# The Relationship of Family Support and Patients' Knowledge with The Treatment Adherence of Hypertension Patients

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**ABSTRACT**

Hypertension is one of the diseases that cause morbidity and mortality rates in Indonesia. The treatment adherence level in developing countries is only 50%. The purpose of this study was to analyze the relationship between family support and patients' knowledge with treatment compliance for hypertension patients. The design of this study used a correlational description approach with a cross-sectional approach. The instrument used was a questionnaire. The population of this study was 189 elderly hypertension patients. The samples are 51 people using a consecutive sampling technique. The independent variables of this study were family support and patients' knowledge regarding the treatment of hypertension. The dependent variable of this study was hypertension treatment adherence. The data were analyzed using chi-square with $\alpha \leq 0.05$. Statistical test results show a correlation with compliance with hypertension treatment showed that there was a strong relationship between family support with hypertension treatment adherence with p = 0.001, and there was no relationship between patients' knowledge with adherence to hypertension treatment with p=0.772. This study concludes that there is a relationship between family support and the treatment adherence of elderly hypertension patients. The treatment adherence rate of elderly patients with hypertension is still weak.

## INTRODUCTION

Patients with no adherence is a serious problem faced by health professionals (Niven, 2002). Low adherence to hypertension patients can cause adverse outcomes for patients (Halpern et al., 2006). Patients with high hypertension levels of adherence to treatment can reduce the risk of mortality and reduce the likelihood of hospitalized (Rasyid, Bakri, & Yusuf, 2012; Rasyid Lubis, Silalahi, & Yushar, 1986; White, 2007). Hypertension is one of the diseases that cause morbidity and mortality rates in Indonesia. Someone is stated to suffer from hypertension if he has systolic blood pressure ≥140 mmHg and or diastolic blood pressure ≥90 mmHg, with repeated examinations (Irwan & Mallongi, 2018; Sudiana, Suarilah, & Rusdianingseh, 2008; Wahyuni, Amelia, Nababan, Pallysater, & Lubis, 2019; Weber et al., 2014). Many people do not realize that they suffer from hypertension. This is due to symptoms that are not real and, at an early stage, have not caused serious problems in their health (Depkes RI, 2006). Hypertension is a disease that can not be cured but can be controlled. Therefore, it is necessary to control and take medication regularly to prevent complications from hypertension. Adherence to the treatment of patients with chronic diseases will probably go down after the first six months. This is very dangerous, considering hypertension can cause death in patients (Kemenkes RI, 2012; Purba, Santosa, & Siregar, 2019).

The data of the World Health Organization (WHO) in 2000 showed 972 million (26.4%) of the world's population suffers from hypertension and will continue to increase to 29.2% in 2025. The number of hypertension patients in Indonesia has decreased from 31.7% in 2007 to 25.8% in 2013 (Kemenkes RI, 2013). The prevalence of hypertension in Indonesia based on the results of measurements at the age of ≥18 years by 25.8%. The coverage of health services is only 36.8%. Most (63.25)

cases of hypertension in the community are undiagnosed. East java was is in sixth place (Kemenkes RI, 2013). The data from WHO in 2011 stated that out of the 50% suspected hypertension patients, only 25% were receiving treatment, and 12.5% were undergoing treatment properly (World Health Organization, 2011). Research by Ekarini in 2012 stated that the factors that influence hypertension patients undergoing treatment are high in hypertension patients and will affect the patient's level of adherence (Ekarini, 2012). Patients who know about the benefits and goals of the treatment will do the treatment regularly (Sudja & Meirina, 2014). According to Trianni, in 2013, a patient's family support is needed because someone who is sick requires attention from the family (Trianni, 2013). Attention from the family can be affection, attention, and support for treatment adherence. According to Green & Kreuter, in 1991, knowledge and family support can influence one's health behavior (Green & Kreuter, 1991). Someone with a high level of knowledge will be more obedient to the advice given by the health workers. Another factor that can influence health behaviors are family support, family support that is lacking can have an impact on health behavior of the person because the family is the smallest unit in the community and the recipient of nursing care.

Behavioral problems of patients with no adherence to the treatment of hypertension should receive special attention from health workers considering the dangers that can be caused by these ignorant behaviors. Hopefully, this research can help the health center determine the factors that influence the treatment adherence of hypertension patients so that there will be effective efforts to achieve good public health service. A good relationship between workers and patients will create mutual trust so that the desired health behavior is expected to be achieved.

## MATERIALS AND METHODS

This study used a descriptive correlational research design with a cross-sectional approach. Samples were 189 elderly hypertension patients. The sampling technique used in this study was consecutive sampling. The dependent variable in this study was the level of adherence to the treatment of hypertension patients. The instrument in this study used a questionnaire. The family support questionnaire includes four components of family support received by hypertension patients, in the form of informational support, instrumental support, and emotional support, and self-esteem support. The questionnaire to measure the level of treatment adherence of hypertension patients was using the Morisky Medication Adherence Scale (MMAS)-8 item. Each data will be measured using Chi-Square statistical test with α = 0.05.

## RESULT

**Table 1.** The relationship of family support and knowledge level with hypertension treatment adherence

| Variable | Treatment adherence level | | | | Total | | p-value |
|---|---|---|---|---|---|---|---|
| | Disobey | | Obey | | | | |
| | n | % | n | % | n | % | |
| Family support | | | | | | | 0.0001 |
| Less | 38 | 74 | 4 | 8 | 42 | 82 | |
| Good | 0 | 0 | 9 | 18 | 9 | 18 | |
| Total | 38 | 74 | 13 | 26 | 51 | 100 | |
| Knowledge level | | | | | | | 0.772 |
| Less | 4 | 8% | 1 | 2% | 5 | 10% | |
| Good | 34 | 67% | 12 | 23% | 46 | 90% | |
| Total | 38 | 75% | 13 | 25% | 51 | 100 | |

Table 1 was known from the total number of 51 respondents. There were seven people (14%) with less family support who were not compliant, and two respondents (94%) were obedient in treatment. A total of 31 respondents (61%) with family support was not compliant in carrying out treatment, and two respondents (4%) were compliant. From Chi-Square statistical test results obtained p-value = 0.0001 (α>0.05), which means that there was a significant relationship between the two variables. Namely, there was a relationship between family support and treatment adherence to hypertension patients. Chi-Square statistical test results obtained p = 0.772 (α>0.05), which means there was no relationship between patients' knowledge and adherence to hypertension treatment.

## DISCUSSION

The study results showed that all respondents who received good family support were compliant in carrying out hypertension treatment. Most respondents who received family support are not compliant with treatment. The results of this study are consistent with research conducted by Miller & Dimatteo in 2013, which states that family support and social support are important aspects that influence compliance with diabetes management (Miller & Dimatteo, 2013). Some studies also show a positive relationship between support and adherence to diabetes therapy. A meta-analytic review of 122 empirical studies found that adherence was 27% higher when patients received support. Duvall in 1988 explained that the definition of family is the association of the smallest unit of society consisting of two or more individuals with ties of blood relations, marriage or adoption, and emotional closeness (Duvall, 1988). The family consists of the head of the family, namely the father and several family members such as mothers and children who interact with one another and interdependence. According to Friedman (2010), family support is the attitude, action, and acceptance of the family of patients who suffer (Friedman, 2010). Family is the main support system for the elderly in maintaining their health. The role of the family in caring for the elderly is by maintaining and improving their mental status, anticipating socio-economic changes, and providing motivation and facilitating spiritual needs for the elderly.

The results show that of the four types of family support, respondents received instrumental support and the lowest self-esteem compared to other types of family support. The family can provide instrumental support to the patients in the form of taking the patients to get treatment, making a schedule, creating a comfortable environment, and providing medication needed by the patients. Self-esteem support for patients can be given in the form of motivation to the patients to go and adhere to treatment, give praise, and choose the health facilities that the patients want. In the elderly, family support is needed to improve their health behavior, remembering that in the elderly, there has been a decrease both physically and cognitively (Santoso & Ismail, 2009). The results showed that there was no relationship between patients' knowledge and adherence to hypertension treatment. The results of this study are consistent with the research conducted by Saleem, Hassali, Shafie, Awad, & Bashir in 2011, which shows no connection between knowledge and adherence to hypertension treatment in Quetta, Pakistan (Saleem, Hassali, Shafie, Awad, & Bashir, 2011). The results of the study show that although the patient's level of knowledge is sufficient, patients are not sure of the benefits of continuing medication that results in non-compliance. Providing education to patients about the benefits of medication and clarifying doubts about medication use should result in better patient control.

Knowledge is everything that is known and believed by someone. Knowledge is the result of knowing, and this happens after people have sensed a certain object. Knowledge of cognition is a very important domain in shaping one's actions (Anto, Siagian, Siahaan, Silitonga, & Nugraha, 2019; Notoatmodjo, 2010). Most respondents have low levels of education and also with no occupations. According to Soekamto & Putra in 2002, the level of education and also socioeconomic can affect one's level of knowledge (Soekamto & Putra, 2002). The higher the level of education, then it will lead to a basic awareness of the importance of science. This can spur someone to be active in increasing their knowledge. The level of ability of someone who fulfills the needs of life, the higher the level of socioeconomic will get the level of knowledge with the breadth of ways to get information. Another factor that is likely to be the cause of non-compliance is the occupation of the respondents. Occupation is one of the factors driving a person's health behavior (Green & Kreuter, 1991). People who have work tend to have less time to visit health facilities (Notoatmodjo, 2007). This can affect the patients'

treatment adherence to control their health. Age may contribute to the non-compliance of hypertension patients. Respondents who were aged 76-90 years were all not compliant in carrying out the treatment, while respondents aged 60-75 years were still obedient in carrying out the treatment. According to the theory revealed by Green & Kreuter in 1991 that knowledge is only one of the driving factors to support one's health behavior, in addition to knowledge in predisposing factors, there are still attitudes, beliefs, values, and faith of a person (Green & Kreuter, 1991). This shows that a good level of knowledge does not guarantee that someone will be obedient to undergoing treatment. Some factors also influence someone's health behavior, which we're enabling factors and other reinforcing factors.

## CONCLUSION

Family support is related to the level of adherence of elderly hypertension patients undergoing treatment in health centers because there is a difference in the proportion of adherence between patients with good and poor family support. While the patients' knowledge about hypertension treatment is not related to treatment adherence, other things that are possible in influencing the patients' treatment adherence are age, education level, employment, and family income.

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