

The Effect of Listening to Asmaul Husna, Isometric Handgrip Exercise, and Foot Hydrotherapy Intervention to Reduce Blood Pressure in the Elderly with Hypertension

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Abstract--- *This study aimed to assess the effectiveness of the influence of listening to Asmaul Husna (the names of God are beautiful, good, great, and noble), isometric handgrip exercise, and foot hydrotherapy interventions on blood pressure in elderly with hypertension. Background: Hypertension or high blood pressure often appears without symptoms, so it is called a silent killer. Based on these problems, non-pharmacological methods can reduce blood pressure, namely the intervention of listening to Asmaul Husna, isometric handgrip exercise, and foot hydrotherapy. Method: Quasi-experimental research design with pre-post test control group design involving 60 respondents using probability sampling techniques. The independent variable in this study was listening to Asmaul Husna, isometric handgrip exercise, and foot hydrotherapy intervention, while the dependent variables were systolic, diastolic blood pressure, and pulse. The data obtained were then analyzed using the Independent t-Test or Wilcoxon Signed Rank Test and Mann Whitney with a degree of significance $\alpha \leq 0.05$. Results: Results of data analysis using the Independent t-Test statistic in the treatment group and control group were, for pulse ($p = 0.000$). The results of tests with Mann Whitney obtained the following result for systolic ($p = 0.000$) and diastolic ($p = 0.000$), which means that there were changes in systolic, diastolic, and pulse before and after listening to Asmaul Husna, isometric handgrip exercise, and foot hydrotherapy. Discussion: Listening to Asmaul Husna, isometric handgrip exercise, and foot hydrotherapy interventions have positive benefits for reducing systolic and diastolic blood pressure, and pulse in the elderly with hypertension. For further research, the researchers suggest that more studies about the effectiveness of this intervention should be conducted by increasing the number of dependent variables.*

Keywords--- *Asmaul Husna; Isotonic Handgrip Exercise; Foot Hydrotherapy; Blood Pressure; Hypertension; Elderly*

I. INTRODUCTION

Hypertension can be a problem in old age; more than 50% of hypertension patients reside in for 60 years. The most significant disease from the death of the effect of disease noncommunicable (NCD) Or disease is not catching because of disease cardiovascular. The World Health Statistics (2012) reporting that 57 million death in the world because of disease

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NCD. Hypertension frequently does not show the symptom, so that becomes the sneaking murderer (the silent killer of death) and becomes the root cause incidence of heart sickness, stroke, and kidney [1]. More and more population of old age in Indonesia, more and more also morbidities of disease degenerative one of them is is hypertension.

Hypertension disease has hit entire/all nations in the world, according to research NHANES (2017), at age 60 years to for the natural of hypertension in the United States of equal to 63,1% during the year 2015-2016 [2]. According to the exceptional result of, Riskesdas which is in releasing by Kementrian of Health of the Republic Of Indonesia noted by the resident with age more than 18 years in the year 2013 diagnosed by hypertension of equal to 25,8% and in the year 2018 equal to 34,1% [3]. In East Java of prevalence hypertension according to diagnosed by a doctor of a resident old age more than 18 the year 2018 equal to 8,3%. [4]. Prevalence Hypertension in Surabaya of equal to 13,47% or about 935.736 resident with the mean proportion of equal to 13,78% (387.913 resident) and woman of equal to 13,25% (547.823 resident) [5]. Data of individualness sum up the hypertension patient with the above population age 60 years of January period - September 2019 that is about 40.403 from the amount 256.007 elderly (63,4%) experiencing hypertension in Surabaya. At the date of 03 December 2019 amount elderly in UPTD Griya Wredha Surabaya and Panti Werdha Hargodedali is as much 197 elderly and about 32,8% elderly experience of the hypertension.

Hypertension of at elderly caused to increase its age progressively, change of at downhill aorta wall elasticity, thick heart spillway becomes stiff, improving venous resistance of peripheral and elasticity degradation of at vein, so that blood pressure automatically becomes to go up and result in the happening of hypertension [6]. Morbidity And mortality that happened at the elderly with hypertension can be done/conducted by handling early on by maintaining the blood pressure of below/under 140 / 90 mmHg covering handling by pharmacology and non-pharmacology [7]. Form the handling by pharmacology use the chemical lihat vitamin upon which it's making, can generate the other; dissimilar disease as side effects medication [7].

Society nowadays more amount chosen medication by non-pharmacology, with it's his low reason is side effects possibility [8]. Effort Non-Farmakologi always become an essential matter done/conducted at hypertension patient who has old age [1]. During the time intervention applied, more amount of society is intervention listen to instrumental music, isometric handgrip exercise, and hydrotherapy foot/feet separately. At the same time, in this research, the researcher wishes to combine the intervention listen the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet to know furthermore how third significant influence of the intervention if combined in degrading blood pressure of hypertension patient of because is accessible to done/conducted self-supportingly and more practical without negating medication by pharmacologist as other; dissimilar treatment intervention intended in functional consequence theory of Miller [9]. According to Miller (2012), the nurse can improve the prosperity elderly of through/ passing action of promotion of health and other; dissimilar treatment actions to overcome the happening of negative functional consequence [9]. Therefore, a researcher interested in checking farther about gifts intervenes in the combination of asmaul husna (the names of God are beautiful, good, great and noble), isometric handgrip exercise, and hydrotherapy foot/feet which is useful in degrading blood pressure for elder with hypertension.

AI. METHODS

Desain of Research of quasi-experiment with the device pre-post test the control group design entangle 60 responders consisted of 30 elderly in the treatment group and 30 elderly in group control with the technique of probability sampling. This research has been done/conducted in UPTD Griya Wredha Surabaya and Panti Werdha Hargo Dedali

Surabaya. Independent Variable in this research that is intervening to listen to the Asmaul Husna (the names of God are beautiful, good, great, and noble), isometric handgrip exercise, and hydrotherapy foot/feet of while variable dependent that is blood pressure systolic, diastolic, and pulse. The treatment group is given by intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet of at elderly with the hypertension of thrice within a week during two weeks of for 12 minutes. The principle of ethics applied in this research is that the respondents were informed and filled in the informed consent agreement before the data collection process. They have the right to have their data remain confidential and only be published by their initials only.

Intervention this done/conducted by listening Asmaul Husna from Dr. Ari Ginanjar Agustian and soak the responder foot/feet till boundary 10-15 cm off is above ankle use the warm water with the temperature 38-40°C which have been measured by a mercurial thermometer. But, at a minute to 7, given by the addition of warm water with the temperature 40-45°C as much 250 ml utilize to compare to the temperature of early. After 5 minutes of therapy, gift, done/conducted by post-test the blood pressure of a treatment group. After done/held by post-test in the final of the session, later; then group control is also done/conducted by the intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet of while for the group of treatment shall no longer be given. This matter is done/conducted to take care of the value of ethics justice in research. Data obtained is later; then analyzed to use the Independent t-Test or Wilcoxon Signed Rank Test and Mann Whitney with the degree of meaning $\alpha = 0.05$.

BI. RESULTS

Tables 1 showing the most group of treatment of having gender to a woman (66,7%), while at group control entirely have gender to a woman (100%). Responder age of at treatment group of most that are 60-70 year or elderly (63,3%), while at group control at age 75-90 year or old (60%). Elementary School Education (SD) of most at treatment group that is 33,3% and Junior High School education (SMP) of at group control that is 30%. At treatment group and control, most do not work that is 93,3% and 83,35%. Entire/All treatment group and control to consume the drug of anti-hypertension(100%) where most treatment group and control to consume the Amlodipin 5 mg that is 96,7% and 56,7%. At treatment group and control, most do not own the history consume the alcohol and also cigarette that is 93,3% and 96,7%. Athletics habit done/conducted by a group of treatment and controlling that is 96,7% and 76,7%. While to consume the salt $\frac{1}{2}$ teaspoon every day and intervene, the non-pharmacologic have been conducted by entire/all treatment groups and control (100%).

Research Result posed at the tables of 2 this happened by the difference of mean or average having a meaning (of) among/between each group of at variable of blood pressure systolic (132,07), blood pressure diastolic (80,83) and frequency pulse (79,70) at tables of 2. Result test the independent t-test (by significant is $p=0,05$) found by the existence of degradation of blood pressure of systolic and frequency pulse by significant after getting intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet, this matter is shown by $p=0,000$ or $p<0,05$. While at the resulting test the Mann Whitney Test used to know the difference of score of blood pressure of systolic of among/between the group of treatment and group control at elderly with hypertension. A value of blood pressure of diastolic done/conducted by a test of Mann Whitney Test to show the $p=0,000$ or $p<0,05$.

Table 1. Distribution of characteristics of respondents' general data (n = 60)

No	Characteristics	Indicator	Treatment		Control		P
			n	%	n	%	
1	Gender	Male	10	33,3	0	0	0,001

No	Characteristics	Indicator	Treatment		Control		p
			n	%	n	%	
2	Age	Female	20	66,7	30	100	0,203
		60 - 74 Years old (<i>elderly</i>)	19	63,3	12	40	
		75 - 90 years old (<i>old</i>)	11	36,7	18	60	
3	Education	No school	8	26,7	4	13,3	0,095
		Yunior school	10	33,3	5	16,7	
		Middle school	2	6,65	9	30	
		High school	8	26,7	5	16,7	
		Bachelor	2	6,65	7	23,3	
4	Profession	Does not work	28	93,3	26	86,67	0,302
		Civil servants	2	6,7	3	10	
		Entrepreneur	0	0	1	3,3	
5	Consumption of Anti- Hypertensio (OAH)	Yes	30	100	30	100	-
6	Name of OAH	Amlodipin 5 mg	29	96,7	17	56,7	0,000
		Amlodipin 10 mg	1	3,3	0	0	
		Captropil 12,5 mg	0	0	4	13,3	
		Nifedipin 10 mg	0	0	9	30	
7	History alcohol	Yes	2	6,7	0	0	0,155
		No	28	93,3	30	100	
8	Consumption of salt	¼ - ½ spoon tea	30	100	30	100	-
9	History smoke	Yes	2	6,7	1	3,3	0,561
		No	28	93,3	29	96,7	
10	Sport	Yes	29	96,7	23	76,7	0,023
		No	1	3,3	7	23,3	
11	Non Pharmacologist Intervention	Yes	30	100	30	100	-
Total			30	100	30	100	

Table 2. Effects of Asmaul Husna intervention, isometric handgrip exercise, and foot hydrotherapy on decreases in systolic, diastolic, and pulse blood pressure in the elderly with hypertension (n = 60)

Variable	Treatment	Control	p
	Mean ± SD	Mean ± SD	
Systolic Blood Pressure	132,07 ± 10,907	131,67 ± 7,145	0,000**
Diastolic Blood Pressure	80,83 ± 3,724	79,53 ± 3,048	0,000**
Pulse	79,70 ± 4.340	80,90 ± 4.873	0,000*

IV. DISCUSSION

The Influence intervenes the Asmaul Husna (the names of God are beautiful, good, great and noble), isometric handgrip exercise, and hydrotherapy foot/feet to degradation of blood pressure of systolic of at elderly with hypertension in UPTD and Panti Werdha Surabaya.

The result of the research shows the influence interventionthe Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet to degradation of blood pressure of systolic of at elderly with hypertension own the influence which significant. Results of research shows there is a difference in having a meaning (of) at blood pressure good systolic at treatment group and control before given by intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet. Result of blood pressure of systolic hereafter interventionin the Asmaul Husna, isometric handgrip exercise and hydrotherapy foot/feet by duration ± 12 minutes given by three times each week during a 2-week show happened by the degradation of blood pressure of systolic with the value 10,907 at treatment group. Assess the average blood pressure of systolic at treatment group and control in the normal boundary.

This Research results in line with the result of research of Alfianto (2017) expressing that there is influence having a meaning of blood pressure of systolic of before treatment of dzikir Asmaul Husna and blood pressure of systolic

hereafter dzikir Asmaul Husna in Social Panti of Tresna Werdha of Nirvana of Puri Samarinda [10]. Others, research conducted by Hess (2016), happened by the reduction systolic having a meaning of but do not make significant statistically after done/conducted by isometric handgrip exercise during six weeks [11]. Same research conducted by Nurul, Gresty, and Julia (2017) that is there is the influence which significant therapy soak the foot/feet with the warm water to degradation of blood pressure of a patient with hypertension in Puskesmas of Shoulder Manado [12].

Responder at most is which have age to 75-90 year or old, which is where hypertension in line with increasing its age, which is because of structure change of at vein so that cause the make-up of blood pressure systolic. At this research, 83,3% responder of has gender to of woman which at-risk experience of the make-up of blood pressure because of the process of change of hormone of estrogen post-menopause. Others, drugs use of anti-hypertension of like amlodipine, captopril, and nifedipine with the dose which different each other influence the result from a blood pressure of systolic of each; every moment responder conducted by an intervention seen result of from pre-test the group intervention and also control group having a history of hypertension of show of blood pressure of systolic in phase prehypertension.

From above solution each three, the intervention gives the influence to degradation of blood pressure of systolic of at treatment group as according to previous research and combination from three the intervention that is intervening to listen the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet proven to give the influence to degradation of blood pressure of systolic of at treatment group of during 12 minutes by 6 is meeting times; rill in 2 weeks in UPTD Griya Wredha Surabaya and Panti Werdha Hargo Dedali Surabaya. Flatten to flatten the (means) of blood pressure of systolic of a group of treatment of having taken steps intervention the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet of equal to 132,07. Measurement of blood pressure of systolic of at group control from 131,73, becoming 131,67 or experience of the degradation of the same to 0,06. Inexistence of Change significant mounts the blood pressure of systolic of at group control caused for lack of special treatment is such as those who done/conducted at treatment group and group responder control only follow the routine activity which is performed an in UPTD of the core important in hypertension prevention of like gymnastics elderly of each; every morning.

- Influence intervention the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet to degradation of blood pressure or diastolic of at elderly with hypertension in UPTD and Panti Werdha Surabaya.

Result of influence research intervenes the Asmaul Husna, isometric handgrip exercise and hydrotherapy foot/feet to degradation of blood pressure or diastolic of at elderly with hypertension own the influence which significant. The result of the research shows there is a difference in having a meaning (of) at blood pressure good diastolic at treatment group and control before given by intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet. Result of blood pressure of diastolic hereafter intervention in the Asmaul Husna, isometric handgrip exercise and hydrotherapy foot/feet by duration \pm 12 minutes given by three times each week during a 2-week show happened by the degradation of blood pressure of diastolic with the value 3.724 at treatment group. Assess the average blood pressure or diastolic of at treatment group and control in the normal boundary.

This Research results in line with the result of research Ida, Urgent, and I Made (2017). There is an influence of isometric practice on the blood pressure of diastolic of hypertension patients in region work, the UPT Puskesmas Banjarangkan I [13]. Same Research did/conducted by Ernawati and Ali (2015) that is there are therapy influences soak the warm water foot/feet to degradation of blood pressure or diastolic of at elderly of hypertension patient in region work the UPK Puskesmas of Equator of Town Pontianak [14].

A result of a mean or group average intervention and also group control to show the blood pressure of diastolic in phase pre-hypertension that is 80.83 and 79.53. This matter is happened by caused by his/its is a difference of pressure diastolic which is far from a blood pressure of systolic depicting inertia of aorta of the effect of the process atherosclerosis at vein cause the blood pressure of diastolic of at elderly to tend to will lower or ordinarily referred as with the hypertension of systolic insulation.

From above solution each three, the intervention gives the influence to degradation of blood pressure or diastolic of at treatment group as according to previous research and combination from three the intervention that is intervening to listen the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet proven to give the influence to degradation of blood pressure or diastolic of at treatment group of during 12 minutes by 6 are meeting times; rill in 2 weeks in UPTD Griya Wredha Surabaya and Panti Werdha Hargo Dedali Surabaya. Flatten to flatten the (means) of blood pressure or diastolic of a group of treatment of having taken steps intervention the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet of equal to 80.83.

Measurement of blood pressure or diastolic of at group, control got by mean or average of equal to 79,53 caused for lack of special treatment is such as those who done/conducted at treatment group. The happening of the change of blood pressure of diastolic at group control caused by because having the character of fluctuating. Variation of Change of blood pressure or diastolic of at elderly can be caused by because stress, sensitivity to food, and effect consume the drug of anti-hypertension. To all the things represent the variable confounding which cannot be controlled entirely by the researcher.

- Influence intervention in the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet to degradation pulse of at elderly with hypertension in UPTD and Panti Werdha Surabaya.

Result of influence research intervenes the Asmaul Husna, isometric handgrip exercise and hydrotherapy foot/feet to degradation pulse of at elderly with hypertension own the influence which significant. The result of the research shows there is a difference in having a meaning (of) at good pulse at treatment group and control before and is hereafter given by intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet. The result from pulse hereafter intervenes the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet by duration \pm 12 minutes given by three times each week during the 2-week show that happened by the degradation pulse with the value 4.340 at treatment group. Assess the average pulse of at treatment group and control in reasonable boundary (79.70 – 80.90). This Research results in line with research result have been done/conducted by Himawan (2019), that treatment dzikir affect on to degrade the blood pressure and degradation pulse take a rest at the patient of pre-Operatif Fraktur [15].

At treatment group happened by the degradation pulse after given by intervention of equal to 3,60 while at group control also experience of the degradation pulse of but only similar to 0,23. Natural somebody of age accretion and step into the elderly (> 60 years) will be happened by the resistance periphery because of stricture of artery and arteriola, capillary, venous density degradation, as well as degradation of elasticity peripheral. The mentioned enabling arrived by the difference which significant usher second of the group. So that allows the necessary data from the second of the responder group to show the pulse which variation and all its responders have is age > 60 years.

From above solution each three, the intervention gives the influence to degradation pulse of at treatment group as according to previous research and combination from three the intervention that is intervening to listen the Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet proven to degrade the pulse of at treatment group of during 12 minutes by 6 is meeting times; rill in 2 weeks in UPTD Griya Wredha Surabaya and Panti Werdha Hargo Dedali Surabaya.

Flatten to flatten the (means) pulse of a group of treatment of having taken steps interventionthe Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet of equal to 79.70 x / minute.

IV. DISCUSSION

The Interventionthe Asmaul Husna (the names of God are beautiful, good, great and noble), isometric handgrip exercise and hydrotherapy foot/feet degrade the blood pressure systolic, diastolic, and pulse of at elderly with hypertension by significant.

Intervention of Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet own the positive benefit so that health workers can use this intervention alternatively inactivity in UPTD to degrade the blood pressure of elderly with hypertension. At researcher hereinafter can be continued by the research of about effective interventionthe Asmaul Husna, isometric handgrip exercise, and hydrotherapy foot/feet with the addition sum up the variable of dependent and intervention can be given with the time-intensity 4-6 week [is], so that found [by] more impact clinic of significant.

CONFLICT OF IINTEREST

None

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