

How to Cite:

Suratun, S., Manurung, S., Ekarini, N. L. P., Camalia, C., & Yarden, N. (2023). The effect of stroke education with video on stroke prevention behavior in hypertension elderly in Cipayung health center area east Jakarta. *International Journal of Health Sciences*, 7(S1), 1468–1475. <https://doi.org/10.53730/ijhs.v7nS1.14368>

The effect of stroke education with video on stroke prevention behavior in hypertension elderly in Cipayung health center area east Jakarta

Suratun

Department of Nursing Polytechnic of Health Ministry of Health Jakarta III
Corresponding author email: suratunharyono@gmail.com

Santa Manurung

Department of Nursing Polytechnic of Health Ministry of Health Jakarta III

Ni Luh Putu Ekarini

Department of Nursing Polytechnic of Health Ministry of Health Jakarta III

Camalia

Department of Nursing Polytechnic of Health Ministry of Health Jakarta III

Nelly Yarden

Department of Nursing Polytechnic of Health Ministry of Health Jakarta III

Abstract---Stroke is a cerebrovascular disease and is a worldwide problem. Stroke is the third leading cause of death. The purpose of this study was to determine the effect of stroke education with video on stroke prevention behavior in elderly hypertensives. This research method uses a quasi-experimental pre-post test only design. The population in this study were hypertensive elderly who visited the Elderly Posyandu. The sampling technique in this study used purposive sampling, with a total sample of 31 respondents. Methods of data collection by pre-post test and blood pressure examination. Analysis of research data using univariate analysis, and bivariate analysis using the dependent t.test statistic, while multivariate analysis using logistic regression tests. The results of the study showed that there was an effect of stroke education through video on knowledge of stroke prevention in elderly with hypertension ($p = 0.002$). There was no effect of stroke education through video on stroke prevention attitudes in elderly hypertension ($p = 0.86$). There is an effect of stroke education through video on stroke prevention skills in elderly with hypertension ($p = 0.003$). There is an effect of stroke

education through video on systolic blood pressure in elderly with hypertension ($p = 0.000$). There is an Effect of Stroke Education through Video on Diastolic Blood Pressure in Elderly Hypertension ($p = 0.025$).

Keywords---education, strokes, behavior, elderly, hypertension.

Introduction

Stroke is a cerebrovascular disease and a worldwide problem. Stroke is a vascular disease of the brain. According to WHO, stroke is a condition in which there are clinical signs that develop rapidly in the form of focal and global neurologic deficits, which can worsen and last for 24 hours or more and or can cause death, in the absence of other obvious causes other than vascular. A stroke occurs when a blood vessel in the brain becomes blocked or ruptured. As a result, part of the brain does not get a blood supply that carries the necessary oxygen so that it experiences cell / tissue death (Kemenkes RI, 2018).

If the stroke patient is not treated immediately, the stroke patient will experience changes such as mental status, slurred speech due to facial paralysis, impaired visual perception, paralysis, infection, impaired physical mobility and can also be life threatening. Stroke is the primary neurologic problem in the world. Indonesia has the largest number of stroke patients in Asia. In addition, stroke is the cause of invalidity / disability (Wahyuningsih.R, 2013).

This is due to the low public awareness in Indonesia of stroke risk factors, lack of recognition of stroke symptoms, not optimal stroke services and compliance with therapy programs for low stroke prevention are problems that often arise in stroke services in Indonesia. Data obtained in 2018 in Riskesdas 2013 national stroke prevalence was 12.1 per mile, while in Riskesdas 2018 stroke prevalence was 10.9 per mile. Urban stroke prevalence was 12.6% and DKI Jakarta Province was 12.2% higher than the national stroke prevalence (Riskesdas, 2018). The high prevalence of stroke is due to the factor that the Indonesian population is not aware of the risk factors that occur due to frequent consumption of salty foods 72.7%, fatty foods 86.7%, consuming foods containing preservatives 27.9%, lack of activity 33.5% and lack of consuming fruit / vegetables 95.4%, insensitivity to maintaining their lifestyle causes the occurrence of stroke to increase in Indonesia every year (Riskesdas 2018).

The success of a stroke treatment is not only influenced by the quality of health services, attitudes and skills of the staff, but is also influenced by the attitude and lifestyle of patients and their families towards their treatment program. The results of therapy will not reach the optimal level without the awareness of the patient himself, it can even cause therapy failure, and can also cause complications that are very detrimental and ultimately can be fatal (Ramadona.A, 2011). Prevention of stroke complications needs optimal management of hypertension requires patient knowledge. The knowledge they have is expected to be the starting point for changes in the patient's attitude and lifestyle which will

ultimately change their behavior towards the treatment program they are undergoing (Siregar, 2006).

Based on a preliminary survey, the population of elderly hypertension in the prolanis of the Cipayung Village Health Center, East Jakarta in January 2020 was 134 people, of whom 2 people had a stroke. To prevent the occurrence of more stroke complications in the elderly with hypertension, it is necessary to provide stroke disease education to hypertensive elderly. Based on this, the researcher will conduct a study entitled "The effect of stroke disease education with video on stroke prevention behavior in elderly hypertension in the Cipayung Village Health Center, East Jakarta".

Methods

This study used a pre-post test only quasi experiment design through an educational intervention on stroke disease. The population in this study were hypertensive elderly at the Cipayung Health Center, East Jakarta. The sampling technique was purposive sampling. the number of research samples was 34 respondents. Data collection in this study used data collection tools in the form of questionnaire instruments of respondent characteristics, knowledge, attitudes and skills of stroke disease to prevent stroke in the elderly with hypertension. Data analysis in this study included univariate, bivariate and multivariate analysis. Bivariate data analysis used Dependent t.test, while multivariate data analysis used Logistic Regression test. The data analyzed were 31 respondents. This research was conducted at the Cipayung Health Center, East Jakarta. Research ethics consist of Beneficence, respecting the dignity of subjects, getting justice.

Results

This study aims to determine the effect of the form of stroke disease education with video on behavior (knowledge, attitudes and skills) of stroke prevention in the elderly with hypertension. The number of respondents who became the sample was 33 people. Research analysis based on univariate, bivariate and mulivariate analysis procedures.

Table 1.
Distribution of Characteristics of study respondents (n=31)

Variable	N	%
Age		
< 65 years	14	46.7
65 years and above	16	53.3
Gender		
Male	9	30
Female	21	70
Level of Education		
Elementary school - junior high school	19	63.3
Senior High School – Higher Education	11	36.7
Occupation		

Employed	3	10
Not working	27	90

From the table above, it can be concluded that most of the respondents are female, aged 65 years and above, have elementary and junior high school education and are not working.

Table 2.
Analysis of Knowledge, Attitude and Skills scores of patients with Hypertension before and after providing stroke disease education interventions with video

Variabel	assessment	Mean	SD	95% CI	T	P value
knowledge						0.002
	before	7.07	1.383	-1.383- -0.350	-3.432	
	after	7.93				
	difference	- .86				
attitude						0.805
	before	15.20	2.203	-0.722 – 0.249	0.249	
	after	15.10				
	difference	0.10				
skills						0.003
	before	7.20	1.586	-1.677 - -0.959	-4.266	
	after	8.83				
	difference	-1.63				

The results of the analysis showed that there was a significant difference in the knowledge score of respondents before and after the stroke disease education intervention with video (p value = 0.002), and the difference in the increase in knowledge score = 0.86 while the attitude score of respondents before and after the intervention was not meaningful. For skills, there was a significant difference in the skills score before and after the stroke disease education intervention with video (p value = 0.003) and the difference in the increase in skills score = 1.62.

Discussion

Research on the effect of the form of stroke disease education with video on behavior (knowledge, attitudes and skills) of stroke prevention in the elderly with hypertension. This research was conducted at the Cipayung Health Center Jakarta. Respondents in this study were 33 people. This study aims to determine the form of stroke disease education with video on behavior (knowledge, attitudes and skills) to prevent stroke in the elderly with hypertension.

The results of this study found that there was an effect of the form of stroke disease education with video on knowledge of stroke prevention in the elderly with hypertension, (p value = 0.002), with the difference in the increase in knowledge score = 0.86. Knowledge is the result of human sensing, or the result of someone knowing objects through their senses (eyes, nose, ears, and so on). By itself at the time of sensing to produce knowledge is greatly influenced by the intensity of attention and perception of the object. Most of a person's knowledge is obtained through the senses of hearing and sight. A person's knowledge of objects has

different intensities or levels. Knowledge levels include: know, understand, application, analysis, synthesis and evaluation. Knowledge is a very important domain for the formation of a person's actions (Notoatmodjo, S, 2010). Prevention of stroke complications also requires optimal management of hypertension, which requires patient knowledge. The knowledge they have is expected to be the starting point for changes in the patient's attitude and lifestyle which will ultimately change their behavior towards the treatment program they are undergoing (Siregar, 2006).

Increased knowledge is obtained by respondents through the provision of health education about stroke prevention in the elderly with hypertension, with the method of providing stroke disease education videos. Health education or health education is a process carried out or carried out to change and improve the ability of individuals and communities to maintain and improve their health in a better direction. Health education aims to change the behavior of individuals or communities from unhealthy to healthy behavior. Video is a tool that can present information, explain processes, explain complex concepts, teach skills, shorten or slow down time and influence attitudes (Kustandi, C (2013). Learning video media is a set of components or media capable of displaying images and sound at the same time (Sakiman, 2012).

From the results of this study, it was found that there was no effect of the form of stroke disease education with video on the attitude of stroke prevention in the elderly with hypertension (p value = 0.805). Attitude is a closed response from a person to a certain stimulus / object that already involves the opinion and emotion factors concerned (happy-displeased, agree-disagree, good-not good, and so on). Attitude is a syndrome or collection of symptoms in responding to a stimulus or object, so that attitude involves thoughts, feelings, attention and other psychological symptoms. Factors that influence the determination of attitudes as a whole such as knowledge, thinking, beliefs and emotions, all of which play an important role (Notoatmodjo, S, 2010). There is no effect of the form of stroke disease education with video on the attitude of stroke prevention in the elderly with hypertension, because many factors influence attitudes, including personal experience, to be able to become the basis for attitude formation, personal experience must leave a strong impression. Therefore, attitudes will be more easily formed if the personal experience occurs in a situation that involves emotional factors. Mass media/information. As a means of communication, various mass media such as television, radio, newspapers, have a considerable influence on the formation of one's opinions and beliefs. In carrying messages that contain suggestions that can lead to opinions which can then result in a basis for cognition so that it can form attitudes. Educational Institutions and Religious Institutions. Educational institutions and religious institutions as a system have an influence on attitude formation, because both lay the foundation and understanding and moral concepts in individuals. Emotional Factors not all forms of attitudes are determined by environmental situations and a person's personal experience. Sometimes a form of attitude is a statement based on emotion, which functions as a kind of channeling of frustration or diversion of forms of ego defense mechanisms.

From the results of the study obtained data more respondents have elementary

and junior high school education, more than more respondents are more than 65 years old this situation can also affect the formation of respondents' attitudes towards providing education through videos. Most respondents do not understand how to operate videos via cellphones, so researchers, make educational booklets about stroke disease.

From the results of the above study, data were also obtained that there was a form of stroke disease education with video on stroke prevention skills in the elderly with hypertension, (p value = 0.003) with a difference in the increase in skill score = 1.62. Action is the realization of knowledge and attitudes of a real action. Action is also a person's response to stimulus in real or open form (Notoatmodjo, 2003). According to Notoatmodjo (2005), action is a movement or action of the body after receiving stimulation or adaptation from inside or outside the body of an environment. A person's action towards a particular stimulus will be largely determined by how he believes and feels about the stimulus. Biologically, attitudes can be reflected in a form of action, but it cannot be said that attitudes have a systematic relationship. The response to the stimulus is clear in the form of action or practice, which can easily be observed or seen by others. Therefore it is also called over behavior.

The increase in respondents' skills was obtained because there was an increase in knowledge after being given stroke disease education with videos on stroke prevention skills in the elderly with hypertension. Education is given for 1 meeting. In addition to using educational video media, it also uses Booklet media, so that it can facilitate understanding of stroke disease. According to Green in the book Notoatmodjo (2005) the factors that influence behavior are predisposing factors, which are manifested in knowledge, attitudes, beliefs, beliefs, values and so on. Enabling factors, which are manifested in the physical environment, the availability or unavailability of health facilities or facilities such as health centers, medicines, and so on. Reinforcing factors, which are manifested in the attitudes and behavior of health workers or other officers, who are the reference group of community behavior. This research can be carried out in accordance with the planning that has been made, there are no severe obstacles, only when providing education with videos there are still many respondents who cannot use the video, so the researcher makes a booklet as a medium to facilitate understanding in the elderly with hypertension.

Conclusions

1. In this study, the age of respondents was more than 65 years old, the gender of respondents was more female, the educational background of respondents was more elementary and junior high school graduates, and most of them were not working.
2. There is an effect of the form of stroke disease education with video on knowledge of stroke prevention in the elderly with hypertension.
3. There is no effect of the form of stroke disease education with video on the attitude of stroke prevention in the elderly.with Hypertension
4. There is an effect of the form of stroke disease education with video on stroke prevention skills in the elderly.with hypertension

References

- Agrina, Rini. S, Hairitama.R. (2011). *Kepatuhan Lansia Penderita Hipertensi Dalam Pemenuhan Diet Hipertensi*, Jurnal Universitas Riau Volume 6, No.1, April 2011.
- Aisyah Muhrini Sofyan, dkk. (2012). Hubungan Umur, Jenis Kelamin, dan Hipertensi dengan Kejadian Stroke. *Jurnal Hipertensi FK UHO*.
- Badan Penelitian dan Pengembangan Kesehatan Depkes RI (2013) *Riset Kesehatan Dasar (Riskesdas)*, Jakarta: CV Kiat Nasa
- Baradiro, Mery (2008). *Klien Gangguan Kardiovaskuler*, Seri Asuhan Keperawatan, Jakarta: EGC
- Beck, Mary E. (2011). *Ilmu Gizi dan Diet; Hubungannya Dengan Penyakit-Penyakit Untuk Perawat dan Dokter*. Yogyakarta: Andi Yogyakarta
- Black, J. M., & Hawk, J. H. (2014). *Medical surgical nursing: clinical management for positive outcomes* (Vol 2, 8th Ed.). St.Louis, Missouri: Saunders Elsevier.
- Brooker, Cristine (2009). *Kamus Saku Keperawatan*, Jakarta; EGC
- Darmawan.D, Zulfa.S (2013). *Pengaruh Promosi Kesehatan Terhadap Motivasi Pasien Hipertensi Tentang Pelaksanaan Diet Hipertensi di Poliklinik Penyakit Dalam RS Rajawali Bandung*.
- Hill, A.P., & Freeman, G.K. (2011). *Promoting continuity of care in general practice*. RCGP Policy Paper. The Royal College of General Practitioner.
- Julianti, D (2005), *Bebas Hipertensi Dengan Terapi Jus*, Jakarta: Puspa Swara
- Kementerien Kesehatan RI (2013). *Pedoman Teknis Penemuan Dan Tata Laksana Hipertensi*, Jakarta: Kemenkes RI
- Kementrian Kesehatan Republik Indoensia. (2018.) *Apa itu Stroke ?*. Diakses dari <http://p2ptm.kemendes.go.id/infographic-p2ptm/stroke/apa-itu-stroke>, tanggal 20 maret 2021
- Kementrian Kesehatan Republik Indonesia.(2019). *Hari Stroke Sedunia Tahun (2019) : Otak Sehat, SDM Unggul*. Diakses dari <https://www.p2ptm.kemendes.go.id/artikel-sehat/hari-stroke-sedunia-2019-otak-sehat-sdm-unggul>, tanggal 20 Maret 2021.
- Kustandi.C dan Sutjipto.C (2013). *Media Pembelajaran Manual dan Digital* Edisi kedua, Bogor: Ghalia Indonesia.
- Notoatmodjo,S (2010). *Promosi Kesehatan, Teori dan Aplikasi*, Jakarta: Rineka Cipta
- Novian.A (2013). *Kepatuhan Diit Pasien Hipertensi: Semarang*: Jurnal kesehatan masyarakat Universitas Negeri Semarang.
- Palmer, A &William,B Simple Guide (2007), *Tekanan Darah Tinggi* (Penerjemah:Yasmine) Erlangga: Jakarta.
- Price, A. Wilson. 2006. *Patofisiologi Konsep Proses-Proses Penyakit*, Edisi IV. Jakarta: EGC.
- Purnomo, H. (2009). *Pencegahan Dan Pengobatan Pengobatan Penyakit Yang Paling Mematikan*. Buana Pustaka: Yogyakarta
- Saputri Y.I, Muhlisin A, Budinugroho.A (2014). *Pengaruh Pendidikan Kesehatan Terhadap Pengetahuan Dan Kepatuhan Diit Hipertensi Pada Lansia Di Desa Wironanggan Kecamatan Gatak Sukoharjo*, UMS.ac.id/38802/22. Surakarta: FIK UMS (diakses tanggal 3 Januari 2020).
- Sukiman, (2012). *Pengembangan Media Pembelajaran*, Yogyakarta: Pedagogia.
- Tim Riskesdas , 2018. *Laporan Nasional RKD 2018*, Lembaga Penerbit Badan Penelitian dan pengembangan Kesehatan.

- Udjianti, J (2010) *Keperawatan Kardiovaskuler*, Jakarta: EGC
- Wahyuningsih. R (2013). *Pengaruh Pendidikan Kesehatan Tentang Stroke Terhadap perilaku Mencegah Stroke Pada Pasien Hipertensi di Kel. Jarum Kec. Bayat Klaten Jawa Tengah*, Yogyakarta: Prodi Ilmu Keperawatan STIK Aisyiyah. Digilib.unisayogya.ac.id. (diakses 3 Januari 2021)
- Wijaya.A. (2009). *Pengaruh Pemberian Edukasi Untuk Mencegah Stroke Terhadap Perubahan Perilaku Populasi Lansia Di Posyandu*, Yogyakarta: Fakultas Farmasi Universitas Sanata Dharma. <https://repository.usd.ac.id> (diakses 3 Januari 2021)
- Wiki. (2019). *Multimedia.Wikipedi*. <https://id.wikipedia.org> (diakses 3 Januari 2021)
- Winstein, C. J., Stein, J., Arena, R., Bates, B., Cherney, L. R., Cramer, S. C., ... Zorowitz, R. D. (2016). *Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals from the American Heart Association/American Stroke Association. Stroke* (Vol. 47). <https://doi.org/10.1161/STR.0000000000000098>
- World Health Organization. (2016). *Stroke, Cerebrovascular Accident*. National Stated.