

SURAT KETERANGAN

Nomor: 669/UNUSA/Adm-LPPM/VII/2019

Lembaga Penelitian dan Pengabdian Kepada Masyarakat (LPPM) Universitas Nahdlatul Ulama Surabaya menerangkan telah selesai melakukan pemeriksaan duplikasi dengan membandingkan artikel-artikel lain menggunakan perangkat lunak **Turnitin** pada tanggal 19 Juli 2019.

Judul : The Effect Avocado Leaves to Decrease Blood Pressure
Amongelderly With Hypertension

Penulis : Nuh Huda, Anronius Catur Sukmono

Identitas : Proceeding Book The 1st International Nursing Conference

No. Pemeriksaan : 2019.07.19.303

Dengan Hasil sebagai Berikut:

Tingkat Kesamaan diseluruh artikel (*Similarity Index*) yaitu 11%

Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya

Surabaya, 19 Juli 2019

Ketua LPPM,



UNUSA
LPPM

Dr. Istas Pratomo, S.T., M.T.

NPP. 16081074

LPPM Universitas Nahdlatul Ulama Surabaya

Website : lppm.unusa.ac.id

Email : lppm@unusa.ac.id

Hotline : 0838.5706.3867

Paper

by Nuh Huda 4

Submission date: 19-Jul-2019 08:49AM (UTC+0700)

Submission ID: 1153080202

File name: The_effect_of_avocado_leaves_-_Nuh_Huda.pdf (654.13K)

Word count: 5159

Character count: 27715



Proceeding Book

THE 1ST INTERNATIONAL NURSING CONFERENCE

**“Complementary Nursing Issues
and Updates in 2015”**

STIKES Hang Tuah Surabaya

Surabaya-Indonesia, June 6, 2015



Preceeding book
The 1st International nursing Conference

Complementary Nursing Issue and Updates in 2015

STIKES Hang Tuah Surabaya
June, 6th 2015

Editor :

Prof. Yayoi Iwasaki, RN., PhD
Pro f. Dr. Rika Soebarniati, dr., S.KM., M.PH
Prof. Dr. Nursalam, M.Nurs (Hons)
Dr. Bambang Widjanarko Otok, M.Si
Dr. Ah. Yusuf, S.Kp., M.Kes

Published by:



STIKES Hang Tuah Surabaya

The 1st INC Stikes H ang Tuah Surabaya, June 6th, 2015

ii

Preceding Book the 1st International Nursing Conference

Complementary Nursing Issue and Updates in 2015

Editor:

Prof. Yayoi Iwasaki, RN., PhD
Prof. Dr. Rika Soebarniati, dr., S.KM., M.PH
Prof. Dr. Nursalam, M.Nurs (Hons)
Dr. Bambang Widjanarko Otok, M.Si
Dr. Ah. Yusuf, S.Kp., M.Kes

Cover Designer:

Ach Arfan Adinata, S.Kep., Ns

Setting / Lay Out:

Ach Arfan Adinata, S.Kep., Ns

Copyright and the Editor:

Printed and Published by:

STIKES Hang Tuah Surabaya Press

Jl. Gadung No.1 Surabaya 60244

Telp/Faks: (031) 8411721

Website: www.stikeshangtuah-sby.ac.id

Cetakan: I, Surabaya, 2015

ISBN : 978-602-72856-0-6

COMMITTEE

Advisor

Wiwiek Liestyningrum, M.Kep
The Head of STIKES Hang Tuah Surabaya

Ns. Setiadi, M.Kep
The First Head Assistant of STIKES Hang Tuah Surabaya

Ns. Dwi Supriyanti, S.Pd., S.Kep., M.M
The Second Head Assistant of STIKES Hang Tuah Surabaya

Committee President

Ns. Puji Hastuti, M.Kep

Committee Voice President

Meiana Harfika, SKM., M.Kes

Secretary

Taufan Agung P, S.Sos

Treasurer

Nenny Andriani, SE
Ns. Dya Sustrami, S.Kep., M.Kes

Scientific Committe

Ns. Diyah Arini, S.Kep., M.Kes
Ns. Nuh Huda, M.Kep., Sp. Kep.MB
Ns. Dwi Priyantini, S.Kep
Ns. Hidayatus Sya'diyah, M.Kep
Ns. Dini Mei Widayanti, M.Kep
Ns. Christina Yulias^{ti}, M.Kep
Ns. Qori'ila Saidah, M.Kep., Sp.
Kep.An
Ns. Merina Widiastuti, M.Kep
Lela Nurlela, S.Kp., M.Kes

Ceremonial Committe

Ns. Dhian Satya R., M.Kep
Ns. Dwi Ernawati, M.Kep
Sapto Dwi Anggoro, S.Pd
Ns. Antonius Catur S., M.Kep

Secretariat

Ns. Nur Muji Astuti, S.Kep

Ns. Rifka Pahlevi, S.Kep
Ns. Dedi Irawandi, S.Kep
Wasis Agung Ahmadi
Theresia Atik Nurharjanti
I Wayan Kama Utama

TABLE OF CONTENTS

No	Title	Page
	Speaker Topic	
1	Recovery-Oriented Nursing for People With Mental illness	1
2	Policy and Implementation of Complementary Nursing (Indonesian Nurse's Perspective)	14
3	The Prospective of Complementary Nursing in Malaysia	22
4	Chinese Medicine	23
	Participant Topic	
5	Autogenic relaxation self efficacy in patients with Cervical Cancer	25
6	Effectiveness of government strategy in efforts to accelerate the of maternal and infant mortality rates	32
7	The effects of Benson meditation to reduce anxiety level of premenstrual syndrome in female adolescence	42
8	The effectiveness of cross cradle hold breastfeeding position against episiotomy pain of post-partum mothers	48
9	The competency of midwives in early detection and treatment of high risk of pregnant women to reduce maternal mortality	58
10	The relationship between intelligence quotient (IQ) with social personal development pre-school children	68
11	The effect of 4s's technique to physiological and behavioral responses on newborn	75
12	RFPP method for recovery of the nutritional status of children with malnutrition and poor nutritional status: a literature review	83
13	The relationship of parenting styles and the achievement of developmental tasks of toddler	93
14	Effect of early mobilization pain, blood pressure and pulse client after operation section caesaria	103
15	Efficacy and safety of homeopathic medicines as a complementary and alternative medicine: a literature review	111
16	Islamic nursing process in fulfilling immobilized patient's spiritual need (prayer)	119
17	The efficacy of red betel leaves boiled water on blood glucose levels in healthy people	128
18	Transcutaneous electrical nerve stimulation as complementary therapy on pain management acute chronic renal	137
19	The effect of foot massage on ABI'S patients with Type 2 Diabetes Mellitus	143
20	The effect of consumption lamtoro (<i>leucaena leucocephala</i>) to decrease blood glucose levels of Diabetes Mellitus patient	150
21	The effect therapy of listening al-qur'an; surah ar-rahman and deep breathing exercise (DBE) on pain in patient abdominal surgery.	159
22	Achievement of suctioning competence through peer learning	166

23	The levels of blood glucose and blood cholesterol before and after aerobic exercise in patients with diabetes mellitus	181
24	Improving visual health (myopia) with “vision therapy”	193
25	The effectiveness of guided imagery relaxation to meet the needs of sleep in patient with post laparomy	198
26	The techniques of deep breathing relaxation and auditory distraction to reduce level of pain	204
27	The effect diaphragma breathing exercise for decreasing of asphyxiate to patient with COPD	212
28	The effects of counseling in improving perception among risk of HIV/AIDS	221
29	Effectiveness of application of health education formed audio AIDS in community health center (PUSKESMAS)	229
30	The effect of brain gym on the ability to remember the lesson of social science	239
31	The difference of insomnia in the elderly before and after keroncong music therapy	253
32	The effect of given aromatherapy rose to decrease stress levels on early adolescent (12-15 years old)	263
33	Improving the empowerment of mother larvae observer through education and training approach based on health promotion model	273
34	Effect of warm water foot soak’s to decrease Hypertention on elderly	281
35	Effect of mixed water lime and soy sauce in the healing cough of toddler	288
36	The relationship caring nurse with patient satisfaction PHC Hospital in Surabaya	297
37	Bipolar disorder in young adults: culture as etiology and basic intervention (a literature review)	304
38	The effectiveness of brain gym exercise to improve learning concentration of students	309
39	The relationship between the incidence of acute respiratory tract infection (arti) and nutritional status among toddler in krembangan surabaya	313
40	Design of interactive multimedia based learning media at adult about cardiopulmonary resuscitation of one by stander	318
41	The correlation between clinical guidance competence with clinical skill attainment of candidate nursing students	328
42	The effectivity of deep breathing toward pain during radial artery catheterization among coronary heart disease (CHD) patients in “hk” hospital jakarta	336
43	Making learning video pediatric basic life support by camtasia studio base on powerpoint	342
44	Walking and watching movies to decrease the rate of depression in elderly	347
45	The rapetic touch as a complementary therapy for healing nursing	354

46	The influence of consume nanaku rice with blood sugar level among patients with diabetes mellitus	361
47	the influence of avocado leaves to decrease blood pressure in elderly with hypertension	371
48	The effect of feeding rules programme toward body weight changing among children in playgroups ponorogo	379
49	The effectivity of bubble continuous positive airway pressure (CPAP) among neonates with severe respiratory distress syndrome (RDS) in dr.ramelan navy hospital surabaya	383
50	The relationship between obstetric conditions and the incidence of preterm labor in dr.ramelan navyhospital surabaya	394
51	Counseling improving self-esteem and acceptance on the client with type 2 diabetes mellitus	408
52	The efficacy of blood glucose control for reduce ulcer foot degrees among patients with diabetes mellitus	419
53	Instrument program of mental health disorder early detection for health cadres and society in pekalongan regency	428
54	Family social support on patient with hypertension	438
55	The predictive factors influence of breast feeding self-efficacy among breast feeding mothers	446
56	The relationship between gestational age and asphyxia among newborn baby	453
57	Analysis of the factors hyperglycemia to patients of diabetes mellitus already taking oral hypoglycemia drugs (OHD)	461
58	Relations of activities mother, vaccine availability and the activity officer with polio immunization completeness four in children of working area Health Centers Mekar Kendari City	474
59	Risk factors of cardiovascular disease	484
60	Stress management relationship with a teenager learning motivation XI IPS the SMA Antartika Sidoarjo	492
61	The effect of recite Qur'an on quality of sleep among elderly in elderly health center (posyandu lansia) matahari senja	498
62	Effect of interpersonal communication, supervision and trust on performance instructor clinic hospital nursing students region province lampung	506
63	The effects of career development system, justice, and responsibility for quality of lecturer's service in health polytechnic tanjungkarang lampung 2013.	517

THE EFFECT OF AVOCADO LEAVES TO DECREASE BLOOD PRESSURE AMONG ELDERLY WITH HYPERTENSION

1)Nuh Huda, 2)Antonius Catur Sukmono

lecturer, Hang Tuah Surabaya Health Institute Surabaya Phone number : 08125236193 Email : badawiff@gmail.com, antoencatur@gmail.com

ABSTRACT

Hypertension is known as the silent killer, as it includes the deadly disease without any symptoms. The purpose of this research is to determine the effect of avocado leaves to decrease blood pressure among elderly with hypertension in Panti Werdha Hargo Dedali Surabaya. The design using quasy-experimental. The sample were 20 elderly using purposive sampling. The independent variable is the effect of avocado leaves, and the dependent variable is decrease in blood pressure. Data were taken using digital sphygmomanometer. Statistics test analyzed with the Paired T-test and Independent T-tests. This study showed the treatment group blood pressure decreased on average of 21 mmHg in systolic and 17 mmHg in diastolic. Paired T-test results in the control group obtained $p=0,000$ in systolic and diastolic $p=0,016$ whereas in the treated group $p=0,000$ obtained in the systolic and diastolic $p=0,000$. Independent T-test results obtained $p=0,000$ systolic and diastolic $p=0,000$. H_0 is rejected which means there is the effect of avocado leaves to the decrease of blood pressure. The avocado leaves can decrease blood pressure in hypertensive. So that the elderly should consume the avocado leaves as one of the non-pharmacological treatment to reduce hypertension.

Keywords: avocado leaves, decrease blood pressure, hypertension

Introduction

High blood pressure (hypertension) is a condition characterized by an increase in blood pressure in the arteries (Junaidi, 2010: 1). World Health Organization (WHO) provides restrictions normal blood pressure is 140/90 mmHg, and blood pressure at or above 140/90 mmHg expressed as hypertension. This limitation does not distinguish between age and gender (Marliani, 2007: 1)

Maryam (2008) suggests that the majority of patients with hypertension many suffered by the elderly. Aging is a natural process that can not be avoided continuously, and continuous. Next will lead to changes in anatomical, physiological, and biochemical in the body so that it will affect the body's

ability to function and overall (Maryam, 2008: 3).

Structural changes in the peripheral vascular system responsible for blood pressure changes that occur in the elderly. These changes include atherosclerosis, loss of elasticity of the connective tissue and a decrease in vascular smooth muscle relaxation which in turn lowers the tensile strength of distension and blood vessels. The consequence is that the aorta and large arteries decrease its ability to accommodate the volume of blood pumped by the heart (stroke volume), resulting in decreased cardiac output and increased peripheral resistance (Smeltzer, 2002: 899). Conditions relating to the elderly is a byproduct of the wear arteriosclerosis of the major arteries, especially the aorta, and the

result of reduced flexibility. This will lead to vasoconstriction resulting in decreased flow to the kidneys, causing release of renin. Renin stimulates the formation of angiotensin I is then converted into angiotensin II, a potent vasoconstrictor, which in turn stimulates aldosterone secretion by the adrenal cortex. This hormone causes the retention of sodium and water by the kidney tubules, causing an increase in intravascular volume. All these factors tend to trigger a state of hypertension (Smeltzer, 2002: 121). One of the main approaches in the treatment of hypertension is to lower blood pressure. Diuretics increase the speed of formation of urine or increasing the excretion of water, sodium, and chloride so it can lower blood volume. Drop in blood pressure due to reduced cardiac output. Diuretics also cause blood vessel dilation that can lower blood pressure (Junaidi, 2009: 35).

Hypertension treatment can be done with pharmacological and non-pharmacological. Non-pharmacological treatment, is a non-drug treatment that is applied to hypertension. In this way, a decrease in blood pressure effort through prevention by leading a healthy lifestyle and natural materials (Junaidi, 2010: 29). One way of non-pharmacological treatment is consuming herbal plant which is believed to reduce hypertension. Avocado leaves can be used as a non-pharmacological treatment

Result

Table 1. Normality blood pressure post-test in the control group and the experiment group

	Post Systolic Controls	Post Systolic Eksperimen	Post Diastolic controls	Post Diastolik Eksperimen
P. Value	0,987	0,926	0,709	0,748

Based on the results of Kolmogorov Smirnov-Z the significance value of 0.987 post systolic control, post systolic experiment at 0.926, post diastolic control of 0.709, and post diastolic experiment at 0.748. Therefore, the fourth variable data have a significance value greater than 5% significance level (0.05), it can be expressed throughout the normal distribution of data.

for patients with hypertension, because the avocado leaves contain active substances include saponins, alkaloids, quersetin, flavonoids, polyphenols, tannins, and potassium are substances that are contained in the avocado leaves are as a laxative urine (diuretics), hypotension. In addition, the results of pharmacological experiments, leaf juice has a diuretic effect. Avocado leaves have a bitter taste properties as a laxative urine (diuretic) (Mardiana, 2005: 92).

This study was conducted to analyze the effect of avocado leaves to the reduction of blood pressure in the elderly with hypertension in Panti Werdha "Hargodedali" Surabaya.

Research Methods

In this study, quasy experiment with Non- Equivalent Control Group approach was used. The instruments used is the digital sphygmomanometer for measured blood pressure. For the provision of avocado leaves steeping using a measuring cup 200 cc, and for the manufacture of avocado leaves steeping using Standard Operating Procedure using validity and reliability test. Data analyzed with statistical test used is paired t-test and independent t-test. With the decision if Sig > 0.05 then Ho is accepted, if Sig < 0.05 then Ho is rejected

Table 2. Table Statistical results of two unpaired t-test in the control group influence avocado leaves to the reduction of blood pressure in the elderly with hypertension in Panti Werdha " Hargodedali " Surabaya on 14 - May 20, 2012 .

Group	number	average	The average difference	lower	upper
Systolic Pre controls	10	147,10			
Systolic Post control	10	173,80	-26,700	-32,919	-20,481
Diastolic Pre control	10	93,46			
Diastolic Post controls	10	96,00	-2,600	-4,601	-0,599

Sistolik p=0,000; Diastolik p=0,16

Based on the table above significance value of 0.000 systolic blood pressure and diastolic blood pressure by 0,016. Hence the significance value smaller than the significance level of 5% (0.05) it can be stated that there is a difference in blood pressure pre-test and post-test in the control group. Where an increase in blood pressure in the control group.

Table 3. Table Statistical results of two unpaired t-test in the experimental group influence avocado leaves to the reduction of blood pressure in the elderly with hypertension in Panti Werdha "Hargodedali" Surabaya on 14 - May 20, 2012

Group	Number	Average	The difference average	lower	upper
Sistolik Pre Perlakuan	10	154,00			
Sistolik Post Perlakuan	10	133,20	20,800	18,754	22,846
Diastolik Pre Perlakuan	10	94,30			
Diastolik Post Perlakuan	10	78,90	15,400	14,043	16,757

Sistolik p=0,000; diastolik p=0,000

Based on the table above significance value of 0.000 systolic blood pressure and diastolic blood pressure of 0.000. Hence the significance value smaller than the significance level of 5 % (0.05) it can be stated that there is a difference in blood pressure pre-test and post-test in the experimental group. Where a decline in blood pressure in the treatment group.

Table 4. Table statistical t-test results of two free influence of avocado leaves to the reduction of blood pressure in the elderly with hypertension in Panti Werdha " Hargodedali " Surabaya on 14 - May 20, 2012.

Blood pressure post test	Group	N	Average	The difference average	P.Value
Systolic	Control	10	173,80	40,600	0,000
	Eksperiment	10	133,20		
Diastolic	Control	10	96,00	17,300	0,000
	Eksperiment	10	78,70		

Discussion
Blood pressure prior to the intervention in the control group and treatment

Age, genetic, consume a lot of salt, cholesterol, obesity, and stress is one cause of hypertension. In the elderly over the age of 55 years susceptible to

hypertension. Hypertension in the elderly is caused by many factors, one of which is the aging process (aging process). In accordance with the results of research Darmojo (2005) which states that the prevalence of hypertension will increase markedly after age 45 years. This is due to changes in bodily functions in the elderly that play a role in the occurrence of hypertension.

According to Wolff (2008) a lot of people, especially women showed significant improvement in their systolic pressure, often above 160 mmHg after mencaai age of 60 years. Range of systolic and diastolic blood pressure is very wide. Hypertension that occurs in the elderly is a byproduct of the wear arteriosclerosis of the major arteries, especially the aorta. With the hardening of these arteries due to loss of elasticity of the connective tissue and a decrease in vascular smooth muscle relaxation, which in turn lowers the ability of distension and tensile strength so that the blood vessels become more rigid, resulting in an artery and the aorta was losing power adjustment. The walls, now inelastic, can no longer change the blood out of the heart into a smooth flow (Wolff, 2008). This will lead to vasoconstriction resulting in decreased flow to the kidneys, causing release of renin. Renin stimulates the formation of angiotensin I is then converted into angiotensin II, a potent vasoconstrictor, which in turn stimulates aldosterone secretion by the adrenal cortex. This hormone causes the retention of sodium and water by the kidney tubules, causing an increase in intravascular volume. All these factors tend to trigger a state of hypertension (Smeltzer, 2002: 121).

One of the causes of hypertension is eating too much salt. Many people who have their blood pressure rises after eating too much salt, whereas we need just 3-5 grams per day. The cause is often because salt already in foods, such as soup, fries and noodles are salt more than might be expected or perceived. Salt can increase blood pressure quickly in some people, especially for diabetics,

people with mild hypertension, the elderly once the salt sensitive (Ahmad, 2011: 93). High salt intake can raise blood pressure because of higher sodium content in smooth muscle cells in the artery wall. High sodium content facilitates the entry of potassium into cells, which in turn causes contraction and narrowing the artery's internal diameter. Patients with hypertension do not have a pretty good ability to remove salt from the body (Jain, 2011: 48).

Excessive fat content in the blood, can cause a heap of cholesterol in the walls of blood vessels. It can make blood vessels constrict and cause increased blood pressure. More cases of high blood pressure is found in people who are overweight and obese than those who are thin. This is partly because obese people have to work harder to burn off excess calories they consume and partly because they consume more salt than they should (Ahmad, 2011). Stress is a physical and psychological reaction to the changes experienced by the individual, physical reactions include rapid heart rate, blood pressure rises, and psychosomatic illnesses appear. Stress can be physical or mental cause tension in daily life and lead to the heart beat stronger and faster. Such as the thyroid and adrenal glands also will react with increasing expenditure hormones and the brain's need for blood will increase blood pressure and lead keaikan (Roslina, 2009). There are many elderly people use the time to sit back and watch television, so that boredom often they feel. Results of interviews with several senior researchers about the cuisine there is too salty. These factors may be the cause of hypertension in Panti Jerdha "Hargodedali".

Blood pressure before and after the intervention in the control group

T-2 test results by comparing paired samples of blood pressure pre-test and post-test in the control group which produces $p = 0.000$ for systolic blood pressure and $p = 0.016$ for diastolic blood pressure. This means that

there are differences in blood pressure pre-test and post-test in the control group.

There are many things to be the cause of hypertension in respondents, such factors as age, genetic, consume a lot of salt, cholesterol, obesity, and stress. Most of them are not informed whether there are families those suffering from hypertension, it can be seen that they pay less attention to their health. Most respondents also said that they were before entering the Elderly Nursing "Hargodedali" rarely do their medical examination. As for the possibilities that could trigger an increase in the respondents in Pantu Werdha "Hargodedali" is consuming a lot of salt, because of the results of interviews with respondents there food taste salty. The occurrence of stress also can trigger hypertension in respondents, where the increase in nostalgia with family and economic status are insufficient. A further possibility is because of dementia that occurs in the respondent because of age, which can result in non-compliance in drug consumption. In terms of lifestyle there are a few things to note. Excessive salt intake can be buried in circulation and not so easy to remove. So it may indirectly increase extracellular volume. When there is excess salt in the body, the body fluid osmolality increases. It can increase blood volume thereby increasing blood pressure. Salt intake has a direct effect on blood pressure and has been shown that an increase in blood pressure when getting older is a result of a number of edible salt.

7 Blood pressure before and after the intervention in the treatment group

The test results paired samples t-2 in treatment group produces $p = 0.000$ for blood pressure sistolik and $p = 0.000$ for diastolic blood pressure. This means that there are differences in systolic blood pressure and diastolic both the control group and the treatment group. Where a decline in blood pressure in the experimental group.

As for the possibilities that could trigger an increase in the respondents are consuming a lot of salt, because of the results of interviews with respondents there too salty dishes. The occurrence of stress can also lead to hypertension in respondents, where the increase in nostalgia with family and economic status are insufficient. A further possibility is because of dementia that occurs in the respondent because of age, which can result in non-compliance in drug consumption.

Based on the research results it can be seen that hypertension increases with age. The increasing age of a person, the work function of the body decreases and blood pressure rises. In elderly cardiovascular system changes such as the loss of arterial elasticity. This can cause an increase in pulse and systolic blood pressure. Changes that may play a role in the occurrence of hypertension, the elderly, among others: decreased elasticity of the aorta wall, valvular heart to thicken and become stiff, the heart's ability to pump blood declines and the volume contraction caused the decline, loss of elasticity of blood vessels, increased peripheral vascular resistance (Tamher, 2009).

In this study, researchers gave non-pharmacological therapies for the provision of avocado leaves steeping in 10 respondents in the treatment group. Avocado leaf serves as diuretics for blood pressure reduction. Respondents said that an increase in the frequency of urinating, previously 3-4 times in 24 hours to 6-7 times in 24 hours. This is because flavonoids that of the avocado leaves serves to accelerate the renal glomerular filtration thus able to get rid of waste products from the body quickly, otherwise it could cause all body fluids can be filtered and processed by the kidneys all the time every day, so as to regulate the volume and composition of the fluid body accurately and quickly. Potassium is contained in avocado leaves may also result in an increase in expenses of sodium and water, which causes the plasma and

extracellular fluid volume is reduced so that cardiac output and peripheral resistance decreased resulting in decreased blood pressure.

Blood pressure after intervention in the control group and treatment

Results of two sample t-test was used to compare the free fall in blood pressure between control and treatment groups. T-2 test results by comparing the free samples decrease in systolic blood pressure post test and control group post-test systolic blood pressure treatment group that produces $p = 0.000$. As for the drop in diastolic pressure posttest control group and the treatment group generating $p = 0.000$. This means that there are differences in the results of post test administration avocado leaves in hypertensive patients both in the control group and the experimental.

Based on the results of measurements of blood pressure after the intervention for the provision of avocado leaves all the elderly decreased blood pressure. This is because the elderly who experience a decrease in blood pressure are in good condition, no problems and no stress. The elderly who do not intervene for the provision of avocado leaves, increased blood pressure due to unfavorable conditions, being sick, tired, a lot of activity, and subjected to pressure stress.

Structural changes in the peripheral vascular system responsible for blood pressure changes that occur in the elderly. These changes include atherosclerosis, loss of elasticity of the connective tissue and a decrease in vascular smooth muscle relaxation which in turn lowers the tensile strength of distension and blood vessels. The consequence is that the aorta and large arteries decreases its ability to accommodate the volume of blood pumped by the heart (stroke volume), resulting in decreased cardiac output and increased peripheral resistance (Smeltzer, 2002: 899).

Avocado leaves in patient with hypertension serves as a diuretic.

Respondents said that an increase in the frequency of urinating, previously 3-4 times in 24 hours to 6-7 times in 24 hours. This is because the content of the avocado leaves have very beneficial for blood pressure reduction, namely flavonoids and potassium. Flavonoids exist in avocado leaves serves to accelerate the renal glomerular filtration thus able to get rid of waste products from the body quickly, otherwise it could cause all body fluids can be filtered and processed by the kidneys all the time every day, so as to regulate the volume and composition of body fluids appropriately and fast. Potassium is contained in avocado leaves may also result in an increase in expenses of sodium and water, which causes the plasma and extracellular fluid volume is reduced so that cardiac output and peripheral resistance decreased resulting in decreased blood pressure.

3 Conclusions and Recommendations Conclusion

Based on this study that the administration of the avocado leaves steeping is given once a day (200 cc) for one week can lower blood pressure in the elderly with hypertension in Panti Werdha "Hargododali" Surabaya.

Recommendation

Provide information and solve health problems of elderly with hypertension, and to improve the health of the elderly. Avocado leaves can be used as a non-pharmacological treatment option for the elderly for the treatment of hypertension one time a day.

For Research

Suggested as a consideration in the treatment of hypertension in the elderly through the provision of avocado leaves as a non-pharmacological lowering hypertension.

For Health Workers

Can be one of alternative non-pharmacologic treatment to reduce hypertension in the elderly.

For further research

- Potter, Perry. (2009). *Fundamental Keperawatan*, Buku 3, Edisi 7, Alih bahasa: Ns. Diah Nur Fitriani, S.Kep., dkk. Jakarta: Salemba Medika
- Shanti, D. (2013). *Mengenal Lebih Jauh Tentang Insomnia*, <http://artikelduniawanita.com>, 3, diakses pada tanggal 1 juni 2013 jam 23.10 WIB
- Sativa, L.R. (2012). *Fakta Aneh Tentang Insomnia*, <http://health.detik.com>, diakses pada tanggal 1 juni 2013 jam 22.30 WIB
- Setyoadi & Kushariyadi. (2011). *Terapi Modalitas Keperawatan pada Klien Psikogeriatrik*. Jakarta: Salemba Medika
- Turana, Y. (2007). *Gangguan Tidur, Insomnia*, http://www.medikaholistik.com/medika.html?xmodule=document_detail&xid=183&ts=1366676325&q=health, diunduh tanggal 21 april 2013 jam 08.00 WIB
- Waluyo, S.H. (2009). *Apakah Gelombang Otak Itu?*, <http://mayapadaprana.com>, diakses pada tanggal 8 Mei 2013 jam 11:28 WIB

Paper

ORIGINALITY REPORT

11 %	13 %	1 %	5 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	garest.net Internet Source	5 %
2	docobook.com Internet Source	2 %
3	publikasi.stikesstrada.ac.id Internet Source	1 %
4	www.saptabakti.ac.id Internet Source	1 %
5	healthylivingordie.blogspot.co.id Internet Source	1 %
6	eprints.ners.unair.ac.id Internet Source	1 %
7	media.neliti.com Internet Source	1 %
8	www.scribd.com Internet Source	1 %

Exclude quotes On

Exclude bibliography Off

Exclude matches < 1%