Research article

The effect of self efficacy on daily living activities in post non hemorrhagic stroke patients

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Article Info

Abstract

Non-hemorrhagic stroke occurs due to obstruction or blockage that causes the brain to lack oxygen, which can lead to death, disability, and paralysis. Post-stroke patients often feel insecure about their disabilities, so they have limitations in socializing and carrying out daily activities. However, this can be overcome if the patient has self-efficacy which is an aspect of the Health Belief Model. The purpose of this study was to determine the effect of self-efficacy on daily living activities in post-hemorrhagic stroke patients. This study is a quantitative study in the form of an analytical study using a cross-sectional research design with samples that meet the inclusion and exclusion criteria of 80 respondents at RSUD KRMT Wongsonegoro Semarang with the consecutive sampling technique. Data were taken using a questionnaire instrument which was then tested with the help of computer software. The majority of respondents had high self-efficacy of 56 (70%) and the majority of respondents had independent daily living activities of 32 respondents (40%). The analysis used in this study was the Spearman rank test on the self-efficacy variable with a value of p = 0.00 and r = 0.709. It was found that there was a significant influence between self-efficacy and activity of daily living in post-hemorrhagic stroke patients, the higher the self-efficacy, the higher the ADL.

INTRODUCTION

Stroke is a neurological condition due to impaired blood circulation in the brain.[1] Non-hemorrhagic stroke occurs due to obstruction or blockage that causes the brain to lack oxygen, which can lead to death, disability, and paralysis.[2] Clinical manifestations of non-hemorrhagic stroke are usually found in one or more focal neurological disorders such as hemiparesis, hemiplegia, speech disorders, motor or sensory disorders, visual field disorders, hearing disorders, and cognitive disorders, as well as emotional disorders.[3] According to Riskesdas 2018 data, the incidence of stroke in Indonesia in 2018 was 10.9%, or an estimated 2,120,362 people. [2] The prevalence of non-communicable diseases including stroke in 2018 increased compared to 2013, from 7% to 10.9%. East Kalimantan Province (14.7%) and DI Yogyakarta (14.6%) are the provinces with the highest prevalence of stroke in

Indonesia. Meanwhile, Papua and North Maluku have the lowest prevalence compared to other provinces, namely 4.1% and 4.6%.[4] The Central Java Provincial Health Office in 2012 stated that the highest cases of stroke in Central Java were in Semarang with 3,986 cases.

Weakness of motor function in post-stroke non-hemorrhagic patients is often marked by psychological, cognitive, physical changes and social consequences. These changes cause post-stroke non-hemorrhagic patients to generally experience limitations in carrying out their daily activities. However, this can be overcome if the patient has the confidence to be independent again. This is in accordance with Noer Innayah's study entitled "Correlation Between Self Efficacy with Activity of Daily Living on Post-Stroke Patients in TMS Clinic RSUD Dr. R. Koesma of Tuban" stating that 26.5% of post-stroke patients at the TMS clinic RSUD Dr. R. Koesma Tuban from 34 respondents had good self-efficacy which was found in late adult patients and with a duration of treatment of less than 1 year.[5]

Self-efficacy is one of the aspects of the Health Belief Model.[6] Health belief model is a change in a person's behavior to avoid the emergence of disease and the individual's response to disease.[6] Self-efficacy is one of the psychological conditions that usually gets great attention in the management of various chronic diseases.[7] Self-efficacy is an individual's belief in their ability to achieve the desired goal.[7]

In Islam, it is recommended to His servants to have faith, be optimistic and not give up in achieving something. This belief is based on faith and expects help only from Allah SWT. The word of Allah SWT in QS. Yusuf verse 87[8]

يٰبَنِيَّ اذْهَبُوْا فَتَحَسَّسُوْا مِنْ يُّوْسُفَ وَاَخِيْهِ وَلَا تَايْئَسُوْا مِنْ رَّوْحِ اللّٰهِ ۗ اِنَّهٗ لَا يَايْئَسُ مِنْ رَّوْحِ اللّٰهِ اِلَّا الْقَوْمُ الْكٰفِرُوْنَ ۝

Meaning: "O my children, go and seek news of Yusuf and his brother and do not despair of the mercy of Allah. Indeed, no one despairs of the mercy of Allah except the unbelievers".

Based on the study above, the author is interested in conducting research on, "The Influence of Self Efficacy on the Activity of Daily Living in Post-Hemorrhagic Stroke Patients at KRMT Wongsonegoro Hospital, Semarang"

METHODS

Design, setting, and participants

This study is a quantitative research type in the form of an analytical study using a cross-sectional research design. The population in this study were non-hemorrhagic post-stroke patients who were undergoing treatment at the RSUD KRMT Wongsonegoro Semarang from January 2022 to June 2022 who were domiciled in Semarang City. The number of samples used in this study was 80 respondents. The sampling technique used was consecutive sampling.

The inclusion criteria in this study were non-hemorrhagic post-stroke patients > 3 months at the RSUD KRMT Semarang who still lived with their families, were > 40 years old and were willing to be research respondents. While the exclusion criteria for this study were patients with severe physical disabilities, uncooperative patients and respondents who did not fill out the questionnaire completely. This study took place at the RSUD KRMT Semarang and was conducted from October 26, 2022 to November 28, 2022.

Measures

The measuring instrument used to measure self-efficacy in this study was The Stroke Self-Efficacy Questionnaire. While the measuring instrument used to measure the

daily living activities of post-stroke patients was the Barthel Index.

Data Collection

The research was conducted after obtaining an ethical decision in accordance with the letter issued by the Research Ethics Commission of RSUD KRMT Wongsonegoro Semarang No. B/1021/030/3611/2022.

Statistical Analysis

All analyses used the Statistical Package for the Social Sciences (SPSS) version 22.0. The data analysis used was univariate analysis and bivariate analysis with the Spearman Rank test. If the p value is <0.05, then Ha is accepted, which means that there is an influence of self-efficiency to the daily living activities of patients after non-hemorrhagic stroke.

RESULT

Participant characteristics

Based on table 1, the age of respondents at KRMT Wongsonegoro Semarang Regional Hospital shows that respondents aged over 65 years (53.8%) with a frequency of 43 respondents, aged 56-65 years (43.8%) amounting to 35 respondents and aged 46-55 years (2.5%) amounting to 2 respondents. The distribution of gender of post-non-hemorrhagic stroke patients shows that most respondents are male (62.5%) with a frequency of 50 respondents. The distribution of respondents based on their level of education in post-non-hemorrhagic stroke patients shows that high school graduates with the highest prevalence of 22 respondents (27.5%), and the least unschooled are 6 respondents (7.5%). Distribution of respondents based on occupation in post-stroke non-hemorrhagic patients with the most types of occupations being other jobs such as retirees as many as 38 respondents (47.5%) and the least as traders as many as 2 respondents (2.5%).

Distribution of marital status in post-stroke non-hemorrhagic patients is mostly married as many as 70% (87.5%) and a small part is divorced as many as 1 respondent (1.3%). Distribution of duration of illness of post-stroke non-hemorrhagic patients is mostly > 2 years as many as 43 respondents (53.8%) and a small part is 1-2 years as many as 7 respondents (8.8%). Distribution of residence of post-stroke non-hemorrhagic patients is entirely with family as many as 80 respondents (100%).

Table 1
General Characteristics of Study Participants (n=80)

Indicators	f	%
Age		
46-55	2	2,5
56-65	35	43,8
>65	43	53,8
Gender		
Male	50	62,5
Female	30	37,5
Education		
Not school	6	7,5
Elementary school	21	26,3
Junior high school	17	21,3
Senior high school	22	27,5
Diploma/ bachelor	14	17,5
Job		
Doesn't work	17	21,3
Trader	2	2,5
Farmer	8	10,0
Employee	3	3,8
Self-employed	12	15,0
Etc	38	47,5
Marital status		
Married	70	87,5
Divorced live	1	1,3
Divorced die	9	11,3
Duration of illness		
<1 year	30	37,5
1-2 years	7	8,8
>2 years	43	53,8
Residence		
With family	80	100
Alone	0	0
Self-efficacy		
Low	11	13,8
Medium	13	16,3
High	56	70,0
Activity of Daily Living		
Independent	32	40,0
Light dependency	23	28,7
Moderate dependency	8	10,0
Heavy dependency	8	10,0
Total dependency	9	11,3

Distribution of self-efficacy levels of post-stroke non-hemorrhagic patients is mostly high as many as 56 respondents (70.0%), moderate 13 respondents (16.3%) and low as many as 11 respondents (13.8%). The distribution of the level of activity of daily living in post-non-hemorrhagic stroke patients was mostly independent (32 respondents (40.0%), mild dependence (23 respondents (28.7%), total dependence (9 respondents (11.3%), moderate dependence (8 respondents (10.0%) and severe dependence (8 respondents (10.0%).

Analysis of the Influence of Self Efficacy with Activity of Daily Living (ADL)

Based on table 2, it is obtained that from the analysis of the influence of self-efficacy on daily activities of post-stroke non-hemorrhagic patients at RSUD KRMT Wongsonegoro most respondents with high levels of self-efficacy have independent ADL results of 31 respondents (55.4%). From the results of the Spearman rank analysis, a p value of <0.05 (0.00) was obtained, indicating that Ho was rejected and Ha was accepted, namely that there was an influence between self-efficacy on daily living activities of post-stroke non-hemorrhagic patients. The correlation coefficient value that occurred between the two variables was obtained at 0.709, indicating that there was a strong correlation between the two variables. Positive results indicate that there is a unidirectional relationship between self-efficacy and daily living activities. This shows that when someone has high self-efficacy, the level of independence in providing daily living activities is also high.

Table 2
Spearman correlation test results

Behavioral Factors	Activity of Daily Living					p	r
	Independent	Light	Medium	Heavy	Total		
Self-efficacy							
Low	0 (0%)	2 (18,2%)	0 (0%)	1 (9,1%)	8 (72,7%)		
Medium	1 (7,7%)	2 (15,4%)	2 (15,4%)	7 (53,8%)	1 (7,7%)	0,00	0,709
High	31 (55,4%)	19 (33,9%)	6 (10,7%)	0 (0%)	0 (0%)		

DISCUSSION

Based on table 1, it shows that out of 80 respondents, most of them, 32 respondents (40%) have a good level of independence. The level of independence in post-stroke patients is measured using the Barthel Index questionnaire. The Barthel Index with independent results by post-stroke non-hemorrhagic patients is a self-care activity consisting of eating, bathing, grooming, dressing, urinating, defecating, using the toilet, transferring, mobility and going up and down stairs.[9] Activity of daily living in patients with chronic diseases such as non-hemorrhagic stroke is complex and very necessary for success in controlling the disease. This is in accordance with a study entitled " Activity Daily Living (ADL) Pasien Stroke Iskemik Di Instalasi Rehabilitasi Medis RS Arifin Achmad Provinsi Riau Tahun 2015". The study explains that patients who have physical disorders tend to have more difficulty in carrying out daily activities so that patients are more likely to experience disability and will have dependency.[10]

The influence of self-efficacy and activities of daily living

Based on the results of the study using Rank Spearman analysis, it can be concluded that the influence of self-efficacy on activity of daily living in post-hemorrhagic stroke patients there is a significant influence

between the two. Table 4.1 shows that out of 80 respondents, most of them, 56 respondents (70%) have good self-efficacy, which can affect the behavior of activity of daily living in patients, namely by having the belief that patients are able to carry out daily activities independently according to the SSEQ (Stroke Self Efficacy Questionnaire) questionnaire.[11] Self-efficacy is defined as a person's belief in their ability to realize the new conditions they hope for.[12] Self-efficacy can result in high anxiety in each individual and avoidance behavior. Individuals will avoid activities that can worsen their condition, this is because they feel they do not have the ability to overcome risky aspects. [13] This statement is in accordance with the study " Hubungan Self Efficacy dengan Quality Of Life pada Pasien Sesudah Stroke". The study explains that post-stroke patients with high self-efficacy will have low levels of anxiety in carrying out their daily activities, and vice versa if someone has low self-efficacy then they will have high levels of anxiety, so that the individual will easily experience stress, worry, fear and frustration. [14]

From the research that has been conducted through interviews with respondents, the main factors that influence patients to have high self-efficacy are that patients have the hope that they can recover and can carry out daily activities as before suffering a stroke, patients can overcome feelings of anxiety, fear, and worry. [14] The attitude of the patient can also be seen, namely with patients routinely undergoing therapy and complying with the doctor's recommendations in an effort to heal.

Based on the results of the study, the correlation coefficient between self-efficacy and activity of daily living of non-hemorrhagic post-stroke patients was positive. This shows that self-efficacy is closely related to the success of management in post-stroke patients. The higher the self-efficacy, the higher the value of independence in activity of daily living. High self-efficacy indicates that a person has good self-motivation skills to do an activity.[15] This can certainly affect the level of independence in a person's activity of daily living. Post-stroke patients who have high self-efficacy will be more confident in doing their daily activities and can support the process of motor function recovery.[15] The results of this study are in accordance with previous research entitled "Hubungan Self Efficacy dengan Tingkat Kemandirian dalam Pemenuhan Activity Daily Living pada Pasien Stroke yang Menjalani Rawat Jalan di Poli Saraf Rumah Sakit Tingkat II Dr. Soepraoen Malang". The results of this study indicate that there is a strong relationship between the self-efficacy variable and the level of independence in fulfilling activity daily living in stroke patients at the neurology polyclinic of Dr. Soepraoen Malang Level II Hospital because individuals who have high self-efficacy will have a higher level of independence.[16]

Limitations

There are limitations in this study, namely that several outpatients after stroke at RSUD KRMT Wongsonegoro Semarang have limitations in speaking so that they require assistance from the family who accompanies the patient to help respondents answer the questions listed in the questionnaire so that it is feared that there will be differences in interpretation of the family's statements and the patient's statements.

CONCLUSION

From this study, it can be concluded that there is an influence between self-efficacy and activity of daily living (ADL) in non-hemorrhagic post-stroke patients.

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CONFLICTS OF INTEREST

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

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