

The Effect Of Giving Young Coconut Water On Changes In Blood Pressure In Elderly People With Hypertension In The Wori Health Center Work Area, North Minahasa Regency

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ARTICLE INFO

Keywords:

Young Coconut Water,
Hypertension,
Elderly

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ABSTRACT

Hypertension is a disease in which blood pressure will increase according to age. The treatment of hypertension can be pharmacologically and nonpharmacologically. Among them use young coconut water. The purpose of this research is to determine the effect of young coconut water to reduce the blood pressure of the elderly people with hypertension in the Wori Minahasa Utara Health Center Work Area. Using the pre-experiment method, with a one-group pre- and post-test design. The sample used was 18 people with accidental sampling. The data is collected using observation sheets and SOPs. Then it is processed using the SPSS program version 16.0 with a paired t-test. The results of this research were obtained by most respondents there were changes after being given young coconut water. The conclusion of the paired T test analysis results obtained the average blood pressure value before giving young coconut water, which was 139.00 with a P value (0.000) or $<\alpha$ (0.05) and after being given young coconut water, the average was 130.93 with a P value (0.000) or $<\alpha$ (0.05). process activities about stress management to reduce nurse stress

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1. INTRODUCTION

Age carry on is somebody Which has entered the age of 60 years to top . In line with increase age one , then carry on age will experience something change Good change physical , psychosocial or social . One h a t change Which most prominent has change physique Which be marked with exists change on function biology s which No its presence can be prevented (*RI Ministry of Health , 201 8*).

According to WHO in 2015 hypertension is one _ reason main death early around the world. It is estimated that in 2020 , around 1.56 billion age mature experience hypertension . Every Nearly 8 billion people in the world and 1.5 million in the East Asia region die Because hypertension . In the East Asia region , almost one third from age mature suffer hypertension (Sartika & Vebi , 2020).

Prevalence Hypertension based on Results of Measurements on the Population Age ≥ 18 Years according to Province , Riskesdas 2018. Hypertension in Indonesia is problem health with prevalence highest namely (44%) in South Kalimantan followed in West Java (39.60%). Disease hypertension is disease with amount The highest prevalence is experienced by the elderly , namely at the age of 45-54 years around 45.32%, aged 55-64 years around 55.23%, aged 65-74 years about 63.22% and age over 75 years reached 69.53% (Rikesdas , 2018). Somebody stated experience disease hypertension when pressure systolic reach above 140mmHg and pressure diastolic above 90 mm Hg (Hasanudin et al., 2018).

Treatment hypertension can done among them is with method pharmacological and non - pharmacological . Effects that arise become reason sufferer No obey in carrying out treatment and tend to and often not care about the patient 's symptoms the . With phenomena this , therapy and non-pharmacological treatment is choices that can be made in therapy even in medicine to overcome hypertension can done by means gift coconut water therapy many young _ contains potassium and magnesium (Fadlilah & Saputri , 2018).

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Coconut water therapy is very beneficial for sufferer hypertension . Drink coconut water add essential minerals especially potassium which is very much needed For lower pressure blood . Not only In addition , the adequacy of potassium is also beneficial increase other related functions from health vessels blood . However knowledge public will treatment nonpharmacology specifically coconut water therapy For disease hypertension Still less . (Hasanah , HU 2021).

Based on data obtained during the initial survey and observations at the Wori Health Center, PTM (Non-Communicable Diseases) in 2022 people with the highest diagnosis of hypertension, found around 1,869 people diagnosed with hypertension starting at the age of 15-59 years. Meanwhile, there were 216 elderly people with hypertension in Wori Village, consisting of 87 men and 129 women. A total of 25 active elderly people came to Posyandu, 18 people who suffered from hypertension. The health service program that is carried out is the Prolanis activity where blood pressure checks for the elderly with hypertension will be carried out, counseling, gymnastics and other activities.

The observations made were by conducting interviews or asking questions regarding the understanding of the people who visited the Wori Health Center regarding the benefits of young coconut water for body health and only knowing that coconut water is good for body health but they do not know the specific benefits of coconut water. young coconut water, especially in terms of utilizing young coconut water to lower blood pressure when consumed by people with hypertension, and is able to improve blood circulation for healthy people, as well as good benefits for the health of blood circulation in the body where the use of young coconut water can made as an alternative form of therapy or medication to maintain blood pressure within normal limits, especially in the elderly with hypertension.

Coconut plants in Wori Village are more often used as a livelihood, namely by being used as copra which is sold to be used as raw material for making cooking oil. Local people use coconut more for food needs, for example, it is made into cooking oil, coconut milk, and other coconut-based processed ingredients compared to using young coconut water to treat various health problems, especially hypertension. Based on results of observations and surveys that has been obtained by researchers , then researcher want to apply the knowledge that is already owned by observation and experimentation in this study by providing an intervention with the title Effect of young coconut water on change pressure blood in the elderly sufferer hypertension in the working area of the Wori Health Center.

2. METHOD

Using the pre-experimental method, with a one group pre and post test design. The sample used was 18 people with accidental sampling. This research was carried out in the working area of the Wori Public Health Center, North Sulawesi, especially in Wori Village on month June-July 2022 .

In this study, there were 15 respondents, namely elderly people with hypertension, where data were obtained from the Wori community who had PTM (non-communicable diseases) in 2022, the community with the highest diagnosis of hypertension, found around 1,869 people diagnosed with hypertension starting at the age of 15 - 59 years. Meanwhile, there were 216 elderly people with hypertension in Wori Village, consisting of 87 men and 129 women. A total of 25 active elderly people came to Posyandu, 18 people who suffered from hypertension.

The sampling technique used was Acidental Sampling with an observation sheet for measuring blood pressure and SOP for measuring blood pressure. Then processed using SPSS version 16.0 with paired t-test .

Research Ethics who are researchers do that is *informed consent* (approval respondent) Before do study especially formerly researcher request willingness to respondent For become respondent in study Then respondent sign sheet agreement (*informed consent*), *Anonymity* (without name) Researcher No list Name but only initials respondents on the sheet questionnaire or results research , and *Confidentially* (secrecy) At the time take all information that has collected from respondent researcher ensure secrecy from every respondent , only data group like documentation certain researchers _ use on results study

3. RESULTS AND DISCUSSION

Table 1. Distribution of the frequency of respondents based on the age of the respondents in the work area of the Wori Health Center (n=15)

Age	Number of Respondents	
	Frequency (n)	Percent (%)
45-54 Years	8	53.3
55-65 Years	4	26.7
66-74 Years	3	20.0
Total	15	100.0

Table 3 Frequency distribution of respondents based on changes in blood pressure before and after being given an intervention, namely giving young coconut water to the elderly in the working area of the Wori Health Center (n = 15).

Measurement time	systolic blood pressure			Diastolic blood pressure		
	n	Means	Min-Max	n	Means	Min-Max
Before	15	139	128-155	15	84.73	69-98
After	15	130.93	120-148	15	79.73	66-89

Table 4 Results of Analysis of the Effectiveness of Young Coconut Water Therapy on Changes in Blood Pressure in the Work Area of the Wori Health Center (n=15)

Blood pressure	Means	Standard Deviation	Average increase	P Value
Pre-test systole	139.00	8,718	54,267	0.000
Diastolic Pretest	84.73	8,422		
Systole Post Test	130.93	8,455	51,200	0.000
Post Diastolic Test	79.73	7,658		

Based on Table 1. From the results of the table described above, it can be seen that the respondents in the Wori Health Center work area aged 45-54 years were 8 people with a presentation rate (53.3%), while those aged 55-65 were respondents totaling 4 people with a presentation rate (26.7%), and respondents aged 66-74 years totaling 3 people with a presentation rate (20.0%).

Based on table 2. which has been described, it can be seen that there are characteristics of male respondents totaling 5 people with a presentation rate (33.3%), while the characteristics of female respondents are 10 people with a percentage percentage (66.7%).

Based on table 3 above, systolic blood pressure before being given young coconut water was on average 139 with a minimum value of 128 and a maximum value of 155 while after being given young coconut water the average systolic blood pressure was 130.93 with a minimum value of 120 and a maximum of 148, blood pressure diastolic before being given young coconut water was at an average of 84.73 with a minimum value of 69 and a maximum of 98 and diastolic blood pressure after being given young coconut water was at an average of 79.73 with a minimum value of 66 and a maximum of 89.

Based on Table 4. The paired T-test analysis above obtained an average systolic blood pressure before being given young coconut water, namely 139.00 with a standard deviation of 8.718 and obtained a P value (0.000) or $< \alpha$ (0.05) and T count (19.124) $>$ T table, while the average systolic value after being given young coconut water is 130.93 with a standard deviation of 8.455 and get a P value (0.000) or $< \alpha$ (0.05) and T count (18,687) $>$ T table. The average diastolic value before giving young coconut water is 84.73 with a standard deviation of 8.422 and getting a P value (0.000) or $< \alpha$ (0.05), while the average value of diastole after being given young coconut water is 79.73 with a standard deviation of 7.658 and gets a P value (0.000) or $< \alpha$ (0.05) which means that H_0 is rejected, meaning that there is a significant difference between the efficacy values before and after the intervention is given, which means that the hypothesis H_a is accepted or there is an effect of giving

young coconut water on changes in blood pressure in elderly people with hypertension in the Region. Wori Health Center work.

DISCUSSION

The results of the characteristics of the respondents that were obtained were age and gender. In the first characteristic, namely the age of respondents with ages ranging from 45-74 years. According to this data, it can be said that age is a factor that is quite at risk of developing hypertension. The older a person is, the chances of increasing blood pressure will continue to occur until the age of 80 years. Changes in the heart that generally occur are a decrease in the effectiveness of the working power of the heart muscle, this risks the occurrence of atherosclerosis (blockage of the blood vessels) so that the heart is required to work harder to pump blood which causes hypertension. Each of these events is influenced by the aging process which makes the elderly at risk of disease. (Hamad, 2020)

The second characteristic, namely gender, is that the majority of respondents who have hypertension are female. This happens because the female sex is more at risk of developing hypertension when they are about to enter the age of 50 and over. (Hamad, 2014. This is in accordance with research conducted by Yunarti Petrika, and Ayu Rafiony with the title Young coconut water can reduce blood pressure in people with hypertension with the results showing that the majority of respondents were more female (79%) compared to with male respondents (21%).

this _ caused Because happening decline hormone estrogen in the ovaries, which are hormones estrogen this is when menopause comes into play increase pressure blood Because literally effect biological can cause endothelial vasodilation . _ Furthermore endothelium will operate his job with use stimulant acetylcholine on the feathers blood arm so that influence estrogen to response pressure blood to stress so that trigger pressure blood increase . Wahyuni , ES (2018).

The results of the paired T-test analysis above obtained an average systolic blood pressure before being given young coconut water, namely 139.00 with a standard deviation of 8.718 and obtained a P value (0.000) or $< \alpha$ (0.05) and T count (19.124) $>$ T table, while the average systolic value after being given young coconut water is 130.93 with a standard deviation of 8.455 and get a P value (0.000) or $< \alpha$ (0.05) and T count (18,687) $>$ T table. The average diastolic value before giving young coconut water is 84.73 with a standard deviation of 8.422 and getting a P value (0.000) or $< \alpha$ (0.05), while the average value of diastole after being given young coconut water is 79.73 with a standard deviation of 7.658 and gets a P value (0.000) or $< \alpha$ (0.05) which means that H_0 is rejected, meaning that there is a significant difference between the efficacy values before and after the intervention is given, which means that the hypothesis H_a is accepted or there is an effect of giving young coconut water on changes in blood pressure in elderly people with hypertension in the Region. Wori Health Center work.

With the presence of young coconut water, it can be used as an alternative therapy to reduce high blood pressure if consumed in sufficient quantities, because young coconut water is high in potassium which can improve blood flow which makes blood circulation throughout the body smooth and there is a decrease in blood pressure. .

Therefore, with the research that has been carried out based on references to previous studies and the results that have been directly proven by researchers, there is an effect of giving young coconut water to elderly people with hypertension in the working area of the North Minahasa Wori Health Center. By utilizing the natural resources that are around us, especially young coconut water, it is highly recommended to avoid the risk of hypertension.

4. CONCLUSION

There were changes in blood pressure before and after being given young coconut water therapy to elderly people with hypertension in the Work area of the Wori Health Center

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