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Activities of Daily Living Stroke Patients Following Rehabilitation in Medan City, Indonesian

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Abstract

Stroke causes interference with autonomy in carrying out daily activities as well as problems with interpersonal relations. Autonomous disorders that occur in stroke patients require rehabilitation to improve their motoric, verbal, and daily activities. The purpose of this study was to determine the daily activities of stroke patients participating in rehabilitation. This descriptive study was conducted in 4 hospitals in Medan, namely USU Hospital, Dr. Pirngadi Hospital, Haji Adam Malik Hospital and Haji Hospital Medan in 2018 - 2019. This study used purposive sampling technique with G-power analysis calculation of 250 people. The instrument in this study is the Barthel Index. The results obtained that the average daily activities of patients who took part in rehabilitation at Medan city hospital, among others; Eating (1.36), Bathing (0.56), Personal care (0.41), Dressing (1.04), Defecating (1.18), Urinating (1.27), Toileting (1.13), Moving (1.78), Movement (1.59) and Up / go down the stairs (0.98). Suggestions are expected that in the future stroke patients will further optimize their level of independence in carrying out daily activities.

Keywords: Self-care, Physical Therapy Modalities, Stroke

INTRODUCTION

Stroke is characterized by decreased brain function due to acute focal injury of the central nervous system (CNS) triggered by vascular attacks, such as cerebral infarction, intracerebral hemorrhage and subarachnoid hemorrhage⁽¹⁾. WHO data (World Health Organization) in 2012 showed that around 31 percent of 56.5 million people or 17.7 million people worldwide died of heart disease and stroke. The prevalence of stroke according to Riskesdas 2013 shows the highest majority in South Sulawesi province around 17.9 percent and the lowest majority in West Papua, Lampung and Jambi provinces around 5.3%. The majority of stroke prevalence > 75 years old is around 67% with lower economic status and domiciled in urban areas (12.7 percent). According to Indonesia's SRS (Sample Registration System) in 2014, strokes were the leading cause of death for all age groups⁽²⁾. Permanent sequelae of a stroke can disrupt the physical, physiological and social functions of the patient. About 75% of stroke patients have difficulty doing daily living activities and 80% have chronic disability leading to death⁽³⁾.

Stroke does not only attack the brain's condition system, but psychological psychology. Stroke patients desperately need medical rehabilitation and family support so that the healing process is getting better. According to WHO (2012) states that rehabilitation can improve motor skills, speech, cognitive by carrying out social activities as before⁽⁴⁾. Daily activities such as eating, dressing, entering or leaving a bed or chair, bathing or showering, and using the toilet⁽⁵⁾. Activities of daily life of patients with first-onset stroke in 180 people undergoing rehabilitation experienced 127 people (70.6%) experiencing mild depression⁽⁶⁾. Physical, emotional, mental and social inability

of stroke patients greatly affect patients in carrying out their daily activities ⁽⁶⁾. Stroke patients experience changes in motor function, cognitive, depressive symptoms and dependence in carrying out daily activities and speaking difficulties ⁽⁷⁾. Motor disabilities that occur in stroke patients affect daily activities in the movement ⁽⁸⁾. Recovery before stroke is a rehabilitation phase that is carried out independently by the patient ⁽⁹⁾. After performing the rehabilitation phase it is hoped that stroke patients are able to increase independence by doing regular physical therapy exercises ⁽¹⁰⁾. This study aims to describe whether the daily activities of stroke patients attending medical rehabilitation at Medan City Hospital.

MATERIALS AND METHODS

The method of this research is descriptive with a total sample of 250 people using G-power analysis ⁽¹¹⁾ that the calculation of sample size has a 95% confidence interval with a value of 250 ± 0.061 so that a total sample of 250 stroke patients who participate in rehabilitation is obtained. Analysis of the data in this study using SPSS version 25. The instrument in this study uses the Barthel Index with 10 items of activities such as bathing, eating, going down / going up stairs, defecating, urinating, dressing, self-care and so forth. This data collection is done by registering stroke patients and giving a bartel index sheet then the researcher will fill it in according to the patient's perceived abilities. This research was conducted in 2018 until 2019 in four hospitals in Medan, namely USU Hospital, Haji Adam Malik Hospital, Dr Pirngadi Hospital and Medan Haji Hospital which have medical rehabilitation.

RESULTS AND DISCUSSION

- A. The results of the study are based on data characteristics of stroke patients following rehabilitation in table 1.**

Table 1. Characteristics of data of stroke patients following rehabilitation in Medan City, Indonesia (N = 250)

Data Characteristics stroke patients	Amount (N)	Persen (%)
Age		
30-40 years old	37	14.8
41-50 years old	61	24.4
Age 51-60 years	67	26.0
Age 61-70 years	70	28.0
71-80 years old	15	6.0
Gender		
Female	121	48.4
Male	129	51.6
Income		
Below 1 Million	75	30
1-2 million	82	32.8
Above 2 Million	93	37.2
Occupation		
Government employees	122	48.8

entrepreneur	128	51.2
Rehabilitation time		
Less than 3 months	55	22
More than 3 months	195	78
Education		
Primary school	53	21.2
Junior high school	8	3.2
Senior High School	121	48.4
College	68	27.2

Based on the characteristics of stroke patient data it is found that the most dominant age range is the age of 61-70 years. Age 61-70 years is a non-productive age. The results of research from Dian Nastiti (2012) found that the most dominant age was 51-65 years old suffering from stroke who was hospitalized in RSKM and was male ^(12,13). This is in line with the results of this study which found that the most dominant male sex in this study was 129 people who had a stroke who participated in rehabilitation at a hospital with an income of over 2 million by 93 people and had work as entrepreneurs as many as 128 people. Stroke patients who took part in rehabilitation were the most dominant around more than 3 months in rehabilitation and had 121 high school education. Thaib research results (2008) found that the majority of stroke patients undergoing treatment for 8-28 days as many as 135 people (71%) in the hospital Dr. Kariadi Semarang ⁽¹⁴⁾.

B. Daily activities of stroke patients who participate in Rehabilitation

Table 2. Daily Activities based on Barthel Index (N = 250)

Daily Activities	Mean	SD
Eat	1.36	.688
Bath	.56	.497
Self care	.41	.493
Get dressed	1.04	.780
Bowel	1.18	.632
Urinate	1.27	.680
Toileting	1.13	.717
Move	1.78	1.023
Movement	1.59	1.173
Go up / down stairs	.98	.708

The average results on daily activities found that the activity of switching was more dominant in stroke patients who participated in rehabilitation at the hospital.

CONCLUSION AND RECOMMENDATION

The conclusion of this study was that the daily activities of stroke patients who participated in rehabilitation consisted of 10 items, namely eating, bathing, self-care, dressing, bowling, urinating, toileting, moving, moving and going up / down stairs. Activities undertaken have different abilities to do so depending on rehabilitation routines. The recommendations of this study are expected to bring changes in stroke patients to routine rehabilitation in order to obtain optimal results in the future.

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