

Description Of The Level Of Knowledge Of Hypertension Patients About Sweet Starball Juice (Averrhoa Carambola) as a Reduct Of Hypertension in Bona Village Gianyar

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Abstract. Hypertension has become a focus of health attention in the world because it is one of the causes of disease and death that occurs worldwide. Awareness of the dangerous impacts of hypertension is still not everyone's awareness. The absence of physical symptoms that appear in hypertension sufferers causes them to feel that they do not have the disease or feel healthy. Non-compliance with medication consumption is still one of the causal factors that worsens the condition of hypertension sufferers. Star fruit (*Averrhoa carambola*) is very useful in helping lower blood pressure because it contains fiber, provitamin A, vitamin C, vitamin B1, vitamin B2, phosphorus, calcium, iron, potassium which are useful in lowering blood pressure. This research uses a descriptive survey method. Sampling was taken using a total sampling technique with a total sample of 30 people, namely hypertension sufferers in Bona Gianyar Village. The instrument used was a questionnaire. The results of this research showed that the majority of respondents had a good level of knowledge (60.0%) and a discussion of the level of knowledge of the characteristics of the respondents showed that the level of knowledge was good based on the age of the majority aged 46-55 years, amounting to (33.3%), based on gender, namely female respondents amounted to (56.7%), based on occupation, namely private employee respondents amounted to (30.0%) and based on education, namely respondents with a high school education amounted to (73.3%). Most respondents have a good level of knowledge about sweet starfruit juice as a way to reduce hypertension. It is hoped that the results of this research can be used by the community as a form of non-pharmacological treatment.

Keywords : Level of knowledge, Hypertension sufferers, Sweet star fruit juice

1. INTRODUCTION

Hypertension has become a focus of health attention in the world because it is one of the causes of disease and death that occurs worldwide. Hypertension is a factor that causes various types of diseases such as stroke, heart disease, chronic kidney failure and causes , awareness of the dangerous impacts of hypertension is still not yet everyone's awareness. The absence of physical symptoms that appear in hypertension sufferers causes them to feel that they do not have the disease or feel healthy. Non-compliance with medication consumption is still one of the causal factors that worsens the condition of hypertension sufferers Information from *the World Health Organization* in 2015 shows that approximately 1.13 billion people suffer from hypertension. The highest prevalence of hypertension in the world is in the African region at 27%, and in Southeast Asia with a prevalence of 25% which is in third place.

In Bali Province, the prevalence of people suffering from hypertension, according to Riskesdas 2018, shows that in Gianyar district there are 11.77% of people suffering from hypertension.

One alternative treatment that is non-pharmacological is starfruit (*averrhoa carambola*) which contains substances beneficial to health in the form of energy, carbohydrates, dietary fiber, fat and protein. This fruit is crunchy when eaten, tastes sweet, slightly sour and contains

lots of vitamin C (Putra, 2013). Star fruit (*Averrhoa carambola*) is very useful in helping lower blood pressure because it contains fiber, provitamin A, vitamin C, vitamin B1, vitamin B2, phosphorus, calcium, iron, potassium which are useful for lowering blood pressure (Ruslianti, 2013). The diet used by people in developed countries for hypertension patients is the *DASH diet* or *Dietary Approaches to Stop Hypertension* which is a vegetable and fruit diet. which contains a lot of dietary fiber (30 grams/day) such as sweet star fruit (*averrhoa carambola*) and certain minerals (potassium, magnesium and calcium) while limiting salt consumption.

A preliminary study conducted on December 14 2020 obtained data from the Bona Gianyar Village Health Center that there were 30 people suffering from hypertension over a period of 9 months from January to September with 19 male respondents and 11 female respondents. From the results of interviews using direct questionnaires, it was found that 6 respondents suffered from hypertension, 4 respondents' level of knowledge about sweet star fruit juice as a way to reduce hypertension was still low and 2 respondents' level of knowledge about sweet star fruit juice as a way to reduce hypertension was moderate. In Bona Gianyar Village the level of knowledge about sweet star fruit juice as a way to reduce hypertension was moderate. Hypertension is ranked 4th out of the 10 largest diseases in the Bona Village health center.

2. METHODS

Research design

The research design used was *a descriptive survey*, the location of this research was carried out in Bona Gianyar Village in March 2021.

Population and sample

The population in this study were 30 respondents suffering from hypertension. The sample is part of the number and characteristics of the population. This sampling technique uses *total sampling*. The reason for taking *total sampling* is because the population is less than 100 people, so the entire population is used as the research sample.

Data analysis

The processed data is then analyzed using descriptive analysis, namely a data processing procedure by scientifically summarizing the data in the form of tables or graphs [5]. In this study, the researcher then carried out an analysis of the calculations for each respondent, the statement items that had been grouped were then tabulated and the percentages were

calculated using the SPSS application with the categories good 76 - 100%, medium 56 - 75%, and low < 55%.

3. RESULTS

Table 1. Distribution of respondent characteristics based on age in Bona Gianyar Village, March-April 2021

Age	Frequency (n)	Percentage (%)
17-25 Years	2	6,7
26-35 Years	5	16.7
36-45 Years	4	13.3
46-55 Years	10	33.3
56-65 Years	7	23.3
> 65 Years	2	6,7
Total	30	100.0

Characteristics by age

Based on the data in the table above, from 30 respondents, it was found that the ages of hypertension sufferers were 10 respondents (33.3%) aged 46-55 years, 7 respondents aged 56-65 years (23.3%), 5 respondents aged 26-35 years. respondents (16.7%), 4 respondents aged 36-45 years (13.3%), 2 respondents aged 17-25 years (6.7%), and 2 respondents aged 65 years and over (6.7%).). It can be concluded that the age of most respondents was in the range of 46-55 years with 10 respondents (23.3%).

Table 2. Distribution of respondent characteristics based on gender in Bona Gianyar Village, March-April 2021

Gender	Frequency (f)	Percentage (%)
Man	13	43.3
Woman	17	56.7
Amount	30	100.0

Characteristics by gender

Based on the data in table 2, of the 30 respondents, 17 respondents (56.7%) were female and 13 respondents (43.3%) were male. It can be concluded that the gender of the majority of respondents was female with 17 respondents (43.3%).

Table 3. Distribution of respondent characteristics based on type of work in Bona Gianyar Village, March-April 2021

Work	Frequency (f)	Percentage (%)
Civil servants	1	3.3
Self-employed	8	26.7
Farmer	5	16.7
Trader	7	23.3
Private sector employee	9	30.0
Amount	30	100.0

Characteristics by type of work

Based on the data in table 3. above, of the 30 respondents, the most common jobs were private employees with 9 respondents (30.0%), followed by entrepreneurs with 8 respondents (26.7%), traders with 7 respondents (23.3%) , farmers were 5 respondents (16.7%), and civil servants were 1 respondent (3.3%). It can be concluded that the majority of jobs are private employees with 9 respondents (30.0%).

Table 4. Distribution of respondent characteristics based on last level of education in Bona Gianyar Village, March-April 2021

Education	Frequency (f)	Percentage (%)
elementary school	4	13.3
SENIOR HIGH SCHOOL	22	73.3
COLLEGE	4	13.3
Amount	30	100.0

Characteristics by last type of education

Based on the data in table 4, of the 30 respondents, it was found that 22 respondents with hypertension had high school education (73.3%), 4 respondents from elementary school (13.3%), and 4 respondents from higher education (13.3%). It can be concluded that the highest level of education among respondents was high school, with 22 respondents (73.3%).

Table 5. Frequency Distribution of Knowledge Level of Hypertension Sufferers about Starfruit Juice (averrhoa carambola) Sweet for Reducing Hypertension in Bona Gianyar Village March-April 2021

Knowledge level	Frequency (n)	Percentage (%)
Low	6	20.0
Currently	6	20.0
Good	18	60.0
Amount	30	100.0

Based on the data in table 5, it was obtained from 30 respondents, namely the majority or 18 respondents (60.0%) had a good level of knowledge regarding sweet star fruit juice for reducing hypertension, 6 respondents (20.0%) had a medium level of knowledge and 6 respondents (20.0%) with a low level of knowledge. It can be concluded that the highest level of knowledge of respondents is in the good level of knowledge category, namely 18 respondents (60.0%).

4. DISCUSSION

1. Age

The results of this study showed that the majority of respondents were in the early elderly, namely 10 respondents (33.3%) with an age range of 46-55 years. Based on the theory that as a person ages, there is a decrease in physiological function and body resistance which occurs due to the aging process which can cause a person to be susceptible to disease, one of which is hypertension [2]. In the age range of 46-55 years, hypertension sufferers are in the productive category, at this age their intelligence development is still good for accepting new things. The results of this research are in line with research conducted by Ferdiana (2017), the distribution of respondents based on age of hypertension sufferers was 29 respondents, showing that almost all of the respondents were 55 years old, namely 8 people or 27.6%. At this age, people often suffer from high blood pressure because they rarely control their salt and food diet [6].

2. Gender

The results of this study showed that the majority of respondents were female, namely 17 respondents (56.7%). Based on theory according to Singalingging (2011), the average woman will experience an increased risk of high blood pressure (hypertension) after menopause, namely over 45 years of age. Women who have not yet reached menopause are protected by the hormone estrogen which plays a role in increasing *High Density Lipoprotein* (HDL) levels. Low HDL cholesterol levels and high LDL cholesterol (*Low Density Lipoprotein*) influence the process of atherosclerosis. The risk of blood pressure in women increases, especially after menopause due to a decrease in the hormone estrogen, therefore the risk of hypertension in women is more dominant . The results of this research are in line with research by Ferdiana (2017), the distribution of respondents based on gender of hypertension sufferers shows that more than 20 respondents were female or 69% and a small proportion

were male, 9 people or 31%. That in the female gender there is an influence in increasing a person's blood pressure.

3. Work

The results of this research show that the majority of respondents work as private employees, namely 9 respondents (30.0%). The results of this research are based on theory (lovastatin, 2014), namely that the type of work is related to the body's active activity in carrying out physical activities, people who are physically active tend to experience an increase in blood pressure, one of the reasons being stress . So jobs that involve physical activity, such as employees or household workers, tend to experience more hypertension, one of the causes of which is stress. Based on research conducted by Ferdiana (2017), some respondents worked as farmers, namely 14 people or (48.3%), housewives (34.5%) 10 respondents, entrepreneurs 5 respondents (17.2%). From the results of this research, work that involves physical activity tends to influence the level of knowledge among hypertension sufferers about sweet star fruit juice for reducing hypertension.

4. Last education

Based on the results of this study, it shows that the most recent education of the dominant respondents was high school (high school) out of 30 people with hypertension, 22 respondents (73.3%). Based on theory according to (Notoadmojo, 2010), which states that low education will result in low knowledge. If someone has a high level of knowledge or gets information well, they will get maximum knowledge and vice versa, if their level of education is low then their knowledge will also be low. Based on these results, it is in line with Rika's (2019) research, where the majority of respondents with hypertension had a high school level education of (60%) respondents, undergraduates (20%) of respondents, while junior high and elementary school students had the same size, namely (10%) of respondents. So the higher education will affect a person's level of knowledge.

5. Knowledge Level of Hypertension Sufferers

The results of this study show that the percentage obtained by the level of knowledge of hypertension sufferers about sweet starfruit juice reducing hypertension in Bona Gianyar Village is 18 respondents (60.0%) with a good level of knowledge, this is because the education of the majority of respondents is high school, according to researchers the level of education

can influence the pattern a person's thoughts, personality and behavior. In accordance with the theory of Notoadmodjo (2010) which states that the higher a person's level of education, the higher their level of knowledge. Conversely, if a person has low education, it will hinder the development of a person's attitude towards newly introduced values.

The results of this study are supported by the explanation from Soemitro (2014), that the level of knowledge of hypertensive patients in Malang Regency health centers shows that the level of knowledge is quite high, namely 68.32% of hypertensive patients have good knowledge (Adequate), and only 31.68% of patients hypertension has sufficient knowledge (Marginal). Meanwhile, there were no patients who had poor knowledge (Inadequate). Where it is said that things influence the level of knowledge through the level of education, sources of information, culture, experience and socio-economic conditions

5. CONCLUSION

Based on research that has been carried out regarding the description of the level of knowledge of hypertension sufferers about sweet star fruit juice for reducing hypertension in Bona Gianyar Village with 30 respondents, it can be concluded as follows:

1. The characteristics of respondents based on age were mostly in the 46-55 year age range, namely 10 people (33.3%). Based on gender, 17 people (56.7%) were women. Based on type of work, 9 people (30.0%) are private employees. Based on the latest education, 22 people (73.3%) had a high school education.
2. Description of the level of knowledge of hypertension sufferers about sweet starfruit juice for reducing hypertension. In Bona Gianyar Village, the results showed that the average level of knowledge was in the good category, namely 18 people (60.0%).

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