



THE EFFECTIVENESS OF ACUPRESSURE THERAPY IN LOWERING BLOOD PRESSURE IN PATIENTS WITH HYPERTENSION

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ABSTRACT

Introduction: Hypertension is a non-communicable disease that affected on health in the adult age group. Acupressure therapy that can improve blood circulation for people with hypertension. Acupressure therapy can be an alternative treatment option to lower blood pressure and can meet the needs of society in reducing pharmacological therapy. The study was to determine the effect of Acupressure on changes in blood pressure of hypertension sufferers.

Method: This study used pre-experimental design. The number of respondents was 15 people with consecutive sampling technique. The research variable is acupressure therapy. While the dependent variable is blood pressure. The data collected are primary data using observation sheets and blood pressure measured with a tensimeter and a stethoscope before and after the intervention. Therapy is done 3 times for 3 three days.

Results: The results of the study showed that there was an effect of changes in blood pressure before and after being given acupressure therapy with $p = 0.046$ and $p = 0.003$.

Conclusion: Acupressure is a simple non-invasive technique that nurses can perform independently. These findings suggest that acupressure can reduce systolic and diastolic blood pressure in patients with hypertension. The further research regarding acupressure therapy for other diseases besides hypertension.

Keywords:

acupressure; hypertension

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INTRODUCTION

Hypertension is a common disease and a major risk factor for coronary artery ischemia and stroke (Lin et al. 2016). The development of complementary therapeutic medicine is currently in the spotlight in many countries considering that complementary or alternative medicine is an important part that must be in health services, several complementary therapies, one of which is acupressure therapy, which can improve blood circulation for people with hypertension (Martini, 2019).

Hypertension is a degenerative disease that requires special and serious attention, because the impact caused by hypertension is very broad and can

lead to death, besides the impact of hypertension itself, namely heart failure, stroke, kidney failure, erectile dysfunction, dementia, alzheimer. Hypertension has its own mechanism in a person's body, which is a very long process and can pose a number of risks (Insana, 2018).

The incidence of hypertension in Indonesia is ranked 1st out of 10 chronic non-communicable diseases, with a total of 185,857 cases. the prevalence based on the measurement results in the population aged > 18 years is 35.2%, the highest in South Kalimantan is 44.1%. (Wardhani, 2019) Patients with hypertension who are unable to recover and must depend on blood pressure-lowering drugs, therefore this acupressure therapy can be an alternative treatment option to lower blood pressure and can

meet the needs of society in reducing pharmacological therapy. Acupressure therapy techniques originating from China are currently starting to develop rapidly, and can help the needs of people, especially people with hypertension, to lower blood pressure or improve blood circulation, considering that people need quite a lot of alternative medicine to reduce the use of pharmacological therapy (Maria.2020).

Many people in Banjar District, especially patients at the Puskesmas Martapura 1, still have not used acupressure techniques. Based on interviews I conducted with 10 people with hypertension, 5 out of 10 people said they routinely took hypertension medication and didn't know acupressure therapy, 2 of them said they didn't regularly take drugs and knew about acupressure but didn't use it, 3 of them said they didn't know acupressure therapy never take medicine.

METHOD

This research used Pre-Experimental Design with Non-randomized Pre-Post test One Group Design method. In this study design using a group of subjects, in which one group will be given treatment, namely acupressure therapy. Performed 3 times of therapy and measured blood pressure before and after.

The independent variable is acupressure therapy, the dependent variable is the blood pressure of hypertension sufferers. This research will be conducted in the work area of Puskesmas Martapura 1, Kabupaten Banjar, South Kalimantan Province in 2020. The population in this study was 1929 people suffering from hypertension in the work area of the Martapura Community Health Center in 2019. This sampling is based on the theory of Gay and Dielh in that in experimental research, the minimum sample is 15 subjects per group. So in this study, the researcher has determined the number of samples, namely 15 respondents. The sampling technique used in this study was non-probability sampling (non-random) with the purposive sampling method (Consecutive sampling), where samples that met the criteria were included in the study until a certain period of time. In this study, the sample used was 15 people from the total population of hypertension sufferers at the Puskemas Martapura 1, of which 15 people would emphasize the acupuncture points by means of acupressure. The data collection instruments used in this study were observation sheets, as well as the results of blood pressure measurements before and after therapy using a tensimeter and a stethoscope. relationship between the two variable is the independent variable in therapy acupressure with Variable tied to Pressure blood of people with hypertension at the same time by using statistical analysis wilcoxon. This analysis is a non test parametric used to analyze paired data because there are two intervention treatment to the subject. the basis for making this Wilcoxon test decision is with the level of significance if <0.05 then there is an effect,

on the contrary if it is > 0.05 then there is no effect. One of the requirements for the Wilcoxon test is data of the nominal or ordinal type, and the independent variable consists of 2 categories which are paired. information of ethical clearance fit test with Informed Consent, Anonymity, Confidentiality in institution Stikes Intan Martapura.

RESULTS

Characteristics Of Respondents based on Gender, Age, occupation are described as follows: Table 1 show that 53% of respondents who suffer from hypertension were women, 15% of respondents who were willing to take part in the study, with the age division of 35-40 years amounting to 27%, 40-45 years old 33%, and 45-50 years old 40%. Respondents willing to take part in the study consisted of 53% private employees, 13% retirees from civil servants, and 33% housewives.

Blood Pressure Before And After Therapy And Blood Pressure Changes Before And After Acupressure Therapy. It is known that the mean blood pressure before acupressure therapy in the intervention group was 148.67 mmHg (systole) and 96.61 mmHg (diastole). It is known that after acupressure therapy, there was a decrease in the mean blood pressure of respondents in the intervention group, namely 132.86 mmHg (systole) and 81.24 mmHg (diastole).

After being given acupressure therapy in one intervention, blood pressure systole with a sig value of $0.003 < 0.05$ or ha was accepted, which means that there is an effect of acupressure therapy on systole blood pressure. After being given acupressure therapy in one intervention, diastolic blood pressure with a sig value of $0.014 < 0.05$ or ha was accepted, which means that there is an effect of acupressure therapy on diastolic blood pressure. The results showed that after being given acupressure therapy in the intervention of two systole blood pressure with a sig value of $0.003 < 0.05$ or ha was accepted, which means that there was an effect of acupressure therapy on systole blood pressure. The results showed that after being given acupressure therapy in the intervention of two diastolic blood pressures with a sig value of $0.002 < 0.05$ or ha was accepted, which means that there was an effect of acupressure therapy on diastolic blood pressure and after being given acupressure therapy in the intervention of three blood pressure systole with a sig value of $0.046 < 0.05$ or ha accepted which means that there is an effect of acupressure therapy on blood pressure systole. Based on the results that after being given acupressure therapy in the three interventions, diastolic blood pressure with a sig value of $0.003 < 0.05$ or ha was accepted, which means that there is an effect of acupressure therapy on diastolic blood pressure.

Table 1. Characteristic of Respondents based on Gender, Age, and Occupation

Characteristic	n	%
Gender		
Male	7	43
Female	8	57
Age		
35-40	4	27
40-45	5	33
45-50	6	40
Occupation		
Private Employees	5	33
Pension	2	14
Housewife	8	53

Tabel 2. Blood Pressure Before And After Therapy And Blood Pressure Changes Before And After Acupressure Therapy

Group	Blood Pressure	f	Mean
Intervention before acupressure	Sistole	15	148,67
	Diastole	15	94,61
Intervention after acupressure	Sistole	15	132,86
	Diastole	15	81,24

Tabel 3. Effect of acupressure therapy on blood pressure

Blood Pressure	Intervention	Sig 2-tailed
Sistole	1	0,003
Diastole	1	0,014
Sistole	2	0,003
Diastole	2	0,002
Sistole	3	0,046
Diastole	3	0,003

DISCUSSION

Characteristic Of Respondents based on Gender, Age, occupation

Gender of respondents with hypertension on the effectiveness of acupressure therapy on changes in blood pressure, it was found that female respondents were more than male respondents. Hypertension will increase with increasing age. This is caused by degenerative factors that occur in people who increase their age. Types of work of respondents with hypertension on the effectiveness of acupressure therapy on changes in blood pressure in hypertensive patients, namely, respondents who have more jobs as housewives than private employees and retirees. For housewives who experience increased blood pressure due to several factors, such as economic problems and household needs that can trigger stress. Stress is a problem that can lead to hypertension. The relationship between stress and hypertension is very close due to increased sympathetic nerve activity and increases blood pressure erratically.

Hypertension can recur, because overall hypertension cannot be cured. Hypertension can also be one of the comfort disorders experienced by patients which can affect aspects. Dealing with hypertensive patients requires adherence to their self-care to improve their health status. (Agianto, 2016). Hypertension self-care includes a low salt diet, reducing alcohol consumption, not smoking,

exercising or physical exercise, and taking hypertension drugs. One of the components that affect hypertension patient self-care (Azhar, 2019).

Blood Pressure Before And After Therapy And Blood Pressure Changes Before And After Acupressure Therapy, Effect of acupressure therapy on blood pressure

The results showed that the mean blood pressure before acupressure therapy was 148.67 mmHg (sistole) and 94.61 mmHg (diastole). Normal blood pressure if the blood pressure is 120 mmHG sistole and 80 mmHg diastole. So that if there is an increase in blood pressure that exceeds the normal range or reaches > 140/90 mmHg, it is commonly referred to as hypertension (Pusparina, 2019).

Based on the data analysis, there was a decrease in blood pressure after being given acupressure therapy to respondents suffering from hypertension. The results showed a decrease in the average blood pressure, namely, 132.86 mmHg (sistole) and 81.24 mmHg (diastole). Acupressure is one of the complementary therapies commonly known as finger acupressure therapy, which is a form of physiotherapy by providing massage and stimulation at certain points on the body, which can have an effect on improving blood circulation so that it can lower blood pressure (Insana, 2018).

Based on the data analysis from the table, it was found that there were differences or influences on changes in blood pressure before and after given

acupressure therapy. Hypertension occurs because there is a blockage that causes blood flow to not smooth, therefore acupuncture points can be used as a complementary therapy to treat hypertension. because massages at certain points in acupressure therapy can stimulate syraf waves so that they can help to improve blood flow. In this research, the point used is the LI4 hegu point which functions to calm and smooth blood flow.

CONCLUSION

Acupressure is one of the methods used in traditional medicine for disease prevention. Acupressure is a simple non-invasive technique that nurses can perform independently. These findings suggest that acupressure can reduce systolic and diastolic blood pressure in patients with hypertension. Further studies are needed to establish the effectiveness of this therapy in considering the dose and method of administration.

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