**LUX MENSANA** Volume 4, Issue 2, 2025
Page.73-84

**Original Research Article**

# THE INFLUENCE OF THE BALANCE EYES FACE ARMS SPEECH TIME (BEFAST) DETECTION METHOD ON THE RISK OF STROKE IN THE ELDERLY (In Suwalan Village, Jenu District)

Yuanita Maulidina Anggraini[1)*], Tiara Putri Ryandini[2)]
[1),2)]Institut Ilmu Kesehatan Nahdlatul Ulama Tuban
*Corresponding Author, E-mail: yuanitamaulidina@gmail.com

## ABSTRACT

**Introduction.** Stroke is a global health problem in the world because it is the main cause of disability in adults and the second cause of death after heart disease. It is important to detect stroke to prevent the condition from getting worse, but sometimes the elderly often ignore the signs of stroke related to the condition they are experiencing. This study aims to determine the influence of the balance eyes face arms speech time (BEFAST) detection method on the risk of stroke in the elderly in Suwalan Village, Jenu District. **Method.** The research design used in this research is Quantitative True- experimental using the Post Test Only Control Design research method. The population in this study were elderly people who had actively attended posyandu in the last 3 months, totaling 83 elderly people who were selected using a cluster random sampling technique. There were 21 elderly people at posyandu post 1, 21 elderly people at posyandu post 2 and 28 elderly people at posyandu post 3 as samples. The instrument used in this research is an observation sheet consisting of 6 statements. **Results and Analysis** The results of the research carried out were analyzed using the Man Whitney test with a significance level of α=<0.05. The result obtained is that the sig value. (2-tailed) of 0.001 is proven to reduce the risk of stroke in the elderly, it can be concluded that the hypothesis is accepted the difference between the results of the risk of stroke in the elderly in Suwalan Village, Jenu District in the experimental and control groups. **Discussion**. Providing the balance eyes face arms speech time (BEFAST) detection method influences the risk of stroke in the elderly. This is influenced by several factors, namely increasing age and hypertension, because as you get older the risk of having a stroke also increases. Hypertension sufferers are more susceptible to stroke, because hypertension accelerates the occurrence of osteochlorosis which can cause weakness in blood vessel walls so that they become brittle and break easily.

**Keywords: Detection, BEFAST method, Stroke**

## INTRODUCTION

Stroke is a global health problem in the world because it is the main cause of disability in adults and the second cause of death after heart disease. Stroke is a nerve disease caused by the problem of blood flow to the brain, usually occurs about 24 hours or even more (A. Utama, 2022).

Thisincrease in the incidence of stroke certainly needs to be addressed seriously, one of which is related to new problems that can aggravate the conditions and inhibit treatment or handling after stroke. Stroke causes sudden and in -depth changes in a person such as limited physical function due to hemiplegia (Kalavina Etal., 2019).In addition, stroke sufferers have a limited role in the community and economic difficulties due to loss of jobs. Patients with strokes have negative emotions, such as anxiety, anger, depression, and helplessness, due to sudden disease attacks, uncertain prognosis, and long-term rehabilitation (Roth et al., 2021).

According to the World Health Organization (WHO) in 2020, there are around 27,000 stroke cases involving around 25,400 people, the number of people per 100,000 population, suffering from a stroke that has declined more than 40% over the past 15

years, and around 6,100 people died in 2020 compared to 2019 (Socialstyrelsen, 2021).

According to the American Heart Association (AHA, 2019), a stroke is the cause of death number 5 in the US, killing around 142,000 people per year. The prevalence of stroke in East Java in 2021 is 12.4 ‰. The prevalence is still above the national average. This study aims to describe the epidemiology of stroke in East Java in 2019-2021 based on people, places and time. This type of research is descriptive observational. This study uses secondary data from PTM Surveillance Information System Data in the East Java Provincial Health Office in 2019-2021. Based on Riskesdas data (2019) in Tuban Regency the number of stroke sufferers due to lack of activity is 65 % of the total stroke sufferers. Based on data from the midwife of Suwalan Village, Jenu District in 2024 the number of elderly as many as 2,145 and actively participated in Posyandu for the last 3 months was 83. Patients with hypertension in Suwalan Village, Jenu District 132, the elderly who experienced 114 hypertension and 4 strokes. Based on a preliminary survey conducted by researchers in Suwalan Village, Jenu District, Tuban Regency was obtained by the elderly stroke due to hypertension of 3 people (30%), anddid not know the cause of 1 person (10%).

Stroke is the main cause of long -term disability, but stroke can also be prevented. Risk factors for stroke include age, unhealthy consumption, lack of physical activity, tobacco use, and metabolic risk. But of the many factors that affect the incidence of stroke only hypertension which significantly affects the incidence of stroke while lipid levels and smoking habits are not significantly related to the incidence of stroke. The current stroke rate is quite high in Indonesia, this happens because of the lack of understanding and uncontrolled public health. Stroke is caused by the breakdown of blood supply to the brain, usually occurs due to broken blood vessels or blocked by lumps. This causes disruption of oxygen and nutritional supply to the brain that causes brain tissue to become damaged. One of the factors that causes stroke is high blood pressure. Stroke is a clinical symptom characterized by acute loss of brain function and can cause death (WHO, 2019).

Low knowledge and awareness in the treatment of hypertension is a major cause in complications such as stroke, heart attack, heart failure, and kidney failure (Anonyma, 2023). Therefore health education in an effort to increase knowledge in stroke prevention efforts is very necessary (Rejo & Ismani, 2020). Stroke prevention and control have an important role in minimizing the percentage of disability and death. One of the strategies that can be applied is early education detection of stroke symptoms in the community, especially for the high risk community (Daulay & Ritonga, 2022).

The high risk community is an individual with a accompanying disease, the most often is hypertension, hypercholesterolemia, smoking and diabetes mellitus (Daulay & Ritonga, 2022).

Based on the results of the initial survey of the ability of the elderly in conducting early detection of stroke in Suwalan Village in the underprivileged category. Less awareness of the community about stroke symptoms occur because they do not know the ability to do early detection of stroke symptoms include loss of balance, asymmetrical lips, loss of sensation on the face, speaking pelo or unclear, weakness of limbs, loss of vision on one side (farsighted), difficulty swallowing. The ability to detect early stroke to the community especially the elderly who still do not encourage various parties to make efforts so that the handling of stroke pre hospital is getting better. The Ministry of Health that makes the acronym immediately goes to the hospital which means an asymmetrical smile (mirging one side), the movement of half of the limbs weakens suddenly, talking pelo or suddenly unable to speak/do not understand the words, farsightedness of the eyes of one blurred eye occur suddenly pain The great head that appeared suddenly was not felt before. The acronym is considered less to detect early stroke, because of lack of signs and symptoms of stroke such as balance in the body that has a certain scale. There are several ways of training that can be used to determine the signs and symptoms of stroke, namely; The Cincinnati Stroke Scale (CPSS), Prehast

Prehast Ambulance Stroke Test, Stroke Introduction in the Emergency Room (Rosier), Facial Decrease, Arm Movement, Speech and Time to Call (Fast). However, according to some experts, the scale needs to be revised by adding balance items (balance) and eye view (eye), where both of these indicators have been widely expressed by patients as symptoms felt during a stroke. Therefore, balance, eyes, face, arms, speech and time (scale before) that complement items that still do not exist on the Fast scale (Taukhid et al., 2020).

Befast training is a balance (complaint of loss of balance or dizziness) or heavy head so that it tends to hold on to something or sit), eyes (complaints of vision becomes blurred), face (complaints of facial abnormalities such as down and not symmetrical), arm (complaint Being a weak arm), speech (complaints of speech becomes difficult, unclear, or even can't talk), time (if you get a complaint above, immediately to the hospital). Based on the explanation above, the purpose set in this study is to determine the effect of a befast training on the ability of psychomotor early detection of stroke in the elderly. The results of this study will help the elderly to improve psychomotor abilities, in early detection of signs and stroke symptoms.

## METHOD AND ANALYSIS

This study uses a quasi-experimental design research design with a post-control design, which is a study that aims to measure the dependent variable in two groups after being given treatment. This design is used when there is a comparative or control group and the number of populations of 83 people chosen using the cluster random sampling technique so that 70 respondents are active elderly who are active in the posyandu for the last 3 months in the village of Suwalan and meet the inclusion criteria, namely:The active elderly Following Posyandu in the last 3 months in Suwalan Village, Jenu District, an elderly aged 56-75 years, an elderly at risk of stroke (hypertension, Smoking, Cholesterol, Diabetes Mellitus, Obesity, Alcohol), Elderly who are willing to be respondents. The independent variable is the befast detection method and the depden variable is the risk of stroke in the elderly measured by the Mann Whitney test. This study was conducted in January 2025. This study was approval from the Health Ethics Commission for the Nahdlatul Ulama Tuban Health Research Institute Number 305/0084223523/LEPK.Iiknu/XI/2024.

The instruments used are SOP before and observation sheets. The data collection process starts from the stages as the following:

1) Research preparation
   Before the research was conducted, the preparation that must be done was that the researcher submitted an application letter to campus through Google Form by filling out e-learning. Then the letter dropped from the campus agency. After that, submit a letter of request for a research permit to the Public Service Mall (MPP) by filling out the link https://toss.tubankab.go.id/.
   The research permit application letter was obtained from the Public Service Mall. Then submit a research permit to the Head of Suwala Village. Then lobby several other parties to assist researchers in collecting data and doing the same perception. Then the research permit has been received and received a reply from the Head of Suwalan Village. And research was carried out.
2) Implementation of research (data collection process)
   Data collection is carried out with the following steps: The researcher asks permission to participate in the posyandu activities to the midwife in each posyandu. After the permit is obtained, the research was conducted according to the posyandu visit schedule in the village and there were 3 posts in Suwalan Village. In carrying out this research, researchers are assisted by approximately 6 other parties including researchers. The posyandu schedule for each post as follows:
   1. On January 7, 2025 a study was conducted at Post 1 Posyandu Elderly Suwalan Village, where researchers

2. were assisted by 7 parties in collecting data.
3. On January 9, 2025 research was conducted at Post 2 Posyandu Elderly Suwalan Village, where researchers were assisted by 7 parties in collecting data.
4. On January 11, 2025 research was conducted at Post 3 Posyandu Elderly Suwalan Village, where researchers were assisted by 7 parties in collecting data.
5. The steps in collecting data
   a. Ask permission from respondents to introduce themselves to them and explain the purpose and purpose of the presence of researchers at the Posyandu location, for the number of samples adjusted to the results of the sample calculation that has been carried out.
   b. Distribute the respondent's approval sheet and signing the approval sheet by the respondent.
   c. Make observations to respondents according to the observation and SOP before approximately 5-7 minutes per respondent.

3) Closing the study
After the data required for this research is met, researchers thank the respondents who have agreed to participate in this study and ask permission to withdraw. Data that has been obtained is then processed, examined and analyzed by researchers in accordance with data processing procedures. The data collected in this study were analyzed using the Cmann Whitney statistical test, the scale of the data used for independent variables and the dependent variable is the ordinal scale. The tool used to analyze data using SPSS software programs for Windows.

## RESULT

**Table 1** Characteristics based on age, gender, last education, blood pressure, temperature, pulse, SpO2, receipt detection information, family history of receipts, group at the experimentalposyandu for the elderly in Suwalan village, Jenu subdistrict in January 2025.

| Characteristic | f | Percentage |
|---|---|---|
| **Age** | | |
| 56-65 years | 11 | 31,4% |
| 66-75 years | 17 | 48,6% |
| 76-85 years | 7 | 20,0% |
| **Gender** | | |
| Man | 2 | 5,7% |
| Woman | 33 | 94,3% |
| **Last education** | | |
| Elementary school | 24 | 68,6% |
| Junior high school | 0 | 0% |
| No school | 11 | 31,4% |
| **Blood pressure** | | |
| <120 mmHg | 9 | 25,7% |
| 120-139 mmHg | 10 | 28,6% |
| 140-159 mmHg | 11 | 31,4% |
| >160 mmHg | 5 | 14,3% |
| **Temperature** | | |
| $<35^0$C | 0 | 0% |
| 36,5-37,5$^0$C | 35 | 100% |
| 37,6-38,3$^0$C | 0 | 0% |
| $>40^0$C | 0 | 0% |

| | | |
|---|---|---|
| **Pulse** | | |
| <60x/m | 0 | 0% |
| 60-100x/m | 35 | 100% |
| >100x/m | 0 | 0% |
| **SpO2** | | |
| <94% | 0 | 0% |
| 95-100% | 35 | 100% |
| >100% | 0 | 0% |
| **Receipt detectioninformation** | | |
| Yes | 0 | 0% |
| No | 35 | 100% |
| **Family history of receipts** | | |
| Yes | 4 | 11,4% |
| No | 31 | 88,6% |

Based on table 1 above, it can be seen that almost half of them are aged 66-75 years, namely 17 (48.6%) respondents, almost all of them are female, namely 33 (94.3%) respondents, most of them have at least elementary school education, namely 24 (68.6%) respondents, it can be seen that almost half have a blood pressure of 140- 159mmHg (Hypertension stage 1), namely 11 (31.4%) respondents, temperature, pulse and SpO2 can be seen. all of them were normal, namely 35 (100%), it appeared that all of them did not receive information on stroke detection, namely 35 (100%) respondents, and almost all of them appeared to have no family history of stroke, namely 31 (88.6%) of respondents.

**Table 2 C**haracteristics based on age, gender, last education, blood pressure, temperature, pulse, SpO2, receipt detection information, family history of receipts, group at the control posyandu for the elderly in Suwalan village, Jenu sub-district in January 2025

| Characteristic | f | Percentage |
|---|---|---|
| **Age** | | |
| 56-65 years | 19 | 54,3% |
| 66-75 years | 14 | 40,0% |
| 76-85 years | 2 | 5,7% |
| **Gender** | | |
| Man | 7 | 20% |
| Woman | 28 | 80% |
| **Last education** | | |
| Elementary school | 17 | 48,6% |
| Junior high school | 4 | 11,4% |
| No school | 14 | 40,0% |
| **Blood pressure** | | |
| <120 mmHg | 4 | 11,4% |
| 120-139 mmHg | 19 | 54,3% |
| 140-159 mmHg | 6 | 17,1% |
| >160 mmHg | 6 | 17,1% |
| **Temperature** | | |
| <35$^0$C | 0 | 0% |
| 36,5-37,5$^0$C | 35 | 100% |
| 37,6-38,3$^0$C | 0 | 0% |
| >40$^0$C | 0 | 0% |
| **Pulse** | | |
| <60x/m | 0 | 0% |
| 60-100x/m | 35 | 100 |
| >100x/m | 0 | % |
| | | 0% |
| **SpO2** | | |
| <94% | 0 | 0% |
| 95-100% | 35 | 100 |
| >100% | 0 | % |
| | | 0% |
| **Receipt detection information** | 1 | 2,9% |
| Ye | 34 | 97,1% |
| s | | |
| No | | |

| | | |
|---|---|---|
| **Family history of receipts** | | |
| Ye | 5 | 14,3% |
| s | 30 | 85,7% |
| No | | |
| **Total** | **35** | **100%** |

Based on table 2 above, it can be seen that most of them are aged 56-65 years, namely 19 (54.3%) respondents, almost all of them are female, namely 28 (80%) respondents, almost half of them have an elementary school education, namely 17 (48.6%) respondents, the majority have normal blood pressure of 120-139 mmHg, namely 19 (54.3%) respondents, all of them have a normal temperature of 36.5-37.50 C, namely 35 (100%) respondents, all appeared to have a normal pulse, temperature and SpO2, namely 35 (100%) respondents, almost all of them did not receive information on stroke detection, namely 34 (97.1%) respondents, almost all of them had no family history of stroke, namely 30 (85.7%) respondents.

**Table 3** Distribution of the Risk of Stroke in an Experimental Group of Elderly After Being Treated with the Balance Eyes Face Arms Speech Time (BEFAST) Detection Method in Suwalan Village, Jenu District in January 2025

| No. | Risk of stroke | F | Percentage |
|---|---|---|---|
| 1 | low risk | 29 | 82.9 % |
| 2 | isk | 6 | 17.1 % |
| 3 | high risk | 0 | 0 % |
| **Total** | | **35** | **100 %** |

Based on table 3, it can be seen that of the 35 (100%) respondents in the experimental group, almost all of them showed a low risk of stroke, namely 29 (82.9%) respondents.

**Table 4** Distribution of Stroke Risk in the Elderly Control Group in Suwalan Village, Jenu District.

| No. | Risk of stroke | *f* | Percentage |
|---|---|---|---|
| 1. | low risk moderate | 5 | 14,3% |
| 2. | risk | 18 | 51,4% |
| 3. | high risk | 12 | 34,3% |
| **Total** | | **35** | **100%** |

## DISCUSSION

### Identification of the Risk of Stroke in the Elderly in the Experimental Group After Being Treated with the Balance Eyes Face Arms Speech Time (BEFAST) Detection Method in Suwalan Village, Jenu District.

Based on the results of research using an observation sheet on the risk of stroke in the Village, Jenu District. elderly, it was found that after being treated with the balance eyes face arms speech time (BEFAST) detection method, almost all of the risk of stroke in the elderly was low risk (82.9%) 29 elderly people. This number was obtained after the balance eyes face arms speech time (BEFAST) detection method was carried out.

This research is in accordance with research conducted by Andika (2024) in the assessment of the stroke detection program using the BE-FAST method, there were significant changes in knowledge before and after implementing the BE-FAST method. Strengthening through similar training with various more creative and innovative methods needs to be carried out to prevent premature death in the elderly.

Based on table 4 above, it can be seen that out of Based on table 5, it was found that the results of the post-test in the experimental group were almost all at low risk with a total of 29 (82.9%) elderly people, while the results of the post-test in the control group were found to be mostly at moderate risk with a total of 18 (51.4%)elderly people.

This research is also in line with Suyasa 2024 to determine the factors that influence the risk of stroke. Where the majority of 44 (55.7%) elderly people who have hypertension are at risk of stroke. This is due to high blood pressure, if not treated properly it will damage blood vessels throughout the body such as the eyes, heart, kidneys and brain. The elderly need to receive stroke screening to reduce the high number of disabilities and deaths caused by delays in stroke management, making detection of early signs and symptoms of stroke in the elderly important to reduce the risk of stroke. A person's awareness of the importance of early detection will be an effort to reduce the risk of stroke, namely through the BE-FAST method (Balance, Eye, Face, Arm, Speech & Time) which is one method that can be used to detect early stroke events (Na'imah, Effendy, & Supriyati, 2023).

BE-FAST is a very simple and easy to understand technique for early stroke detection. BE-FAST detects stroke through three signs and symptoms including changes in facial symmetry, extremity strength and speaking ability. BE-FAST is best done when you wake up morning. Understanding early detection of stroke is very important to ensure that the community can recognize the signs and symptoms of stroke. The balance eyes face arms speech time (BEFAST) detection method is related to the aspect of self care theory (Orem) which states that self care according to Orem (2001) is an individual activity that aims to meet the needs of survival, maintain health and welfare of the individual himself both in healthy and sick conditions. After the BEFAST method detection is carried out, the elderly can find out about the conditions they are experiencing and are expected to maintain their health and welfare. In this study, in accordance with the theory of self care (Orem), the findings of the researchers found that almost all of the risk of stroke in the elderly after the balance eyes face arms speech time (BEFAST) detection method was at the articulation level of 29 (82.9%) and 6 (17.1%) elderly were at the precision level, where almost all elderly people had a low risk of stroke, but a small number of elderly people were still at moderate risk of stroke. Based on the research results, researchers believe that the risk of stroke, although proven, is low. with the results obtained low risk after the Post-test does not rule out the possibility that the elderly this is also influenced by other factors such as increasing age where the older the age the risk of stroke also increases, and hypertension because it accelerates the occurrence of osteochlorosis which can cause weakness in the walls of blood vessels so that they become fragile and easily broken, which can happen at any time the elderly have a stroke where stroke is a sudden attack. The balance eyes face arms speech time (BEFAST) detection method that after we use it in detecting strokes in the elderly also teaches about simple movements they can be aware of the health conditions they experience in detecting strokes themselves so that it also increases the insight of the elderly. This shows that using the balance eyes face arms speech time (BEFAST) detection method can have a positive impact on reducing the risk of stroke in the elderly.

**Identification of the Risk of Stroke in the Elderly in the Control Group**

Identification of Stroke Risk in the Elderly in the Control Group Based on the results of the study using the elderly stroke risk observation sheet in the control group, it was found that most of the elderly, 18 (51.4%) were at moderate risk. This is in line with Agustini's 2022 study using the POAC (Planning, Organizing, Actuating, and Controlling) approach. A total of 79 elderly participants were recruited and underwent health examinations, including blood pressure measurements and BE- FAST screening tests. The results of this activity showed that 55.7%

of participants had hypertension, and 67.1% had difficulty moving their legs and arms on one side of their body. In addition, 36.7% had difficulty opening their eyes or had vision problems, and 32.9% had weakness or numbness in the face. The results of this activity show that this method is effective in identifying early signs of stroke and can be easily taught and applied in the community. Implementation of this method can reduce the risk of stroke and associated morbidity and mortality.

This research is also the same as that conducted by Basuni 2023 which stated that the number of disabilities and deaths is still high. Caused by the virus caused by delays in stroke management, socialization and education about early signs and symptoms of stroke in the general public is important to provide. This knowledge must be disseminated so that the public becomes more responsive and can make immediate decisions to take their families to the nearest health care facility to get immediate treatment. The quality of life of stroke patients based on response time in the emergency room showed that there was a delay or delay time for stroke patients to be taken to health care facilities with an average time of 984 minutes (16 hours) (Basuni & Saifurrahman, 2022).

This delay is caused by a lack of public understanding of the early signs and symptoms of stroke and financial problems that make families late in taking sufferers to get immediate treatment, positive FAST test results can be immediately taken to health care facilities so that immediate management can be given so that disability and death in stroke patients can be minimized. The results of the researchers' findings showed that the risk of stroke in the elderly in the control group was mostly at moderate risk. In the control group that was not given BEFAST treatment, the elderly in This control is more vulnerable than the elderly in the experimental group. This is due to other factors as well where in the control group as many as 5 (14.3%) elderly have a family history of stroke, which also affects the risk of stroke. Based on the findings of the researchers, it was found that most elderly people are at moderate risk. The characteristics of moderate stroke risk, although many elderly people in the control group have normal blood pressure, however, after observation by researchers, most of them experienced signs and symptoms of stroke risk such as loss of balance, decreased vision function, drooping face, weakness in the extremities, slurred speech, and delay in realizing the health conditions they are experiencing. This affects the risk of stroke in the elderly. the control group This control is more vulnerable than the elderly in the experimental group. This is due to other factors as well where in the control group as many as 5 (14.3%) elderly have a family history of stroke, which also affects the risk of stroke. Based on the findings of the researchers, it was found that most elderly people are at moderate risk. The characteristics of moderate stroke risk, although many elderly people in the control group have normal blood pressure, however, after observation by researchers, most of them experienced signs and symptoms of stroke risk such as loss of balance, decreased vision function, drooping face, weakness in the extremities, slurred speech, and delay in realizing the health conditions they are experiencing. This affects the risk of stroke in theelderly.

**Analysis The Effect of Balance Eyes Face Arms Speech Time (BEFAST) Detection Method on the Risk of Stroke in the Elderly in Suwalan Village, Jenu District.**

Based on the results of the study using observation sheets, it was found that the post-test of the control group showed that the majority of the risk of stroke was moderate with a total of 18 (51.4%) elderly people, and the results of the post-test in the experimental group showed that the risk of stroke was low with a total of 29 (82.9%) elderly people. Based on the data analysis conducted by the researcher using the SPSS for windows program, the Mann Whitney test with a significance level of a = <0.05. The results obtained were that the sig. value (2-tailed) was 0.01. Because the value is smaller than

0.05, it can be concluded that the hypothesis is accepted.

This study is in accordance with previous research conducted by Taukhid 2020 training methods provided to determine the effect of balance scale training, eyes, face, hands and speech (KEMWATABI) on the psychomotor abilities of elderly posyandu cadres in conducting stroke screening. Subjects were given training starting from sessions 1 to 6 consisting of providing material, demonstrations, and stroke screening practices on Alansia. The instrument used to measure the cadre's abilities was an observation sheet. Analysis of research data using the Wilcoxon Signed Rank test. The results of the study showed that all subjects (100%) had psychomotor abilities at the unable level in the pre-test, and the post-test results showed 13 cadres (81.25%) were at the capable level and 3 cadres (18.75%) were at the quite capable level. There was a significant effect of KEM-WATABI scale training on the ability of elderly posyandu cadres in stroke screening (pv =0.01 < a = 0.005).

The training method provided provided practical experience with direct stroke screening simulations in the elderly so that subjects got a concrete picture of the stages of stroke screening, and improved psychomotor abilities. This study is in accordance with previous studies by aroor et al. 2017 to assess the incidence of stroke The FAST (Face, Arm, Speech, Time) algorithm helps identify people with acute stroke. We determined the proportion of patients with acute ischemic stroke who were not detected by FAST and evaluated the revised mnemonic. In this study, the results were identified, 736 met the inclusion criteria; 14.1% had no FAST symptoms at presentation. Of these, 42% had gait imbalance or leg weakness, 40% visual symptoms, and 70% one of the symptoms. With this addition, the proportion of unidentified stroke patients decreased to 4.4% (P<0.0001). In a sensitivity analysis, if facial weakness, arm weakness, or speech impairment on admission were considered in addition to a history of FAST symptoms, the proportion The missed stroke rate decreased to 9.9% (P=0.0010). The proportion of patients with missed strokes also decreased (2.6%) with the addition of a history of gait imbalance/leg weakness or visual symptoms (P<0.0001). Of patients with ischemic stroke with deficits potentially amenable to acute intervention, 14% were missed using FAST. The inclusion of gait/leg and visual symptoms resulted in a decrease in missed strokes. If validated in prospective studies, revision of public education programs may be warranted.

The findings of researchers on 70 elderly people in Suwalan village, Jenu sub-district, obtained post-test results Most of the risk of stroke in the control group was at moderate risk because the group was not given treatment and a small part was more vulnerable because they had a family history of stroke compared to the experimental group which almost all had a low risk of stroke because they were given the BEFAST method. This method was chosen by researchers for this study because this method is very easy and simple to do so that the elderly Ajuga can do it themselves to maintain their health.

Based on the researcher's observation, it shows that the method of providing balance eyes face arms speech time (BEFAST) detection in the elderly can reduce the risk of stroke. This BEFAST method is very simple and easy. Taught and applied in the community. The application of this method can reduce the risk ofstroke.

This study shows that the BEFAST method is effective for detecting stroke events. Early detection of stroke is very important for the elderly because the elderly are very susceptible to stroke. This method is used to increase the elderly's self-awareness regarding their health conditions, so that it is hoped that the elderly can take care of themselves and maintain their health.

## CONCLUSION

The results of the study entitled "The Effect of the Balance Eyes Face Arms Speech Time (BEFAST) Detection Method on the Risk of Stroke in the Elderly in Suwalan Village, Jenu District" can be concluded as

follows:

1. Almost all of the risk of stroke in the experimental group was given the balance eye face and speech time (BEFAST) detection method with low risk results for stroke.
2. Most of the risk of stroke in the control group with moderate risk results.
3. There is an effect of the balance eye face and speech time (BEFAST) detection method on the risk of stroke in the elderly.

## REFERENCES


Ayu, A., & Putri, N. (2023). Epidemiological description of stroke in East Java in 2019-2021 Andina Ayu Natasya Putri. Journal of Public Health, 7(1), 1030–1036.

Basuni, H. L., Sari, A. S., Rosidi, A., Yuliyanti, S., Aufia, A., Ikhwani, D. A., & Taufandas, M. (2023). Education of Face, Arm, Speech Test (Fast) Method as Early Detection of Stroke in Prehospital Area in the Community in Wanasaba Lauk Village, Wanasaba District, East Lombok Regency. Indonesian Journal of Community Dedication, 5(1), 19–23. https://jurnal.stikesnh.ac.id/index.php/community/article/view/1201

Damansyah, H., Umar, A., Mokoagow, C. R., & Nursing Profession Study Program, Nursing Department, Faculty of Health Sciences, a-c. (2023). Analysis of the Rosier Scale in Handling Acute Stroke in the Emergency Room of Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City. Journal of Nursing, 11(2), 180–186.

Daulay, N. M., & Ritonga, N. (2022). Early Stroke Detection Education Using the FAST (Face, Arm, Speech, Time) Method in Simatorkis Sisoma Village, South Tapanuli Regency. Aufa Community Service Journal (JPMA), 4(2), 34–38. https://doi.org/10.51933/jpma.v4i2.838

Dewi, C., Amalia, R., & Safuni, N. (2023). Nursing Care for Patients with Ischemic Stroke. Journal of Professional Nursing Research, 6(3), 1081–1092. http://jurnal.globalhealthsciencegroup.com/index.php/JPPP.

Dwi Anto, C., Adriani, P., Yusmiranti, & Novitasari, D. (2022). Implementation of Range of Motion to Increase Extremity Muscle Strength in Stroke Patients with Physical Mobility Impairments. Collaboration of Community Service Journal, 2(4), 327–335. https://doi.org/10.56359/kolaborasi.v2i4.128

Hastjarjo, T. D. (2019). Quasi-Experimental Design.Psychology Bulletin, 27(2), 187. https://doi.org/10.22146/buletinpsikologi.38619

Ilham Darmawan, Indhit Tri Utami, A. T. P. (2024). Application of Range Of Motion (ROM) Exercise Rubber Ball on Muscle Strength of Non-Hemorrhagic Stroke Patients. Journal of Young Scholars, 4, 246–254.

Katuuk, M. E., Sitorus, R., & Sukmarini, L. (2020). Application of Orem's Self Care Theory in Nursing Care of Diabetes Mellitus Patients. Journal of Nursing, 8(1), 1–22. https://doi.org/10.35790/jkp.v8i1.28405

Khotimah, A. H., Yani, D. I., & Sumarni, N. (2023). The Effect of Family Nursing Care with the Orem Model on Self-Care in Hypertension and Diabetes Patients: Case Report. SENTRI: Scientific Research Journal, 2(7), 2758–2767. https://doi.org/10.55681/sentri.v2i7.1158.

Maritje S.J. Malisngorar, Vero Anggi Junike Samloy, Mariyati Mardjuky, & Rini Hatma Rusli. (2023). The Effect of Health Education About the Fast Method on the Knowledge of Families Suffering from Hypertension in Passo Village, Baguala District. Scientific Journal of

Medicine and Health, 3(1), 129– 145. https://doi.org/10.55606/klinik.v3i1.2262 Nursalam. (2020). Nursing science research methodology: A practical approach / Nursalam. In Jakarta: Salemba Medika (Vol. 1, Issue 5).

Ramli, R., & Masyita Nurul Fadhillah. (2022). Factors Affecting Cognitive Function in the Elderly. Window of Nursing Journal, 01(01), 23–32. https://doi.org/10.33096/won.v1i1.246 Safitri, D., Arisandi, D., Nurpratiwi, N., Kirana, W., & Anggreini, Y. D. (2024). Early Detection of Stroke Disease with the FAST Method in High- Risk Groups at the Banjar Serasan Health Center UPT. Journal of Community Service and Empowerment Innovation, 4(1), 115–120. https://doi.org/10.54082/jippm.430.

Sihaloho, N. (2022). Description of the Level of Independence of the Elderly in Fulfilling Daily Living Activities in the Xiv Environment of Jalan Pembangunan Usu, Padang Bulan Village, Medan Baru District in 2021. Journal of Social Research, 1(6), 435–442. https://doi.org/10.55324/josr.v1i6.107

Sopyanti, Y. D., Sari, C. W. M., & Sumarni, N. (2019). Description of Dementia and Depression Status in the Elderly in the Guntur Health Center Work Area, Sukamentri Village, Garut. Comprehensive Nursing Journal, 5(1), 26–38. https://doi.org/10.33755/jkk.v5i1.125

Taukhid, M., Siswoaribowo, A., & Fuadah, D. Z. (2020). The Effect of Balance, Eye, Face, Hand, Speech (Kem-Watabi) Scale Training on the Psychomotor Abilities of Elderly Posyandu Cadres in Stroke Screening. Sebatik, 24(2), 267–275. https://doi.org/10.46984/sebatik.v24i2.112.

Utama, A. (2022). The relationship between spirituality and body image in stroke patients in the inpatient room of DR Zainoel Abidin Hospital, Banda Aceh proposal (Vol. 9).

Utama, Y. A., & Nainggolan, S. S. (2022). Risk Factors Affecting Stroke Incidence: A Systematic Review. Scientific Journal of Batanghari Jambi University, 22(1), 549. https://doi.org/10.33087/jiubj.v22i1.1950

Wulan Sari, S., Ulfiana and Rista Fauziningtyas, E., & Nursing, F. (2020). Analysis of Factors related to Self Care Elderly Lived at Nursing Home. Indonesian Journal Of Community Health Nursing, 5(1). https://doi.org/10.20473/ijchn.v5i1.18