

**THE INFLUENCE OF EDUCATIONAL VIDEOS ABOUT STROKE PREVENTION
ON THE KNOWLEDGE LEVEL OF HYPERTENSION PATIENTS
IN THE WORKING AREA OF PUBLIC HEALTH CENTER
NORTH SINGKAWANG II**

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Introduction : Hypertension or high blood pressure is an increase in systolic blood pressure of more than 140 mmHg and diastolic blood pressure of more than 90 mmHg. Hypertension now continues to be a global problem because its prevalence continues to increase in line with unhealthy lifestyle behaviors such as obesity, smoking, alcohol use, psychosocial stress and lack of activity, 51% of deaths from stroke worldwide are caused by high blood pressure. **Method** : *quasi-experimental research with a pretest-posttest form with control group design.* In this study, the intervention group received education using video media, while the control group received education using leaflet media. Before the intervention was carried out, a pretest was carried out in both groups, then continued with providing education with videos to the intervention group and leaflets were given to the control group; **Results** : Knowledge in the intervention group obtained a value of 0.012 or p value <0.05, meaning that there was a significant difference in knowledge in the intervention group, whereas in the control group, the value of knowledge obtained was a p value of 0.001 (<0.05), meaning that there was a significant difference in the increase in knowledge in the control group. . The average difference in knowledge in the intervention group was 22.35, while in the control group the average difference in knowledge was 15.67. ; (4) **Conclusion** : There is a significant influence on the knowledge of hypertensive patients before and after being given intervention in the form of health education through educational videos about stroke prevention in hypertensive patients with p value results (0.012) in the Mann Withney test. And there is a significant change in knowledge in the control group with p value was obtained (0.001) using the Wilcoxon test.

Keywords: *Education, Knowledge, Hypertension, Stroke Prevention*



A. Introduction

Hypertension is a disease that cannot be cured but can be controlled so that there is no increase in blood pressure so that it does not cause complications from stroke, cardiovascular disease and other diseases (Fries, 2019).

Data from *the World Health Organization* (WHO, 2018) shows that around 1.13 billion people in the world have hypertension, meaning that 1 in 3 people in the world are diagnosed with hypertension. The number of people with hypertension continues to increase every year, it is estimated that by 2025 there will be 1.5 billion people affected by hypertension, and it is estimated that every year 9.4 million people die from hypertension and its complications (WHO, 2018)

The incidence rate of hypertension in West Kalimantan in 2015 was 27,224 (9.45%) cases with the number of blood pressure measured being 288,178, in 2016 there were 827 (31.7%) cases of hypertension with the number of blood pressure measured being 2,609, in In 2017, 91,037 (19.27%) cases of hypertension were found with a total of 472,470 blood pressure measurements. The case data was obtained only from medical examinations, which means that there are still many cases of hypertension in the community that have not been discovered (Risksedas Kalbar, 2018) .

Data from the Singkawang City Health Service in 2018 showed an increase in the number of visits for hypertension cases in 2018 compared to 2017. The total number of visits in 2017 was 14,188 people. This number, if grouped by age, the highest number of visits were aged 55 to 65 years, namely 4603 people (32.4%), aged over 65 years 4029 people (28.4%), aged 45 to 54 years 3587 people (25.3%) and under 45 years, namely 1969 people (13.9%). In 2018, the total number of visits was 19,509 people, this is if grouped by age, namely the highest number of visits were those aged 65 years and over, namely 8331 people (42.7%), aged 55 to 64, namely 5010 people (25.7%), aged 45 up to 54 years old, namely 4269 people (21.9%) and under 45 years old, namely 1899 people (9.7%) (Singkawang City Health Service 2017).

The prevalence of hypertension from the Singkawang City Health Service from 2020 to June 2021 shows that the number of hypertension sufferers is 71,472 people with men numbering (36,316) and women numbering (35,156) and those who have been served according to standards, namely 3880 people with an achievement of 5.43% (Dinas Singkawang City Health 2020)

For stroke sufferers in Singkawang City in 2020 there were 32 cases and this increased in 2021 to 51 cases with 30 men and 21 women (Singkawang City Health Service 2020).

Based on data from the North Singkawang II Community Health Center in 2023, from January to September 2023, the number of hypertension sufferers was quite high, namely 668 patients with 365 female hypertension sufferers and 303 male patients (Data from the North Singkawang II Health Center in 2023)

Hypertension can cause various complications, one of which is stroke. The definition of stroke according to *the World Health Organization (WHO)* is an acute neurological dysfunction disorder caused by blood circulation disorders and occurs suddenly (within a few seconds) or at least quickly (within a few hours) with the following symptoms and signs. according to the focal area of the brain that is disturbed (Ritarwan, 2018).

In research by Queran.lin (2022), the highest death rate due to stroke occurs in low-income countries and the lowest in high-income countries. However, to date, data on non-fatal strokes in low- and middle-income countries are scarce. The *Interstroke* Study determined the

contribution of ten potentially modifiable risk factors that confer 90% of the population's risk of stroke. Of these, hypertension is the largest contributor, accounting for 48% of the attributable risk population, with the risk of stroke almost three times higher in people with hypertension than in those without hypertension (Lin et al., 2022) .

Stroke has become a public health problem throughout the world. Stroke is the main cause of death, especially complications. Hypertension is one of the main risk factors for stroke (Wang et al., 2022) .

Based on cases of hypertension in Indonesia, it shows that hypertensive patients do not know how to properly manage hypertension. Proper management of hypertension is about a hypertensive diet, the need for appropriate exercise, lifestyle modifications, the need for knowledge about stress management, the importance of antihypertensive medication and blood pressure control (Rahayu, 2019).

Public knowledge regarding management of hypertension is still lacking at this time. Health education is one method used to increase knowledge, health education is a process that can improve a person's health status. Health

education can be provided to all targets, but it must use appropriate methods so that the information provided is well received (Zakiyatul, 2017). This is in line with Prabawati's (2014) research using the lecture method in the hypertension group. The results showed that there was an influence of health education on people's behavior in efforts to prevent stroke.

Health education According to Notoadmodjo (2012), the delivery of health education using tools aims to increase interest, achieve many targets, stimulate educational targets to pass on messages received to other people, to facilitate delivery, acceptance of information by educational targets, encourage desire people to know and enforce the understanding obtained. The use of appropriate tools such as visual aids makes it easier to convey and receive information.

Based on the description above, researchers feel it is important to explore "The Influence of Health Education on the Level of Knowledge of Hypertension Patients in Stroke Prevention in the Working Area of North Singkawang II Community Health Center". It is hoped that this research can provide a solution to help treat hypertension and its complications.

B. Materials and Methods

This research is a *quasi-experimental research* in the form of *pre test post test with control group design*. In this study, the intervention group received education using video media, while the control group received education using *leaflet media*. Before the intervention was carried out, a pretest was carried out in both groups, then continued with providing education with videos to the intervention group and *leaflets were given* to the control group. After the provision of health education is complete, *a post test is carried out* within 1 week of the health education provision. The sample selection method in this study used the *simple random sampling method*. The number of samples that researchers used was 34 respondents. 17 people in the intervention group and 17 people in the control group.

To see the effect of an educational video about stroke prevention on the level of knowledge of hypertensive patients in the work area of North Singkawang Public Health Center II. The first test carried out was the normality test of the knowledge variable data. If you get a *p value* > 0.05, it means the data is normally distributed. If *the p value* is <0.05, it means the data is not normally distributed.

C. Results and Discussion

This research was carried out at the North Singkawang II Community Health Center in Sui Naram, North Singkawang, Singkawang City. In order to support the implementation of public health services, the community health center has several facilities including a general clinic room, dental clinic room, gizi room, pharmacy room, action room, obstetrics room, laboratory room, head of health center room, administration room, and hall room.

The condition of the community regarding hypertension is classified as the most common disease in the work area of the UPT Puskesmas Utara Singkawang II due to rarely controlling blood pressure, not complying with taking anti-hypertension medication, consuming ready-to-eat foods containing high fat, smoking habits, consuming alcoholic drinks, lack of exercise, overwork and stress.

The results obtained from measuring the level of knowledge in the control pre-test using leaflets were found to be an average of 76.4% in the sufficient category, while in the posttest using video the average was 88.2% in the good category.

looking at the data variables for the normality test, the data obtained a p value > 0.05 , then the data is declared to be normally distributed so that the follow-up test uses the T-test, while for a p value < 0.05 it is declared

abnormally distributed and tested further with the Mann Whitney test.

the results of measuring knowledge before health education in the intervention group was 67.06 while in the control group it was 66.68. After being given health education, knowledge in the intervention group increased by 89.41 and in the control group increased by 82.35.

The average change in knowledge before and after being given health education in the intervention and control groups increased. However, the intervention group experienced a fairly high increase compared to the control group.

The results of the analysis of differences in knowledge in the intervention group after carrying out the Mann Whitney test obtained a value of 0.012 or p value < 0.05 , meaning that there was a significant difference in knowledge in the intervention group. Meanwhile in the control group after carrying out the Wilcoxon test the value of knowledge obtained a p value of 0.001 (< 0.05) means that there is a significant difference in the increase in knowledge in the control group. The average difference in knowledge in the intervention group is 22.35, while in the control group the average difference in knowledge is 15.67. There is a significant difference in the average increase in knowledge in the intervention group.

D. Conclusion

The research results showed that the level of knowledge after the action was carried out in the intervention group was an average of 88.2% in the good category and in the control group before it was carried out the average was 76.4% in the sufficient category.

There is a significant influence of knowledge of stroke prevention in hypertensive patients before and after being given intervention in the form of health education through educational videos about stroke prevention on the level of knowledge of hypertensive patients with the results of the analysis of differences in knowledge in the intervention group after the Mann Whitney test obtained a value of 0.012 or p value <0 .05 means there is a significant difference in knowledge in the intervention group. Meanwhile, in the control group, after carrying out the Wilcaxon test, the knowledge value obtained a p value of 0.001 (<0.05).

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