process, researcher noted two cases in polyclinic where patient consult on their condition unaccompanied by family. According to the patients, their families are busy with their work, and patients do not want to become a burden to their families. Also, it is a problem for nurses and physicians getting limited information about patient's medical history during hospitalization or lack of understanding about information related to patient's rehabilitation process at home. Family presence is needed to be able to share adequate information about patient's exact condition in order to have better plan from hospital confinement to home rehabilitation. According to Masry (2014), lack of knowledge about TB for both patients and families has a correlation with sustained and managed treatment especially on administering medications.

### ***Belonging Support***

The belonging support develop with social interaction between tubercular patients and people surrounding them. In their interaction, patients feel that their involvement are important and meaningful for other peoples. The theoretical benefits of this support produce positive affect, allow release and recuperation from demands and provide positive distraction from rumination about problems (Cohen cited as by Petterson & Bredow, 2014). For tubercular patients, high risk for bacterial transmission is a reason to limit their social interaction (Karuniawati et al., 2015). However, this fact

is in contrast with the findings of this study that tubercular patients feel belongingness with others. On tubercular patients' experience, there is someone who can talk and spend time together with them. It can be influenced by the culture of Indonesian people especially in Javanese culture where people having problems, the other families have the responsibility to take care of the patient or just pay visit when patients are home after hospitalization. The most important thing in this case is preventing families and significant others from getting infected by their patients. Therefore, concern of tuberculosis prevention is a patient and family centered-care.

### ***Appraisal Support***

According Center for Disease Control and Prevention (as cited in Duffy, 2009), during hospitalization, there are some multiple treatments and medications, complex discharge needs and health insurance problems that cause burden to patients. Moreover, the condition of illness results to declined physical function and increased dependence to others. These factors, make them to sleepless and experience to stress (Topf & Thompson, as cited in Duffy, 2009). This experience may lead the patient to feel illness even more. According to Duffy (2009), illness refers to sense of wholeness formed by person because of change in physical, emotional, cultural, and social (family and role functions). In this case of tubercular inpatients, these feelings might be experienced by themselves, therefore patients feel moderate support in terms of sharing intimacy problem with others. Unlike tubercular outpatients, who are in process of rehabilitation are having more positive views to share their problem and receive advice positively from others. Thorough interview is needed to find more information about emotional of tubercular patients in future studies.

Appraisal support is also being felt by the patients by accepting advice/guidance on problem solving. For tubercular patients, problem solving means families can provide information on health resources and services or provide alternative information about resources and advices about effectiveness. The theoretical benefits of this support increase

amount of useful information available to individual, help obtain needed services and lead to more effective coping (Cohen, as cited in Petterson & Bredow, 2014).

### ***Emotional Support***

The emotional support refers to empathy, caring, acceptance, concern, reassurance, and trust that provides opportunity for emotional venting. In tuberculosis cases, families show their attachment action by asking what the patients feel about their health condition, then report it to the nurses to get some advice or health information. Therefore, the presence of families during hospitalization assists the patient to do their basic needs and gives direct guidance. When tubercular patients talk about their health problem like getting transportation to the hospital, they find another alternative for health care services. Also, if they are not satisfied with their previous treatment, it is important to enhance the positive support and environment surrounding the patient, maintain good health and address health care costs as well as promoting happier and healthier lives (Cohen, 2015). Cohen also asserted that social support and interpersonal touch buffer against interpersonal stress-induced susceptibility to infectious disease.

The assistance from families may include listening to the stressed person talk about troubles, expressing warmth and affection, offering advice or another way of looking at the problem, providing specific assistance such as looking after the children, or simply spending time with the stressed person. These interaction between family and patient can will give positive feeling of the tubercular patient specially to complete their treatment. Therefore, for the nurses, engagement of patient's family in the nursing care process is essential. Family become an informal partner of nurse to help the patient to fast recovery from the disease (Borges et al., 2017).

In tubercular cases, the aspect of physical and physiological are affected and the results are profound. There is the reaction to the illness itself. Illness represents a fundamental threat to one's basic sense of wholeness. The illness comes if someone have an unhealthy physical condition. The

illness form by people based on their view about their body (body image), what they have heard or read about others in similar situations, individual psychological significances, and societal/cultural points of view. Physiological changes can create feelings of discomfort, vulnerability, and dependence that generate loss of self-confidence and create uncertainty (Duffy, 2009). Therefore, the roles of parents, grandparent, spouse, worker, or friend are gives psychological impact to maintain psychological feelings of patient prevent them from the sense of wholeness. These because social and cultural support systems, including the direct support a TB patient receives from their family and friends as well as social norms that prescribe certain behaviours based on the TB patient's sex, age, and other categories/labels, have an implication to the outcomes of tuberculosis treatment (University research LLC, 2015). In Indonesia, the roles of community are included in the program to prevent tuberculosis. According to Health Department Ministry (2016), government has been developing *GERDUNAS- TB (Gerakan Terpadu Nasional Penanggulangan TB)* which is cross-institution movement including government in central and regional area to control tuberculosis based on partnership with hospital, private institution, researcher, non-government organization, other financial foundations and community.

### **Significant Different Between Social Support Inpatient and Outpatient**

Social culture can influence respondents' experience of social support. As observed by the researcher, participants come from the same background which is *javanese* culture. Culture of patient refers to shared beliefs, knowledge, feelings, and objects that have a motivational quality and leads people to categorize and assign meanings, expect certain behaviours, and act in particular ways (D'Andrade cite by Albert, 2014). Therefore, participants have the same feelings of social support that they receive from others.

Families and loved ones of the participants have essential roles in decision-making for their patient during hospitalization and rehabilitation. Close

relatives, primarily spouses, assist the patient to find health care services, listen for their problem, and extend instrumental support including accommodation, transportation and financial. Interaction with others helps the patient maintain and complete their treatment (Horn et al., 2015; Aydemir, 2015). Social support also provides effective coping mechanism to the patients and alleviates anxiety that may usually lead to mental health disorder because of the nature of treatment and the burden of infectious disease (Amiya, 2014).

Based on the results of the study, a health promotion program enhanced with information education and communication (IEC) materials were designed for tubercular patients and their family members. These materials are essential tools for nurses in providing health education pertaining to tuberculosis as well as to significant family members during rehabilitation of the patient. Infographics and brochures materials feature the following: etiology of the disease; signs and symptoms of the disease; treatment of tuberculosis; risk factors of relapsing tuberculosis; and management health care of tuberculosis by families. Moreover, promotion through television maybe a good medium for health promotion since mass media network is widely accessible to the general public.

**Table 6: Health Promotion Program and Information Education and Communication (IEC) Materials**

<b>Topic</b>	<b>Objectives</b>	<b>Strategy</b>	<b>Timelines</b>	<b>Evaluation</b>
Family roles for tuberculosis rehabilitation	<ol style="list-style-type: none"> <li>1. Define signs and symptoms of tuberculosis</li> <li>2. Identify preventive intervention for tuberculosis</li> <li>3. Describe the treatment of tuberculosis</li> <li>4. Recognize the risk factors of relapsing tuberculosis</li> <li>5. Strengthen the family support for the tubercular patients</li> </ol>	<p>Make infographics and brochure about tuberculosis and family roles during rehabilitation process of tubercular patients.</p> <p>Discuss essential information with infographics in the meeting with tubercular patient and their families in the hospital or health Center.</p>	<p>1-2 days</p> <p>1-2 hours for every meeting</p>	<p>Pre-test and Post- test evaluation</p>

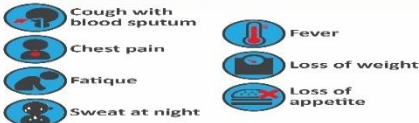
	6. Explain social needs during patient rehabilitation		
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## STOP TUBERCULOSIS FAMILY PLANNING SERVICES

### WHO IS RISK?



### SIGNS AND SYMPTOMS



### TUBERCULOSIS TREATMENT

- High nutrition (high protein, low sugar, avoid tobacco, alcohol, caffeine).
- Taking medicine (Rifampicin, Isoniazid, Ethambutol, Pyrazinamide, Streptomycin) within 6 months (Physician's order).

### TB RELAPSES RISK FACTOR

- Incomplete treatment.
- Low immune system by complication of disease (HIV, DM, Lung cancer).
- Exposure with MDR-TB patients.

## CARING TB PATIENT

### LISTEN TO THE PATIENT PROBLEMS

Listen to their needs for health care services.

### PRESENTING INSTRUMENTAL AID

- 1 Assist patient during rehabilitation and medical check-up every month.
- 2 Encourage patient to complete the treatment.

### PREVENTING TB

- 1 Use Mask.
- 2 Ventilate the patient bedroom.
- 3 Encourage personal hygiene (cover with tissue when cough, hand hygiene).

Reforansia,  
 Pusat Litera Dan Informasi Persekitaran Kesehatan III, 2010

**Figure 1: IEC Materials (Infographic)**

### STOP TUBERCULOSIS : FAMILY CARE PLAN

WHO (2015) reported that TB has high incidence rate in developed countries including some areas of Africa, Europe, and Asia. Some countries in Asia with notable incidence rates include India with 23%, Indonesia with 10%, and China with 10%. Yet, TB prevalence in 2015 was a global concern.

■ High-Incidence countries (16)  
■ Other countries (22)

#### WHO ARE RISK TO BE INFECTED?

The rapid infection makes the disease easily gets transmitted to other people especially those with low immune system like people with HIV/AIDS, people with diabetes, lung cancer, smoker, people with malnutrition. The elderly and infant become easily infected because their immune system is lower in age categories.

Elderly

People with HIV

People with Diabetes

- Some patients might develop effusion or accumulation of fluid in the lung space that manifests after chest x-ray diagnosis. Therefore patient will show fever, pleuritic chest pain, and shortness of breath.

Fever

Sweat at night

Chest pain

#### HOW CAN BE INFECTED OF TUBERCULOSIS BACTERIA?

Transmission of the microorganism can spread very fast through airborne. The respiratory secretions of a coughing by patient called droplet (droplet nuclei) can infect others in minutes when other people inhale the air with contamination of bacteria.

#### WHAT ARE THE SIGNS AND SYMPTOMS OF TUBERCULAR PATIENTS?

- Patient might be noticed in an assessment such as coughing with blood for more than 2 weeks, fatigue, body malaise, shortness of breath and significant weight loss.

Cough with blood sputum

Loss of weight

Fatigue

#### TUBERCULOSIS TREATMENT

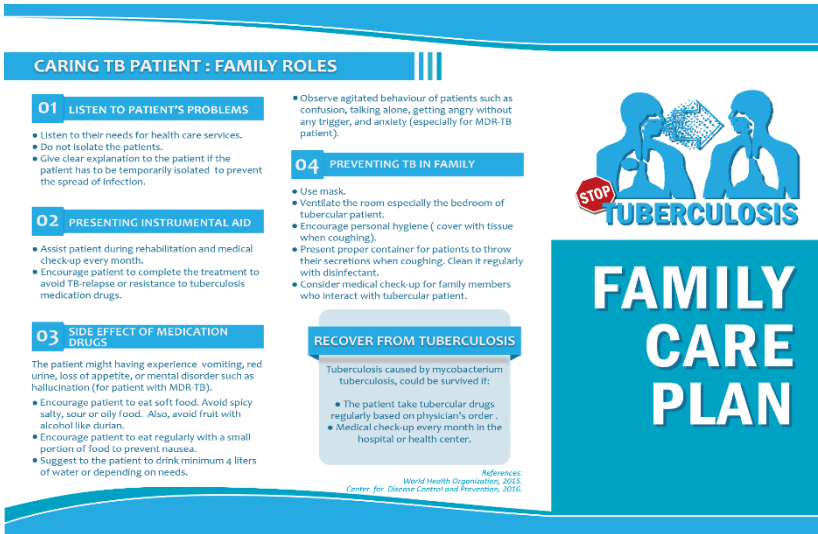
- High nutritional consumption (high protein, low sugar and salt) and avoid spicy food. Avoid alcohol, caffeine, smoking.
- Taking medicine regularly (Rifampicin, Isoniazid, Ethambutol, Pyrazinamide, Streptomycin) within 6 months or based on Physician's order.

#### TB-RELAPSES FACTORS

Tubercular patients who has recovered could be relapsed in some conditions:

- Incomplete treatment.
- Low immune system by complication of disease (HIV, DM, Lung Cancer).
- Exposure with MDR-TB patients (patients who are resistant to one or more type of tuberculosis medication drugs).

**Figure 2: IEC Materials (Brochure) pages 1**



**Figure 3: IEC Materials (Brochure) Pages 2**

**CONCLUSION**

- Majority of tubercular inpatients and outpatients at Dr. Ario Wirawan Pulmonary hospital were male aged 41 – 50 years old, married and cared by their partner (wife) and families and are classified new cases of tuberculosis.
- Social support from families, friends and significant others are extended to tubercular inpatients and outpatients.
- There is no significant difference in the self-assessed social support among selected inpatient and outpatient tubercular respondents.

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