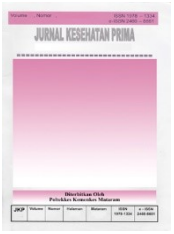
Jurnal Kesehatan Prima

http://jkp.poltekkes-mataram.ac.id/index.php/home/index

p-ISSN: 1978-1334 (Print); e-ISSN: 2460-8661 (Online



The Correlation Between Stress Levels And Self-Care Behavior of Hipertensive Elderly

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Received: 26 Nopember 2021/Accepted: 23 February 2021/Published Online: 23 February 2022

Abstract
Hypertension in the elderly becomes a serious problem if not treated as early as possible and will cause complications. The problem that often occurs in hipertensive elderly is have problems with suboptimal self-care behavior. This is influenced by the level of stress that the elderly have to change their optimal self-care behavior. The purpose of this study was to determine the correlation between stress levels and self-care behavior in hipertensive elderly. Descriptive correlation was used in this study with a cross sectional approach and the sample obtained was 252 of hipertensive elderly in the Surabaya Public Health Center Area with a cluster random sampling. Data were analyzed using Spearman Rho test. The hipertensive elderly had a stress level of 0.8% in the severe category and 46.8% in the moderate category and 52.4% in the mild category. The elderly also have self-care behavior of 31.7% in the low category, 39.3% in the sufficient category, 29% in the good category. This study shows a significant correlation between stress levels and self-care behavior with a value of p = 0.000 (<0.05) and the coefficient correlation had a fairly strong relationship with a negative value of -0.384. This study shows that there is a correlation between stress levels and self-care behavior in hypertensive elderly and a negative value indicates that if the elderly with stress is getting heavier or higher, their self-care behavior tends to be bad or down. Nurses must understand that stress levels something that needs to be studied in behavioral changes in hipertensive elderly to provide comfort in carrying out self-care behavior.

Keywords: Elderly;Hypertension;Stress level;Self-care behavior

INTRODUCTION

Self-care behavior is an important activity for elderly people with hypertension. These activities include taking medication regularly, eating a low-salt diet, doing physical activity, controlling cigarette use, weight management and limiting coffee consumption. (Gusty & Merdawati, 2020). Some hypertensive elderly are less than optimal in performing good self-care as evidenced in a preliminary study conducted by researchers at one of the Health Center in Surabaya. The preliminary study explained that of the 28 hypertensive elderly who showed good self-care behavior, there were 43%, 28% sufficient, and 29% less. The main problem in implementing self-care behavior in hipertensive elderly is the attitude of the elderly towards their disease which tends to be disobedient in performing self-care and the stressful conditions experienced by the elderly. This is because the elderly have different levels of stress with people under his age. The elderly find it difficult to control stress due to lifestyle changes due to aging (Zinat Motlagh et al., 2016). A study in China stated that elderly people with hypertension who are unable to carry out self care independently tend to experience an increase in blood pressure (Z. Q. Yang et al., 2017). Lack of attention to self-care behavior in hipertensive

elderly is the main cause of failure in the elderly to improve their quality of life (Rahmawati and Bajorek, 2018; Gholamnejad et al, 2019). Improving self-care behavior in hypertensive elderly in Surabaya still needs to be researched.

According to Riskesdas data from East Java Province, the proportion of hypertension reached 1.34 million or about 26.2% of the total elderly in East Java. The highest proportion of hypertension was found in the age group 75 years, namely 62.4% or 838,693 elderly. The city of Surabaya has the third largest population of elderly people in East Java with 219,056 people (BPS, 2014). The Surabaya City Health Office in 2014 recorded hypertension in the elderly as much as 19.56% or about 42.847 elderly people suffering from hypertension.

Stress is a condition when a person feels mental and emotional discomfort caused by feeling depressed and determines how people feel, think, move and act (Cardoso Barbosa et al., 2021). Stress can affect a person's body and soul. When a person experiences stress, the body, soul and behavior of the individual will show signs and symptoms of stress (Romadhon, 2020). A person's stress level has been known to influence decisions about what behavior to take. High stress levels will create poor self-care behavior skills. Individuals with low stress levels have confidence in their ability to implement certain behaviors (Romadhon et al., 2020).

The researcher saw that most of the elderly who had hypertension in the work area of the Surabaya Health Center paid less attention and did not understand how self care should be in the condition of hypertension. The author is interested in observed and conducted research with the title "The Correlation between Stress Levels and Self-care behavior of Hipertensive Elderly" so that this research could analyze a correlation between stress levels and self-care behavior hipertensive elderly in the work area of the Surabaya Health Center.

According to research of Liu et al (2017), states that stress levels affect blood pressure conditions. Hypertensive patients have a higher incidence psychosocial stress compared with normotensive patients. This makes researchers conduct research on stress levels that link with self-care behavior in the elderly which proves self-care behavior also affects blood pressure conditions in the elderly

METHOD

This study uses a descriptive correlation with a cross-sectional approach which aims to reveal the relationship between the stress level variable and the self-care behavior variable in the elderly with hypertension. The sample size in this study were all elderly people with hypertension with a total of 252 from 219.056 population elderly and the sample size at each Puskesmas representing 5 areas was proportionally calculated using cluster random sampling technique. This research was conducted in Balongsari, Ketabang, Kenjeran, Keputih, and Jemursari Health Centers. Inclusion criteria consisted of the elderly with a medical diagnosis of hypertension for at least 6 months (persistent systolic >= 140 mmHg, diastolic > 90 mmHg) and the elderly who could read and write. This research has been ethically tested at the Health and Research Ethics Commission at the Faculty of Nursing, Airlangga University and received the ethics number 1835-KEPK. The time of the study was carried out from August to December 2020. Primary data was obtained by collecting data through interviews and using observation sheets compiled by the researcher. In this study, data collection for the independent variable of stress level and the dependent variable of self-care behavior was carried out by distributing questionnaires to research subjects. Measurement of

stress levels in this study used a SAQ (Self Assessment Questioner) questionnaire of Putri (2012) with ordinal data scale and result criteria 28 = good, < 28 = low. Self-care behavior Questionnaire used to H-Scale (Hypertension Self Care Activity Level Effects) in ordinal scale and outcome criteria 141-198=good, 140-85=enough, 84-28=poor, The results of the validity test on the self care behavior questionnaire (Hypertension self care activity level effects (H-Scale)) are all valid questions with r count > 0.338. The results of the reliability test of this questionnaire are Cronbach's r alpha 0.940 (r alpha > 0.338) so that this questionnaire is declared reliable. Data analysis used to determine whether there is a correlation between stress level and self-care behavior of hypertensive elderly with Spearman Rank.

RESULT AND DISCUSSION

1. Characteristics of respondents

This study involved 252 elderly people with hypertension and willing to be respondents. The results of this study present the characteristics of the respondents, the stress level of the hypertensive elderly, the self-care behavior of hypertensive elderly, and the correlation between the two.

In this study, the classification of characteristics of the elderly is grouped by age, gender, BMI (Body Mass Index), education, and socioeconomic. The distribution of the characteristics of the respondents is presented in the following table

Tabel 1 Frequency distribution of respondent characteristics in the working area of Surabaya Health Center

Indicator	Category	Frequency	Percent
Age	60 - 74 y.o	235	93,3
	75 - 90 y.o	17	6,7
	>90 y.o	0	0,0
Gender	Male	61	24,2
	Female	191	75,8
BMI	Less	7	2,8
	Normal	130	51,6
	High	115	45,6
Education	Elementary School	122	48,4
	Junior High School	63	25,0
	Senior High School	54	21,4
	Bachelor	13	5,2
Sosioeconomics	Under RMW	241	95,6
	According to RMW	3	1,2
	Above RMW	8	3,2

The results of the calculations in table 1 show most of the respondents have an aged 60 - 74 years, are female, have a BMI in the normal category, have an elementary school education, and have an income below the minimum Regional Minimum Wage (RMW) of 252 hipertensive elderly.

2. Stress level of Hipertensive elderly

Assessment of the stress levels of hipertensive elderly used a questionnaire adapted from the SAQ (Self Assessment Questioner) questionnaire of Putri (2012). The results of the assessment of the stress level of the hypertensive elderly are presented in Table 2 below

Tabel 2 Frequency distribution of respondents' stress levels in the work area of the Surabaya Health Center

Indicator	Category	Frequency	Percent
Stress Level	Severe	2	0,8
	Mild	132	52,4
	Moderate	118	46,8

In Table 2, it can be seen that the majority of elderly people with hypertension have severe stress levels as much as 2 elderly people (0.8%). As for the elderly with hypertension, there are 132 elderly people with mild stress (52.4%), and hypertensive elderly with moderate stress levels as many as 118 elderly (46.8%).

The elderly in the final stages of the development process of a person over the age of 60 years must experience a decrease in the body's ability

to carry out activities and be accompanied by a decrease in function (Pharr et al., 2014).

The average elderly suffer from hypertension due to a decrease in organ function such as a decrease in elasticity in the blood vessels, no longer because of the influencing sex factor (Holm et al., 2019).

BMI can be used to determine how much a person can be exposed to the risk of certain diseases due to their weight. Elderly people with low or high BMI do not affect their lifestyle or self-care behavior (Llompart-pou et al., 2017).

The elderly experience the aging process which causes a decrease in various systems with higher disease rates than young adults, this causes the elderly to be no longer productive at work. Elderly should spend more activities at home and social activities in the community Labata *et al* (2019).

Elderly with a good education have a good level of health literacy that can affect life stressors, and symptoms of depression, each of which has a good effect on elderly self-care in controlling their blood pressure (Khresheh dan Mohammed, 2016; Lee dan Park, 2017).

3. Self-care behavior of the Hipertensive Elderly

Assessment of self-care behavior of hipertensive elderly used to H-Scale questionnaire is shown in Table 3 below

Tabel 3 Frequency distribution of respondents' self-care behavior

Self-care behavior	Frequency	Percent
Less	80	31,7
Sufficient	99	39,3
Good	73	29,0
Total	252	100,0

Distribution of the frequency of self-care behavior of respondents from Table 3, the majority of hipertensive elderly have less self-care behavior as many as 80 elderly (31.7 %), elderly who have sufficient self-care behavior as many as 99 elderly (39.3 %) and the elderly who have good self-care behavior are 73 elderly (29%).

4. Analysis of the Correlation between Stress Levels and Self-care behavior

Tabel 4 Analysis of the Relationship of Stress levels with self-care behavior

Correlation	N	Correlation Coefficient	P Values
Stress Level (X) → Self-care behavior (Y)	252	-0,383	0,000

Based on Table 4, the results show that the elderly who have high/severe stress levels will on the contrary have low/poor self-care behavior because the coefficient correlation is negative. The magnitude of the correlation between stress levels and self-care behavior of hipertensive elderly is 0.383, meaning that it has a fairly strong relationship. The correlation test used was Spearman Rank with a significant error rate of 95% (α = 0.05 or 5%). The results of the analysis used to the spearman rank test showed that there was a correlation between stress levels and self-care behavior of hipertensive elderly.

Hypertension had a relationship with someone who has less stress management. Individuals who live in an uncomfortable environment can cause high stressors to make the elderly less than optimal in performing self-care behavior, especially in the elderly who should have good stress management in their old age. (S. O. Yang et al., 2016).

The study of Das (2016) explain that the relationship between stress levels and self-management of elderly hypertension in South Korea. Stress levels are important for hypertensive elderly to manage their hypertension. Hypertensive elderly in Surabaya have good/mild stress levels which will affect good self-care behavior.

The study of Roohafza et al (2016) explain that stress levels affect self-care behavior. This study found that the stress level of hypertensive patients was in the mild category and had self-care behavior in the good category or vice versa. Low or light stress levels because hypertension clients have entered retirement age.

The existence of stress that affects decision making, and the choice of activities related to self-care in the elderly. Stress levels are associated with poor dietary and medication adherence, functional impairment, and elevated blood pressure in the elderly. This study found the level of stress in the elderly with hypertension in the good category. A good/low stress level causes the elderly with hypertension to experience conditions that are able to bring them in a calm and safe condition which in turn affects their self-care behavior to be good.

CONCLUSION

Stress levels have an inverse and quite strong relationship with self-care behavior. High stress levels can lead to low maintenance behavior. Hypertensive elderly are expected to be able to control stress levels well in order to optimize their self-care behavior but still needs to be re-analyzed by other factors that influence self-care behavior so that it can be a solution for future researchers.

REFERENCE

BPS. (2014). *Statistik Penduduk Lanjut Usia*. BPS. http://jatim.bps.go.id/linkTabelStatis/view/id/330

Cardoso Barbosa, H., de Queiroz Oliveira, J. A., Moreira da Costa, J., de Melo Santos, R. P., Gonçalves Miranda, L., de Carvalho Torres, H., Pagano, A. S., & Parreiras Martins, M. A. (2021). Empowerment-oriented strategies to identify behavior change in patients with chronic diseases: An integrative review of the literature. *Patient Education and Counseling*, *104*(4), 689–702. https://doi.org/10.1016/j.pec.2021.01.011

Das, R. N. (2016). Hypertension risk factors who underwent dobutamine stress echocardiography. *Interventional Cardiology*, *8*(5), 683–693. https://doi.org/10.4172/Interventional-Cardiology.1000539

Gusty, R. P., & Merdawati, L. (2020). Perilaku Perawatan Diri Dan Faktor-Faktor Yang Berhubungan Dengan Pasien Hipertensi Di Padang. *Jurnal Keperawatan*, *11*(1), 51–58.

Hanieh Gholamnejad, ali Darvishpoor-Kakhki, Fazlollah Ahmadi, C. R. (2019). Self- Actualization: Self- Care Outcomes among Elderly Patients with Hypertension. *Iranian Journal of Nursing and Midwifery Research*, *24*(3), 206–207.

Holm, A. L., Karin, A., & Elisabeth, B. (2019). *Factors that influence the health of older widows and widowers — A systematic review of quantitative research*. *January*, 591–611. https://doi.org/10.1002/nop2.243

Khresheh, R., & Mohammed, N. (2016). *Self-Care Behaviors among women with Hypertension in Saudi Arabia*. *5*(3), 52–56. https://doi.org/10.9790/1959-0503035256

Labata, B. G., Ahmed, M. B., Mekonen, G. F., & Daba, F. B. (2019). Prevalence and predictors of self care practices among hypertensive patients at Jimma University Specialized Hospital, Southwest Ethiopia: Cross-sectional study 11 Medical and Health Sciences 1102 Cardiorespiratory Medicine and Haematology 11 Medical and . *BMC Research Notes*, *12*(1), 1–8. https://doi.org/10.1186/s13104-019-4125-3

Lee, E. J., & Park, E. (2017). Self-care behavior and related factors in older patients with uncontrolled hypertension. *Contemporary Nurse*, *53*(6), 607–621. https://doi.org/10.1080/10376178.2017.1368401

Liu, M. Y., Li, N., Li, W. A., & Khan, H. (2017). Association between psychosocial stress and hypertension: a systematic review and meta-analysis. *Neurological Research*, *39*(6), 573–580. https://doi.org/10.1080/01616412.2017.1317904

Llompart-pou, J. A., Pérez-bárcena, J., Chico-fernández, M., Sánchez-casado, M., Llompart-pou, J. A., Pérez-bárcena, J., Maria, J., Intensiva, S. D. M., & Son, H. U. (2017). *Wj ccm*. *6*(2), 99–106. https://doi.org/10.5492/wjccm.v6.i2.99

Pharr, J. R., Francis, C. D., Terry, C., & Clark, M. C. (2014). *Culture , Caregiving , and Health : Exploring the Influence of Culture on Family Caregiver Experiences*. *2014*.

Putri, R. dwi. (2012). *id DI UPT l PELAYANAN t STRES id SOSIAL LANJUT*.

Rahmawati, R., & Bajorek, B. (2018). Factors affecting self-reported medication adherence

and hypertension knowledge: A cross-sectional study in rural villages, Yogyakarta Province, Indonesia. *Chronic Illness*, *14*(3), 212–227. https://doi.org/10.1177/1742395317739092

Romadhon, W. A. (2020). *Faktor-faktor yang mempengaruhi Self Care Behavior pada Klien Hipertensi di Komunitas*. *11*(April), 37–40.

Romadhon, W. A., Haryanto, J., Makhfudli, M., & Hadisuyatmana, S. (2020). Hubungan antara Self Efficacy dan Self Care Behavior pada Lansia dengan Hipertensi. *Jurnal Penelitian Kesehatan "SUARA FORIKES" (Journal of Health Research "Forikes Voice")*, *11*(4), 394. https://doi.org/10.33846/sf11414

Roohafza, H., Kabir, A., Sadeghi, M., Shokouh, P., Ahmadzad-Asl, M., Khadem-Maboudi, A. A., & Sarrafzadegan, N. (2016). Stress as a risk factor for noncompliance with treatment regimens in patients with diabetes and hypertension. *ARYA Atherosclerosis*, *12*(4), 166–171. https://doi.org/10.22122/arya.v12i4.1297

Yang, S. O., Kim, S. J., & Lee, S. H. (2016). Effects of a South Korean Community-Based Cardiovascular Disease Prevention Program for Low-Income Elderly with Hypertension. *Journal of Community Health Nursing*, *33*(3), 154–167. https://doi.org/10.1080/07370016.2016.1191872

Yang, Z. Q., Zhao, Q., Jiang, P., Zheng, S. B., & Xu, B. (2017). Prevalence and control of hypertension among a Community of Elderly Population in Changning District of Shanghai: A cross-sectional study. *BMC Geriatrics*, *17*(1), 1–9. https://doi.org/10.1186/s12877-017-0686-y

Zinat Motlagh, S. F., Chaman, R., Sadeghi, E., & Eslami, A. A. (2016). Self-Care Behaviors and Related Factors in Hypertensive Patients. *Iranian Red Crescent Medical Journal*, *18*(6). https://doi.org/10.5812/ircmj.35805