SOUTH EAST ASIA NURSING RESEARCH
Available on : https://jurnal.unimus.ac.id/index.php/SEANR

Research article

The Relationship Between Self-Efficacy And The Occurrence Of Depression In Non-Hemorrhagic Post-Stroke Patients

Ningrum Sahiratul Azano[1], Aisyah Lahdji[1], Hema Dewi Anggraheny[1]

[1] Faculty of Medicine, Universitas Muhammadiyah Semarang, Indonesia

Article Info

Article History:
Submitted: Feb 27th 2024
Accepted: July 15th 2024
Published: July 17th 2024

Keywords:
Stroke; Depression; Self-Efficacy

Abstract

Stroke is a disease that can occur suddenly and is caused by blood vessel disorders and can cause death. According to the Health Service in 2017, the prevalence of non-hemorrhagic stroke in Central Java province was 64.7%. The impact of a stroke is psychological disorders including anxiety or stress and depression. Self-efficacy plays an important role in the level of post-stroke depression and it was also found that stroke sufferers with higher levels of self-efficacy had fewer depressive symptoms. The aim of this study was to determine the relationship between self-efficacy and the occurrence of depression in non-hemorrhagic post-stroke patients. This research is a descriptive-analytical study with a cross-sectional approach. The population in the study was 70 non-hemorrhagic post-stroke patients at KRMT Wongsonegoro Hospital, Semarang City using consecutive sampling techniques. Data collection uses a questionnaire. Relationship analysis used the Spearman rank test and t-test. The majority of respondents had a moderate level of self-efficacy as many as 42 respondents (60%) and did not experience depression as many as 36 respondents (51.4%). The results of the Spearman rank test showed a p-value of 0.000 and a positive correlation strength of 0.704, which means there is a relationship between self-efficacy and the incidence of depression in patients after non-hemorrhagic stroke. The higher the level of self-efficacy, the lower the incidence of depression in patients after non-hemorrhagic stroke.

INTRODUCTION

The World Health Organization (WHO) in 2014 stated that stroke is the third leading cause of death in the world after heart disease and cancer. Worldwide, 15 million people suffer a stroke each year, one-third die and the rest become permanently disabled.[1] According to data from the Department of Health in 2017, the prevalence of stroke, especially in Central Java province, was 64.7% of non-hemorrhagic stroke (SNH).[2] Non-hemorrhagic stroke is defined as an infarction in the brain, spinal cord or retina and accounts for 71 percent of all strokes worldwide. These strokes are caused by a blood clot or blockage of an artery in the brain and are usually not accompanied by vomiting, severe headache, loss of consciousness and low blood pressure.[3]

Corresponding author:
Ningrum Sahiratul Azano
azano.ningrum@gmail.com
South East Asia Nursing Research, Vol 6 No 2, July 2024
ISSN:2685-032X
DOI: https://doi.org/10.26714/seanr.6.2.2024.56-60

According to the 2022 report from the World Stroke Organisation (WSO), stroke has one of the highest mortality rates.[4] Stroke makes a person dependent on others and post-stroke there is usually a change in the self-acceptance of the affected person, which is reflected in their behavior.[5] The mental condition known as depression often occurs in stroke patients with significant frequency. A first systematic longitudinal study conducted on post-stroke depression (PSD) showed that severe impairment related to daily activities, social functioning, and cognition may occur in patients with PSD.[6] About 26-60% of stroke patients have clinical symptoms of depression.[6]

According to the Indonesian Psychiatric Association, the incidence of post-stroke depression ranges from 11-68% at 3-6 months after stroke and remains high 1-3 years later. About 15-25% of stroke patients treated at home experience depression, while 30-40% of hospitalized patients experience depression.[5] A study conducted by previous researchers stated that self-efficacy plays an important role in the level of post-stroke depression and it was also found that stroke survivors with higher levels of self-efficacy had fewer symptoms of depression.[7]

A study conducted by previous researchers stated that self-efficacy plays an important role in the level of post-stroke depression and it was also found that stroke survivors with higher levels of self-efficacy had fewer symptoms of depression.[8] According to previous researchers, some stroke patients experience decreased self-efficacy characterized by having decreased confidence to move from bed independently, decreased confidence to walk around the house, decreased confidence to eat and prepare meals independently, decreased confidence to wear their own clothes, decreased confidence to carry out advanced programs in achieving recovery, and decreased confidence to control frustration.[9] This study aims to determine the relationship between self-efficacy and the incidence of depression in patients after non-hemorrhagic stroke.

METHODS

The study conducted was a quantitative study in the form of an analytic study using a cross sectional research design. The research subjects were non-hemorrhagic post-stroke patients at KRMT Wongsonegoro Hospital, Semarang City, totaling 70 people using consecutive sampling technique, which was adjusted to the inclusion and exclusion criteria.

The inclusion criteria in this study were non-hemorrhagic post-stroke patients >3 months who underwent outpatient care at the neurology clinic at KRMT Wongsonegoro Hospital, Semarang City, domiciled in Semarang City, and willing to become research respondents.

Data were collected using questionnaires, namely the Hamilton Rating Scale for Depression (HRSD) and The Stroke Self-efficacy Questionnaire (SSEQ). This study used univariate and bivariate analysis using the spearman rank test.

RESULT

The majority of respondents were 46-65 years old as many as 48 people (68.6%), male as many as 3 people (51.4%), the last high school education as many as 31 people (44.3%), length of illness ≥6 months as many as 40 people (57.1%), work status as many as 50 people (71.4%), income <UMR as many as 43 people (61.4%), had sufficient family support as many as 42 people (60%), had a moderate level of self-efficacy as many as 42 people (60%), and did not experience depression as many as 36 people (51.4%).

Table 1
Respondent Characteristics

Indicators	n	%
Age		
40-45 years	3	4,3
46-65 years	48	68,6
>65 years	19	27,1
Gender		
Male	36	51,4
Female	34	48,6
Education		
Not in school	9	12,9
Elementary School	14	20,0
Junior High School	6	8,6
High School	31	44,3
Diploma/graduate	10	14,3
Duration of Illness		
<6 months	30	42,9
≥6 months	40	57,1
Employment		
Not Working	20	28,6
Working	50	71,4
Revenue		
<UMR	43	61,4
UMR	18	25,7
>UMR	9	12,9
Family Support		
Less	10	14,3
Enough	42	60,0
Good	18	25,7
Self-Efficacy Level		
Low	12	17,1
Medium	42	60,0
High	16	22,9
Level of Depression		
No Depression	36	51,4
Mild Depression	22	31,4
Moderate Depression	6	8,6
Severe Depression	4	5,7
Very Severe Depression	2	2,9

Most of the respondents had moderate self-efficacy and did not experience depression as many as 21 people (50%). The statistical test results obtained using the spearman rank test obtained a p-value of 0.000 (p <0.05) indicate a significant relationship between self-efficacy and depression. The correlation coefficient value obtained is 0.704 which indicates the strength of the relationship (correlation) between the self-efficacy variable and the incidence of depression in non-hemorrhagic post-stroke patients, which is strong.

Tabel 2
Spearman Rank Correlation Test

Variables		Depression										*p-value*	*r*
		Not Depressed		Mild Depression		Moderate Depression		Severe Depression		Very Severe Depression			
		n	%	n	%	n	%	n	%	n	%		
Self-efficacy	Low	0	0	1	8,3	5	41,7	4	33,3	2	16,7	0,000	0,704
	Medium	21	50	20	47,6	1	2,4	0	0	0	0		
	High	15	93,8	1	6,3	0	0	0	0	0	0		

DISCUSSION

Based on the research that has been done, most respondents have moderate self-efficacy as many as 42 respondents. The results of this study are in line with research by Frinsca, L (2020) conducted at Dr. Reksodiwiryo Padang Hospital, obtained from 84.7% of respondents having moderate self-efficacy, where in this study it was stated that in general the respondents felt little confidence in being able to rest

calmly, walk safely outside and even inside the house, prepare their own food, were less confident in doing the activities they liked, were less confident in the progress of their health with the therapy they participated in, and some were not sure at all like maintaining the speed like before the stroke.[7]

Self-efficacy is a person's belief in their ability to manage their own illness, as it can determine whether or not a person starts taking care of themselves.[8] Signs of someone having low self-efficacy are avoiding difficult activities, having low desire, focusing on failure, reducing effort, and focusing on feelings such as stress and depression. The incidence of depression in post-stroke patients is caused by low self-efficacy.[7] Peters et al stated that depression can affect patients' perceptions of their physical and mental abilities, resulting in low self-efficacy. Patients with higher fear have lower levels of self-efficacy.[10]

Based on the level of depression measured using the Hamilton Depression Rating Scale (HDRS) questionnaire, most respondents, namely 36 respondents (51.4%) were normal, 22 respondents (31.4%) had mild depression, 6 respondents (8.6%) had moderate depression, 4 respondents (5.7%) had severe depression, and 2 respondents (2.9%) had very severe depression. The results of this study are in line with previous research conducted at the Samarinda Youth Health Center, it was found that of the 33 respondents of post-stroke patients who were normal or did not experience depression as many as 26 people (78.8%) and 7 people (21.2%) experienced mild depression. Post-stroke depression is a major factor that can hinder the recovery of neurological function and daily activities in stroke patients and is associated with increased mortality. Depression itself is a mental disorder characterized by the appearance of symptoms of decreased mood, loss of interest in something, feelings of guilt, sleep or appetite disorders, loss of energy, and decreased concentration. Depression if left untreated can cause the hormone cortisol which affects the decrease in the immune system so that the patient's body resistance also decreases which causes the patient to be more susceptible to infection, glucose levels and blood pressure also increase which causes repeated stroke attacks.[11]

Based on the results of statistical tests, 21 respondents (58.3%) had moderate self-efficacy with the results not experiencing depression. and the results of the spearman rank analysis obtained a p-value of 0.000 ($p < 0.05$) which indicates that there is a significant relationship between self-efficacy and the incidence of depression in non-hemorrhagic post-stroke patients. This is in line with the research of Frinsca, L (2020) with a p-value of 0.000 ($p < 0.05$), it was found that respondents who had a moderate level of self-efficacy experienced the most moderate level of depression, namely 37 people (60.7%), and respondents who had a low level of self-efficacy experienced the most severe level of depression, namely 8 people (72.7%). From the results of this study, it means that the level of self-efficacy and depression in post-stroke patients is directly proportional, the lower the self-efficacy, the higher the level of post-stroke depression.[7] The Health Belief Model (HBM) theory also explains that individuals will take precautions depending on two health beliefs or assessments, namely: perceived threat of injury or illness and consideration of benefits and barriers.[12]

CONCLUSION

There is a strong relationship between self-efficacy and the incidence of depression in non-hemorrhagic post-stroke patients at KRMT Wongsonegoro Hospital, Semarang City. The higher the level of self-efficacy, the lower the incidence of depression in non-hemorrhagic post-stroke patients.

Future researchers are expected to conduct research with a case control research design

that moves from effect (disease) to cause (exposure) in order to find out more about risk factors affecting the occurrence of disease. In addition, it is expected to conduct research with a wider population scope by taking data from several hospitals with the same classification.

ACKNOWLEDGEMENT

The researcher would like to say thank you to all the participated as research respondents.

CONFLICT OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

BIBLIOGRAPHY

1. Rembet IY, Wowor MD, Tinggi S, Kesehatan I, Maria G. Self-efficacy pada pasien stroke. Watson Journal of Nursing. 2023;1.
2. Dinas Kesehatan Provinsi Jawa Tengah. Profil Kesehatan Provinsi Jateng Tahun 2019. Dinas Kesehatan Provinsi Jawa Tengah. 2019;3511351:61.
3. Utomo TY. Karakteristik Faktor Risiko Stroke Hemoragik Dan Stroke Non Hemoragik. Jurnal Ilmiah Indonesia. 2022;7:1–8.
4. Lahdji A, Pudjonarko D, Shaluhiyah Z. Risk factors correlated with stroke in the population aged over 15 years in semarang : a retrospective study. 2024;13:872–6.
5. Vika WN, Syarifah AS, Ratnawati M. Hubungan Status Fungsional Dengan Tingkat Depresi Pada Pasien Stroke Di Ruang Flamboyan Rsud Jombang. Jurnal Ilmiah Kebidanan (Scientific Journal of Midwifery). 2018;4:52–9.
6. Robinson RG, Jorge RE. Post-stroke depression: A review. American Journal of Psychiatry. 2016;173:221–31.
7. Frinsca L. Hubungan Efiksasi Diri Dengan Depresi Pasca Stroke Pada Penderita Stroke Di Poliklinik Penyakit Syaraf RS Tingkat III DR. Reksodiwiryo Padang. 2020;1–7.
8. Lutfi B, Rayasari F, Irawati D, Tinggi S, Kesehatan I, Kencana Tasikmalaya M, et al. Peningkatan Self-efficacy Melalui Spiritual Care Pada Pasien Diabetes Melitus Tipe 2. Indonesian Journal of Nursing Sciences and Practice. 2021;5:10.
9. Ismatika I, Soleha U. Hubungan Self-efficacy Dengan Perilaku Self Care Pasien Pasca Stroke Di Rumah Sakit Islam Surabaya. Journal of Health Sciences. 2018;10:139–48.
10. Peters GJY, Ruiter RAC, Kok G. Threatening communication: A critical re-analysis and a revised meta-analytic test of fear appeal theory. Health Psychology Review. 2013;7:8–31.
11. Kurniawan MB, Wibowo TA. Hubungan antara Dukungan Informasi Keluarga dengan Depresi pada Pasien Pasca Stroke di Puskesmas Remaja Samarinda. Borneo Student Research. 2020;1:1280–6.
12. Prihantini W, Yunitasari E, Pradanie R, Program M, Pendidikan S, Keperawatan F, et al. Hubungan perceived benefit dan perceived barrier dengan stadium kanker payudara berdasarkan teori health belief model pada pasien yang berkunjung di Posa RSUD Dr . Soetomo. Idea Nursing Journal. 2017;18–22.