Research Article

# THE EFFECTIVENESS OF HEALTH EDUCATION ON INCREASING FAMILY KNOWLEDGE ABOUT HYPERTENSION

Lucia Andi Chrismilasari[1] ,Candra Kusuma Negara[2].

[1] Suaka Insan Health Institute, Banjarmasin

[2]CahayaBangsa University, Banjar, 70122 Indonesia

**ABSTRACT**

This study aims to determine the effectiveness of health education on increasing family knowledge about hypertension in the working area of the Ngaliyan Health Center. The design of this study was a quasi-experimental one group pretest-posttest design. The number of samples as many as 40 families taken using purposive sampling technique and has met the inclusion and exclusion criteria. The research data is the level of family knowledge about hypertension. Data analysis used bivariate analysis using the dependent T test. The results showed that after counseling there was an increase in family knowledge about hypertension (p value = 0.000). It is expected that health workers, especially nurses in the working area of the Ngaliyan Health Center, are expected to make home visits to conduct counseling to increase public knowledge, especially families about hypertension. It was concluded that health education was effective in increasing family knowledge about hypertension.

Keywords: hypertension, family, health education, nurse

## INTRODUCTION

The family is a system, where as a family system it has members, namely father, mother and children or all individuals who live in the household. Family members interact with each other, interrelation and interdependence to achieve common goals. The family is an open system, so it can be influenced by its supersystem, namely the environment and society. Conversely, as a subsystem of the environment or society, the family can influence society (supersystem). Therefore, the importance of the role and function of the family in shaping humans as members of a healthy bio-psycho-social and spiritual society. In the family [of] course have various health problems, one of which is the problem of hypertension. Hypertension is a condition where the systolic blood pressure is 140 mmHg or higher and the diastolic blood pressure is 90 mmHg or higher. [2]

Hypertension in the general public is known as high blood pressure, but sometimes this disease is not known by the sufferer before the patient has his blood pressure checked. Hypertension is a silent killer because in most cases, it does not show any symptoms until one day hypertension becomes a stroke and heart attack that causes the patient to die. [3]

The worldwide prevalence of hypertension is estimated to be around 15-20%. Hypertension affects people of color more than white people. In middle age and young, hypertension II affects more men than women. In the 55-64 year age group, the number of hypertension sufferers in men and women is the same. However, at the age of 65 years and over, women suffer from hypertension more than men. Hypertension in Asia is estimated to have reached 8-18%. Epidemiological studies have shown that high directional pressure is closely related to the incidence of heart disease. The prevalence of hypertension in Indonesia has reached 31.7% of the total adult population. Based on this figure, only about 0.4% of the 31.7% cases were taking hypertension drugs for diet and medication. [4]

Based on the data from the Mangkang Health Center program level plan on the problem of Hypertension in 2016 there are various programs, including: the number of results of physical examinations and supporting cases in patients who come with complaints and are served by the Puskesmas target of 1004 and realized 100%, the number of cases of physical examination results and Supporting groups from potential groups served by Puskesmas aged >45 years were 745 realized 100% and the number of cases referred was 39 and realized 100%. [5]

The results of preliminary interviews with people with family members experiencing hypertension indicate that there is still low knowledge about hypertension treatment and diet so that families do not do anything to overcome the hypertension problem suffered by their family members. These data indicate the low level of public awareness in

the treatment and diet of hypertension so that health education efforts are needed in the community, especially in the family sphere. The formation of behavior begins with the smallest social group, namely the family. Achieving healthy community behavior must start in each family. The behavior of a person or a healthy society can be influenced by several factors, both internal and external, one of which is influenced by the level of knowledge. [6]

One of the ways to fulfill public knowledge about hypertension is health education. Health education is an effort to influence and or influence other people, whether individuals, groups, or communities, to carry out healthy living behaviors, while operationally, health education is an activity to provide and or improve the knowledge, attitudes and practices of the community in maintaining and improving their own health. [7]

Hypertension that occurs in the long term and continuously can trigger strokes, heart attacks, heart failure and is the main cause of chronic kidney failure. [8] Stroke attacks 36% of the elderly in Indonesia, especially for hemorrhagic stroke caused by uncontrolled hypertension. [9] The number of deaths due to coronary heart disease caused by uncontrolled hypertension is 42.9%. [10]

So it can be seen that the high complication rate is the result of ineffective or uncontrolled hypertension treatment at home. This is closely related to the implementation of the health care function within the family in caring for family members who have hypertension. The provision of health education in an effort to increase knowledge can be done by using health promotion aids in the form of visual aids, hearing aids (audio aids). and hearing aids (Audio Visual Aids). The main purpose of health education is that people are able to apply their own problems and needs, are able to understand what they can do about the problem, with the resources available to them coupled with external support, able to decide on appropriate activities to improve healthy living standards and welfare for society. [1]

## METHOD

The type used in this study used a quasi-experimental research design with one group, while the research design used a pre-test and post-test design. The location of this research is in the Wates village, the working area of the Ngaliyan Health Center, Semarang City with the implementation time in April 2014. The samples in this study were families who had family members with hypertension with a total sample of 40 respondents who met the inclusion criteria, including: willing to become respondents, families with nuclear family and extended family, and there are health problems in the family.

The sampling method used non-random sampling technique with purposive sampling. The instrument used is a questionnaire that was previously tested for validity and reliability. The questionnaire contains the characteristics of the respondents and questions about the research problem totaling 15 questions. The data analysis in this study was univariate and bivariate to test the T-dependent. Univariate analysis in the form of frequency distribution (%), while bivariate analysis to see the family's knowledge of the problem of hypertension before and after health counseling to the family ($p < 0.004$).

## RESULTS

Table 1. Distribution of Gender, Age, Level Respondent's Education and Employment

| Variable | N | % |
|---|---|---|
| **Gender** | | |
| Man | 25 | 62.5 |
| Woman | 15 | 37.5 |
| **Age** | | |
| 20-30 | 5 | 12.5 |
| 30-45 | 14 | 35 |
| 45-60 | 21 | 52.5 |
| **Work** | | |
| Private/Entrepreneur | 20 | 50 |
| civil servant | 3 | 7.5 |
| Doesn't work | 17 | 42.5 |
| **school level** | | |
| No school | 4 | 10 |
| SD | 8 | 20 |
| JUNIOR HIGH | 17 | 42.5 |
| SCHOOL | 9 | 22.5 |
| SENIOR HIGH | 2 | 5 |
| SCHOOL | | |
| Diploma/bachelor | | |

Based on the results of the univariate analysis in Table 1. it is obtained data that most of the respondents are male (62.5%), most of the respondents' ages are in pre-elderly age (52.5%), most of the respondents work in private or self-employed (50%) and most of the respondents have junior high school education (42.5%).

Table 2. Frequency Distribution of Family Knowledge Levels Before and After Health Education

| Variable | N | % |
|---|---|---|

| | | |
|---|---|---|
| **Before** | | |
| Well | 11 | 27.5 |
| not enough | 29 | 72.5 |
| amount | 40 | 100 |
| **After** | | |
| Well | 31 | 77.5 |
| Not enough | 9 | 22.5 |
| amount | 40 | 100 |

Table 2. is the result of research on the level of family independence before and after health education about hypertension.

Table 2. shows that before nursing care was carried out, most of the family had a low level of knowledge (72.5%) and after health education was carried out on the family about hypertension effectively, most of the family's knowledge level was good (77.5%).

Table 3. Frequency distribution of family knowledge levels before and after health education

| Variable | mean | SD | SE | P value | N |
|---|---|---|---|---|---|
| Prior knowledge level | 2.26 | 0.803 | 0.114 | 0.000 | 50 |
| Knowledge level after | 3.68 | 0.513 | 0.073 | | |

Table 3. shows that there is a significant effect of giving family Askep on the level of family independence in overcoming family health problems (p value = 0.000).

## DISCUSSION

Education has a very important role in determining human quality, with human education gaining knowledge and information. The higher the level of education of a person, the better the quality of his life.[11] Most of the respondents' jobs are private, namely 20 people (50%). According to Mubarak (2007),1 work affects knowledge. Judging from the type of work that often interacts with other people, they are more exposed to information or knowledge when compared to people without any interaction with other people . Most of the respondents' gender is male, as many as 25 people (62.5%). Most of the respondents' ages were late adults and included in the pre-elderly category of 21 people (52.5%). Late adulthood is a time when humans are considered mature, both physiologically, psychologically and cognitively, so that late adulthood is the right age to analyze and receive information.

Early adulthood based on psychosocial development is a time when an individual begins to build a household and becomes a parent. Cognitively, the habit of rational thinking increases in early and middle adulthood. A person's age greatly affects a person's ability to receive information and a person's way of thinking about the information obtained. Increasing age will affect a person's ability to receive information so that a person's mindset will develop

Most of the respondents' last education was junior high school, meaning that the majority of respondents' education levels were still low. One of the factors that influence knowledge is the level of education, where a higher level of education affects a person's perception of making decisions and acting. about various hypertension problems that are being experienced by family members, besides that the lack of knowledge is caused by various factors, including: the education level of the head of the family is still low, age, gender and the ability of the community nurse who is in charge of the target area. The behavior of a person or society regarding, for example health, is determined by the knowledge, attitudes, beliefs, traditions and so on of the person or society concerned. In addition , the availability of facilities, attitudes and behavior of health workers will also support and strengthen the formation of behavior

The function of family health care can be achieved, seen from the ability of the family to understand and carry out the five tasks of family health.[15] This is closely related to the role of nurses in providing health education to families, so nurses are expected to provide nursing care to all areas under their care in order to find out the existing problems.The behavior is in three domains (regions/regions), even though these areas do not have clear and firm boundaries. This division of territory is carried out for educational purposes, namely developing or improving the three behavioral domains, which consist of the cognitive domain (cognitive domain), affective domain (affective domain), and psychomotor domain (psycomotor domain).[16] Knowledge is influenced by two factors, namely: internal (education, motivation and perception) and external (social, cultural and environmental). A high level of education or life experience gained, high motivation to improve family health, positive perceptions of health services, good social culture and the environment as a good support system will encourage families to make decisions about appropriate health actions for family members who sick and vice versa.[7]

In addition to the role of nurses in providing health education to the community, it is also expected that the awareness of the community itself to utilize health services to seek information is influenced by various factors, both internal and external. The lack of utilization of these health facilities is one of the inhibiting factors in improving the health status of

the community. Health behavior is divided into three domains, namely health knowledge, health attitude and health practice.[17] This is useful for measuring the level of individual health behavior that is the unit of research analysis. Knowledge about health includes what a person knows about ways to maintain health, such as knowledge about infectious diseases, knowledge about factors related to and or affecting health, knowledge about health care facilities and knowledge to avoid accidents. Health behavior is all forms of experiences and interactions of individuals with their environment, especially those concerning knowledge and attitudes about health, as well as their actions related to health.

Health behavior as behavior to prevent disease at the asymptomatic stage.[19] Based on this, it is necessary to change the behavior of both health workers and the community. The behavior change strategy is to provide information on how to avoid disease and increase public knowledge. It is hoped that the knowledge obtained can raise awareness among the community to behave in accordance with healthy behavior.[7] The results of this study are in accordance with the results of research conducted by WeniUtari (2014) which states that there are differences in the level of knowledge between families before and after health education with p value = 0.000 ($p < 0.05$).[20]

## CONCLUSION

It was concluded that health education was effective in increasing family knowledge about hypertension.

## References


1. Mubarak, S. IlmuKeperawatanKomunitas. Jakarta: SalembaMedika. 2006.
2. Syamsudin. Buku Ajar FarmakoterapiKardiovaskular dan Renal. Jakarta: PenerbitSalembaMedika. 2011.
3. Nurrahmani. Stop Diabetes Mellitus. Yogyakarta :familia. 2012.
4. BalitbangKemenkes RI. Riset Kesehatan Dasar; RISKESDAS. Jakarta: BalitbangKemenkes RI. 2012.
5. EvaluasiManajemenPelayananPuskesmasMangkang Tahun 2013. JournalPenelitianKesehatanSuaraForikes. 2013; IV (1): 25-32
6. Notoatmodjo, S. (2007). Promosikesehatan dan ilmuperilaku. Jakarta: RinekaCipta.
7. Notoatmodjo, Soekidjo. 2003. Pendidikan Dan Perilaku Kesehatan. RinekaCipta. Jakarta
8. Purnomo, H., 2009, Penyakit yang paling mematikan (hipertensi). Buanapustaka. Jakarta.
9. Misbach,J. 2007. PandanganUmumMengenai Stroke. Dalam : Rasyid, A. dan Soertidewi,L (eds). Unit Stroke. Manajemen Stroke SecaraKomprehensif. Hal 1-9. BalaiPenerbit Universitas Indonesia. Jakarta.
10. World Health Organization, WHO World Health Organization Report 2000, Genewa: WHO, 2001.
11. Hurlock, A. Promosi Kesehatan Bayi dan Balita. Jakarta: SalembaMedika. 2007.
12. Potter, P.A., & Perry, A.G. Fundamental Keperawatan. (ed.7). Jakarta: SalembaMedika. 2005.
13. Notoatmodjo, S. Kesehatan Masyarakat Ilmu dan Seni. Jakarta: RinekaCipta. 2007.
14. Green, Lawrence W., Marchel W Kreuter.Health Promoting Planning an Educational and Environmental Aproach. Second Edition. Mayfield Publishing Company: Mountain View. 2005.
15. Friedman, M.M, Bowden, V.R, & Jones, E.G. KeperawatanKeluarga: Riset, TeoridanPraktik (5.ed.). (achiryani.) 2010.
16. Bloom, Benjamin S., etc. Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I Cognitive Domain. New York: Longmans, Green and Co. 1956.
17. Becker,M.A., Santos, M.C.D. Psychological Stress and Its Influence on Salivary Flow Rate, Total Protein Concentration and Ig A, Ig G, and Ig M Titers. Neuro ImmunoModulation.. 2010; 17. (6)
18. Sarwono, S., Sosiologi Kesehatan BeberapaKonsepBesertaAplikasinya. Gadjah Mada University Press. Yogyakarta 2007.
19. Notoatmodjo, S., &Sarwono, S. PengantarIlmuPerilaku Kesehatan. Jakarta: Badan Penerbit Kesehatan Masyarakat Fakultas Kesehatan Masyarakat Universitas Indonesia. 1985.
20. Negara, C. K. (2018). The Effect of Discharge Planning on Treatment Adherence among The Elderly with Hypertension in Banjarmasin, South Kalimantan. In *4th International Conference on Public Health* (pp. 237-237).