

#### **Conference Paper**

# The Relationship Between Sociodemographic Factors and Self Management in Stroke Patients

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#### Abstract.

Stroke is very common in society and can cause physical disability and even death. Stroke can be affected by poor self-management. Sociodemographic factors can influence self-management. The purpose of this study was to determine the relationship between sociodemographic factors and self-management in stroke patients. This study used an observational approach with a cross-sectional design. 64 people were recruited using purposive sampling. The inclusion criteria included patients with a stroke diagnosis, who were conscious and able to communicate both verbally and in writing. Data collection was through the SSMQ questionnaire and data analysis involved the Chi-square test. The results indicated that most of the respondents had good self-management (64.1%). There was no significant influence of age (p = 0.111), gender (p = 0.885), occupation (p = 0.596), stroke duration (p = 0.182) or education (p = 0.588) on self-management. Income had a significant relationship with self-management of (p = 0.044).

Keywords: sociodemography, self management, stroke

## 1. Introduction

Stroke is a condition of circulatory disorders in the brain that causes physical disability, impaired cerebral function and even death [1]. Based on the WHO in 2011 Indonesia was ranked 97th, which had 138,268 stroke sufferers or 9.70% of the total deaths. Meanwhile, according to the results of Basic Health Research (RISKESDAS) 2007 Indonesia was in the 3rd position having a stroke with data of 8.3 per 1000 population experiencing a stroke [2]. According to the 2018 RISKESDAS, the prevalence in East Java province reached 12.4% or around 113,045, so East Java was in the 3rd position to experience stroke after South Sulawesi and DIY [3]. So that stroke does not recur and cause harmful effects, behavioral control is needed [4]. Behavior control can be done if

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someone has good self-management. Self-management is closely related to one's behavior. Self-management has received increasing attention as an effective and costeffective approach to the long-term management of conditions especially in stroke [5]. Patients with low self-management are at high risk of recurrent stroke and complications. Complications caused by repeated strokes can cause disturbances in heart rhythm and blood pressure, the more complications will cause a burden on the family, when the family cares for stroke patients will experience stress, fatigue, financial problems disrupted [3]. Effective self-management is also useful for increasing patient satisfaction in living life, reducing treatment costs, increasing self-confidence, patient independence, and improving patient quality of life. The success of self-management is influenced by several factors, including self-efficacy, social support and sociodemographic factors (length of illness, level of education, etc. From the description above, self-management is a very important component for stroke patients.

Based on the results of epidemiological research at the University of Indonesia, the prevalence of recurrence for 1 month is 1.15% to 155, 5 months is 16.2% to 35.5%, 10 months is 14 to 51.2% and for 1 year is 7% to 20 .6% of the data showed an increase in stroke recurrence [6]. According to researchRahmawati and Kurniawan (2019), self management in stroke patients is categorized as high (52.2%). StudyPuri and Setyawan (2020), 57% of stroke patients have good self-management. However, this result contradicts the researchmarviana (2020), namely stroke patients have good self-management (13.51%), moderate (39.47%) and less (47.36%). Self-management in general is self-management, both management of the disease, treatment, care and management of symptoms as well as physical and psychological consequences. The self-management function can change behavior in self-management so that it can increase motivation to improve their health. Self-management support in the rehabilitation of stroke patients can also lead to positive changes in daily activities, improve quality of life and reduce the risk of recurrence[7].

According to research [6]. Self-management interventions can reduce disability, depression, and can increase self-efficacy, quality of life and social participation. Therefore, self-management greatly affects stroke both in improving the quality of life, social participation, and increasing self-efficacy. One of the factors that can influence self-management is the sociodemographic factor. Sociodemography is divided into 2 words socio and demographics. Sociodemographic factors include age, gender, education level, occupation, income, marriage, health, lifestyle [8]. In line with Rahmawati's research, there are several sociodemographic factors that affect self-management such as age, gender, education level, occupation, income and length of stay. [9] Based on

researchRahmawati and Kurniawan (2019) with the title "Overview of self-management in stroke patients undergoing treatment" it was found that there was a relationship between the type of stroke, age, education level, and duration of stroke with selfmanagement of stroke, but this study did not explain the relationship between gender, occupation, and self-management. management. Therefore, the researcher wants to examine more deeply about "the relationship between sociodemographic factors and self-management in stroke patients", from all demographic aspects including gender and occupation factors.

# 2. Method

#### 2.1. Study design and research area

The design of this study used an observational approach with a Cross Sectional Study with a nonprobability sampling technique and a purposive sampling technique. The samples involved in this study were 64 stroke patients.

#### 2.2. Research settings

Data collection was carried out from February 2021 to April 2021 at the Neurology Polyclinic of the University of Muhammadiyah Malang General Hospital. When the participants were waiting for the queue, the researcher explained and provided informed consent. The participants were willing to join this research, the participants filled out the questionnaire accompanied by the researcher for around 30 minutes.

#### **2.3.** Data collection processes and instruments

The instrument used is a standard instrument, namely the SSMQ (Stroke Self Management Questionnaire) instrument developed by boger 2015. The instrument consists of 28 questions with a reliability value of 0.96. This research has received ethical approval from the research ethics commission of the University of Muhammadiyah Malang with the number C1.b/026/RSUUMM/III/2021

#### **2.4.** Data analysis

Analysis of the data using a chi-square to determine the relationship of demographic data with self-management.

# **3. Results and Discussion**

TABLE 1: Characteristics of Demographic Data of Stroke Patient Respondents in Neurology Polyclinic University of Muhammadiyah Malang Hospital (n=64).

Variables	F (%)
Gender Man Woman	41 (64.1) 23 (35.9)
Age Early Adult Late Adult Early Elderly Late Elderly	0(0) 0(0) 22 (34.4) 42 (65.6)
Income >UMR IDR 2,970,502.00 <umr 2,970,502.00</umr 	33(51,6) 31(48,4)
Education SD junior high school senior High School College No school	18 (28.1) 6 (9.4) 20 (31.3) 19(29.7) 1 (1.6)
Work Work Does not work	59 (92.2) 5 (7,8)
Stroke duration < 1 Year 1-2 Years > 1 Year	20 (31.3) 21 (32.8) 23 (35.9)

Based on table 1 the majority of respondents aged +65 years in the final elderly category are 42 (65.6%) and most of the respondents are male as many as 41 (64.1%). Almost all respondents work as many as 59 (92.2%). The most recent education of respondents was SMA with a total of 20 (31.3%). The majority of respondents had income above the minimum wage > Rp. 2,970,502.00 as many as 33 (51.6%) and the majority of respondents had a stroke > 1 year 23 (35.9%).

Table 2 shows that from the results of collecting identification data related to selfmanagement in stroke patients at the Neurology Polyclinic of the University of Muhammadiyah Malang, the majority experienced high self-management as many as 41 (64.1%) respondents. The different characteristics of respondents can be seen from the demographic side. Demographic characteristics studied in this study included age, gender, education level, occupation, income and duration of stroke.

TABLE 2: Identification of Self Management in Stroke Patients.

Category	N(%)
Self-Management tall	41 (64.1)
Self-Management low	23(35,9)
Total	64(100)



#### 3.1. Identification of the Relationship between Age and Self Management in Stroke Patients

Based on the results of the study, it is known that the majority of respondents aged +65 years in the final elderly category are 42 (65.6%). This can be supported from research [9] said Stroke usually often occurs in adults with an age range of 45-59 years. Age is a risk factor that cannot be changed by a person. Age is also a factor that affects Self Management. Young patients have better self-management than older patients. Because young people are faster in adapting and tend to be faster in recovery. In another study, it was stated that at a young age the generative level tends to be minimal compared to those aged over 65 years [10].

Based on research conducted by [4] Using the multiple logistic test, the p value was 0.026 (<0.05), which means that there is a relationship between age and one's self-management. This study is in line with Aisyah's statement that those who are at high risk of having a stroke are the age group > 55 years. It can be concluded that there is a relationship between age and self-management in stroke patients.

#### 3.2. Identification of the Relationship between Sex and Self Management in Stroke Patients

Based on the research, it is known that the characteristics of the majority of respondents at UMM Hospital are mostly male as many as 41 (64.1%). This supports the statement with [10] stroke patients male gender is greater than the female sex. Because women care more about themselves, social and even health conditions so that women will always maintain their health, improve their quality of life. The proportion of stroke patients is more in the male sex. Because the male gender tends to think less about health care than women, due to the assumption that men should be stronger, this reason makes men not seek health care unless they are seriously ill therefore men rarely pay attention to self-care. management on him [4]. Therefore, it can be said that gender is one of the factors that can affect a person's self-management, especially in stroke patients.

According to research [4] By using the multiple logistic test, the p-value was 0.030 <0.05, which means that there is a relationship between gender and self-management. in line with research [12] stroke patients were greater in the male group than in the female group. Supported by other studies, it says that the incidence of stroke is more common in men than women [9].



#### 3.3. Identification of the Relationship between Education and Self Management in Stroke Patients

The description of the characteristics of stroke patient respondents based on education level can be seen in Table 5.1. Based on the results of the study, it was found that the most recent education of respondents was high school with a total of 20 (31.3%). This supports the statement by [11] said the level of education is one of the factors that can affect a person's self-management because the higher the knowledge possessed, the stronger the application of self-management in oneself. In line with a study that says there is an influence of knowledge on behavior in stroke management. According to Rahmawati, the higher a person's education, the easier it is to access information so that more knowledge is obtained [9].

Based on research conducted using the Wilcoxon test, the results obtained p value of 0.033 (<0.05), which means that there is a relationship between education and one's self-management. This research is in line with [11] that the level of education can affect a person's self-management, because a high level of education can affect everyone's knowledge. This statement is supported by research by Ketut Gama which says the level of education is also very influential with one's self-management where the incidence of stroke is higher in the elementary school group and not in school.

#### 3.4. Identification of Employment Relationship with Self Management in Stroke Patients

Based on the results of the study, it was found that respondents at UMM Hospital Almost all of the respondents worked as many as 59 (92.2%). Patients who work on average are lecturers, entrepreneurs, traders, contractors and farmers, while those who do not work are retirees and housewives. This supports the statement by [4] According to research, stroke patients with high incomes are easier to carry out self-management, especially in treatment than patients with low incomes. Income is always associated with the economy. Someone with a low economy will have difficulty in Self Management. Lack of self-management will cause the disease to take a long time to heal so you have to go to the hospital to speed up the healing process. Therefore, hospital financing will increase and the duration of healing will also be long.

Based on research conducted by [4] with a sample of 109 tested using multiple logistic regression statistics, the results obtained p value 0.039 <0.05, which means that there





is a relationship between work and one's self-management. This is supported by the statement [11] stated that work is closely related to one's self-management.

#### 3.5. Identification of the Relationship between Income and Self Management in Stroke Patients

Based on the research, it is known that the characteristics of the majority of respondents at UMM Hospital have income above the minimum wage > Rp. 2,970,502.00 as many as 33 (51.6%). This is supported by research [11]. When income is less in meeting daily life, the higher it can cause stress so that when stress arises, self-management will decrease.

#### 3.6. Identification of the Relationship between Stroke Length and Self Management in Stroke Patients

The description of the characteristics of stroke patient respondents based on the length of stroke experienced by the majority of respondents experienced a stroke duration of > 1 year 23 (35.9%) . This is supported by research [9] When someone has experienced something in the long term, it will be easy to get used to it, in line with one study that says long-term experience may increase the ability to live a better life. Long suffering from stroke is one of the factors that make patients do higher self-management. In the context of acceptance, it may show an optimistic attitude in self-regulation. Contrary to research [11] said that the average duration of stroke was > 6 months and also said that patients with stroke for 2-6 months had better self-management than patients with stroke for 6-12 months.

Based on research conducted by [11]by using the independent test, the results obtained p value of 0.000, which means that there is a relationship between the length of stroke and one's self-management. In line with research [4] stated that the longer a person suffers from a stroke, the person will experience boredom in doing rehabilitation, eventually self-management will also become worse.

### 4. Conclusion

Based on the results of research that has been done regarding the relationship of sociodemographic factors with self-management in stroke patients at the Neurology Polyclinic, University of Muhammadiyah Malang Hospital. So the conclusion that can be

drawn from the results of this study is that stroke patients at the Neurology Poly Hospital of the University of Muhammadiyah Malang showed that most of the respondents experienced good self-management. , There is no relationship between sociodemographic factors and self-management in stroke patients at the Neurology Polyclinic of the General Hospital of the University of Muhammadiyah Malang. With a good interpretation

of sociodemographic factors, self-management is high.

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