The Effect of *Healing Touch* and Dhikr Therapy on Reducing Blood Pressure in Hypertensive Patients at The Jati Health Center

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Abstract.

Hypertension is one of the chronic health problems that is at risk of causing cardiovascular complications if not managed optimally. In addition to pharmacological therapy, a nonpharmacological approach is needed as a complementary therapy to help lower blood pressure. This study aims to determine the effect of healing touch and dhikr therapy on reducing blood pressure in hypertensive patients. This study used a quasi-experimental design with a pretest-posttest design with a control group. The number of respondents was 46 hypertensive patients who were divided into intervention groups and control groups. The intervention group was given a combination of healing touch and dhikr therapy, while the control group only received standard therapy. Analysis of blood pressure differences before and after intervention in the intervention group was conducted using the Wilcoxon test for systolic blood pressure and the paired t-test for diastolic blood pressure. In the control group, the analysis was carried out using the Wilcoxon test. The comparison of blood pressure drops between groups was analyzed using the Mann–Whitney test. The results showed that systolic and diastolic blood pressure in the intervention group experienced a statistically significant decrease ($p < 0.001$). The decrease in blood pressure in the intervention group was greater than in the control group, and the difference was statistically significant ($p < 0.001$). It can be concluded that the combination of healing touch therapy and dhikr is effective as a complementary therapy in lowering blood pressure in hypertensive patients.

Keywords: *Healing Touch Therapy; Dhikr; Blood Pressure Reduction and Hypertension Patients.*

I. INTRODUCTION

Hypertension or high blood pressure is one of the most common health problems worldwide. Quoted from WHO data (2024), it is estimated that as many as 1.28 billion adults worldwide have hypertension. This figure shows that there is an increase in hypertension cases from year to year. The majority of hypertension sufferers come from developing countries, including Indonesia. In 2019, the prevalence of age-standardized hypertension in the age group of 30-79 years in the world and in the Southeast Asian region was 33.1% and 32.4%, respectively. In Indonesia, based on the results of Basic Health Research (Riskesdas) in 2018, the prevalence of hypertension is 34.1% of 567,530 people (Ministry of Health of the Republic of Indonesia, 2018).In Central Java itself, the incidence rate of hypertension is 32.9%. Kudus Regency, which is one of the districts with a high population density, also has a fairly high hypertension rate, which is 26.64%. With the percentage of hypertension patients who receive services of 52.04% (Health Profile of Kudus Regency, 2023). The prevalence of hypertension at the Jati Health Center is also high, which is 1699 people (Kudus Regency Government, 2024). Hypertension has a significant impact on long-term health. Uncontrolled hypertension has the potential to cause various serious disease problems, namely, kidney disease, stroke, kidney failure, coronary heart disease and heart failure. Quoted from the Centers for Disease Control and Prevention (2025), 77% of heart patients have uncontrolled hypertension.

A study at Sanglah Hospital Denpasar in the period from March to September 2019 found that 60.4% of 187 coronary heart disease patients also suffered from hypertension (Mahottama et al., 2021). The main component in hypertension patients is controlled blood pressure. Various studies still show that controlled blood pressure in hypertensive patients is still low or has not reached the target. Controlled blood pressure in hypertensive patients is generally targeted at systolic blood pressure values of less than 140 mmHg and/or diastolic blood pressure of less than 90 mmHg. The latest American College of Cardiology (ACC)/American Heart Association (AHA) guidelines and European Society of Cardiology (ESC) guidelines recommend lowering the BP target to less than 130/80 mmHg Park (2019). The blood pressure target of

hypertension patients according to 11 research articles conducted systematically showed that the average achievement of the blood pressure target was 24%-39% (Takami et al., 2019). According to the European Society of Hypertension, hypertension can be treated in two ways, namely: by using pharmacological and non-pharmacological therapies SHELEMO (2023). Non-pharmacological therapy is a treatment without the use of drug agents in the healing process without causing any side effects.

Non-pharmacological therapy is effective as a complement to hypertension treatment to control blood pressure and prevent an increase in Mulyasari (2020). Many hypertensive patients use pharmacological therapy by taking antihypertensive drugs but their blood pressure is still difficult to control. According to a study published in Zhou (2020) About 40% of hypertensive patients who take three or more antihypertensive drugs still have systolic blood pressure above 140 mmHg. Factors such as attitudes toward treatment, drug resistance, and stress all have a significant impact on treatment outcomes. In addition, a Carey study (2018) It found that about 30% of hypertension patients who received standard medical treatment did not experience significant changes in blood pressure due to non-adherence to treatment. This phenomenon triggers the need for additional therapies to support the treatment of hypertension. This non-pharmacological therapy is also increasingly in the spotlight among the public to improve health because, it has many advantages, namely using natural methods with a low risk of side effects, so it is safe for all patients. It can help patients in getting used to doing healthy lifestyle habits such as relaxation, meditation, and spiritual exercises that help maintain blood pressure stability. Reduce drug dependence, thereby lowering the risk of side effects. Strengthen holistic resilience. This treatment not only focuses on improving blood pressure, but also improving the patient's quality of life through physical, mental, and spiritual balance. Non-pharmacological therapies such as *Healing Touch* and dhikr can be an effective choice to lower blood pressure.

Therapy *Healing touch* It is terpi by giving a touch to a person's body to increase calmness, provide a sense of comfort, affect mood, relaxation, and lower blood pressure. The brain and skin have an important role in regulating emotions. When the skin is stimulated, the happy hormone (oxytocin) increases and the stress hormone (cortisol) decreases, thus affecting heart rate and blood pressure. After doing Healing Touch therapy, a person usually feels relaxed within 2-5 minutes, and some can even fall asleep and feel relaxed (Silvi Teni Novianti, 2023) Research conducted by Astuti & Setyaningrum (2016) prove that there is an effect of therapy *Healing touch* to a decrease in blood pressure (systolic and diastolic). With the mean value of systolic blood pressure from 151.58 mmHg to 131.58 mmHg and a decrease in the mean diastolic from 93. 68 mmHg became 82.11 mmHg after healng touch therapy. Other research conducted by Heni Purnama Sari (2023). In Balungan Village, Kendit District, Situbondo Regency, it was also found that there was an effect of Therapeutic Touch on reducing blood pressure in the elderly with hypertension. The results of the data analysis used the Wilcoxon test, and showed that the p value was 0.000 which means very significant, because the p value was $\leq \alpha$ (0.005), then the alternative hypothesis (H1) was accepted. In other words, the results of this study show that Therapeutic Touch is effective in lowering blood pressure in the elderly with hypertension.Furthermore, there is also dhikr therapy that can lower blood pressure in hypertensive patients. Dhikr has an amazing effect in calming the heart and expanding the chest. Dhikr relieves anxiety, builds confidence, and provides a feeling of happiness and security. This is because the brain responds by releasing happy hormones (endorphins).

The dhikr sentences that can be recited are; Astagfirullah (ask for forgiveness from Allah), Subhanallah (praise Allah), Alhamdulillah (all praise be to Allah), Allahu Akbar (Allah is Great), Laa ilaaha illallah (there is no true worship except Allah).In a study conducted by Lela Aini & Lenny Astuti (2020) stated that there was an effect of dhikr on reducing blood pressure with an average value before dhikr therapy of 149.52/ 94.47 mmHg with a standard deviation of 8,646/5,118 and after dhikr therapy was carried out to 136.67/90 mmHg with a standard deviation of 7,303/6,325.In addition, research conducted by Aflah (2021) showed that there was an effect of dhikr therapy on a decrease in diastolic blood pressure with the average blood pressure value before dhikr therapy was around 95.5 mmHg and decreased to 85 mmHg.Touch and dhikr are two different therapies, but both have the potential to improve the treatment of hypertension. Healing toch focuses on the physical aspect with gentle touch and hand movements while

dhikr focuses on the mental and spiritual aspects with the recitation of holy sentences. Both therapies work by relaxing the body, dilating blood vessels, and improving blood circulation. As a result, blood pressure can drop. The combination of these two therapies is excellent for managing hypertension. The novelty of this study lies in the combination of the two nonpharmacological interventions at the same time, which previously most studies only examined one therapy separately.

This study was also conducted on outpatient hypertension patients at the Jati Health Center with a structured intervention for one week (20 minutes per session) while still undergoing routine pharmacological treatment. Thus, this study is expected to provide new scientific evidence that the combination of *Healing Touch* and dhikr can be a more effective complementary therapy, easy to apply in primary health services, and can improve the quality of life of hypertensive patients holistically (physical, mental, and spiritual). A preliminary study conducted in February 2025 at the Jati Kudus Health Center by observation and direct interviews showed 15 respondents who had an average blood pressure of 136.4 / 90.6 mmHg. Even though 5 respondents have taken anti-hypertensive drugs regularly and 10 respondents have implemented a healthy lifestyle, including 5 respondents said that they reduce salt consumption, get enough sleep and rest and often exercise, take a leisurely walk every morning, but blood pressure still often rises and falls. The local community does not know about non-pharmacological therapies of *healing touch* and dhikr to lower blood pressure. Therefore, this study aims to determine the effect of *healing touch* and dhikr on reducing blood pressure in hypertensive patients. This research is expected to contribute to the development of holistic treatments for hypertensive patients.

II. METHODS

This study uses a quantitative method with a quasi-experimental *design of a pretest-posttest control group*. Subjects were divided into two groups: the intervention experiment (*healing touch* and dhikr) and control (without intervention). The population in this study is 145 hypertensive patients undergoing outpatient treatment at the Jati health center. This research sample is part of the population that meets the inclusion and exclusion criteria that have been set. The researchers used a total of 46 respondents who were divided into an intervention group and a control group. Data collection techniques were carried out through structured observation and brief interviews to record clinical conditions, treatment history, medication adherence, and subjective responses to interventions such as calmness or headaches. Blood pressure was measured using a Sphygmomanometer before and after each *healing touch* and dhikr session according to the SOP.

The data was recorded on a standardized observation sheet that contained the identity of the respondent, the time of measurement, and the value of systolic and diastolic blood pressure. Blood pressure measurement SOPs, intervention protocols, and observation sheet formats are attached. The data obtained in this study was analyzed through several stages. First, univariate analysis is performed to describe the data characteristics of each variable separately without linking it to other variables. The data is presented in the form of centering measures (mean, median, mode) and spread sizes (ranges, standard deviations), and visualized through tables or graphs for easy interpretation. Next, a normality test is carried out to determine whether the data is normally distributed, which is the basis for selecting statistical tests at the next stage. The last stage is a bivariate analysis to test the effect of *healing touch* and dhikr therapy on blood pressure in hypertensive patients.

III. RESULT AND DISCUSSION

Respondent Characteristics

Table 1. Distribution of Frequency of Respondent Characteristics by Gender, Age, and Occupation in Hypertension Patients at the Jati Health Center (n=46)

	Frequency (f)	Percentage (%)
Gender		
Male	14	30,4
Women	32	69,6

Age		
36-45	5	10,9
46-55	16	45,7
56-65	15	78,3
> 65	10	100,0
Education		
No School	12	26,1
SD	20	43,5
Junior High School	13	28,3
Bachelor	1	2,2
Jobs		
IRT	24	52,2
Merchant	2	4,3
Self-employed	5	10,9
Labor	5	10,9
Farmer	7	15,2
Retirees	1	2,2
Not Working	2	4,3
Total	**46**	**100,0**

Based on table 1, it can be seen that the total number of respondents is 46 people. Most of the respondents were female (67.4%). The most age group was in the range of 46–55 years (45.7%), which shows the dominance of late adulthood to old age. In terms of education, most of the respondents were educated in elementary school (43.5%). Meanwhile, in terms of work, most of the respondents were housewives / IRT (52.2%). Overall, the study respondents were dominated by women with basic education and age ranges at risk for hypertension.

Blood Pressure Research Results Before and After Being Given a Combination of *Healing Touch* and Dhikr Therapy

Table 2. Blood Pressure Before and After Being Given a Combination of *Healing Touch* and Dhikr Therapy in the Control and Intervention Group (N=46)

Intervention Groups	N	Red	Median	Mode	SD	Min - Max
Systolic Pre	23	160,22	153,00	147	18,106	142 - 215
Systolic Post	23	147,39	142,00	139a	17,357	120 -192
Diastolic Pre	23	95,39	94,00	85a	10,629	74 - 114
Diastolic Post	23	86,13	87,00	80	9,645	62 - 106
Control Group						
Systolic Pre	23	164,17	159,00	160	19,940	142 -220
Systolic Post	23	159,00	154,00	145	19,892	138 -215
Diastolic Pre	23	103,22	104,00	107	13,504	82 - 148
Diastolic Post	23	101,17	100,00	105	12,957	80 - 146

Based on Table 2, in the intervention group (n = 23) the average systolic blood pressure before the intervention was 160.22 mmHg and decreased to 147.39 mmHg after being given a combination of *healing touch* therapy and dhikr. The average diastolic blood pressure in the intervention group also decreased from 95.39 mmHg to 86.13 mmHg. In the control group (n = 23), the mean systolic blood pressure before treatment was 164.17 mmHg and decreased to 159.00 mmHg after treatment. The average diastolic blood pressure also decreased from 103.22 mmHg to 101.17 mmHg. These results showed that both groups experienced a decrease in blood pressure, but the average decrease in blood pressure in the intervention group was greater than in the control group.

Normality Test of Blood Pressure Intervention Group and Control Group

Table 3. Blood Pressure Normality Test in the Intervention Group and Hypertension Patient Control Group at the Jati Health Center (N=46)

Groups	p- value	Distribution
Intervention		
Systolic Pre	0.002	Abnormal distribution
Systolic Post	0.068	Normally distributed

Diastolic Pre	0.356	Normally distributed
Diastolic Post	0.614	Normally distributed
Controls		
Systolic Pre	<0.001	Abnormal distribution
Systolic Post	<0.001	Abnormal distribution
Diastolic Pre	0.009	Abnormal distribution
Diastolic Post	0.003	Abnormal distribution

Based on Table 3, the results of the normality test showed that in the intervention group, systolic blood pressure before the intervention was not normally distributed ($p < 0.05$), while systolic blood pressure after intervention and diastolic blood pressure before and after the intervention were normally distributed ($p > 0.05$). In the control group, all systolic and diastolic blood pressure variables before and after treatment were not normally distributed ($p < 0.05$). Therefore, blood pressure analysis is carried out using a paired t test if the data is normally distributed and using the non-parametric Wilcoxon test as well as abnormal data distribution.

Table 4. Differences in Blood Pressure Before and After Being Given a Combination of *Healing Touch* and Dhikr Therapy in the Intervention Group and Control Group

Groups	Blood Pressure	Comparison in Group					Comparison between groups	
		Red	SD	MD	Statistics (t/z)	p	Z	P
Intervention (N=23)	Pre systolis	160,22	18,106	12,826	Z= -4.202	< 0.001*	5,564	< 0.001***
	Systolic Post	147,39	17.357					
	Diastolic pre	95.39	10,629	9,260	t= 6.110	< 0.001**		
	Diastolic post	86.13	9,645					
Controls (N=23)	Pre systolis	164.17	19,940	4,217	Z= -4.253	< 0.001*	4,631	< 0.001***
	Systolic Post	159,00	19,892					
	Diastolic pre	103.22	13,504	2,043	Z= -3.568	< 0.001*		
	Diastolic post	101.17	12,957					

Note: *(*Wilcoxon test) **(Paired t-test) ***(Mann-Whitney test)*

Table 4 shows a statistically significant decrease in blood pressure in the intervention group after the combination of *healing touch* therapy and dhikr. Blood pressure decreases before and after the intervention were analyzed using the Wilcoxon test and the paired t-test, which showed that systolic blood pressure decreased from 160.22 mmHg to 147.39 mmHg and diastolic blood pressure decreased from 95.39 mmHg to 86.13 mmHg ($p < 0.001$). In contrast, in the control group, blood pressure decreases before and after measurements were analyzed using the Wilcoxon test and showed statistically significant results, but with a smaller decrease than in the intervention group ($p < 0.001$).The results of the comparison of blood pressure reduction between the intervention group and the control group were analyzed using the Mann–Whitney test, which showed a significant difference in systolic and diastolic blood pressure decreases between the two groups ($p < 0.001$). It can be concluded that the combination of *healing touch* therapy and dhikr is more effective in lowering blood pressure than the control group.

Discussion

Average Blood Pressure Before and After Being Given a Combination of *Healing Touch* and Dhikr Therapy in the Control and Intervention Groups

This study was conducted on 46 respondents of hypertension patients who were divided into two groups, namely the control group and the intervention group. Based on the characteristics of the respondents, most of them were in the age range of 46–65 years and above 65 years old. This age group is a group with a high risk of experiencing hypertension due to the aging process accompanied by a decrease in the elasticity of blood vessels and changes in the function of blood pressure regulation.The results showed that all respondents, both in the control group and the intervention group, experienced a decrease in blood pressure after the study period. These findings show that the decrease in blood pressure in hypertensive patients is not only influenced by one factor, but is the result of a combination of pharmacological therapy that the respondents continue to undergo and non-pharmacological interventions provided in accordance with the research flow.In the intervention group, the average systolic blood pressure before being given a combination *of healing touch* and dhikr therapy was 160.22 mmHg and decreased to 147.39 mmHg after the intervention. Thus, an average decrease in systolic blood pressure of 12,826 mmHg was obtained, which was

the largest decrease compared to other variables and groups. Meanwhile, the average diastolic blood pressure in the intervention group also decreased, from 95.39 mmHg to 86.13 mmHg, with an average decrease of 9.261 mmHg.The magnitude of the decrease in blood pressure in the intervention group showed that the combination of *healing touch* therapy and dhikr provided additional effects beyond the standard therapy consumed by the respondents.

During the study, all respondents continued to take antihypertensive drugs regularly, so that the decrease in blood pressure that occurred could not be separated from the role of pharmacological therapy. However, the difference in the magnitude of blood pressure reduction in the intervention group showed that *healing touch* and dhikr therapy played a complementary role as complementary therapy that strengthened the treatment effect. In the control group, even though they were not given *healing touch* and dhikr therapy, there was still a decrease in blood pressure. The mean systolic blood pressure in the control group decreased by 4,217 mmHg, while diastolic blood pressure decreased by 2,043 mmHg. This decline was relatively small compared to the intervention group. This condition can be explained because respondents in the control group still received standard therapy in the form of antihypertensive drug consumption, health education, and regular blood pressure monitoring during the study.Thus, it can be said that the decrease in blood pressure in both groups was affected by the consumption of antihypertensive drugs. However, the magnitude of the decrease in blood pressure showed a clear difference, where the intervention group experienced a greater decrease due to the addition of *healing touch* and dhikr therapy.When viewed from the magnitude of the decrease, the largest decrease occurred in systolic blood pressure in the intervention group, which was 12.826 mmHg, while the smallest decrease occurred in diastolic blood pressure in the control group, which was 2.043 mmHg. This difference in the magnitude of the decrease is important in the discussion because it shows that combination therapy has a more real impact than standard therapy alone.In addition, variations in blood pressure decrease between respondents can also be influenced by age factors.

Respondents in late adulthood tended to show a greater decrease in blood pressure than older respondents. This is likely due to the condition of the blood vessels and blood pressure regulatory system which is still more adaptive to relaxation interventions and touch therapy.On the other hand, in elderly respondents (≥65 years), a decrease in blood pressure persisted but by a smaller amount than in the younger age group. This condition can be associated with degenerative processes and stiffness of blood vessels that occur physiologically with age, so the body's response to relaxation interventions and touch therapy is not as optimal at a younger age.Nevertheless, the results of this study still show that the *Healing touch* and dhikr is beneficial for all age groups, because all respondents, both in the late adult and elderly age groups, both experienced a decrease in blood pressure after treatment. These findings suggest that there was a significant decrease in the intervention group compared to the control group. Application of therapy *Healing touch* and dhikr has been proven to lower blood pressure in patients with hypertension, both systolic and diastolic blood pressure. These results are in line with previous research that showed that there was an influence *Therapeutic Touch* against a decrease in blood pressure in the elderly with hypertension, Heni Purnama Sari et al.,(2023). In addition, dhikr is also a form of spiritual relaxation that can stimulate the parasympathetic nervous system which plays a role in reducing the activity of the sympathetic nervous system. When a person dhikr solemnly, the body enters a state of relaxation characterized by a decrease in heart rate, respiratory rate, and muscle tension (Amalia et al., 2022).

Comparison Between Control and Intervention Groups on the Effect of *Healing Touch* and Dhikr Therapy on Blood Pressure Reduction

The results of statistical tests showed that there was a significant difference in blood pressure reduction between the intervention group and the control group. This can be seen from the results of the Mann–Whitney test which showed a p value of < 0.001 in both systolic and diastolic blood pressure. These findings confirm that the combination of *healing touch* therapy and dhikr has a greater influence than standard therapy alone.The decrease in systolic blood pressure in the intervention group reached 12,826 mmHg, while in the control group it was only 4,217 mmHg. Similar differences were also seen in diastolic blood pressure, where the intervention group experienced an average decrease of 9,261 mmHg, while the control group only had 2,043 mmHg. This suggests that the decrease in blood pressure in the intervention

group was consistently greater than in the control group.These differences can be explained through the working mechanism of *healing touch* therapy and dhikr that complement each other. Touch *healing* therapy provides a physical relaxation effect through gentle touch that helps to lower muscle tension and sympathetic nervous system activity. Meanwhile, dhikr provides psychological and spiritual calm that helps reduce stress and anxiety.This more relaxed and calm body condition supports the work of antihypertensive drugs in controlling blood pressure. In other words, antihypertensive drugs work from the physiological side, while *healing touch* therapy and dhikr strengthen from the psychological and spiritual side. The synergy of these two approaches is thought to be the main factor that caused a greater decrease in blood pressure in the intervention group than in the control group.

IV. CONCLUSION

Blood pressure in the control group before and after treatment showed a decrease in blood pressure. Blood pressure in the intervention group before and after being given a combination of *healing touch* therapy and dhikr showed a decrease in blood pressure. There was a difference in blood pressure before and after treatment in the control group. There was a difference in blood pressure before and after the administration of *healing touch* and dhikr therapy in the intervention group. The decrease in blood pressure that occurred in the intervention group was greater than in the control group.

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