

THE RELATIONSHIP OF HEALTH EDUCATION TO ELDERLY KNOWLEDGE ABOUT HOW TO PREVENT HYPERTENSION IN THE ELDERLY IN AEK BOLON JAE VILLAGE, BALIGE DISTRICT

Jane Wilda Irmawati Sirait¹

¹Akademi Keperawatan HKBP Balige

E-mail: ¹siraitjanewilda@gmail.com

Abstract

Hypertension is still a health problem in the elderly group. Increased age is often followed by degenerative diseases and health problems in the elderly group. Therefore, researchers are interested in conducting a study entitled Relationship of health education to elderly knowledge on how to prevent hypertension in the elderly in Aek Bolon Jae Village, Balige District in 2022. This study was conducted in April-June 2017 with a population of 198 people while the sample used as many as 99 people using the formula from lemeshow book using simple random sampling techniques. The results of this study stated that health education has a relationship to the knowledge of the elderly in Aek Bolon Jae Village, Balige District in 2022, because p value < 0.05 . It is expected that it can be increased the knowledge of elderly posyandu cadres about hypertension and how to prevent it and improve the ability of cadres in providing counseling so that counseling to the elderly is more effective. Education Institutions provide elderly posyandu material which is one of the basic health services through courses related to elderly services both integrally and specifically cases of hypertension in the elderly and prevention methods. The results of this study as preliminary data to conduct other research on the elderly with different variables.

Keywords: *Health Education, Knowledge, Elderly.*

1. INTRODUCTION

Hypertension or high blood pressure can be a problem, putting strain on the circulatory system and the organs that receive its blood supply. If high blood pressure is not properly controlled, a series of serious complications and cardiovascular disease can occur (Anna, 2007).

Hypertension affects 16 million people in England, 34% of men and 30% of women have high blood pressure above 140/90 mmHg and tends to increase in the entire adult population (Anna, 2007). According to a survey conducted by the World Health Organization (WHO) in 2000, the world population suffering from hypertension is around 26.6% for men and around 26.1% for women and it is estimated that by 2025 the number will increase to 29.2% (Apriany, 2012).

The prevalence of hypertension sufferers in Indonesia continues to increase. The results of the Household Health Survey (SKRT) in 2000 amounted to 21% to 26.4% and 27.5% in 2001 and 2004. Furthermore, it is estimated to increase again to 37% in 2015 and to 42% in 2025. According to data from the Ministry of Health of the Republic of Indonesia in 2009 showed that the prevalence of hypertension was 29.6% and increased to 34.1% in 2010. Data from the Semarang City Health Office in 2009 stated that the prevalence of hypertension was 12.85% with a total of 2063 cases (Apriany, 2012).

Basic Health Research (Riskesdas) in 2013 showed that people with hypertension over the age of 18 reached 25.8 percent of the total population of Indonesia. Of these figures, women with hypertension are 6 percent more than men. Meanwhile, only 9.4 percent were diagnosed by health workers. This means that there are still many people with hypertension who cannot be reached and diagnosed by health workers and do not undergo treatment as recommended by health workers. This causes hypertension as one of the highest causes of death in Indonesia (Riskesdas, 2013).

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Jane Wilda Irmawati Sirait

Hypertension is still a health problem in the elderly group. Increasing age is often followed by degenerative diseases and health problems in the elderly. Hypertension is a degenerative disease that is often found in the elderly (Kuswardani, 2007). The old age factor can lead to hypertension due to structural and functional changes in the peripheral vascular system which is responsible for blood pressure (Brunner & Suddarth, 2012). The condition of reduced flexibility of the main arteries due to old age causes hardening of the arterial walls so that blood cannot flow smoothly (Wolff, 2008). At an advanced age, the number of people with high blood pressure is more experienced by more than half of the population aged over 60 years (Anna, 2007).

Based on the prevalence data found in the elderly posyandu, the researchers were interested in conducting research on the relationship between health education and knowledge of the elderly about how to prevent hypertension in the elderly in Aek Bolon Jae Village, Balige District.

2. METHOD

This type of research is cross sectional, which is a research design by making observations at the same time (Hidayat.A.A, 2009). This is intended to obtain an overview of the knowledge of the elderly about how to prevent hypertension in the elderly in Aek Bolon Jae Village, Balige District in 2022. The research was conducted in Aek Bolon Jae Village, Balige District, Toba Regency and this research was conducted in April-June 2022. The population in this study was all the elderly in Aek Bolon Jae Village, Balige District in 2022 were 198 people and the sample in the study was 99 people.

3. RESULTS

After conducting research on the relationship of health education to the knowledge of the elderly about how to prevent hypertension in the elderly in Aek Bolon Jae Village, Balige District in 2022 with 99 respondents, the following results can be obtained:

Table 1 Frequency Distribution of Elderly in Aek Bolon Jae Village, Balige District in 2022 by Age

No	Age	f	%
1	55 – 64 Years	31	31,3
2	65 – 70 Years	38	38,4
3	>70 Years	30	30,3
Total		99	100

Based on Table 1, the majority of respondents are aged 65-70 years, namely 38 people (38.4%), while the minority are aged > 70 years, namely 30 people (30.3%).

According to Kuswardani (2007), hypertension is still a health problem in the elderly group. Increasing age is often followed by degenerative diseases and health problems in the elderly. Hypertension is a degenerative disease that is often found in the elderly. Old age factors can lead to hypertension due to structural and functional changes in the peripheral vascular system which are responsible for blood pressure (Brunner & Suddarth, 2012).

Table 2 Frequency Distribution of Elderly in Aek Bolon Jae Village, Balige District in 2022 by Gender

No	Gender	f	%
1	Male	32	32,3

2	Female	67	67,7
Total		99	100

Based on Table 2. the data obtained from the majority of respondents was female, namely 67 people (67.7%) while the minority had male gender, namely 32 people (32.3%).

According to a survey conducted by the World Health Organization (WHO) in 2000, the world population suffering from hypertension is around 26.6% for men and around 26.1% for women and it is estimated that by 2025 the number will increase to 29.2% (Apriany, 2012).

Table 3 Distribution of Elderly Frequency in Aek Bolon Jae Village, Balige District in 2022 by Occupation

No	Work	f	%
1	Farmer	46	46,4
2	Retired civil servants	12	12,2
3	Private employees	12	12,2
4	Traders/Entrepreneurs	11	11
5	Doesn't work	18	18,2
Total		99	100

Based on Table 3. the data obtained from the majority of respondents had jobs as farmers, namely as many as 46 people (46.4%), Not Working as many as 18 (18.2%) retired civil servants, namely as many as 12 people (12.2%) while the minority as traders/ self-employed as many as 11 people (11%).

According to Rohhaendi (2008), as a gerontological consideration in which structural and functional changes occur in the peripheral vascular system are responsible for changes in blood pressure that occur in old age. These changes include atherosclerosis, loss of connective tissue elasticity and decreased relaxation of vascular smooth muscle, which in turn reduces the distensible and tensile strength of blood vessels. Consequently, the aorta and large arteries reduce their ability to accommodate the volume of blood pumped by the heart (stroke volume) resulting in a decrease in cardiac output and an increase in peripheral resistance, so workload affects the incidence of hypertension in the elderly.

Table 4 Frequency Distribution of Elderly in Aek Bolon Jae Village, Balige District in 2022 Based on Education

No	Education	f	%
1	SD	14	14,1
2	JUNIOR HIGH SCHOOL	36	36,4
3	SENIOR HIGH SCHOOL	36	36,4
4	COLLEGE	13	13,1
Total		99	100

Based on Table 4. the data obtained from the majority of respondents had junior high school education, namely as many as 36 people (36.4%), high school education, namely as many as 36 people (36.4%) while the minority had tertiary education, namely 13 people (13.1%).

THE RELATIONSHIP OF HEALTH EDUCATION TO ELDERLY KNOWLEDGE ABOUT HOW TO PREVENT HYPERTENSION IN THE ELDERLY IN AEK BOLON JAE VILLAGE, BALIGE DISTRICT

Jane Wilda Irmawati Sirait

According to Stanley (2006), aging is a process of decreasing structural function of the body followed by a decrease in endurance. Everyone will experience old age, but aging for each person is different depending on various factors that influence it. Education concerns the knowledge gained during life, the higher the education, the better in the process of preventing hypertension and vice versa.

Table 5 Frequency Distribution of Elderly in Aek Bolon Jae Village, Balige District in 2022 Based on Health Education

No	Health Education	f	%
1	Once	54	54,5
2	Never	45	45,5
Total		99	100

Based on Table 5. the data obtained from the majority of respondents had received health education, namely as many as 54 people (54.5%) while the minority had never received health education, namely as many as 45 people (45.5%).

According to the Indonesian Ministry of Health (2009), a service facility for the elderly in the community is carried out by health cadres who have received education and training from the puskesmas regarding basic health services aimed at the welfare of the elderly. The container is a place for providing health education to the elderly who are expected to treat hypertension which often occurs in the elderly.

Table 6 Frequency Distribution of Elderly in Aek Bolon Jae Village, Balige District in 2022 Based on Knowledge

No	Knowledge	f	%
1	Good	35	35,4
2	Enough	44	44,4
3	Not enough	20	20,2
Total		99	100

Based on Table 6. the data obtained from the majority of respondents had sufficient knowledge, namely as many as 44 people (44.4%) while the minority had less knowledge, namely as many as 20 people (20.2%).

If high blood pressure is not controlled properly, a series of serious complications and cardiovascular disease can occur, so the knowledge of the elderly about hypertension has an effect on reducing the death rate in the elderly due to hypertension (Anna, 2007).

Table 7 Cross Table of the Relationship between Health Education and Elderly Knowledge in Aek Bolon Jae Village, Balige District in 2022

No	Health Education	Knowledge						Total	%	P value
		Good		Enough		Not Enough				
		f	%	f	%	f	%			
1	Once	30	30,3	21	21,2	3	3	54	54,5	0,000
2	Never	5	5,1	23	23,2	17	17,2	45	45,5	
Total		35	35,4	44	44,4	20	20,2	99	100	

From the results of table 7 above, it can be seen that of the 54 respondents (54.5%) who had received health education, the majority had good knowledge, namely 30 people (30.3%), the minority had less knowledge, namely 3 people (3%), out of 45 people The majority (45%) who had never received health education had sufficient knowledge, namely 23 people (23.2%), and the minority had good knowledge, namely 5 people (5.1%).

From the results of the cross-table chi-square test of health education and knowledge, a p-value of 0.000 is obtained. It can be concluded that health education has a relationship to the knowledge of the elderly in Aek Bolon Jae Village, Balige District, because the p value <0.05.

According to data from the Indonesian Ministry of Health (2009) it shows that the prevalence of hypertension in Indonesia continues to increase. This increase can occur due to lack of individual knowledge in preventing hypertension. Knowledge is obtained from various sources, including through health counseling conducted by health workers in hospitals, health centers and other health service centers.

4. DISCUSSION

Based on the results of research conducted regarding the relationship of health education to the knowledge of the elderly about how to prevent hypertension in the elderly in Aek Bolon Jae Village, Balige District in 2022 with 99 respondents, it can be discussed as follows:

4.1 Relationship between Health Education and Elderly Knowledge in Aek Bolon Jae Village, Balige District in 2022

From the results of the table above it can be concluded that health education has a relationship to the knowledge of the elderly in Aek Bolon Jae Village, Balige District in 2022, because the p value <0.05.

Education affects the learning process, the higher a person's education, the easier it is for that person to receive information. With higher education, a person will tend to get information, both from other people and from the mass media. Knowledge is very closely related to education where it is hoped that someone with a higher education, then that person will have more extensive knowledge (Efendi, 2011).

Health education can be useful so that the elderly can determine their own problems and needs, understand what they can do about their problems, with the resources available to them coupled with outside support and decide on the most appropriate activities to improve the standard of living healthy and community welfare so that elderly welfare is met.

5. CONCLUSION

The majority of respondents are aged 65-70 years, namely 38 people (38.4%), while the minority are aged > 70 years, namely 30 people (30.3%). The majority of respondents are female, namely 67 people (67.7%), while the minority are male, namely 32 people (67.7%). The majority of respondents have jobs as farmers, namely as many as 46 people (46.4%), Not Working as many as 18 people (18.2%), Private Employees, namely as many as 12 people (12.2%) while the minority as Traders / Entrepreneurs namely as many as 11 people (11%). The majority of respondents had junior high school education, namely 36 people (36.4%), high school education, namely 36 people (36.4%) while a minority had tertiary education, namely 13 people (13.1%). The majority of respondents had received health education, namely 54 people (54.5%), while a minority had never received health education, namely 45 people (45.5%). The majority of respondents have sufficient knowledge, namely as many as 44 people (44.4%) while the minority have less knowledge, namely as many as 20 people (20.2%). From the results of the chi-square

THE RELATIONSHIP OF HEALTH EDUCATION TO ELDERLY KNOWLEDGE ABOUT HOW TO PREVENT HYPERTENSION IN THE ELDERLY IN AEK BOLON JAE VILLAGE, BALIGE DISTRICT

Jane Wilda Irmawati Sirait

test, the cross-table of health education and knowledge obtained a p-value of 0.000. It can be concluded that health education has a relationship to the knowledge of the elderly in Aek Bolon Jae Village, Balige District in 2022, because the p value <0.05.

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