

## Conference Paper

# The Factors Affecting Health Promotion Implementation Relating to Hypertension Diets in the Elderly Families of Banjarmasin

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**Abstract**

Health Promotion is one of the independent nursing interventions that can improve the patients' and families' ability to handle hypertension. Health workers, especially nurses, are expected to give health promotion advice to elderly hypertension patients. They are therefore required to have a detailed understanding of the dietary factors which can affect this condition. This study uses observational research with a cross-sectional design and questionnaire. The research was conducted between December 2019 and March 2020. There are 30 respondents, selected via purposive sampling, comprised of families with elderly members suffering hypertension and living in the Andai River Area of Banjarmasin. Data analysis used chi-square and logistic regression tests. Univariate analysis showed most of respondents were in early adulthood and had a good knowledge of the subject. The bivariate test showed a significant relationship between age, attitude, occupation and knowledge with the implementation of Health Promotion on the Hypertension diet ( $p < 0.05$ ). Multivariate analysis indicates that knowledge was the most important factor with an OR = 16. Educational interventions concerning health promotion are able to improve the quality of life and the ability of elderly to understand every health information received.

**Keywords:** Elderly Family, Health Promotion, Hypertension Diet

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## 1. Introduction

Hypertension is an acute or chronic condition where it's shown by an abnormal increase of blood pressure that ends in organ damage [1]. The report results show that there are 34.1 percent of Indonesians  $\geq 18$  years old with hypertension. The data increased by 7.6 percent compared to the previous five-year result in Riskesdas 2013 of 26.5 percent [2]. The highest hypertension prevalence data based on measurements at  $\geq 18$  years old by province is still occupied by South Kalimantan Province with 44.1 %. There was a

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10% increase from the previous value in Riskesdas 2013 which only showed a figure of 34.1%. [2]

The prevalence of hypertension in South Kalimantan, which increased from the previous year, has its own concerns. Data obtained from preliminary studies at the City Health Office found that the number of old cases for Hypertension disease was 57,257 cases, while the number of new cases for Hypertension disease in 2018 reached 20,020 cases. The old case is the case of hypertension patients who have recorded a second or more visit, while the new case is the number of hypertension sufferers who have just made their first visit or have not been recorded in hospitals or other health facilities [3].

Many efforts have been made by the central and local governments to address the increase in blood pressure. The central government's efforts in this case are to develop promotive and preventive efforts without putting aside curative-rehabilitative efforts. The way that can be done through health promotion such as a healthy diet by eating enough vegetables, low in salt and fat, diligent activity and not smoking [4]. Medical personnel including nurses are among those who have an important role in the implementation of promotive, preventive, curative and rehabilitative efforts [5]. Preventative is a prevention effort against a disease that can lower the degree of public health, while promotively seeks to increase the public's knowledge of a disease so as to increase motivation to prevent the disease from occurring. In line with this Setiawan in his research proved that there was an increase in participants' knowledge of hypertension prevention after the health promotion of Hypertension [6].

Health workers and people in the health facility are expected can provide a Health Promotion about appropriate treatment in elderly patients with Hypertension. Health promotion services are essential to improve the health of the populations everywhere. It should be noted that people from all ages can have a benefit from the health promotion. Nurses can develop and implement health promotion interventions to individuals, groups, and families in schools, care centers, health facilities, and general society for prevention and behavioral change to appreciate a self-health. [7].

Health promotion is good enough to be one way to solve the problems that exist in the community. Notoatmodjo explained that health promotion gives people the ability to maintains and improve their own health independently [8]. Health promotion can be used as one of the independent nursing interventions given to improve patients and families' ability in the treatment of hypertension. Patients and families' ability in the treatment of hypertension will be assessed from two aspects: knowledge of hypertension treatment and family attitude in modifying hypertensive patients diet.

The prevention of hypertension problems in the elderly requires improved public health programs, health education, and improvements in the ability of families care for the elderly with hypertension. One of the activities that can carried out to achieve that goal is to conduct health promotions aimed at high-risk individuals, families, and groups through with family approach [9].

Providing a health education, coaching and peer education to families is very important as a self care agency to improve family independence in terms of hypertension prevention behavior and hypertension treatment in patients, especially the elderly. Family empowerment can be seen as a process of established clients in controlling their health status. Family empowerment has a meaning for how families enable themselves by facilitation from the others to improve or control the family's health status by improving the family's ability to perform family health care functions and family health care task [10].

Health Promotion as an approach to health behavior factors that makes all activities inseparable from the factors that determine behavior. Several factors such as age, education, knowledge, number of family members, occupation, income and attitudes are the factors that can influence the occurrence of a new behavior [11, 12]. Research before [13] states that age, knowledge and attitudes are factors that have a significant influence in implementing healthy household promotion programs where knowledge is the most dominant factor. Other studies also explain that attitudes have an influence on behavior and active intention to attend Posyandu for the elderly [14]. Other factors such as education, income, economic conditions are also situational factors that can influence behavior change [15].

Referring to that, it is interesting to doing research to find the Factors That Affect the Implementation of Health Promotion About Hypertension Diet In Elderly Families In Andai River Area in Banjarmasin City.

## 2. Methods and Equipment

### 2.1. Methods

This research is a quantitative study with a cross sectional design that aims to describe or a situation in a community and further to explain a situation through the collection or measurement the correlation of variables that occur on research objects simultaneously and at the same time or free variables and bound variables are assessed simultaneously at one time [8]. The variables in this study are the age factor, knowledge, attitude, and

occupation of respondent, while the variable bound is the implementation of Health promotion about Hypertension Diet in Elderly Family.

The population in this study was all elderly patients who suffered from hypertension in the working area of Andai River Health Center during January–September 2019 aged between >60 years old numbering 136 people. The sample used in this study is a minimum number of samples according to Sugiyono which is 30 people [16]. This research will be conducted from December 2019 to March 2020. The research site is the Andai River area of Banjarmasin City.

## 2.2. Equipment

The data collection in this study was conducted using observation sheets and questionnaires that had passed the validity and reliability tests before. The results of the validity and reliability test of questionnaire shows that  $t\text{-count} > t\text{-table}$  with cronbach Alpha results  $> 0.05$  which states that it is reliable. The observation sheet will be used to see the implementation of health promotion, while the questionnaire is used to obtain data on the age, knowledge, education, occupation and respondent attitudes. The questionnaire was distributed directly to the families of hypertensive patients who were willing to fill out the willingness sheet to be respondents first.

Once the data is obtained and processed then analyzed using the help of computer programs in the form of tables and narratives. Univariate analysis is used to describe the variables of respondent characteristics, knowledge, attitudes and implementation of health promotion. Bivariate analysis was used to see the relationship between the variables of age, occupation, attitudes, and knowledge of the dependent variable in implementing health promotion using the chi square test at the 95% confidence level. Multivariate analysis was performed using logistic regression to determine which independent variable had the most dominant influence on the implementation of health promotion.

## 3. Result

### 3.1. Characteristics of respondents

The age of the respondents in this study was obtained the youngest at 33 years old and the oldest age was 55 years, to facilitate in this study respondents were grouped with the early adult age group >21-49 years old and the final adult age group 50-60

TABLE 1: Distribution of Frequency Respondent Characteristics

Age	Frequency	Percentages (%)
Early Adult (>21-49)	21	70,0
End of Adult (50-60)	9	30,0
<b>Total</b>	<b>30</b>	<b>100</b>
Education	Frequency	Percentages (%)
Junior High School	4	13%
Senior High School	19	63%
Scholars	7	24%
<b>Total</b>	<b>30</b>	<b>100</b>
Occupation	Frequency	Percentages (%)
Work	19	63%
Did'n work	11	37%
<b>Total</b>	<b>30</b>	<b>100</b>

years. Based on Table 1, from 30 respondents there are 21 respondents (70%) was in early adult (between 21-45 years old) and 9 Respondents (30.0%) was end-of-adult.

The level of education of respondents in this study consists of junior high school, Senior high school and undergraduate education. In table 1, it was also found that of the 30 respondents there are most had a high school education of 19 (63%) Respondents.

The occupation of respondents in this study was divided into work and did not work. Based on table 1 obtained that out of 30 respondents as many as 19 people (63%) respondents have a work.

### 3.2. Distribution of respondents knowledge, attitude, health promotion implementation

Based on (Table 2), obtained from 30 respondents there are 20 (67%) respondents have a good knowledge. Table 2 also shows that out of 30 respondents the number of respondents who behaved negatively and positively was not very much different but more positive attitudes, which is as many as 16 people (53%). Based on table 2 obtained from 30 respondents can mostly follow the health promotion which is as much as 19 (63.3%) Respondents.

### 3.3. The contributing factors

Based on Table 3 by looking at each  $p$  value of knowledge variables, attitude, knowledge and support of health workers has a significance value of  $<0.05$ , meaning that the

TABLE 2: Distribution of respondents Knowledge, Attitude, and Health promotion Result.

Knowledge	Frequency	Percentages (%)
Not Good	10	33%
Good	20	67%
<b>Total</b>	<b>30</b>	<b>100</b>
Attitude	Frequency	Percentages (%)
Negative	14	47
Positive	16	53
<b>Total</b>	<b>43</b>	<b>100</b>
Health Promotion	Frequency	Percentages (%)
Unable to follow	11	36,7
Can follow	19	63,3
<b>Total</b>	<b>30</b>	<b>100</b>

TABLE 3: The most contributing factor to the implementation of health promotion at Puskesmas Sungai Andai Banjarmasin

No	Variabel	B	ρ Value	OR	95% CI	
					Min	Max
1	Age	1,160	0,036	2,116	0,873	10,647
2	Attitude	1,232	0,033	3,189	0,921	12,298
3	Occupation	1,615	0,015	5,029	1,825	17,228
4	Knowlegde	2,818	0,000	15.729	1,630	168,88
5	Constant	-7,832	0,000	0,011		4

dependent variable has a significant contribution to the implementation of health promotion, based on the correlation value of coefficient for age variable obtained value 0.222 that meaning age contribution to the implementation of low health promotion, attitude variable obtained value 0.325 that meaning attitude contribution to the implementation of moderate health promotion, job variable 0.527 that meaning the contribution of work to the implementation of health promotion was strong, and knowledge variable obtained value 0.659, that meaning the contribution of knowledge to the implementation of health promotion is very high. Of the four independent variables (age, attitude, occupation and knowledge) that most contributed to the implementation of health promotion was the knowledge (OR=16), then the occupation (OR=5), followed by attitude (OR=3) and age (OR=2). This reveals that knowledge is the variable that most contributes to the implementation of health promotion regarding the hypertension diet after being controlled by variables of age, attitude and occupation.

## 4. Discussion

The results in Table 3 showed that age has contributed to the implementation of health promotion about hypertension diet in the andai river area. The age of most respondents who are in a early-adults (21-45 years) provides ease in changing health levels towards better behaviour. A study explains that age affects the development of a person's capture power and mindset. The age of a person can have an effect on the increase in knowledge he or she acquires [17]. The older their age, they have more maturity in thinking and working. In terms of public trust a mature person will be more trusted than a person who is not high enough maturity [18]. The average of age gained during this research was a young adults 19-40 years. A study said the people in 20 - 35 years old, will play more of an active role in society and social life and make more preparations for successful efforts to adjust with old age. [19, 20].

A Clinical Trial Study for find the Effect of Health Promoting Intervention shows that health promotion interventions can support improved behavior and lead to healthier lifestyles. Changes in behavior and lifestyle should start from a pre-old age or at a young age even from adolescence or childhood [21]. Adults who are mentally in optimal situations are more motivated by health promotion behaviors [22].

The results in Table 3 also showed more than half of respondents have a positive attitude for the implementation of health promotion about hypertension diet. Health promotion interventions aimed at ensuring a safe and supportive environment, healthy living conditions and lifestyles, community engagement and participation, access to essential facilities and social and health service facilities [23], clearly require a positive attitude from each sufferer. Providing health education on the care of hypertensive patients will increase family knowledge so that families can determine better attitudes in the treatment of hypertension of family members [24]. The attitude was a readiness to react the objects in a particular environment as appreciation to objects [8].

The results of this study also show that the occupation has contributed to the successful implementation of health promotion. There are many working respondents admitted that they had difficulty following the implementation of health promotion about hypertension diet because they difficult to divide time. Even though the other research explains that one's work affects one's knowledge and experience. The more often a person's brain is used in work, it will usually make the brain's work ability improve [25].

As the most contributing factor to the implementation of health promotion, variable of knowledge clearly has a biggest influences on the implementation of Health promotion. The results of the study before say that knowledge is one of the predisposition factors

to occurrence of behavior [26]. This statement can be assumed that someone who has good knowledge will definitely have good behavior anyway. Knowledge is very closely related to education, where it is expected that with higher education then the person will be more knowledgeable, but that does not mean someone who is low educated is absolute low knowledge anyway [27]. Knowledge is information or information that a person knows or realizes. Behaviors that are in line with knowledge will result in good and long-lasting behavior, while behaviors that are not in line with knowledge will exhibit poor behavior and will not last long [28].

Health workers and especially a nurses are expected could be provide Health Promotion about appropriate treatment in elderly patients suffering from Hypertension. Health promotion services are essential to improve the health of populations in everywhere. Health Promotion is a process of empowering people to maintain and improve their health by changing behavior [29]. Educational interventions such as Health Promotion are able to improve the quality of life and the ability of elderly to understand every information received about health and find out a new insights, so that decision-making will based on information about health care [30, 31].

## 5. Conclusion

Knowing the factors that influence the implementation of health promotion, health workers and nurses are expected to provide health promotion better for appropriate treatment in elderly patients suffering from Hypertension. Health promotion services are essential to improve the health of populations everywhere. Educational interventions such as health promotion are able to improve the quality of life and the ability of elderly to understand every health information received and find out new insights on Health, so that decision-making would based on a information of health care.

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## Conflict of Interest

The authors have no conflict of interest to declare on.



## References

- [1] Mungati M., Manangazira P., Takundwa L., Gombe NT., Rusakaniko S., Tshimanga M. (2014). Factors affecting Diagnosis and Management of Hypertension in Mazowe District of Mashonaland Central Province in Zimbabwe: 2012. *BMC Cardiovascular Disorders* 2014, issue 14, p. 102.
- [2] Indonesian Ministry of Health. (2018). *Main Results of Basic Health Research 2018*. Indonesian Institute of Health Research and Development.
- [3] Banjarmasin City Health Office. (2018). *Data of Hypertension Incidence rate in Banjarmasin City*. Banjarmasin: Banjarmasin City Health Office.
- [4] Indonesian Ministry of Health. (2012). *Hypertension Problems in Indonesia*. Indonesia Institute of Health Research and Development.
- [5] Bustami M. (2012). *Penjaminan Mutu Pelayanan Kesehatan & Akseptabilitasnya*. Jakarta: Erlangga.
- [6] Setiawan, H., et al. (2018). Health Promotion of Prevention of Hypertension Early. *Jurnal Abdimas UMTA*, vol. 1, issue 2, pp. 41–45.
- [7] Kemppainen, V., Tossavainen, K. and Turunen, H. (2012). Nurses' Roles in Health Promotion Practice: An Integrative Review. *Health Promotion International*, vol. 28, issue 4, pp. 490–501.
- [8] Notoatmodjo, S. (2010). *Behavioral Health Sciences*. Jakarta: Rineka Cipta.
- [9] Nisa, N. J. (2014). *Diet Hipertensi Untuk Mengontrol Tekanan Darah Pada Lansia Dengan Hipertensi*. Jakarta: University of Indonesia.
- [10] Erlinda, V. (2015). Application of Family-Centered Nursing Model on the Execution of Family Health Care in Preventing Acute Respiratory Tract Infection of Under 5 Years Children in the Working Area of Simpang Tiga Public Health Center Aceh Besar District. *Jurnal Kedokteran Yarsi*, vol. 23, issue 2, pp. 165-186.
- [11] Green, LW., Kreuter, MW., Deeds, SG. (1980). *Health Education: A Diagnosis Approach*. California: Mayfield Publishing Co.
- [12] Notoadmojo, S. (2005). *Promosi Kesehatan, Teori dan Aplikasi*. Jakarta: PT. Rineka Cipta.
- [13] Suriyani. (2009). Faktor-faktor yang mempengaruhi pelaksanaan program promosi Kesehatan Rumah Tangga yang sehat di Wilayah Kerja Puskesmas Teladan Medan Kecamatan Medan Kota Tahun 2009. (Master's Thesis, Universitas Sumatra Utara, 2009).
- [14] Putri, M. (2018). Determinant Factors to Liveliness of Elderly in Participating Elderly Integrated Health Post. *Jurnal Promkes*, vol. 6, issue 2, pp. 213 – 225.

- [15] Multazam, A. (2018). Factors Related to Behavior of Mothers in Preventing Diarrhea among Children under Five Years of Age. *JIM FKep*, vol. 3, issue 4, pp. 181-191.
- [16] Sugiyono. (2015). *The Methods of Education Research for Quantitative, Qualitative and R&D*. Bandung: Alfabeta.
- [17] Rasily, O. R. and Dewi, P. (2016). Factors Who Affecting to Level of Parents Knowledge about a Genetic Abnormality Caused of Intellectual Disability in the Semarang City. *Diponegoro Medical Journal*, vol. 5, issue 4, pp. 1422-1433.
- [18] Nursalam. (2011). *Concept and Application of Nursing Science Research Methodology*. Jakarta: Salemba Medika.
- [19] Suwaryo, P. A. W. and Yuwono, P. (2017). Faktor-Faktor Yang Mempengaruhi Tingkat Pengetahuan Masyarakat Dalam Mitigasi Bencana Alam Tanah Longsor. Presented at 6<sup>th</sup> University Research Colloquium Proceeding in September 2017. Magelang: Universitas Muhammadiyah Magelang.
- [20] Erdian. (2009). *Behavioral Sciences*. Jakarta: CV Sagung Seto.
- [21] Rahimi Ferooshani A, Estebarsari F, Mostafaei D, et al. (2014). The effect of health promoting intervention on healthy lifestyle and social support in elders: a clinical trial study. *Iran Red Crescent Med J*. 2014;16(8):e18399. doi:10.5812/ircmj.18399
- [22] Huang, S. L., Li, R. H. and Tang, F. C. (2010). Comparing Disparities in the Health-Promoting Lifestyles of Taiwanese Workers in Various Occupations. *Industrial Health*, 2010;48(3):256-64. doi: 10.2486/indhealth.48.256. PMID: 20562500.
- [23] Ostlin, P., et al. (2007). Gender and Health Promotion: A Multisectoral Policy Approach. *Health Promotion International*, vol. 21, pp. 25-35.
- [24] Mardhiah, A., Abdullah, A. and Hermansyah. 2015). Health Education Interventions to Increase Knowledge, Attitudes and Practice of Families with Hypertension - Pilot Study. *Jurnal Ilmu Keperawatan*, vol. 3, issue 2, pp. 111–121.
- [25] Pangesti, A. (2012). *Overview of the Level of Knowledge and Application of Disaster Preparedness in Students of the Faculty of Nursing at the University of Indonesia in 2012*. Jakarta: University of Indonesia
- [26] Zulaikhah, S. T. and Yusuf, I. (2018). The Effect of Counseling to the Density of Aedes Aegypti for Prevention an Extraordinary Occurrences of Dengue Fever. *Jurnal Fakultas Kesehatan Masyarakat*, vol. 12, pp. 1-7.
- [27] Wawan, A. and Dewi, M. (2011). *Theory and Measurement of Human Knowledge, Attitudes, and Behaviors*. Yogyakarta: Nuha Medika.
- [28] Notoatmodjo, S. (2012). *Health Promotion and Health Behavioral*. Jakarta: Rineka Cipta.

- [29] Ottawa Charter for Health Promotion, 1986 Health. Health Promotion Action Means Build Healthy Public Policy.
- [30] Machado, A. L. G., *et al.* (2017). Culture Circle in Hypertensive Elderly Health Promotion: Experience Report. *Cienc Cuid Saude*, vol. 16, pp. 1-6.
- [31] Lee, T. W., Ko, S. and Lee, K. J. (2006). Health Promotion Behaviors and Quality of Life among Community-Dwelling Elderly in Korea: A Cross-Sectional Survey. *International Journal of Nursing Studies*, vol. 43, pp. 293-300.