

# The Influence of Health Education on Developmental Tasks in Caring for Elderly Family Members with Hypertension

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## Abstract

*This writing aims to understand the health education of elderly families in responding to the presence of family members by using a Quasi Experiment research type approach to assess the influence of health education on family health tasks in caring for elderly family members with hypertension. The research design was a pre-post experiment by measuring before and after the intervention was carried out (Notoatmodjo, 2010). Conclusion of the influence of health education on family health tasks in caring for (knowing, deciding, providing care, modifying the environment, utilizing health facilities) in elderly people with hypertension with a value ( $P < 0.05$ ), namely  $0.002 < 0.05$ , there is a significant difference between Family Health Tasks in Caring for Elderly Family Members with Hypertension before and after Implementing Health Education with a P Value  $< 0.05$ , namely  $0.000 < 0.05$ . It is hoped that health workers or community health centers will continue to increase socialization and motivation for elderly families to be more active in helping elderly people to improve their health status.*

**Keywords:** Health Education, Elderly, Family

## INTRODUCTION

Based on data on the elderly population in Indonesia in 2017, there were 23.66 million people (9.03%), and it is predicted that in 2020 it will reach 27.08 million, in 2025 it will reach 33.69 million and in 2030 it will reach 40.95 million. This shows that the number of elderly people will continue to increase. Where a country is said to have an old structure if it has an elderly population above 7% (Soewono), this shows that Indonesia is a country with an aging population structure (Ministry of Health, 2017). Hypertension is a cause of high mortality and morbidity. High blood pressure is often given the title the silent killer because it is a hidden killer that causes death with unknown initial signs or no symptoms at all. Hypertension can cause various complications of other diseases, such as heart disease, stroke and kidney disease (R. Boedi et al, 2009).

This writing introduces and provides an understanding of the important role of family members in caring for elderly family members

## Research Purposes

To determine the influence of health education on family health tasks in caring for elderly family members. in recognizing the health problems of elderly family members with hypertension. in deciding on health actions for elderly family members with hypertension, in caring for elderly family members with hypertension, in modifying the environment for elderly family members with hypertension, and in utilizing health facilities for elderly family members with hypertension

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## **Research Methodology**

This research is a Quasi Experiment research, a Pre-post Experiment research design by measuring before and after health education is carried out and then measuring the results (Notoatmodjo, 2010). This research aims to determine the influence of health education on family development tasks in caring for elderly family members with hypertension. The sample in this study was all families who had elderly family members aged over 60 years who had hypertension totaling 57 people.

## **RESEARCH PROBLEMS**

The research problems include:

There is an influence of health education on family health tasks in caring for elderly family members with hypertension.

## **RESEARCH METHODOLOGY**

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## **Data Collection Techniques**

Data Data collection was carried out directly with the families of elderly people with hypertension. The instrument used was a questionnaire containing 49 statements related to family support which included: Recognizing health problems, deciding on action, caring for the family, modifying the environment, and utilizing health services. By using a Likert scale with positive and negative statements, respondents just have to mark the alternative answer chosen by putting a check list (✓) in the column provided for each question with the objective criteria, always = 3, sometimes = 2, and never 1, for positive statements and vice versa 1= always, 2= sometimes, 3= never, for negative statements, including:

Recognizing health problems has 8 statements. Positive statements with numbers 1, 2, 3, 4, and 5 and negative statements with numbers 6, 7, and 8.

Deciding on health issues has 8 statements. Positive statements with numbers 10, 11, 12, 13, 14, and 15 negative statements with numbers 9 and 16.

Caring has 13 statements. all of which are positive statements starting with number 17 to number 29

Modifying the environment has 10 statements. Positive statements with numbers 30, 31, 32, 33, and 34 and negative statements with numbers 35, 36, 37, 38, and 39.

Using health services has 10 statements. Positive statements with numbers 40, 41, 42, 43, 44 and 45 and negative statements with numbers 46, 47, 48 and 49. with good ratings  $\geq 74$ , not so good  $< 74$ . The data obtained will later be carried out data normality test. If the results obtained are normally distributed then a parametric test is carried out using the paired t test (Sugiyono, 2010).

Instrument Test Before collecting data, the validity and reliability of the questionnaire that will be used is first carried out. The purpose of testing this questionnaire is to determine the level of validity (validity) and reliability (consistency) of the instruments used in the research. Validity means the extent to which a measuring instrument is accurate in measuring data. The reliability of a measure shows the extent to which the measurement results remain consistent when measurements are carried out twice or more with the same measuring instrument (Hastono, 2007). To test the validity of the instrument, a correlation test was carried out using the Pearson Product Moment ( $r$ ) method between the score of each statement and the total score. Statement is said to be valid if the statement score is significantly correlated with the total score. If  $r$  count  $> r$  table, then the statement is said to be valid. Invalid statements are discarded and valid statements are then tested for reliability. The instrument is said to be reliable, namely by looking at the Chrombach alpha value,

then comparing it with the r table. If  $r_{\text{alpha}} > r_{\text{table}}$ , then the questionnaire is reliable (Hastono, 2007). The instrument test will be carried out on 20 respondents, namely different hamlets that are still in Lengkong village

The instrument test is planned to be carried out by the researcher together with the research team and assisted by 5 enumerators who will previously undergo training to equalize perceptions regarding the research to be carried out. Validity test results, from 49 statements, if there are statements that are considered invalid then they are removed, then valid statements are continued with reliability testing. It is stated that the statement is reliable if the  $r_{\text{alpha}}$  value  $>$  the r table value.

## RESEARCH RESULT

### Data analysis

The data normality test in this study used the Shapiro-Wilk table.

The Paired t test is used to determine whether there is a difference in the means of two samples (two groups) that are paired or related. Interpretation of the Paired t test if the p value  $<$  0.05 then  $H_0$  is rejected,  $H_a$  is accepted meaning there is an influence of health education on family development tasks in caring for elderly family members with hypertension, and if the p value  $\geq$  0.05 then  $H_0$  is accepted,  $H_a$  is rejected meaning There is no influence of health education on family development tasks in caring for elderly family members with hypertension

**Table 3.1 Normality test**

<i>Variabel</i>	<i>Shapiro-Wilk</i>			
	<i>Statistic</i>	<i>df</i>	<i>Sig (p&gt;0,05)</i>	<i>Distribusi Data</i>
<i>Penkes Pre</i>	0,976	57	0,327	<i>Normal Normal</i>
<i>Penkes Post</i>		57	0,235	

Primary data source (Processed 2019)

In table 3.1. Based on the results of the normality test using the Shapiro Wilk test of normality, the pre-test and post-test showed that the data was normally distributed with a significant value  $>$  0.05. then you can continue with the Paired t.Test test.

### Table 4.1 Paired t test

The Relationship between Health Education and Developmental Tasks in Caring for Elderly Families with Hypertension in Lengkong Village, District. Langsa Baro Langsa City 2019

<i>No</i>	<i>N</i>	<i>Corlatoin</i>	<i>sig</i>
1 <i>Penkes Pre -</i>	45	0,404	0,002
2 <i>Penkes Post</i>			

Primary data source (Processed 2019) \*Paired simple correlation

Based on table 4.1 above, it shows that there is a relationship between Health Education and Family Development Tasks in Caring for Elderly Family Members with Hypertension before and after the Implementation of Health Education with a value of  $(P < 0.05)$ , namely  $0.002 < 0.05$ .

### Table 4.2

Differences in Health Education on Family Health Tasks for Elderly People with Hypertension in Lengkong Village, District. Langsa Baro Langsa City 2019

No	Variabel	Mean	Std. Deviation	t	Sig (p<0,05)
1	Penkes Pre - Penkes Post	-6,614	9,627	-5,187	0,000

Primary data source (Processed 2019) \*Paired sample T.test

Based on table 4.2. It can be seen that there is a significant difference between Family Health Tasks in Caring for Elderly Family Members with Hypertension before and after the Implementation of Health Education with a P Value <0.05. namely 0.000 < 0.05.

Discussion The results of this study show that there is an influence of health education on increasing family health duties in caring for elderly people with hypertension. These results also show that there is a significant difference between family health tasks in caring for elderly people with hypertension before and after health education.

Research by Beigi, et al., (2014), shows that educational programs are effective in increasing knowledge, improving self-management, and controlling lifestyle habits that are detrimental to patients with hypertension. Research by Purwati, et al., (2014) shows the influence of health education on increasing knowledge of clients with hypertension. The research results of Roca, et al., (2003) show that hypertension education programs can be useful in increasing knowledge about hypertension.

Research by Susanti, et al., (2012) shows that there is a significant influence between providing education about hypertension and increasing knowledge of managing hypertension. The results of Bayo's research (2008) show that there is an influence of health education on clients' knowledge about how to prevent hypertension.

The learning process in health education is a process of changing abilities in learning subjects with the expected output being abilities as a result of changes in behavior of target students (Notoatmodjo, 2010). The increase in knowledge that occurs after being given health education is one aspect of the abilities achieved by target students as a result of the learning process

Friedman's research (1999) shows that family support is the attitude, actions and acceptance of the family towards the sick sufferer. Family members perceive that supportive people are always ready to provide help and assistance if needed. The family is a source of practical and concrete help, including the ability to care for and meet the needs of family members who suffer from illness, in this case especially hypertension. Families can provide care by first getting to know, deciding, providing services, modifying a good environment and utilizing services so that families avoid mistakes due to ignorance in carrying out care for families suffering from illness. han. Wrong One form of family support is the role and function of the family in elderly health care. Family support for the elderly must be understood and implemented by all family members, namely children and in-laws who always provide assistance to sufferers.

According to Sutikno (2011), the family has a very important role in developing, preventing, adapting and correcting health problems found in the family. One form of implementing family health duties is providing care for elderly people who suffer from hypertension. Treatment for elderly people with hypertension that can be carried out by the family is by managing hypertension pharmacologically and non-pharmacologically. Pharmacological management is by helping elderly people carry out regular examinations and treatment in health services, while non-pharmacological treatment is by helping elderly people to adopt a good and healthy lifestyle. A healthy lifestyle is very important in preventing high blood pressure and is an inseparable part in treating high blood pressure (Elizabeth J. 2006).

Meanwhile, according to Rillantono (2013), various aspects of lifestyle can be improved to reduce blood pressure, including weight loss if obese, food, physical activity/exercise, reducing salt and alcohol intake, in this case the family is really needed to remind and prepare the needs of sufferers. hypertension. The role of

the family is influenced by factors such as lifestyle practices, environmental practices, medically based preventive practices, and health practices. Each family component must carry out its roles and duties with a sense of responsibility, including duties in the field of health, respect and appreciate each other, and be full of affection. This will produce an emotional atmosphere that positively influences the health of family members, including hypertension sufferers, namely by creating a pleasant and healthy environment and especially the risks and complications resulting from the disease they suffer from.

Hypertension can be controlled by controlling diet, not consuming excessive salt, not smoking and not consuming alcohol. Alcohol consumption can result in increased catecholamine synthesis, which in large amounts can trigger an increase in blood pressure (Setiawan, 2008). Uncontrolled eating patterns can cause fat accumulation, thereby affecting blood circulation. Salt retains water, thereby increasing blood pressure. The nicotine contained in cigarettes can increase blood clots in the blood vessels. In this case, the family's ability is really needed to always help care for the family in reminding, deciding not to allow hypertension sufferers to consume food and drinks that are dangerous for the disease and especially for their health. In this case, Laksono's research (2013) concluded that there was a relationship between diet and recurrence of hypertension patients at the Bendosari Sukoharjo Community Health Center. Exercise has also been linked to the role of obesity in hypertension. Lack of exercise will increase the possibility of obesity and if salt intake also increases it will facilitate the emergence of hypertension (Suyono, 2001). Exercising regularly can increase nitric oxide levels in the blood. Nitric Oxide is a compound that plays a role in signal transformation in the metabolism of living things. This compound will send a signal to the smooth muscles in the lining of blood vessels (endothelium), to relax, resulting in widening or vasodilation of blood vessels which results in increasing blood flow. Nitric Oxide production also causes dilation of pulmonary blood vessels, thereby increasing oxygen saturation and thus improving better breathing. Likewise for the blood vessels as a whole, so it can be an effective anti-hypertensive in reducing hypertension.

The least frequent family concern regarding drug consumption is that the family provides medication that is given by a doctor or health worker on a regular basis. So here health education is really needed to increase the knowledge and ability of families in caring for families who suffer from hypertension. Family members play an important role in compliance with taking anti-hypertension medication. Family attention can take the form of reminding them to take medication or even preparing medication on time. According to Pujiyanto (2013), family members should be willing and able to act as motivators for sufferers to comply with the treatment plan that has been determined. Such efforts are more meaningful in cases of chronic diseases, including hypertension, which require long-term treatment, even throughout life. Hairunisa's research (2014) concluded that there was a significant relationship between adherence to taking medication and controlled blood pressure in elderly hypertensive sufferers in the Perumnas I Community Health Center Work Area, West Pontianak District.

When there is an elderly person in the family, the immediate family is obliged to help or care for them. Of course, what a family needs is not only physical care, but also psychological care. The elderly need peace of mind, enthusiasm/optimism in facing illness. In this case, the family can help the elderly in communicating gently, sharing stories and experiences, listening to complaints that are felt sincerely and with affection, entertaining the elderly by taking part in family events and taking part in deliberations to decide on a problem that is considered good for health. .

Priatno (in Suhartini 2006) everyone has the needs of life. Elderly people also have the same life needs to live a prosperous life. Life needs include food with balanced nutrition, regular health checks, healthy housing and safe and comfortable home conditions, and the need to socialize, in this case all can be obtained by seniors from families who have good skills and understanding in caring for elderly families. with hypertension.

So it can be assumed that health education about caring for elderly people with hypertension in the family has a positive influence on increasing the ability of family Health Tasks in Caring for the Elderly in caring for family members who suffer from hypertension at home. The lowest level of family knowledge in caring for elderly people with hypertension is that the family asks the elderly to always have regular control, take

medication regularly, exercise and eat a healthy diet. So that the elderly can maintain and improve their health status.

Conclusions and Suggestions based on the research results, it can be concluded that there is an influence of health education on family development tasks in caring for (knowing, deciding, providing care, modifying the environment, utilizing health facilities) in elderly people with hypertension. There is a significant difference in the family development tasks in caring for elderly people with hypertension before and after health education. There is the effectiveness of health education before and after the family development tasks in caring for elderly people with hypertension.

## **PREVIOUS LESSON**

Even though a careful investigation has been carried out on the influence of health education on family health duties in caring for elderly family members. in recognizing the health problems of elderly family members with hypertension,:

## **Key Recommendations**

Directs the next author to conduct further research regarding health education regarding family health tasks in caring for elderly family members. with hypertension, in caring for family members, modifying the environment and utilizing health facilities for family members.

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