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# THE EFFECT OF HYPERTENSION EDUCATION ON *SELF MANAGEMENT* IN ELDERLY IN THE WORKING AREA OF PUSKESMAS LINGKAR BARAT KOTA BENGKULU 2018

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***Abstract- Hypertension is one type of chronic disease and tends to occur when a person's age is increasing. Hypertension can cause various complications. Prevention of hypertension complications in the elderly one of them by implementing self management hypertension. This study to know the effect of hypertension education on self management in the elderly. The design used in this study is Pre Experimental with the design of one group pre test - post test. In this study the sample was taken using Simple Random sampling with a total of 20 samples. In this research, pre test did before education, and then post-test on self-management in the elderly after being given education. The analysis used was non-parametrick by using the test Wilcoxon. The results showed that the average score score before and after education had increased (p = 0.0001) so that it could be concluded that there was an educational effect of hypertension on self management in the elderly. Health education is a factor in the treatment of hypertension. This study recommends periodic health education to improve self management in the elderly.***

***Keywords—*** Hypertension, Education Program, Self Management

## I. INTRODUCTION

One indicator of development success is the increasing life expectancy of the population. With the increasing life expectancy of the population, the population of elderly continues to increase from year to year (Ministry of Health Strategic Plan, 2015).

As you get older, the more likely you are to experience physical, mental, spiritual, economic and social problems. Based on 2013 basic health (riskesdas) research, the most common diseases in the elderly were non-communicable diseases including hypertension (57.6%), arthritis (51.9%), stroke (46.1%), dental-mouth problems (19.1%), Chronic Obstructive Pulmonary Disease (8.6%) and Diabetes Mellitus (4.8) (Riskesdas, 2013).

Hypertension is one of the "*Silent Killer*" diseases where this disease can progressively and permanently damage organs, the consequences of hypertension such as stroke, cardiovascular disorders, kidney failure, and other serious diseases that can cause a person's life to be threatened (Erkoc, 2012). Hypertension prevalence will continue to increase so that this can cause major problems in the world (Firmawati, 2011).

*Data from the World Health Organization (WHO*) shows that from 70% of hypertensive patients, only 25% get treatment and 12.5% are treated properly. The prevalence of hypertension in the elderly category in Indonesia based on the 2013 survey was 55-64 years old 45.9%, aged 65-74 years 57.6%, and more than 75 years was 63.8 percent (Riskesdas 2013).

In Bengkulu Province out of a total of 23,189 people who had blood pressure checks recorded 12,876 (64.88%) of them experienced hypertension. (Bengkulu Provincial Health Office, 2015). While in Bengkulu City in 2015 the population diagnosed with hypertension recorded 3,647 people or 31.36%, an increase of 3.12% compared to 2014 which was only 28.24% (Bengkulu City Health Office 2015).

The increased incidence of hypertension in the elderly causes the elderly to need regular health services to prevent cardiovascular morbidity and mortality (Wake up, 2012). One effort to prevent hypertension complications requires comprehensive prevention of hypertension in the elderly. Elderly is advised to carry out *self-management* as one of the management of diseases in everyday life (Richard & Sea, 2011).

*Akhter* in his research revealed that *self-management* of hypertensive clients can be done by applying 5 components, namely self-integration, self-regulation, interaction with health workers and others, monitoring blood pressure, and adherence to recommended rules (Akhter, 2010).

*self-management* Effectivemeans that the elderly have a sense of responsibility for their own health and have an important role in their own health care *self-management* is everything that is related to individual responsibility in managing themselves at home well when there is no doctor or nurse (Nwinee, 2011).

The results of the preliminary study showed that 7 out of 10 elderly people said they did not care too much about salty foods and did not regulate salt intake, 6 said they did not do special exercise, 7 elderly said they did not check blood pressure regularly. The results of the preliminary study also show that all elderly people do not know about *self-management* and there is no health education about *self-management*.

Based on the results of the study above, it is important to conduct further research related to ": The Influence ofHypertension Education *Self-Management* in the Elderly in the Working Area of the West Rim City Health Center".

## II. METHODS

type of research used was pre-experimental using the design of one group pretest-posttest, the subject group was observed before intervention, then observed again after intervention (Nursalam, 2008).

In this study the initial measurements (pre-test) were *self-management* carried out on elderlybefore hypertension education was given, then a second measurement was taken (post-test of *self-management* elderlyafter hypertension education was conducted.

The study was carried out in the work area of the Bengkulu City West Rim Health Center and research time was carried out in January-March 2018.

In this study the sample was taken using a *Simple Random sampling* with a sample of 20 respondents.The sample used was respondents who met the inclusion and exclusion criteria.In this study the inclusion criteria were Willing to become respondents, able to read and write, able to communicate well, understand Indonesian, hypotension exclusion criteria, as the research proceeds respondent has a condition that may interfere with the study, respondents bed rest or have other circumstances that do not allow to participate in the study.

Instruments used in this study in the form of a questionnaire in the form of a form or questionnaire containing several statements that are used to explore the things needed by the researcher from the respondent.

The questionnaire used for this study was a questionnaire *Hypertension Self-Management Behavior Quetionnaire (HSMBQ)* modified from the *Diabetes Self Management Instrument* developed by Lin et al in a study in 2008. The questionnaire consisted of 40 statements divided into 5 components of *self-management* has been translated into Indonesian with themethod *back translate*.

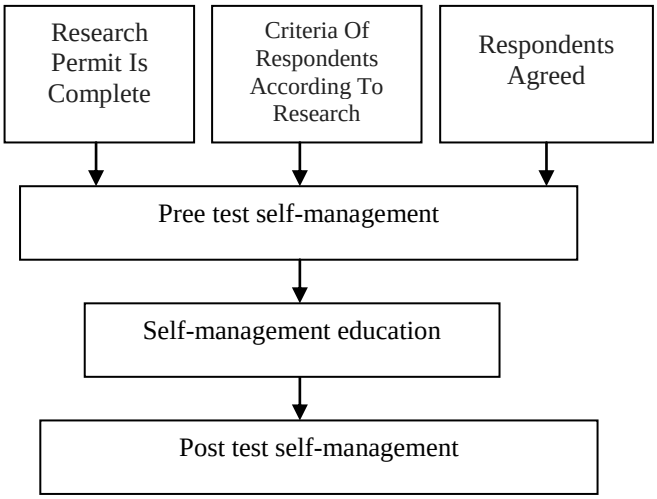


***Figure 1. Experiment Design Scheme***

## III. RESULT

Used to see the mean, standard deviation, minimum-maximum value, 95% CI of mean mean *self-management* in the elderly before and after hypertension education.

**table 1**
**Distribution of Average *Self-management* in the Elderly Before and After Education of Hypertension Puskesmas Lingkar Barat Kota Bengkulu 2018**

| Variable | N | Mean | Median | Sd | Min - Max | 95% Ci For Mean |
|---|---|---|---|---|---|---|
| Before | 20 | 102.60 | 105.00 | 10.884 | 82 - 117 | 97.51 - 107.69 |
| After | 20 | 105.50 | 108.00 | 10.807 | 84 - 121 | 100.44 - 110.56 |

From the table 1 the results of data analysis showed the average score of *self management* in the elderly before being given hypertension education 102.60 with a median of 105.00, standard deviation of 10,884, the lowestscore *self management* in the elderly before being given hypertension education was 82 and score highest 117. From the interval estimation it can be concluded that 95% are believed to be the averagescore *self management* in the elderly before being given hypertension education between 97.51 to 107.69.

While the averagescore *self management* after being given hypertension education from the analysis results obtained 105.50, with a median of 108,807, a standard deviation of 10,807. For the lowest score of *self management* after being given hypertension education 100,35 and the highest score 109,90. thescore *self-management* in the elderly after being given hypertension education between 100.44 to 110.56.

**Bivariate Analysis**

Bivariate analysis was conducted to determine the effect of education onof hypertension *self-management* in the elderly. Before the bivariate analysis conducted by researchers to test the normality of the data and the results of the analysis of the data showed no normal distribution with a value of <0.05 so for subsequent analysis used non-parametric statistical tests, namelytest *Wilcoxon* at the α 5% .To see the significance, if $p \leq 0.05$ then there is the influence of education hypertension against *self management* in the elderly.

**Table 2**
**Difference in AverageScores *Self-Management* in the Elderly Before and After Giving Education Hypertension in Puskesmas Lingkar Barat Kota Bengkulu 2018**

| Variable | N | Mean | Z (df) | P value |
|---|---|---|---|---|
| Post - pre | 20 | 2.90 | -3.949 | 0.0001 |

From table 2 data is obtained that the difference is average thescore *self management* before and after being given hypertension education is 2.90. Statistical test results show p = 0.0001 <0.05, meaning that there is a significant difference in the averagescore *self management* in the elderly before and after hypertension education. So it can be concluded that there is an educational effect of hypertension on *self management* in the elderly.

## IV. DISCUSSION

1. The averagescore *self management* in the elderly before and after being given hypertension education.

The results of the analysis obtained the average value ofscores *self management* before being given education (102.60) after being given education (105.50) which means there is an increase. The elderly at the West Rim Health Center still think that if the symptoms of hypertension arise, it is enough to just give the medicine to eliminate it and do not know how to prevent the symptoms of hypertension. The role of nurses here helps hypertensive patients to understand how to manage themselves so that there are no symptoms or complications of hypertension, it requires strong knowledge and confidence from hypertensive patients in undergoing therapy or hypertension treatment.

The mechanism for differences in knowledge and attitudes before and after due to information and communication factors that influence the formation of knowledge and attitudes. Information provided directly or indirectly has an influence on increasing knowledge, forming opinions and trusting people.

The variety of subjective messages carried by the information is quite strong and provides an affective basis in assessing things so that a certain attitude is formed (Suliha, 2002).

This is in accordance with the results of Sri Haryani's (2016) research which says there is an increase in knowledge and attitudes after being given health education on the treatment of hypertension. The results of this study say adult hypertension who get health education directly effectively has the possibility of 4.6 times the treatment of hypertension.

Rina Saraswati in research Effects of Community Based Education Program Against *Self-Management* Elderly HypertensionIn Puskesmas Gombong 2 Kebumen 2014 before being given scores on self-management education 101.17 after a given educational became 115.93.Hal This shows that *self-management* of elderly hypertension have a meaningful relationship, which means thatbehavior *self-management* undergoes a better change after being given an educational program

2. The influence of education on *self-management* on elderly

*Self-management* in the elderly is obtained by pre-test and post-test containing the same questions The difference betweenscores *self-management* before and after being given hypertension education is there an average increase of 2.90. Differences inscores *self management* before and given education were tested usingtest *Wilcoxon* showed p value of 0.0001 (p <0.05), meaning that there was a significant difference betweenscores *self management* in the elderly before and after being given hypertension education so it can be concluded that there is an influence of hypertension education on *self management* in the elderly.

Researchers argue that health education is effective to increase knowledge about *self management* in the elderly. This is because the respondent can understand the message conveyed properly because the majority of respondents are of secondary and high level education, besides that during education the respondents pay attention to the explanation well.

Information about correct hypertension in the elderly will provide sufficient knowledge to be able to carry out a healthy lifestyle. The level of knowledge about hypertension is related to patient compliance in the treatment of hypertension (Agus, 2008) and adherence in running hypertension diit (Saputro, 2009)

*Self management* encourages the elderly to use available resources to overcome symptoms experienced especially with chronic diseases,*self-management*facilitate the elderly for prevention and treatment activities and require collaboration with other health workers, with health education will encourage the independence of the elderly so that they manage the disease independently (Warsi*et al*, 2004).

The results of this study are in line with the research of Rina Saraswati 2014 Effect of Community-Based Education Program on *Self-management of* Elderly Hypertension at Gembong 2 Health Center Kebumen with a total sample of 25 respondents, the results of statistical tests obtained p-value 0.000 (p <0.05). This shows that the *self-management* elderlyof hypertension has a meaningful relationship, which means thatbehavior *self-management* changes better after being given an education program.

The main objective of *self-care management* is that clients can effectively manage their health in a sustainable manner, especially for clients with chronic diseases. With the *Self-management* means that the elderly have a sense of responsibility towards their own health and have important roles to their own health**care.**

According to Effendi (1995), the most basic goals of health education are the attainment of changes in the behavior of individuals, families, and communities in maintaining healthy behavior and playing an active role in realizing optimal health status.

Many factors need to be considered in the success of health education, including education level, socio-economic level, customs, public trust, and time availability from the community. The success of an educational program in this study is also influenced by motivation from yourself.

This is reinforced by the results of Akinsola (2001) research which states that someone who is *self-management is* well influenced by knowledge, skills, positive attitudes, beliefs and optimism to improve poor health.

## V. CONCLUSION

The average score self management before education is 102.60. The average score self management after education is 105.50. The score of self management pre and post showed that p = 0,000 <0,05 can be concluded that there is an educational influence of hypertension on self management in the elderly.

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