Self Control Regulation And Blood Pressure On Hypertension Patient

Diana Rachmania[1]*, Dhina Widayati[2], Madiha Mukhtar[3]

[12]Program Studi Sarjana Keperawatan STIKES Karya Husada Kediri, widiana1925@gmail.com, 085645442850
[2]Program Studi Sarjana Keperawatan STIKES Karya Husada Kediri, budinawida@gmail.com, 085646504647
[3]Lahore School of Nursing University of Lahore Pakistan, madiha.mukhtar@lsn.uol.edu.pk , +923170063641

Abstrak

Penyakit hipertensi menyebabkan penderitanya harus menjalankan pola hidup sehat supaya tekanan darah tetap terkontrol dengan baik. Self control regulation pada penderita hipertensi menentukan bagaimana perilaku pola hidup sehat demi menjaga tekanan darah tetap pada kondisi yang normal. Tujuan dari penelitian ini yaitu untuk mengetahui hubungan self control regulation dengan tekanan darah pada pasien hipertensi. Studi korelasi dengan pendekatan cross-sectional merupakan desain dalam penelitian ini. Populasi penderita hipertensi sebanyak 76. Sampel diambil melalui tehnik purposive sampling didapatkan jumalh 64 responden. Self control regulation sebagai variabel independent diukur dengan instrumen berupa kuesioner dan tekanan darah sebagai variabel dependen diukur dengan lembar observasi. Data dianalisis dengan Uji Spearman rho dengan ketentuan H1 dierima jika p value < α (0,05). Hasil penelitian menunjukkan sebagian responden (50%) memiliki self-control yang tinggi dan hampir sebagian responden (44%) dengan tekanan darah pada kriteria pra hipertensi. Analisis data uji spearman's rank p-value 0,006 < 0.05 menunjukkan terdapat hubungan self control regulation dengan tekanan darah pada pasien hipertensi dengan kekuatan hubungan lemah (r = 0,340) dan arah hubungan positif. Artinya semakin tinggi self control regulation pasien hipertensi mampu mempertahankan kondisi tekanan darah mendekati normal. Disarankan agar pasien hipertensi mempertahankan kemampuan control diri yang baik agar tekanan darah dapat terkontrol dengan baik.

Kata kunci: Self control regulation, tekanan darah, hipertensi

Abstract

Hypertension causes sufferers to have to live a healthy lifestyle so that blood pressure remains well controlled. Self-control regulation in hypertension sufferers determines how to behave in a healthy lifestyle in order to maintain blood pressure at normal conditions. The purpose of this study is to determine the relationship between self control regulation and blood pressure in hypertensive patients. Correlation study with a cross-sectional approach was the design in this study. The population of hypertension sufferers were 76. Samples were taken through purposive sampling technique and obtained a total of 64 respondents. Self-control regulation as the independent variable was measured with an instrument in the form of a questionnaire and blood pressure as the dependent variable was measured with an observation sheet. Data were analyzed by Spearman's rho test with the condition that H1 was accepted if the p value <α (0.05). The results showed that half of the respondents (50%) had high self-control and almost half of the respondents (44%) had blood pressure in the pre-hypertension criteria. Analysis of Spearman's rank test data p-value 0.006 <0.05 shows that there was a relationship between self-control regulation and blood pressure in hypertensive patients with a strong relationship (r = 0.860) with a positive relationship. This means that the higher the self-control regulation, the hypertensive patient is able to maintain blood pressure conditions close to normal. It is recommended that people with hypertension maintain good self-control abilities so that blood pressure can be controlled properly.

Keywords: Self control regulation, blood pressure, hypertension

INTRODUCTION

The older you get, the more susceptible you are to disease. One of the most common non-communicable diseases is hypertension, which is often referred to as the silent killer. This is because a person does not realize that he is experiencing hypertension. Symptoms of hypertension that often appear namely headaches in the morning,

Alamat Korespondensi Penulis:
Dhina Widayati
Email : budinawida@gmail.com

Alamat: Jalan Soekarno Hatta No 7 Pare Kediri – Jawa Timur. 64225

changes in heart rhythm to be irregular, blurred vision, and ringing in the ears (1). Success in managing blood pressure depends on the patient's ability to manage self-care, the patient's ability and willingness to change and maintain certain behaviors (2) which means the patient must be able to control himself well. Hypertension is a chronic disease that causes sufferers to live a healthy lifestyle so that blood pressure is well controlled. It is not uncommon for someone with hypertension to feel helpless and hopeless, making people with hypertension unable to control themselves to be able to lead a healthy lifestyle.(3). Someone with low self-control will have difficulty determining the consequences of their actions, which can lead to behavior that is contrary to a healthy lifestyle in order to maintain blood pressure in normal conditions..

Hypertension is one of the causes of premature death worldwide, killing nearly 9.4 million people worldwide each year and this condition continues to increase. Globally, the prevalence of hypertension is estimated at 30% of the total population and is a cause of death of 7.1 million per year (4). As the population increases, hypertension sufferers will also increase. It is predicted that in 2025 around 29% of world citizens will be affected by hypertension (5). The prevalence of hypertension in Indonesia in 2018 was 34.11% of the total population in Indonesia. With the prevalence of hypertension in people aged 18-24 years by 13.2%, at ages 25-34 years by 20.1%, at ages 35-44 years by 31.6%, at ages 45-54 years 45.3% , aged 55-64 years by 55.2%, at age 56-74% by 63.2% and experienced an increase at age> 75 years by 69.53%(6).

Hypertension is caused by several factors, namely controllable factors such as excess body weight/obesity, lack of physical activity, excessive consumption of salt, smoking, drinking alcohol, and stress and uncontrollable factors such as heredity (genetics), gender, and age (7). Hypertension will have an unfavorable impact on the body if blood pressure is not controlled properly. Complications due to hypertension can include kidney failure, stroke / damage to the brain, and coronary heart disease. In addition to the impact on physical conditions, hypertension can also have a negative impact on psychological conditions, namely in the form of anxiety and depression. This happens because the treatment of hypertension needs to be done for a long time / it could be a lifetime. In addition, fear of complications due to hypertension is also one of the causes of anxiety and even depression (4).

The high prevalence of hypertension causes high morbidity and mortality of hypertension which can be reduced by controlling blood pressure (8). In each individual there is self-control to focus on the process of self-control in controlling individual behavior to live a better life. Self-control is a person's ability to guide and direct the individual to carry out positive behavior (3) in this case is behavior in carrying out a healthy lifestyle and prevention of complications of hypertension. Individuals with good self-control will be able to maintain their blood pressure within the normal value range. This is in line with research conducted by Hernanda which states that someone with hypertension needs to have good self-control. Emotional stability is related to self-control of individuals with hypertension (5).

Based on the description above, the purpose of this study is to determine the relationship between self-control regulation and blood pressure in hypertensive patients. The initial hypotheses of this study were, H1: There is a relationship between self-control regulation and pressure in

hypertensive patients and H0: There is no relationship between self-control regulation and pressure in hypertensive patients.

RESEARCH METHOD

Correlation study with a cross-sectional approach is the design in this study. The population taken was hypertension patients in a village in Trenggalek Regency, East Java with a total population of 76 respondents. The sampling technique was purposive sampling with inclusion criteria willing to be respondents, suffering from hypertension for more than 1 year in hypertensive patients aged 40-60 years. The exclusion criteria set were hypertension sufferers who had diseases other than hypertension. Based on the criteria selection technique, the sample in this study was 64 respondents. The variables in this study are Self Control Regulation and Blood Pressure. Instruments to measure the independent variable (self control regulation) are in the form of questionnaires and observation sheets to measure the independent variable (blood pressure).

The self-control regulation variable in this study was to measure the ability of hypertensive patients to refrain from carrying out unhealthy lifestyle habits with the aim of maintaining healthy behavior. Parameters measured in Self control regulation are in the form of 5 aspects, namely Self Deliberate/Non-impulsive, Self Discipline, Healthy habits, Work ethic and Reliability (3). The questions in the questionnaire to measure Self Control Regulation are in the form of strongly agree, agree, disagree and strongly disagree. After each statement item in the questionnaire is assessed, it is then totaled as a whole and the final result will be obtained for the criteria for this independent variable in the form of good self-regulation (76-100%), sufficient (56-75%) and poor (<56%).

Variable Blood pressure in hypertension sufferers in this study is to measure the pressure experienced by blood in the arteries when blood is pumped by the heart to all members of the human body. The blood pressure is a measurement of systolic and diastolic blood pressure. Systolic pressure shows the pressure of blood flow in the artery walls after the heart beats, while diastolic pressure is the pressure of blood flow in the artery walls when the heart is relaxed after beating. This blood pressure measurement was carried out through examinations carried out by researchers on respondents using a sphygmomanometer. The results of these measurements are blood pressure values, both systolic and diastolic. Furthermore, researchers will classify the results of blood pressure measurements in the category of Normal (Systolic BP < 120 mmHg and Systolic < 80 mmHg), Pre-hypertension (Systolic BP 120-139 mmHg and Systolic 80-89 mmHg), Hypertension level 1 (Systolic BP 140-159 mmHg and Systolic 90-99 mmHg), Hypertension grade 2 (Systolic BP > 160 mmHg and Systolic > 100 mmHg) (9).

After the data is collected then the data will be analyzed statistical tests in processing research data using the Spearman rho test with $\alpha < 0.05$. Conclusions are drawn with the following conditions H1 is accepted if the p value < 0.05 and H0 is accepted if the p value ≥ 0.05.

RESULTS AND DISCUSSION

Based on the results of the study, the general data of the respondents were obtained which included the characteristics of the respondents consisting of frequency distribution based on gender, age, education, occupation, marital status, sources of information about hypertension, length of suffering from hypertension,

family support, ability to control emotions, beliefs in controlling blood pressure in the following table 1:

Table 1 Distribusion Frequency of Responden charactheristic

No	Responden charactheristic	Frequency	Prosentase (%)
1.	**Gender**		
	Woman	29	45,3
	Man	35	54,7
2.	**Age**		
	40-50 years	23	35,9
	51-55 years	17	26,6
	56-60 years	24	37,5
3.	**Education**		
	SD	1	1,6
	SMP	21	32,8
	SMA/SMK	17	26,6
	College	25	39,1
4.	**Work**		
	House wife	10	15,6
	Laborer	16	25,0
	Farmer	14	21,9
	Government employes	17	26,6
	Self employed	7	10,9
5.	**Status perkawinan**		
	Belum menikah	8	12,5
	Menikah	44	68,8
	Janda/Duda	12	18,8
6.	**Sumber informasi hipertensi**		39,1
	Menonton TV	25	
	Sosial media	27	42,2
	Fasilitas kesehatan	12	18,8
7.	**Lama menderita Hipertensi**		
	≥1 tahun-2tahun	7	10,9
	>2 tahun-5 tahun	16	25,0
	>5 tahun-10 tahun	21	32,8
	>10 tahun	20	31,3
8.	**Dukungan keluarga**		
	Ya	49	76,6
	Tidak	15	23,4
9.	**Kemampuan mengontrol emosi**		
	Mampu	34	53,1
	Tidak mampu	30	46,9
10.	**Keyakinan mengontrol TD**		65,6
	Ya	42	
	Tidak	22	34,4
	Total	**64**	**100**

. The general data of the frequency distribution based on the characteristics of the respondents shows that the majority of respondents (54.7%) are male. Most of the respondents (37.5%) are aged 56-60 years. Almost half of the respondents (39.1%) had higher education/PT. Almost half of the respondents (26.6%) work as civil servants. Most of the respondents (68.8%) marital status is married. Almost half of the respondents (42.2%) found information about hypertension through social media on the internet. Almost half of the respondents (32.8%) had a history of hypertension > 5 years - 10 years. Almost all respondents (76.6%) get family support. Most of the respondents (53.1%) were able to control their emotions. Most of the respondents (65.6%) have confidence that they can handle blood pressure. Identification of self-control regulation in hypertensive patients can be seen in table 2.

Table 2 Distribusion Frequency of *Self Control Regulation* on hypertension patient

Self Control regulation	**Frequency**	**Prosentase (%)**
High	35	55
Moderate	15	23
Low	14	22
Total	**64**	**100**

The results of the study in table 2 show that most of the respondents (55%) have high self-control regulation, a small number of respondents

(23%) have sufficient self-control regulation, and a small number of respondents (22%) have low self-control regulation.

Self control is the individual's ability to hold back or direct oneself in a better direction when faced with a choice between maintaining a healthy lifestyle or not.(3). Self-control is needed to assist individuals in overcoming various adverse things that may occur from outside (5). Practicing self-control is often difficult. But exercising self-control is not always difficult, especially when it takes the form of proactively choosing or changing situations by weakening unwanted drives or strengthening desired ones. (10). Self control has 5 aspects namely *self discipline, delibrate/non impulsive, healthy habits, work ethic, reliability* (3). Self control to prevent unwanted behavioral tendencies and refrain from carrying out (impulsive) behaviors. Self-control is an arrangement to regulate and direct forms of behavior that can lead individuals to a more positive direction. Therefore, if an individual has weak self-control, the individual is unable to regulate or direct behavior that is acceptable to the surrounding environment (11).

The three dimensions of self-control are: Behavioral control, cognitive control, and decisional control. Behavior control or controlling behavior is a direct action on the environment. This means that the individual has the ability to control himself well, so the individual will be able to determine his own behavior and if the individual is unable, then he will use external sources from outside himself. Cognitive control or controlling cognition is an individual's ability to process unwanted information by interpreting, assessing, or combining an event in a cognitive framework as a psychological adaptation to reduce pressure. Decisional control or decision control is an ability to choose outcomes that are believed in making choices will function to increase with the existence of an opportunity, freedom, or possibility in the individual to choose the possibility of an action.

The results of this study indicate that respondents have high self-control regulation because they have good self-discipline, delibrate, work ethics and reliability. This is in line with research conducted by Muraven (2015) which states that practicing small actions that lead to lifestyle improvements can increase self-control abilities (11). In this case the respondents are disciplined to run an anti-hypertensive diet, maintain their weight and change unhealthy lifestyles. However, there are also the majority of respondents who are still productive at work, so they are less active in physical activities such as sports so that their hypertension is prone to relapse.

Factors that influence self-control are internal factors, namely emotional control, while external factors include support from the family environment and peers (9). Based on the results of the cross-relationship distribution between difficulty controlling emotions and self-control, it shows that almost half of the respondents who are able to control their emotions have high self-control, while almost half of the respondents who are unable to control their emotions have low self-control. Healthy emotional control can be obtained if a person has ego strength, which is an ability to refrain from emotional outbursts (12). Almost all respondents also received support from their families so that the presence of the family could be one of the patient's reminders when perhaps the patient was in a state of low self-control regulation. Based on the theory and research results, according to researchers, self-control regulation is necessary for every hypertensive patient to take care of himself in managing his health. The

existence of high self-control regulation in a person illustrates the individual's commitment to directing oneself in a better direction. There are many challenges that must be faced by hypertensive patients in maintaining their health when there is no support from family, friends or the environment to maintain a healthy lifestyle that must be lived by hypertensive patients.

Most of the respondents are 56-60 years old and have suffered from hypertension for 5-10 years. So that the age level includes having maturity in thinking and experience managing hypertension diet patterns which makes the results of self-control regulation in this study in the high category. Experience in undergoing treatment within 5-10 years can also be a factor associated with good self-control in patients with hypertension (13).

Self-control is an arrangement to regulate and direct forms of behavior that can lead individuals to a more positive direction. Therefore, if an individual has weak self-control, the individual is unable to regulate or direct behavior that is acceptable to the surrounding environment.

Identification of blood pressure in hypertensive patients can be seen in table 3.

Table 3 Distribution of Blood Pressure on hypertension patient

Blood Pressure	Frequency	Prosentase (%)
Normal	14	22
Pra Hypertension	25	39
Hypertension Level 1	9	14
Hypertension Level 2	16	25
Total	**64**	**100**

The results of the study in table 3 show that almost half of the respondents (39%) had blood pressure in the pre-hypertension category, a small number of respondents (25%) had blood pressure in the level 2 hypertension category, a small proportion of respondents (22%) had blood pressure in the normal category, and a small proportion (14%) of blood pressure in the category of hypertension level 1.

Blood pressure is the pressure experienced by blood in the arteries when blood is pumped by the heart to all members of the human body (13). Blood pressure consists of systolic blood pressure and diastolic blood pressure. Systolic blood pressure is said to be normal if it is <120 mmHg and diastolic blood pressure is normal if it is <80 mmHg (14). In the circulatory system, blood pressure is a very important component and its regulation influences the homeostatic mechanism in the body. The function of blood pressure in the circulatory system is needed to drive the process of blood flow in the arteries, veins, arterioles and capillaries. If blood pressure reaches a value above normal, it will continue to a condition of hypertension. This condition of hypertension is caused by several things factors, namely gender, age, ability to control emotions.

Blood pressure in this study in the majority of respondents were in the pre-hypertensive category, which means that the average respondent had a systolic blood pressure of 120-139 mmHg and a systolic of 80-89 mmHg. The condition of blood pressure in the pre-hypertension category is commonly experienced by someone who is entering the age of 45 and over (7). From the age factor, almost half of the respondents were aged 56-60 years. In line with research, it is said that when someone is over 40 years old, they will be 4.96 times at risk of suffering from hypertension and are prone to experiencing sleep disturbances that can affect a person's blood pressure (16).

Of course, this risk is caused by changes in the structure of the blood vessels, so that the lumen becomes narrow and the blood vessels become stiff, and ends with an increase in blood pressure. Respondents over the age of 45 years rarely or even never do physical activity and after being given the intervention the respondents experienced a decrease in blood pressure but experienced a slight decrease because the respondents did not carry out according to the directions given because they tended to be lazy to do physical activity that was too long.

Based on the gender of the respondents, it was found that the majority of respondents were male. Gender has an important influence on blood pressure regulation. In general, blood pressure in men is higher than in women. This is in line with research conducted by Fimransyah (2017) that men tend to have smoking and drinking coffee habits, where these habits are not good for patients with hypertension (15).

Most of the respondents are able to control their emotions and this is one of the factors that also affects a person's blood pressure. This is in line with research conducted by Hernanda (2020) which states that the emotional stability of hypertensive patients is able to influence self-control which also affects the condition of blood pressure in hypertensive patients (5).

Based on the description above, the researchers argue that there are several factors that can affect blood pressure, there are factors that can be changed and cannot be changed. Factors that cannot be changed such as age and gender. Men are more susceptible to hypertension because of unhealthy lifestyle habits such as smoking and drinking coffee. Therefore, hypertensive patients need to change their bad habits not to smoke and reduce drinking coffee that contains caffeine. In terms of age, when you reach the age of 45 you have to start being vigilant and try to adopt a healthy lifestyle to avoid abnormal blood pressure. For factors that can be changed, namely the ability to control emotions, a hypertensive patient needs to learn to control his emotions so that he does not easily feel stressed or anxious. Because stress or anxiety can affect the work of the heart and increase blood pressure. Apart from the factors above, patients are actually also advised to go on a low-salt diet, because salt can retain fluids in the body and increase the work of the heart and exacerbate hypertension.

Cross tabulation of Self Control Regulation with blood pressure in Hypertension Sufferers can be seen in table 4.

Table 4 Cross Tabulation *Self Control Regulation* with Blood Pressure on hypertension patient

Self Control Regulation	Tekanan Darah							
	Normal		Pra Hipertensi		Hypertension level 1		Hypertension level 2	
	F	%	F	%	F	%	F	%
High	14	22	11	17	2	3	8	12
Moderate	0	0	7	11	5	8	3	5
Low	0	0	7	11	2	3	5	8
Total (N)	**14**	**22**	**25**	**39**	**9**	**14**	**16**	**25**
spearman's rank test	p value 0,006		α < 0,05		r = 0,340			

The cross-tabulation results in table 4 show that a small proportion of respondents with high self-control regulation are in a normal category of blood pressure. A small proportion of respondents (17%) with sufficient self-control regulation were in a pre-hypertensive blood pressure condition. A small proportion of respondents (11%) with low self-regulation were in a pre-hypertensive blood pressure condition.

Based on the Spearman's rho test, a p-value of 0.006 <0.05 means that there is a relationship

between self-control regulation and blood pressure in hypertensive patients. The closeness of the relationship in this study was 0.340, which means that there is a moderate relationship, where the higher the self-control regulation of hypertensive patients, it is quite related to blood pressure.

The success of strategies for blood pressure management depends on the patient's self-care management, or the patient's ability and willingness to change and maintain certain behaviors (17). Having a healthy lifestyle basically manages oneself physically which is the development of self care regulation. Respondents who have high self-control regulation are described as having high discipline, such as discipline in resisting the temptation not to eat unhealthy foods, choosing to maintain an antihypertensive diet, and maintaining body weight. In addition, from the delibrate aspect, it is described that patients can manage their emissions, and are not easily stressed. The importance of controlling the patient's emotions is in line with research conducted by Hernanda which states that emotional stability to self-control has a very significant relationship. According to Hernanda (2020), emotional stability describes the condition of a person who is truly not easily shaken, is not easily turned around or disturbed, has good balance and is able to face everything with a fixed or the same emotional state even though faced with different events (5). Self-control is very closely related to emotional control because in essence emotions are feedback or reciprocal. Emotions are part of the affective aspect which has a major influence on a person's personality and behavior.

A hypertensive patient who has a high ability for self-control regulation, then they will not be easily tempted to engage in behavior that has a negative impact on their health condition. With good self-control, blood pressure is easier to control. Based on the results of the study, the respondent's blood pressure was indeed not completely under normal conditions even though he had high self-control regulation. This could be caused by many factors such as the age of the respondents, who, if you look at the respondents in this study, entered the pre-elderly and elderly years with almost the same number.

In addition, almost the same percentage was found in patients with blood pressure category 2 hypertension. This affects the strength of the relationship between self-control regulation and blood pressure so that the relationship strength is weak. From the results of this study it is known that self-control regulation must be maintained so that blood pressure conditions are well controlled.

CONCLUSIONS AND SUGGESTIONS

From this study it can be concluded that there is a relationship between self control regulation and blood pressure in hypertensive patients with a moderate relationship strength and a positive relationship direction. This means that the higher self-control regulation is quite related to blood pressure in hypertensive patients. It is recommended that hypertensive patients maintain good self-control abilities so that blood pressure can be controlled properly so that a healthy lifestyle is formed to prevent complications due to hypertension.

The importance of keeping blood pressure well controlled aims to prevent patients with hypertension from experiencing complications due to hypertension, patients with hypertension still have a good quality of life.

REFFERENCE

1. Manangkot MV, Suindrayasa IM. Gambaran Self Care Behaviour Pada Pasien Hipertensi Di Puskesmas Wilayah Kota Denpasar. Community Publ Nurs. 2020;8(4):410–5.
2. Kurniawan DT, Maryanti S. EFEKTIVITAS SENAM OTAK (BRAIN GYM) DALAM MENURUNKAN TINGKAT KEJENUHAN PERKULIAHAN DARI RUMAH SELAMA MASA PANDEMI COVID–19. J Sci Educ Pract. 2020;4(1):1–10.
3. Rachmania D, Siswoaribowo A, Novitasari P. Self-Control dan Self-Care Behaviour pada Penderita Hipertensi. SpikesNas [Internet]. 2022;01(02):378–88. Available from: https://spikesnas.khkediri.ac.id/SPIKesNas/index.php/MOO
4. Fernalia, Busjra, Jumaiyah W. Efektivitas Metode Edukasi Audiovisual Terhadap Self Management Pada Pasien Hipertensi. J Keperawatan Silampari. 2019;3(1):221–33.
5. Hernanda R. Stabilitas Emosi Dengan Pengendalian Diri Pada Pasien Hipertensi. Psikoborneo J Ilm Psikol. 2020;8(3):482.
6. Kementrian Kesehatan RI. Hasil Utama Riskesdas 2018. Jakarta: Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan (LPB); 2019.
7. Muhammadiyah U, Pekalongan P, Pertiwiningrum DA, Kamalah AD. Prosiding Seminar Nasional Kesehatan Lembaga Penelitian dan Pengabdian Masyarakat Gambaran Self Efficacy Pada Pasien Hipertensi: Literature Review. Semin Nas Kesehat. 2021;2021.
8. Agastiya, Nurhesti D, Manangkot. Hubungan Self-Efficacy dengan Self-Management Behaviour pada Pasien Hipertensi. Community Publ Nurs. 2020;8(1):65–72.
9. Pikir BS, Dkk. Hipertensi Manajemen Komprehensif. Surabaya: Airlangga University Press; 2015.
10. Duckworth AL, Gendler TS, Gross JJ. Situational strategies for self-control. Situational Strateg Self-Control. 2016;11(1):35–55.
11. Muraven M. Building self-control strength: Practicing self-control leads to improved self-control performance. J Exp Soc Psychol. 2015;46(2):465–8.
12. Duckworth AL, Taxer JL, Eskreis-Winkler L, Galla BM, Gross JJ. Self-control and academic achievement. Annu Rev Psychol. 2019;70:373–99.
13. Wulansari J, Ichsan B, Usdiana D. Hubungan Pengetahuan Tentang Hipertensi Dengan Pengendalian Tekanan Darah Pada Pasien Hipertensi Di Poliklinik Penyakit Dalam RSUD Dr. Moewardi Surakarta. Biomedika. 2013;5(1).
14. Sari LM, Yuliano A, Almudriki A. Hubungan Pengetahuan Dan Sikap Keluarga Terhadap Kemampuan Deteksi Dini Serangan Stroke Iskemik Akut Pada Penanganan Pre Hopsital. J Kesehat PERINTIS (Perintis's Heal Journal). 2019;6(1):74–80.
15. Firmansyah MR, Rustam R. Hubungan Merokok dan Konsumsi Kopi dengan Tekanan Darah pada Pasien Hipertensi. J Kesehat. 2017;8(2):263–8.
16. Asmarita I, Nur Hidayat SPD, Bestari RS. Hubungan antara kualitas tidur dengan tekanan darah pada pasien hipertensi di

rumah sakit umum daerah karanganyar. Universitas Muhammadiyah Surakarta; 2014.

17. Kurnia V, Nataria D. Manajemen Diri (Self Management) Perilaku Sehat pada Pasien Hipertensi. J Ris Hesti Medan Akper Kesdam I/BB Medan. 2021;6(1):1.