

HIGH LEVEL OF PHYSICAL ACTIVITY IN NURSING PERSONNEL AT RSI FATIMAH CILACAP

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ABSTRACT

Introduction : Research related to stroke risk factors recommends educating the public to reduce stroke risk factors by increasing physical activity. Regular physical activity can improve physical, mental function and maintain movement and independence of the elderly. Physical activity is very effective in preventing stroke and reducing mortality. Some people are still lacking in physical activity because they still do not understand the benefits of physical activity. Stroke risk factors can be prevented by lifestyle modification. People who meet the 5 criteria for a healthy lifestyle, namely not smoking, carrying out regular physical activity for more than 30 minutes every day, consuming healthy nutrition, and having a Body Mass Index (BMI) of less than 25 kg/m² can reduce the risk of stroke by 80% than people who are not in the above criteria. Research on physical activity in nurses shows that the level of activity of nurse clinicians is higher than that of nurse managers. Nurses are able to become agents of change to help patients live a healthy lifestyle. Nurses are able to influence the increase in physical activity.

Purpose: This research purpose is to examine and provide information about the level of physical activity in nursing staff.

Method: The study in 147 nursing staff and using analyze observational analytic with the Global Physical Activity Questionnaire. The analysis of the results was carried out using a description method that produced a percentage.

Results: The results of the activity level questionnaire obtained the results of a high level of physical activity 82.3%, a medium level of 14.3% and a low level of 3.4%. There was correlation with age and physical activity level (p=0.031).

Conclusion: The conclusion of the study nursing staff in RSI Fatimah Cilacap have a high level of physical activity.

Key words : stroke; physical activity; nursing staff

INTRODUCTION

The World Health Organization (WHO) estimates the global health data for stroke as reason second death and third inability adapt activity life. There are 16.9 million new case incidence of stroke and there are 33 million stroke patients who are still live around the world in 2010, more than half be in a country with income low until medium. Estimation final from *The Global Burden of Disease, Injuries, and Risk Factors Study (GBD, 2015)* revealed that there is shift trend from easy disease transmitted, maternal and problems nutrition switch to disease that is not infectious like strokes (Katan & Luft 2018) . Based on results Research Basic Health (Riskesdas, 2018) prevalence data obtained stroke in Indonesia is 10.9 per mile population with incidence the highest was in East Kalimantan Province at 14.7 per mile and the lowest was in Papua Province at 4.1 per mile (Boehme et al. 2017). Stroke prevention requires management factors major stroke risk cover hypertension, hyperlipidemia, diabetes mellitus and the use of tobacco, as well treatment with antithrombotic (Guzik & Bushnell 2017) . Physical activities very effective for prevent stroke and reduce number death. Some people still not enough in physical activity because still not yet understand benefit from physical activity (Jeong et al. 2017) . Study about physical activity on nurses show that level activity nurse clinician more high compared with nurse manager (Jirathananuwat & Pongpirul 2017) . Nurse capable becomes change of agent who help patient in under style healthy life. Nurse capable to give influence physical activity enhancement. However, research about this not yet conducted more (Richards 2016) .

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Study related factor stroke risk recommend existence education to society to reduce factor risk of stroke with increase physical activity. Regular physical activity could increase the body function physically, mental and caring movement as well as independence elderly (Blake et al. 2017) . Nursing staff as *role models* should give good example _ in lower factor risk of stroke to public (Richards 2016) . Study cohort in lower risk of stroke against nurse have risk low compared group no nurse , but should for prevent stroke nurse must to take physical activity in order to life healthy and prosperous (Liao et al. 2018) . This study's aim to provide information about level physical activity on nursing staff. Hypothesis in study this is " How the profile level physical activity on nursing staff at RSI Fatimah Cilacap?"

METHOD

Type study is quantitative descriptive with *cross sectional* approach. The problem formulas descriptive is something formula related problems with question to existence variable independent good only on one variable or more. The research method is use questionnaire survey. Study carried out at RSI Fatimah Cilacap in the month of June until July 2021. Population study this is nursing staff both contract and permanent employee in RSI Fatimah Cilacap. Researcher use technique *purposive sampling* to get sample appropriate research with destination research. Respondents who will made sample study must fulfill criteria inclusion and exclusion. The sample amount there are 147 nursing staff. Study variable is level of physical activity in nursing staff at RSI Fatimah Cilacap. Data collection is carried out use questionnaire *Global Physical Activity Questionnaire* (GPAQ). Method data analysis using analysis univariate using SPSS.

Information worthy ethics obtained from KEPK Stikes Muhammadiyah Gombong with number 239.6/II.3.AU/F/KEPK/V/2021.

RESULTS

Demographic data respondent part big women, diploma education and employees permanent in accordance Table 1, while the average age respondents 33.4 years. Research results show part big nursing staff have level physical activity high in Table 2. There were meaningful relationship by statistic ($p=0.031$) between age and level physical activity RSI Fatimah Cilacap nursing staff in Table 3.

Table 1. Demographic Data Respondent

Characteristics Respondent	Count	Percentage (%)
Gender		
Man		7
Woman	99	63
Education Level		
S1		7
D3	8	5
Employee Status		
Permanent	5	3
Contract		11
Age		
17-25 years old		1
26-35 years old		6
36-45 years old		9
46-55 years old		

Table 2. Activity Level Physical Nursing Personnel

Steps	Frequency	Percentage (%)
Steps > 3000	1	3

ET's 600-3000 .3
 ET's < 600 .

Table 3. Analysis of Age and Activity Level Physique

	Activity Level Physique			Value
	Low	Currently	High	
Age	.25			.31
	.35			
	.45			

DISCUSSION

Results of research conducted to nursing staff show that level physical activity nursing staff in category high the total MET's more from 3000 minutes in a week. This is supported by activity physique nursing staff on -site nursing work including intensity currently as much as 60.5%. Physical activity nursing staff dominant in the work and transportation domains, while activity physique recreational in category low. This possibility caused because a pandemic that affects physical activity. Someone who reduces activity his physical activity have high risk to experience disturbance mood, because it's an activity program physique must implemented, although there is application *social distancing* for prevent deployment *Severe Acute Respiratory Syndrome Coronavirus 2* (Puccinelli et al. 2021). Physical activity benefits in prevent disease through effect protect system immunity body. Adaptation in a time of pandemic also done in fulfill needs in physical activity can be conducted is make schedule sport for prevent or resolve condition activity less physical (Nieman & Wentz 2019) . Activity level low in nursing staff from the recreational domain could upgraded with method making schedule by routine sport on the work, accordance guide in activity physical.

Total time used for physical activity for one week and intensity physical activity multiplied raised number of MET's. WHO recommendations in physical activity that is during one week, including activity work, transportation and recreation in adults at least fulfill one among the 3 conditions this that is physical activity with intensity currently for 150 minutes, or physical activity intensity high for 75 minutes, or combination among activity medium and high achieve a minimum of MET's 600 minutes (Natalucci et al. 2020) . A study state that activity regular safe for health and for the frail elderly as well as risk of caught disease cardiovascular and metabolic risk disease will decrease with activity regular physical from intensity low to high (McPhee et al. 2016). Activities physical decrease stroke risk. Physical activities in medium and high level relate with subtraction incidence of stroke, both ischemic and bleeding stroke. Man reach drop highest stroke risk if to do physical activity intensity currently until high, while woman already get benefit maximum with intensity low like walk (Howard & McDonnell 2016) . Someone who just to do physical activity medium-high 1-2 times in a week could reduce 16% risk have a stroke than people who don't take physical activity medium-high (Jeong et al, 2017) .

Study about physical activity this in line with study to woman age 25 – 54 years in Bogor City shows part big woman tend physical activity level high with MET's value of work domain of 4,271.69 minutes every week, transport domain of 1,058 minutes every week and recreational domain of 181.23 minutes every week (Nainggolan et al. 2019) . This different with research conducted by student medicine at university Brawijaya show that level activity physique they part big in category low 60%. Study it also generates that no there is significant influence among age, type gender, condition the place stay, activity organization / committee and level knowledge to physical activity with level activity physical student (Riskawati et al. 2018) .

CONCLUSION

Physical activity level at RSI Fatimah nursing in high category. Activities physical done by some nursing staff more than 3000 minutes in a week consist of activity work, transportation and activities

recreational.

REFERENES

- Katan M, Luft A. Global Burden of Stroke. *Semin Neurol*. 2018 Apr;38(02):208–11.
- Boehme AK, Esenwa C, Elkind MSV. Stroke Risk Factors, Genetics, and Prevention. *Circ Res*. 2017 Feb 3;120(3):472–95.
- Guzik A, Bushnell C. Stroke Epidemiology and Risk Factor Management. *Contin Lifelong Learn Neurol*. 2017 Feb;23(1):15–39.
- Jeong H, Kim DY, Kang D, Kim BJ, Kim CK, Kim Y, et al. Physical Activity Frequency and the Risk of Stroke: A Nationwide Cohort Study in Korea. *J Am Heart Association [Internet]*. 2017 Sep 22 [cited 2020 Jan 19];6(9). Available from: <https://www.ahajournals.org/doi/10.1161/JAHA.117.005671>
- Jirathananuwat A, Pongpirul K. Physical Activity of Nurse Clinical Practitioners and Managers. *J Phys Act Health*. 2017 Nov 1;14(11):888–92.
- Richards EA, Cai Y. Physical Activity Outcomes of Nurse-Delivered Lifestyle Interventions. *Home Healthc Now*. 2016 Feb;34(2):93–101.
- Blake H, Stanulewicz N, McGill F. Predictors of physical activity and barriers to exercise in nursing and medical students. *J Adv Nurs*. 2017 Apr;73(4):917–29.
- Liao HC, Peng YH, Chen YP, Huang LC, Liang WM, Hsu C, et al. Reduced Risks of Both Ischemic and Hemorrhagic Strokes in Nurses: A Population-Based Cohort Study in Taiwan. *Int J Environ Res Public Health*. 2018 Nov 22;15(12):2615.
- Puccinelli PJ, da Costa TS, Seffrin A, de Lira CAB, Vancini RL, Nikolaidis PT, et al. Reduced level of physical activity during the COVID-19 pandemic is associated with depression and anxiety levels: an internet-based survey. *BMC Public Health*. 2021 Dec;21(1):425.
- Nieman DC, Wentz LM. The compelling link between physical activity and the body's defense system. *J Sport Health Sciences*. 2019 May;8(3):201–17.
- Natalucci V, Carnevale Pellino V, Barbieri E, Vandoni M. Is It Important to Perform Physical Activity During Coronavirus Pandemic (COVID-19)? Driving Action for a Correct Exercise Plan. *Front Public Health*. 2020 Nov 2;8:602020 .
- McPhee JS, French DP, Jackson D, Nazroo J, Pendleton N, Degens H. Physical activity in older age: perspectives for healthy aging and frailty. *Biogerontology*. 2016 Jun;17(3):567–80.
- Howard VJ, McDonnell MN. Physical Activity in Primary Stroke Prevention. 2016;5.
- Nainggolan O, Indrawati L, Pradono J. Physical fitness according to the GPAQ instrument compared with VO₂max in women aged 25 to 54 years. *Bul Researcher Sist Health [Internet]*. 2019 Jan 2 [cited 2021 Jul 5];21(4). Available from: <https://ejournal2.litbang.kemkes.go.id/index.php/hsr/article/view/752>
- Riskawati YK, Prabowo ED, Al Rasyid H. Level of physical activity of students doctor education study program for the second, third, fourth years. *Health Maj*. 2018 Mar 1;5(1):27–32.