

PERCEPTION OF HYPERTENSION PATIENTS ON THE USE OF HERBAL DRUGS IN COMPLEMENTARY THERAPY OF HYPERTENSION IN DENPASAR CITY

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ABSTRACT

Backgrounds: Hypertension or Silent killer is a condition when the systolic pressure is measured 140 mmHg or the diastolic pressure is measured 90 mmHg. The prevalence of hypertension in Denpasar City is still quite high, with an estimated 177,627 hypertension sufferers in Denpasar City in 2019. One alternative treatment that can be an option to lower blood pressure is herbal therapy. Herbal therapy is complementary therapy using medicinal plants. **Objective:** The purpose of this research is to identify the characteristics of respondents, the perception of hypertension sufferers on the use of herbal medicines in the complementary therapy of hypertension and the types of herbs used in complementary therapy of hypertension. The type of research used is descriptive research with using a quantitative approach. **Methods:** Sampling technique is purposive sampling. The research sample is hypertensive patients who use conventional and complementary herbal combination therapy, age >17-65 years, using a research instrument in the form of a questionnaire. Data analysis is carried out using SPSS software. **Results:** The majority of hypertension sufferers are in the age range of 46-65 years (elderly) as many as 71 people (71%), female as many as 57 people (57%). Respondents who have a positive perception of 55% and who have a negative perception of 45%. The types of herbs used are cucumber, melon, watermelon, celery leaves, bay leaves, moringa leaves, meniran leaves, garlic and Ginger. **Conclusion:** The majority of hypertensive patients perceptions of drug use herbs in the complementary therapy of hypertension has a positive value. That means, respondents believe that herbs have benefits and can help reduce treatment costs. The most widely used types of herbs are:cucumber (40%) and celery leaves (30%). **Keywords:** Hypertension; Perception; Complementary Therapy

INTRODUCTION

Hypertension or high blood pressure is a condition of systolic pressure 140 mmHg or diastolic pressure 90 mmHg. Hypertension is also known as the "Silent Killer" which sufferers often don't realize because they have no symptoms^[1-3]. One of the treatment options to lower blood pressure is herbal medicine. Herbal medicine is a complementary therapy using medicinal plants. Herbal complementary therapies are chosen by the community for reasons of belief in the benefits of the herbs used, reactions or side effects that are milder than the use of conventional drugs,

the herbs used are easy to obtain, and are able to help reduce treatment costs^[4-6].

In choosing herbal complementary therapies for hypertension, the perception of hypertension sufferers can also influence^[6,9]. Perception is an assessment process based on the senses of each human being which causes the perception of each person to be different. The purpose of this study was to identify the characteristics of respondents in people who have hypertension, to determine the perception of people who suffer from hypertension to the use of herbal medicines in

complementary therapy for hypertension, and to determine the types of herbs used by people with hypertension to treat hypertension. The benefit of this research is that it is hoped that the results of this study can be used as a reference or reference related to the use of herbal medicines in complementary hypertension therapy for further researchers, people with hypertension and for health professionals^[6,9,11].

METHODS

This research is included in the type of descriptive research using a quantitative approach. The variable of this research is the perception of hypertensive patients on the use of herbal medicines in the complementary therapy of hypertension in the city of Denpasar. The sampling technique used in this study was the purposive sampling technique, which was carried out at Puskesmas I North Denpasar, Puskesmas I west Denpasar, Puskesmas I east Denpasar and Puskesmas I south Denpasar. The sample used is 100 respondents, where in each sub-district is represented by 25 respondents who have met the inclusion and exclusion criteria of the study.

The sample of this research is hypertensive patients who use herbal medicine in complementary hypertension therapy. The research measuring instrument is by using a likert scale, then the results of the respondents answers will be tested for data distribution to be able to divide the category of perception assessment, where there will be a category of positive perception and a category of negative perception. After testing the distribution of the data, it was found that the data was not normally distributed, therefore in dividing the two categories of perceptions, the median value (the median value was 38) was used, where the result for the positive perception category the score was 38 and the negative perception score was <38.

RESULTS

1. Distribution Characteristics Respondent

In table 1 it can be described that for the distribution of characteristics of respondents with hypertension (age, gender, level of education, occupation and marital status), the majority of respondents fall into the age range of 46-65 years (elderly) as many as 71 people (71%), 57 women (57%), the majority of respondents' education is high school as many as 60 people (60%), with the majority of respondents working as entrepreneurs or private employees 76 people (76%), and the majority of respondents' marital status is married 96 people (96%).

Table 1. Distribution Characteristics of Respondents

Variable	Total (n=100)	Percentage (%)
Age		
17-25 years (Teenagers)	0	0%
26-45 years (Adult)	29	29%
46-65 years old (Seniors)	71	71%
Gender		
Man	43	43%
Woman	57	57%
Level of education		
Not Finished School	0	0%
Primary School	17	17%
Junior High School	23	23%
Senior High School	60	60%
Higher Education (D3/D4/S1/S2/S3)	0	0%
Work		
Doesn't work	23	23%
Entrepreneur/Private Employee	76	76%
civil servant	0	0%
Student	0	0%
Other	1	1%
Marital status		
Not married yet	1	1%
Marry	96	96%
Widow/widower	3	3%

In table 2 shows the results of the answers to open questions from respondents on the questionnaire regarding sources of information related to the

benefits of herbs used. The majority of respondents answered the information obtained related to the herbs used, namely from family by 56%, friends 34% and 10% from the internet. From the results obtained, it can be seen that previous experiences from family or friends can affect a person's perception when choosing or using herbs in complementary therapy for hypertension.

Table 2. Sources of Information on the Use of Herbal Medicines

No.	Herbal Medicine Information Source	Amount	Percentage
1.	Family	56	56%
2.	Friend	34	34%
3.	Internet	10	10%
	Total	100	100%

2. Perception of Hypertension Patients on the Use of Herbal Medicines in Complementary Therapy of Hypertension

In Table 3, it can be described related to the results regarding the perception of hypertension sufferers towards the use of herbal medicines in complementary hypertension therapy, namely respondents who have a positive perception of the use of herbal medicines in complementary hypertension therapy, which is 55%, while those who have a negative perception are 45%.

Table 3. Frequency of Hypertension Patients' Perceptions of the Use of Herbal Medicines

No.	Perception Category	Frequency	Percentage
1.	Positive Perception	55	55%
2.	Negative Perception	45	45%
	Total	100	100%

Table 4 shows the distribution of respondents' answers to each statement in the answer choices on the questionnaire regarding the perception of hypertension

sufferers towards the use of herbal medicines in complementary hypertension therapy. The answer options available to answer statements regarding the perception of hypertension sufferers who use herbal medicines in complementary hypertension therapy are strongly disagreed, disagree, agree, and strongly agree, with a scale of 1-4.

3. Types of Herbs Used in Complementary Therapy of Hypertension

In table 5 related to the types of herbs that are most widely used as a complementary therapy for hypertension by respondents, it can be described that the leaves most used are Celery Leaves (30%), Salam Leaves (6%), Meniran Leaves (6%) and Leaves Moringa (4%). In the fruit section, the most widely used are Cucumber (40%), Melon (3%) and Watermelon (2%). Furthermore, in the Rhizome section used by respondents, namely Ginger (1%), and finally in the Bulbs section, respondents used Garlic or Kesuna (8%).

Table 5. Types of Herbs Used as Complementary Therapy for Hypertension

Type	Name	Amount	Percentage	
Leaf	Celery leaves	30	30%	
	Bay leaf	6	6%	
	Moringa Leaves	4	4%	
	Meniran Leaves	6	6%	
	Fruit	Cucumber	40	40%
		Watermelon	2	2%
Melon		3	3%	
Rhizome	Ginger	1	1%	
Tuber	Garlic/Kesuna	8	8%	
Total		100	100%	

DISCUSSION

1. Characteristics of Respondents

In this study using a minimum age range of >17 years, because according to

Table 4. Distribution of Respondents' Questionnaire Answers

No	Statement	RESPONSE				Total
		SS	S	TS	STS	
1	Complementary (Herbal) therapy for lowering blood pressure benefits my health	69%	31%	0%	0%	100%
2	Complementary therapies (herbs) to lower blood pressure reduce my symptoms	77%	23%	0%	0%	100%
3	The use of a combination of complementary therapy (herbs) and conventional therapy is better than using conventional therapy alone.	66%	34%	0%	0%	100%
4	Complementary therapies (herbs) to lower blood pressure have serious side effects	0%	0%	17%	83%	100%
5	Complementary therapy (herbal) lowering blood pressure is not safe to use compared to conventional therapy	0%	0%	43%	57%	100%
6	Herbs that will be used as therapy are easy to obtain	96%	3%	1%	0%	100%
7	Information about complementary therapies (herbs) for lowering blood pressure is easy to obtain	45%	55%	0%	0%	100%
8	Information about complementary therapies (herbs) for lowering blood pressure is easy to understand	72%	28%	0%	0%	100%
9	The use of complementary (herbal) therapies can help me reduce medical costs	68%	32%	0%	0%	100%
10	I use complementary therapy (herbal) for hypertension because of my family's experience.	78%	22%	0%	0%	100%

Estiningsih (2012) it is said that a person aged 18-44 years is more at risk of developing hypertension, this can also occur due to factors from abnormal BMI (Body Mass Index). Meanwhile, according to the Ministry of Health (2017) Hypertension mainly occurs at the age of > 45 years, with hypertension in postmenopausal women especially seen at the age of > 45 to 65 years. Hormonal changes after menopause can increase the risk of degenerative diseases, including hypertension^[17].

In table 1, it can be seen that the prevalence of hypertension in women is 57%. This can happen because it is also related to the age of the patient. Where female hypertensive patients aged >45 years have a higher risk of developing hypertension, because at that age women begin to lose the hormone estrogen or because they have entered a premenopausal period^[10]. According to Yuwono, et al, (2017) said that almost 50% of people with hypertension are women, this happens because women have certain special conditions related to calcium intake, pregnancy, use of oral contraceptives and

menopause. In addition to a decrease in the body's organ systems and a decrease in hormones, stress caused by environmental conditions and factors is also very influential^[23].

The education level of the majority of respondents is high school graduates (high school), which is 60%. Education level is one of the factors that can affect a person's knowledge of something, one of which is treatment options. According to Budiman and Riyanto (2013), the higher a person's education, the easier it is to receive information and increase knowledge, and the speed of understanding and processing information also increases^[3].

In table 1 it is known that the majority of respondents' jobs are as entrepreneurs or private employees by 76%. Hypertension is a disease that can be caused by stress. Based on current developments, people are increasingly busy with work and prioritize work to succeed. Busy and heavy work can cause feelings of stress and the emergence of high blood pressure, and feelings of depression can also increase blood pressure. In addition, people who are busy with work do not have time to exercise

causing an increase in body fat, which hinders blood circulation, which can lead to high blood pressure^[20].

The last respondent's characteristic data is regarding marital status, where the majority of respondents' marital status in this study is Married by 96%. Marital status also affects a person in choosing therapy and having a partner as well as someone who tends to obtain information between each other so that knowledge is increased^[15].

In table 2 regarding the sources of information on the use of herbs used, it can be seen that the majority of respondents answered that the sources of information came from family 56%, friends 34% and internet 10%. Based on these data, it can be concluded that the influence or experience of family, friends and information obtained from the internet can increase the confidence of hypertension sufferers towards the use of herbal medicines as complementary therapy^[13].

2. Perception of Hypertension Patients on the Use of Herbal Medicines in Complementary Therapy of Hypertension

Table 3 relates to the perception of hypertensive patients who use herbal medicines in complementary hypertension therapy. Therefore, perception is an evaluation process based on the appreciation of each person's senses, so that each person's perception is different^[11].

Positive perception is a perception that describes all knowledge (know or not) as well as assumptions that are pursued with an attempt to use it. This will continue with activity or acceptance and support of the perceived object. While negative perception is a perception that describes all knowledge (know or not) with a dissonant response to the perceived object. He will continue passively or reject and reject the perceived object^[7]. Based on the results, it was found that the majority of hypertensive patients' perceptions of the use of herbal

medicines in complementary hypertension therapy were positive.

3. Types of Herbs Used in Complementary Therapy of Hypertension

In table 5 related to the types of herbs used in complementary hypertension therapy, it can be described that: There are many types of plant parts that are used to lower blood pressure such as roots, stems, fruits, leaves, and so on. Here are some herbs used by people with hypertension based on the highest to lowest percentages that have been obtained and supporting research on the use of herbs as complementary therapy for hypertension. Are as follows:

a) Cucumber Fruit

In this study, it was found that the use of cucumbers had the highest percentage, which was 40% (table 5). Hypertensive patients used cucumber as a complementary therapy in lowering blood pressure. Based on previous research by Negara et al (2018) it is said that cucumber can help lower blood pressure in elderly people with hypertension. Cucumbers can be used as herbal supplements to treat high blood pressure because cucumbers are high in potassium, which can help lower blood volume and blood pressure. or can function as a vasodilator. Therefore, the use of cucumber as a complementary herbal therapy for hypertension can be trusted, apart from previous studies^[12,14].

b) Celery leaves

In this study, it was found that the use of celery leaves in complementary therapy was the second highest after cucumber, which was 30% (table 5). Based on research conducted by Oktadoni and Fitria (2016), it is said that the content of Apigenin is useful for lowering blood pressure, as a vasodilator with its hypotensive effect. Therefore, celery leaves can be used as an option in herbal complementary therapy for hypertension or lowering blood pressure^[16].

c) Garlic or Kesuna

In this study, respondents who used or utilized garlic or kesuna as a complementary herbal therapy to reduce blood pressure by 8% (table 5). Research that supports the benefits of garlic or kesuna as complementary herbal therapy for hypertension is found in the research of Hidayat and Napitupulu (2015), it is said that garlic or kesuna has many benefits for health, namely for hypertension. Therefore, garlic can be used as an alternative in complementary herbal therapy for hypertension. In Abdi Iswahyudi's research (2020), it is said that garlic has allicin and sulfide substances, which can help relax blood vessels, dilate blood vessels and make them not stiff, so blood pressure drops^[1,5].

d) Bay leaf

The use of bay leaves in this study by patients with hypertension was 6% (table 5). The use of bay leaves as a complementary herbal therapy for hypertension is supported by research conducted by Rizki and Ester (2015), the Eugenol content in bay leaves has a vasorelaxant effect which has benefits in reducing hypertension. Then the bay leaf can be used as an option in complementary herbal therapy for hypertension^[19].

e) Meniran Leaves

In this study, the results of respondents using meniran leaves were 6% (table 5). The use of meniran leaves as herbal complementary therapy for hypertension is supported by research by Khotimah, RK (2016), in the research journal, it is said that the content of phyllanthine, potassium, tannin and tannic substances in meniran leaves can help lower blood pressure. Therefore meniran leaves are believed to be as a complementary herbal therapy for high blood pressure. Therefore, meniran leaves can be used as an alternative in herbal complementary therapy for hypertension^[10].

f) Melon

Table 5 shows that respondents who use melon as complementary herbal therapy for hypertension are 3%. According to research conducted by Sazzaki Ridia (2011), melons can help treat several diseases, one of which is helping to reduce hypertension. The potassium and calcium content in melons helps reduce hypertension, because these ingredients can relax smooth muscles which in turn can lower blood pressure, while the potassium content serves to prevent smooth muscle contractions or as a vasodilator. Therefore, melon can be used as an option in complementary herbal therapy for hypertension^[21].

g) Watermelon

In this study, respondents who used watermelon as a complementary therapy for hypertension were 2% (table 5). According to Sazzaki Ridia's research (2011), it is said that the content in watermelon is high enough potassium which can help maintain blood viscosity and stabilize blood which causes blood pressure to decrease or as a vasodilator. Therefore, watermelon can be used as an alternative in complementary herbal therapy for hypertension^[21].

h) Ginger

In this study, only 1% of respondents used Ginger as a complementary therapy for hypertension (table 5). This is unfortunate because, according to a research journal from Braga's research (2019) states that Ginger has benefits in the cardiovascular system, such as having an antioxidant effect that can help reduce free radicals and lower blood pressure. In addition, in Braga's research (2019), it is said that Ginger contains Gingerol and potassium which function as vasodilators. Therefore, Ginger can be used as an alternative in complementary herbal therapy for hypertension^[2].

In conducting research, there are research limitations, namely this research has not been able to describe the results

qualitatively because it cannot ask more fully related to things such as a picture of perception based on the thoughts of each respondent directly, which is wider, so that in this quantitative study, only could describe the perception assessment based on the questionnaire alone without a more in-depth interview related to the assessment of each respondent's perception of the use of complementary herbal therapy, did not get complete data regarding hypertension sufferers from several Puskesmas in Denpasar City which was used as the research location, so it could not determine the sample size based on the total population of hypertension sufferers at each of these Puskesmas.

CONCLUSION

The conclusions of this research are the majority of patients with hypertension are in the elderly age category (46-65 years), and the majority are women (57%). The majority of hypertensive patients' perceptions of the use of herbal medicines in complementary therapy for hypertension have positive perceptions. This means respondents believe that herbs have benefits and can help reduce medical costs. The types of herbs that people with hypertension most widely use are cucumber (40%) and celery leaves (30%).

CONFLICT OF INTEREST

There is no conflict of interest in the preparation of this article because this article was written independently by the author.

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