

# Effectiveness Difference of Family Psychoeducation Model and Family Centered Empowerment Model on Knowledge and Attitude in The Poor Family of Preventing Hypertention on Families in Jember Distric

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**Abstract:** Hypertension is one of the leading causes of death in Indonesia that has been the focus of non-infectious disease management as the main program in Indonesian Health Program. One of the health development efforts is the provision of health education as an implementation in behaviour change of poor families against the prevention of hypertension. The purpose of this study was to analyse the differences in the effectiveness of family psychoeducation model and family centered empowerment model on the knowledge and attitude of poor families in preventing hypertension in the family. This study is a quasi-experimental with non-randomized control group pre-test-post-test design used two intervention groups. Population target were 33 poor families and selected by using purposive sampling. The data were analysed by using Mann-Whitney Test and used mean value from each group to know the effectiveness. The results showed the mean value of knowledge (mean = 6.27) and attitude (mean = 4.45) of the family psychoeducation group model was more than high the mean knowledge value (mean = 5.00) and attitude (mean = 3.63) in the family centered empowerment model. Family psychoeducation models are more effective in increased knowledge and changed the attitude of poor families in prevented hypertension in families than family centered empowerment models.

## 1 BACKGROUND

Hypertension is one of the leading causes of death in the world. The prevalence of hypertension is increasing every year. The results of study by (KARTIKASARI et al. 2012), show that the prevalence of hypertension increases with age, the lower education, unemployment status and high per capita expenditure. Most cases of hypertension in the community are not identified. Most of the cases of unidentified hypertension are among the poor, including poor people with pre-paid health care coverage (Penelitian et al. n.d.).

According to the World Health Organization (WHO) and the International Society of Hypertension (ISH) in (Efendi & Larasati 2017), there are 600 million people with hypertension worldwide, with 3 million of whom die annually. Seven out of every 10 hypertensive sufferers did not receive adequate treatment. Basic Health Research Results

(RISKESDAS) in 2013 shows that in non-communicable diseases data, the prevalence of hypertension in Indonesia tends to increase to 26.5% based on measurement (Muhadi 2016). Jember regency is one of the areas in Indonesia with the number of hypertension patients ranked first with a prevalence of 27.4%. The problem of hypertension problem in Jember Regency until now has not fulfilled the target of 100%. The lowest coverage in Jelbuk sub-district is in Sukoember village with coverage rate of 10.12%. The low coverage outcomes in Sukoember Village stem from the small number of poor people's visits with pre-paid health care coverage to health services of 5.08%.

Increased coverage can be achieved by increasing the knowledge of the poor. Knowledge of health issues will affect behavior as a medium-term outcome of health education (Iqbal & Putra 2017). Health education is one form of activity which is a health development strategy to change the behavior of poor

families in preventing health problems (Ministry of Health of the Republic of Indonesia, in (Lestari 2011) Provision of health education in the form of family intervention aims to strengthen the family system. So that the family can prevent the recurrence of disease in family members who have hypertension.

Family psychoeducation model and family centered empowerment model is an intervention conducted and is the development of health education model that treats the family as a source that focuses on solving health problems that occur in family members experiencing health problems. This study was conducted to examine the differences in the effectiveness of the family psychoeducation model and the family-centered empowerment model in improving the knowledge of poor families about family health problems with family members who have hypertension.

## 2 METHODS

### 2.1 Study Design, Population and Sampling

This research was quasi experimental with non-Randomize Control Group Pretest-Posttest Design. The total population of 43 poor families and samples in this study were 33 respondents of poor families in Sukojember village, Jelbuk sub-district, Jember regency with purposive sampling. The sample members in this study were grouped into 3 groups, groups given intervention family psychoeducation model, the group given intervention family centered empowerment model, and the control group.

### 2.2 Data Collection

The data collection in this research used the technique of collecting pre-test and post-test of knowledge and attitude of poor family in preventing hypertension in family member using knowledge and attitude questionnaires. This study piloted in two different intervention groups. Then each group were tested with different interventions, namely family psychoeducation model consisting of 5 sessions, and family centered empowerment model consisting of 4 sessions. The knowledge aspect questionnaire consisted of 15 statements and an attitude questionnaire consisting of 10 statements.

### 2.3 Data Analysis

Data analysis to know differences of knowledge and attitude of poor family in preventing family hypertension between control group and intervention group before and after health education with different method, namely family psychoeducation model and family-centered empowerment model using Kruskal Wallis statistic test. While the data analysis to determine the difference of family effectiveness psychoeducation model and family-centered empowerment model to change the behavior of poor family in preventing hypertension in family, using Mann Whitney statistic test and mean value from each intervention group.

## 3 RESULTS

The result of posttest knowledge found that 7 respondents (63.6%) from intervention group 1 (family psychoeducation model) had high knowledge about prevention of hypertension in family, and 5 respondents (45.5%) from intervention group 2 (family centered empowerment model ) also had a high knowledge about prevention of hypertension in the family. The result of posttest shows that there was not respondent with low knowledge about prevention of hypertension in family, either in intervention group 1 (family psychoeducation model) or intervention group 2 (family centered empowerment model).

Mann Whitney statistical test results on pretest and posttest values of poor family knowledge about prevention of hypertension in families of each intervention group obtained  $p=0.403$  with a significant level  $\alpha= 0.05$ . The conclusions can be derived from the statistical test is that there was no difference in the pretest and posttest results between the intervention group 1 (family psychoeducation model) and the intervention group 2 (family centered empowerment model).

The posttest result of attitudes found that 9 respondents (81.8%) of the intervention group 1 (family psychoeducation model) had a good attitude in preventing hypertension in the family, and 5 respondents (45.5%) from intervention group 2 (family centered empowerment model ) also had a good attitude in the prevention of hypertension in the family. Posttest results showed that there were not respondents with less attitude in preventing hypertension in families, either in the intervention group 1 (family psychoeducation model) or intervention group 2 (family centered empowerment model).

Mann Whitney statistical test results on the pretest and posttest values of poor families in preventing hypertension in families of each intervention group, obtained p value = 0,083 with a significant level of 0.05. This shows that p value is more than the significant value (0.083 > 0.05). The conclusions can be derived from the statistical test is that there is no difference in the pretest and posttest results of poor family attitudes in preventing family hypertension between the intervention group 1 (family psychoeducation model) and the intervention group 2 (family centered empowerment model).

Statistical analysis of differences in pretest and posttest values between the intervention group 1 (family psychoeducation model) and the intervention group 2 (family centered empowerment model) were not significantly different. Realistically, however, the posttest value in each intervention group showed a significant improvement over the pretest value in each group. The highest average of the difference of health education test result to the increase of knowledge and attitude was the family psychoeducation intervention model, ie the knowledge component of 6.27 and the attitude component of 4.45.

Table 1: Result of posttest analysis of poor family knowledge in preventing hypertension in family between intervention group.

Aspect	Intervention Group 1 ( <i>Family Psychoeducation Model</i> )		Intervention Group 2 ( <i>Family Centered Empowerment Model</i> )	
	Amount	%	Amount	%
Knowledge	7	63.6	5	45.5

Table 2: Result of posttest analysis of poor family attitude in preventing hypertension in family between intervention group.

Aspect	Intervention Group 1 ( <i>Family Psychoeducation Model</i> )		Intervention Group 2 ( <i>Family Centered Empowerment Model</i> )	
	Amount	%	Amount	%
Attitude	7	63.6	5	45.5

## 4 DISCUSSION

The result of knowledge test on prevention of family hypertension in group 1 (family psychoeducation model) and group 2 (family centered empowerment

model) got the change between before and after given intervention. This is indicated by the number of respondents with low knowledge about prevention of hypertension in the family is reduced. Knowledge of respondents about prevention of hypertension in the family between before and after given intervention experienced a significant difference. This proves that health education intervention with family psychoeducation model and family centered empowerment model effectively improve respondent knowledge about prevention of hypertension in family. According to (McBride & Singh 2018) health education is an effort to convey health messages to the community, groups, or individuals. The purpose of message delivery is to improve health knowledge for the better and expected to affect behavior.

Provision of such intervention in each group are equally able to improve the knowledge of respondents. Intervention in the form of health education with family approach model, namely family psychoeducation model and family centered empowerment model have fulfilled the concept of health education in predisposing factors. According to (Suerni, T, Keliat, BA, Helena 2013), stated that health education using family-oriented approach to make family (caregiver) able to know fulfillment of their own needs, able to increase understanding about what to do to the problem with existing resources plus external support, and improve the ability in decide the right action to improve the healthy living status of his family members.

Changes in attitudes of respondents that occurred can not be separated from the use of appropriate model of health education. Health education model can be used as a motivation for the subject to quickly be able to receive new information, ideas, ideas, and opinions (Andari 2014). The use of health education model by taking into account the target characteristics of family psychoeducation model and family centered empowerment model, can help the effort to deliver the message so easily understood and applied by the family.

The family is a support system capable of providing full support in an effort to improve the health status of family members through behavior change. Family behavior can be changed by increasing understanding of a health problem. Increased understanding can be achieved through the provision of health information with an appropriate approach model (Wiyati et al. 2010). A good level of family understanding, will affect the attitudes and actions of families in efforts to prevent health problems, so that health problems can be resolved and there is an increase in health status in the family.

The family psychoeducation model is a form of health education that uses a family approach model through a flexible model, because it combines information-related health issues and ways to cope with certain situations that can cause a health problem. The family psychoeducation model focuses on educating participants, with the aim of participants being able to perform their health duties independently (Wulandari et al. 2016). The implementation of family psychoeducation model is divided into 5 sessions, ie problem identification session, concept and treatment education session, stress management education session, burden management session, and family empowerment education session in utilizing health service source (Mirsepassi et al. 2018).

Family centered empowerment model is a model of health education with family approach. This model of health education aims to establish families in controlling the family's health status by strengthening the family system (Mohalli et al. 2016). Objectives after being given health information using this model of health education, it is hoped the family can improve or control the health status of the family by increasing the family's ability to perform the functions and duties of family health. The implementation of the family centered empowerment model is divided into 4 sessions, ie problem identification session, family ability identification session, knowledge improvement session, and evaluation evaluation session (Vahedian-Azimi et al. 2016). The change of knowledge and attitudes of participants after being given health education is a success of the learning process in health education that is influenced by the model used. This is in accordance with the statement of (Lucksted et al. 2012), that the family psychoeducation health education model has different information settings and content from other health education models that focus on developing participant skills aimed at preventing family health problems. The explanation above can be concluded that family psychoeducation model has a better level of effectiveness than family centered empowerment model based on test result difference.

## 5 CONCLUSIONS

There is a difference of knowledge and attitude of poor family in preventing hypertension in family before and after done family psychoeducation model and family centered empowerment model. Family psychoeducation family intervention is more

effective to change the behavior of poor family in preventing hypertension in family based on average difference of test result.

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