

# Perceptions and self-care motivation among people with hypertension in Belu, East Nusa Tenggara

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**Abstract.** Purpose: to identify patients' perceptions of hypertension and motivation for self-care related to hypertension. Design: a qualitative descriptive study. Method: Semi-structured interviews were conducted with 16 hypertensive patients in Belu Regency, East Nusa Tenggara. The data was collected by using a tape recorder and transcribed verbatim. The data analysis used the NVIVO 12 Plus software. Main Findings: Two important themes were identified, including perceptions related to hypertension and self-care motivation. The perceptions of the disease consisted of 1) perceptions of the causal factors (the presence of chemicals in food, blood sugar and cholesterol factors, fatigue, pregnancy, stress due to death of a family member, lack of rest, consumption of food high in salt, and the presence of uterine tumor), 2) individual perceptions (the myth that people whose blood pressure is measured will always become hypertensive patients), and 3) the impact of hypertension (stroke and heart problems). Meanwhile, motivation includes internal and external aspects. Conclusions and recommendations: This study promotes an understanding of patients' perceptions of hypertension and their motivation for self-care in Belu, East Nusa Tenggara. Successful implementation depends heavily on how to overcome false perceptions and low self-care motivation which results in poor adherence to maintenance. Further research is suggested to explore self-care management to control blood pressure among people with hypertension in Belu, East Nusa Tenggara.

**Keywords.** Motivation, people with hypertension, perception, self-care.

## 1. Introduction

Hypertension (HTN) is a major risk factor for the global burden of cardiometabolic diseases in which its two complications, ischemic heart disease, and stroke, account for a quarter of the total global deaths [1-3]. Therefore, HTN as a multifactorial disease requires optimal self-care efforts in its management. Self-care is the main factor to be done to control blood pressure [4]. Lifestyle and low levels of awareness can also become a risk factor for hypertension [5, 6]. Lack of self-care and unhealthy lifestyle, such as lack of vegetable and fiber intake, excessive consumption of ready-to-eat food, salt, and fatty foods, as well as prolonged stress, can be the factors that lead to hypertension [7, 8].

The prevalence of hypertension sufferers in Indonesia increased from 25.8% in 2013 to 34.1% in 2018 [9]. Based on the data from the Health Office of East Nusa Tenggara Province, a total of 27.72% of the population aged > 18 years had hypertension, while Belu District had 23.85% of the population aged > 18 years suffering from hypertension [10].

Previous research by Ademe et al on-hypertension sufferers shows that most patients report poor self-care practices [11]. The results of a similar study are also reported by previous researchers from China, showing that the self-care status of hypertensive patients is very poor with several predictor factors mainly affecting poor self-care for hypertension, which include age, family, health insurance coverage, duration of disease, education level, economic burden, and family history of hypertension [7]. A systematic review conducted on some world literature reports that hypertensive patients tend to be disobedient in practicing self-care related to hypertension for such reasons as long treatment, medication discontinuation, many drug combinations, and human resources [12]. Research from Indonesia conducted by Kristiani et al in Semarang shows that hypertensive patients practice less self-care [13]. Similar results from Atambua, East Nusa Tenggara, reported that 61.8% of hypertensive patients still had a habit of consuming a high amount of salt, 65.5% preferred food high in fat, and 56.4% preferred ready-to-eat or instant food [14]. Since hypertension shows no typical symptoms (the silent killer), patients tend to feel no importance of self-care related to the hypertension they are experiencing [7, 15].

Motivation is something that encourages or acts as a driving force for an individual to perform some behavior to achieve goals [5]. Motivation is important for hypertensive patients in improving self-care to help them avoid unwanted complications from hypertension [16].

This study aimed to identify the perceptions and motivation for self-care among the hypertensive patients in Atambua, East Nusa Tenggara.

## 2. Methodology

This study used a qualitative approach to identify the perceptions and motivation for self-care in hypertensive patients in daily life.

## 2.1. Population and Sample

Purposive sampling was used to recruit people with hypertension in Atambua, East Nusa Tenggara with the inclusion criteria being individuals diagnosed with hypertension who were 1) either receiving anti-hypertensive medication or not, 2) not in a critical period, and 3) willing to be respondents. After obtaining approval from the Belu District Health Office, interviews were conducted with the hypertensive patients who met the inclusion criteria. The content saturation was obtained from the results of interviews when reaching the 16<sup>th</sup> participant; hence, the data collection was completed with a sample size of 16 participants.

## 2.2. Research Instruments

1) Researchers are an important instrument in conducting qualitative research. Therefore, researchers must have some qualifications, including previous knowledge, experience, and skills in observation and interview processes as well as effective communication skills. The researchers conducted in-depth interviews with hypertensive patients, and the results of the interviews were then analyzed with three other researchers. During the interview, the researchers used their own words to ask questions and some additional investigations or clues in a comfortable, natural communication style. The researchers interacted with these hypertensive individuals by resembling a learner who tried to understand the experience and reality of the participants from their point of view.

2) The information sheet contained demographic data comprising age, gender, religion, education level, marital status, occupation, length of hypertension, systolic blood pressure, and diastolic blood pressure.

3) The semi-structured interview was developed based on previous studies of the perceptions and motivation for self-care among hypertensive patients. The interview questions included the patient's perceptions of hypertension and the patient's motivation in practicing self-care. Some examples of the questions were "What do you think about hypertension?", "What do you think is the main problem in managing hypertension with yourself and/or family?", and "How is your motivation in practicing hypertension self-care?"

## 2.3. Ethical Consideration

The interview was conducted after the research was approved by the ethics review board of the Faculty of Nursing of Universitas Indonesia (Number: Ket-221/UN2.F12.D1.2.1/PPM.00.02/2021). Oral and written explanations were given to the participants regarding the purpose of the study, the voluntary nature of the participation, and the fact that there would be no loss if they refused to participate. The participants were guaranteed anonymity and confidentiality. The participants were informed that they could withdraw from the study at any time. Informed consent was obtained from all participants before conducting the interviews. To distinguish one participant from another in the recording and results, each participant was assigned a specific code number.

## 2.4. Data Collection

The data collection was carried out from October 2021 to November 2021 in Atambua, East Nusa Tenggara Province. Semi-structured interviews were conducted with mostly open-ended questions. The interviews lasted for 20-30 minutes and took place in special rooms at public health centers and in patients' homes. Telephone interviews were followed up for five (5) participants to clarify some information, discuss the findings, and confirm that the author's interpretation accurately reflected the patients' experience. The follow-up interview lasted for approximately 10-15 minutes. All the interviews were recorded by the author and transcribed word for word into texts. The demographic characteristics were obtained from the participants' self-reports.

## 2.5. Data analysis

The author transcribed all the audio recordings of each interview. The data were managed using the NVIVO 12 Plus software application. Data analysis began by repeatedly reading the entire text of each transcript to obtain an overview of the scope of the information found. The results of the transcript were coded separately, indicating the perceptions and motivation for hypertension self-care. Then, the researcher compared the code and revised it iteratively. The themes found were compared with the original transcripts and then refined, combined, and coded.

## 3. Findings

There were 16 people with hypertension aged 20-60 years. The majority of the participants were women (62.50%), many of them finished high school (43.75%), and 75% were married. Most of them were Catholics (75%) and worked as a housewife (43.75%). In general, the participants had suffered from hypertension for more than 5 years (62.5%). There were 56.25% participants had systolic blood pressure between 160-179 mmHg, whereas the percentage of those with diastolic blood pressure between 100-109 mmHg was 43.75% (Table 1).

The findings were divided into two parts: 1) patients' perceptions of hypertension and 2) hypertensive patients' self-care motivation.

**Table 1.** Demographic Characteristics of the Participants (n = 16)

Characteristics	f	%
Gender:		
Male	6	37.50
Female	10	62.50
Age (years)		
20-30	2	12.50
31-40	1	6.25
41-50	9	56.25
51-60	4	25.00
Level of Education		
Elementary School	1	6.25
Junior high school	3	18.75
Senior High School	7	43.75
Diploma	1	6.25
Bachelor	3	18.75
Magister	1	6.25
Marital Status		
Married	12	75.00
Unmarried	3	18.75
Widower/Widow	1	6.25
Religion		
Catholic	12	75.00
Protestant	4	25.00
Occupation		
Private/Self-Employed	4	25.00
Civil Servant/Army/Police	4	25.00
Housewife	7	43.75
Student	1	6.25
Length of Hypertension		
<5 years	6	37.5
≥5 years	10	62.5
Systolic Blood Pressure		
121-129	0	0
130-139	1	6.25
140-159	2	12.50
160-179	9	56.25
180-210	4	25.00
Diastolic Blood Pressure		
81-84	0	0
85-89	0	0
90-99	3	18.75
100-109	7	43.75
110-120	5	31.25
>120	0	0

### 3.1. Patients' perceptions of hypertension

The theme of patients' perceptions of hypertension identified three sub-themes consisting of 1) perception of the causal factors, 2) individual perception, and 3) perception of the impact of hypertension. The categories from each sub-theme are shown in Figure 1.

In addition, each sub-theme and category are explained by the excerpts from the following interview results.

#### 3.1.1. The first sub-theme: perception of the causes of hypertension

The sub-theme of perception of the causes of hypertension consists of twelve (12) categories.

(1) The first category: chemical material

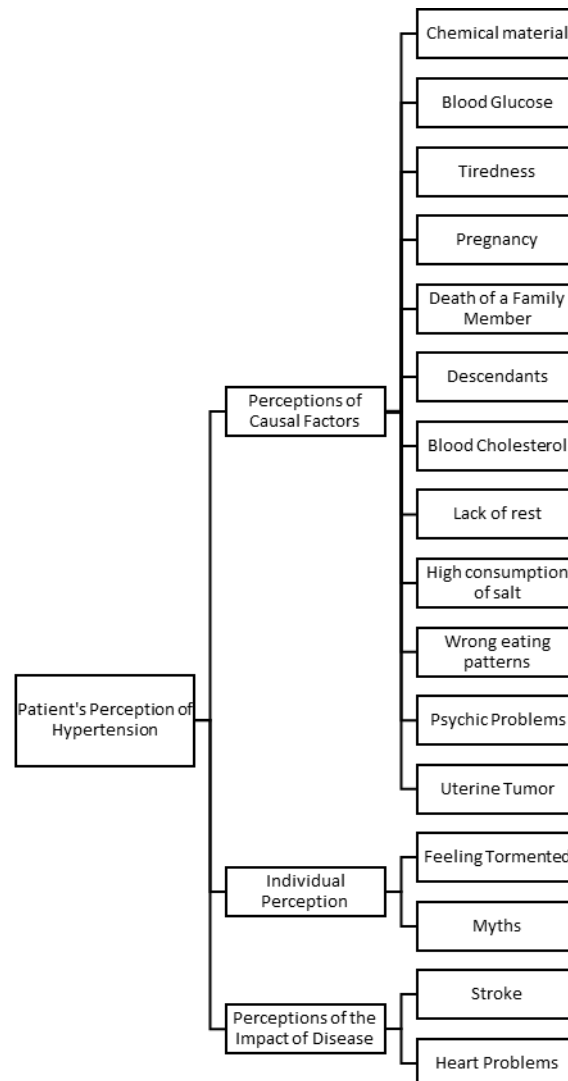
The perception of hypertension likely caused by chemicals can be seen in the following interview excerpt:

*"...The nature of the food given to livestock is that it is taken from the store containing chemicals, this is what might make blood pressure rise..."* (P14)

(2) The second category: blood glucose

The perception of hypertension because of blood glucose can be seen in the following interview excerpt:

*"..., so don't let one of the causes be high sugar causing the neck to tense up..."* (P14)



**Figure 1.** Patients' Perceptions of Hypertension

(3) The third category: tiredness

The perception of hypertension due to fatigue is shown in the following interview excerpts:

*"...I feel that when I'm tired. For example, if I have office work that I must finish maybe until the afternoon or maybe until evening, that's just what I feel..." (P14)*

Likewise, other statements show the following:

*"...If for example, the activities are too vigorous, like that, to the point where I'm so tired, my blood pressure will definitely rise..." (P25)*

*"...Yes, but I think it's normal. No taste. Maybe because of the fatigue factor..." (P5)*

(4) The fourth category: pregnancy

The perception of hypertension induced by pregnancy is conveyed by the people with hypertension as shown in the following interview excerpts:

*"...I just found out right after the sixth month, suddenly my body was swollen and when I checked, my blood pressure was high. So, when I entered the sixth month of pregnancy, I felt a stomachache, the back of the head on the left side was like cramps all over (while using the left hand to point towards the back of the head on the left side) ..." (P5).*

Similarly, another statement shows the following:

*"...When I was pregnant with my second child, how come it felt strange, not like being pregnant with my first child. When the control is like this, hey, how come the blood pressure is high? So far, the tension hasn't dropped. My second child is now 3 years old but it (blood pressure) doesn't go down, it's still high..." (P11)*

(5) The fifth category: death of a family member

The perception of hypertension triggered by the death of a family member conveyed by people with hypertension is shown in the following interview excerpt:

*"...discovered since around 2009, at that time when my son (Edi) died because of that accident..." (P15)*

(6) The sixth category: heredity

The perception of hypertension due to heredity can be seen in the following interview excerpts:

*"...my mother also has high blood pressure..." (P13)*

Likewise, other statements show the following:

*"...I am sure that the hypertension that I am experiencing is a genetic factor..." (P3)*

*"...But if genetic factors are like this, getting completely cured seems a bit difficult..." (P6)*

(7) The seventh category: cholesterol

The perception of hypertension induced by cholesterol can be seen in the following interview excerpt:

*"...if you have a pain in the back of your head, it's usually high cholesterol..." (P14)*

(8) The eighth category: the lack of rest

The perception of hypertension due to a lack of rest can be seen in the following quotation:

*"...sleep is also not enough. So, I thought it was low blood pressure, but when I went to measure my blood pressure like this, oh my God... my blood pressure was high..." (P13)*

(9) The ninth category: the high consumption of salt

The perception of hypertension caused by eating a lot of salt can be seen in the following quotation:

*"...So, when cooking, if you use salt or flavor enhancers like Masako, even if you take antihypertensive medication, your blood pressure will still rise..." (P4).*

Likewise, another statement is as follows:

*"Yes... instead of just empty eating, I usually eat salted fish to err... even though salted fish is high in salt, so if you eat salted fish, your blood pressure will definitely increase but instead of empty eating I have to do that..." (P5).*

(10) The tenth category: wrong diet pattern

The perception of hypertension because of a wrong eating pattern can be seen in the following quotation:

*"...My blood pressure is high like this, maybe because I have a bad eating pattern..." (P9)*

(11) The eleventh category: psychological/emotional problems

The perception of hypertension due to psychological/emotional problems can be seen in the following quotations:

*"...At that time was it because I had a suggestion or because of what? At that time when we had the first vaccine, we felt afraid. When I wanted to enter the injection room, several friends sitting there. When we entered the injection room, there was an incident of teasing each other between us. They said oh... this must have increased my blood pressure... and maybe it was influenced by psychology or something, at that time my blood pressure went up to 190..." (P14)*

Likewise, other statements are as follows:

*"...At the time of screening, it was discovered. At that time, we were sitting relaxedly, suddenly an officer came and the tension was like this, it turned out that at first, but it was 110, it immediately rose to 180 indeed. My blood pressure was measured several times but the result was the same, still 180..." (P27)*

*"...I always felt normal in the systolic range between 100 and 110. But when my name was called, I was shocked, and they measured my blood pressure and it turned out to be 170. I was advised to rest for a while, but when they measured it again, the pressure of my blood was still high..." (P13)*

*"...So, in my opinion, vaccines are also a factor in people experiencing high blood pressure. Many people are afraid of Covid-19 and vaccines, their blood pressure rises arbitrarily. Hopefully one-day vaccines will be considered as important so that people are brave and not afraid anymore..." (P27)"*

*"...I think my blood pressure is getting high because of too many thoughts (stress)..." (P4)*

(12) The twelfth category: a uterine tumor

The perception of hypertension due to a uterine tumor can be seen in the following quotation:

*"...Since the incident of the uterine tumor surgery, I have started to have high blood pressure, sometimes up to 160/120 mmHg..." (P9)*

### 3.1.2. The second sub-theme: individual perception

Two categories were identified, including a) torture and b) myth.

(1) The first category: feeling tormented

The individual perception of hypertension because of torment is shown in the following quotation:

*"...yes, my mood is sometimes tormented when my blood pressure is rising. Usually, I experience one sign in the body: if the vision is blurred, that's a sure sign that blood pressure has started to rise..." (P12).*

(2) The second category: myths

The individual perception of hypertension triggered by myths can be seen in the following quotations:

*"...I actually don't know what high blood pressure is. I think that usually when people have their blood pressure measured, it means they have high blood pressure. Finally, several midwives and nurses came to measure my blood pressure, they said 160/90. So, they say I have high blood pressure..." (P8)*

Likewise, other statements are as follows:

*"I'm afraid to have my blood pressure checked because if we have to check it, they'll say we're sick like this and we're getting more stressed..." (P11)*

*"...Especially now that it's busy with the Covid-19 problem, so if we go to check our health, they say we have Covid-19..." (P10).*

*"...Because right now we are in a Covid-19 situation, so if we go to the hospital, they will say we have Covid, so we prefer not to have control. We are afraid to go to the hospital..." (P11).*

### 3.1.3. The third sub-theme: perception of the impact of hypertension

The sub-theme of perception of the impact of hypertension consisted of two (2) categories: a) stroke and b) heart problems.

(1) The first category: a stroke

The perception of the impact of hypertension in the stroke category can be seen in the following quotation:

*"...We've heard that high blood pressure is very dangerous, blood vessels can burst, and we can die. That's what we've heard so far...."* (P2)

Likewise, another statement is as follows:

*"...they say if you have high blood pressure for a long time you can get a stroke..."* (P11)

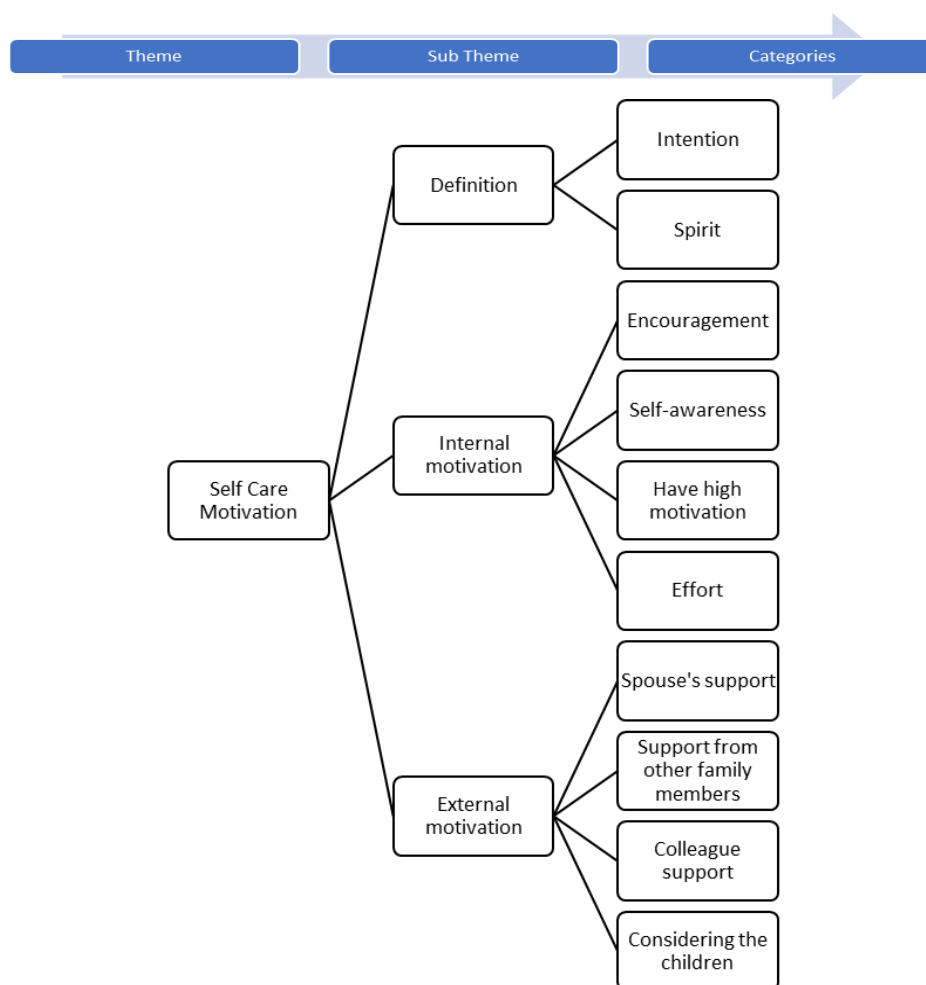
(2) The second category: heart problems

The perception of the impact of hypertension in the heart disease category can be seen in the following quotation:

*"...I heard that if you have hypertension for a long time, you can get a heart disease..."* (P3)

### 3.2. Second Theme: Self-Care Motivation

The theme of self-care motivation identified three sub-themes, including understanding, internal motivation, and external motivation (Figure 2).



**Figure 2.** The Theme of Self-Care Motivation

Each sub-theme and category are explained as follows:

#### 3.2.1. The first sub-theme: definition

The self-care motivation in the sub-theme of understanding identified two categories, including intention and spirit.

(1) The first category: intention

The definition of motivation in the category of intention to practice self-care can be seen in the following interview transcript:

*"...It means I intend to continue to regulate my lifestyle in my family so that I can still remember to manage not to eat much salt. It depends on my intention already. The intention is to take care of ourselves, we have to take care of ourselves already, how come? who has to take care of us if not ourselves?"* (P8)



“...yes, in my opinion, motivation is an intention to be able to regulate ourselves so that we can manage food, salt, stress so that our blood pressure does not continue to rise... (P12)

(2) The second category: the spirit

The definition of motivation in the category of enthusiasm for self-care can be seen in the following interview.

“...motivation is a passion to do something to be healthy...” (P2)

“...so, we are passionate about working to build ourselves so that we learn to avoid things related to disease” (P7)

### 3.2.2. The second sub-theme: internal motivation

The self-care motivation in the internal motivation sub-theme identified four categories, including encouragement, self-awareness, having high motivation, and effort.

(1) The first category: encouragement

The internal motivation in the category of encouragement to practice self-care can be seen in the following interview transcript.

“...My motivation, yes... sometimes I want to cook by myself and eat foods that don't cause hypertension, such as boiled moringa leaves, and African leaves. When I cook vegetables, I will try to cook them without salt. I will cook soup without salt and flavorings like Masako...” (P4)

“...Yes, I still have to restrain myself. Don't eat meat. I just choose vegetables. So even though there's a lot of meat, I have to refrain, don't choose meat, only choose vegetables...” (P5)

“...it's my habit, if I use salt when cooking, then I don't want to "deta" anymore [Deta is using the tip of the index finger to dip in a pile of salt then put it in the mouth]. But at the time of cooking, maybe the salt is high, so what can I do, it's better to eat boiled food. Actually, to deal with hypertension, if other people can do it, surely I can too...” (P10)

(2) The second category: self-awareness

The internal motivation in the category of self-awareness to practice self-care can be seen in the following quotations:

“...So, yes, it's back to me personally to manage my diet, and overall lifestyle, including lifestyle, mindset, managing my heart so that my blood pressure doesn't keep rising...” (P3).

“...Basically, I have to start from myself first...” (P10)

(3) The third category: having high motivation

The internal motivation in the category of having the high motivation to practice self-care can be seen in the following interviews:

“...Actually, I have high motivation to control my blood pressure. After all these years of having hypertension, my motivation to recover was very high. So, if there is another therapy besides drugs, I hope for that...” (P12).

“...I didn't want to fail, so I came to the doctor's practice to take medicine...” (P14).

“...Yes, I still have to restrain myself...” (P5).

(4) The fifth category: effort

The internal motivation in the effort category to practice self-care is shown in the following quotation.

“...Yes, I must comply. That's my motivation to recover from this disease...” (P25)

“... so, we have to try to avoid the causes of this hypertension...” (P14).

“...so, we have to try to restrain ourselves...” (P3)

“...Even though there's a lot of meat, I have to try to refrain so I don't get tempted to choose meat, it's better to just choose vegetables” (P5).

“... finally, I thought I should try to reduce salt, flavoring (Masako) for my health. I have to try, anyway I have to start from myself first...” (P10).

### 3.2.3. The third sub-theme: external motivation

The motivation for self-care in the sub-theme of external motivation identified four categories: support from husband/wife, support from other family members, support from colleagues, and considering that the children are still young.

(1) The first category: support from a spouse

The self-care motivation in the external motivation sub-theme of support from spouse category can be seen in the following quotation.

“...so, my wife prepared it. Usually, my wife already cooks so we just have to eat. My wife, when cooking, sometimes remembers to reduce the salt, but our taste buds are usually different, so it's a bit difficult for me...” (P2)

“.....My wife prepares food without a particular diet. She said she had reduced the salt...” (P7)

(2) The second category: support from other family members

The external motivation in self-care motivation in the category of support from other family members can be seen in the following quotations.

“...My mother always reminds me to take medicine...” (P5)

“...Motivation from my mother. She always makes me excited and get up to continue this medicine...” (P8)

(3) The third category: colleague support

The motivation for self-care in the theme of external motivation with the category of coworker support can be found in the following quotation.

*"...like a hospital farewell event, when taking food, all my colleagues are looking at me. They ask me, what are you looking for? With a smile, I said I want to find chili sauce..." (P3).*

(4) The fourth category: considers the children's age

The motivation for self-care in the theme of external motivation with the category of considering the children's age can be found in the following quotation.

*"...I keep trying so that I can see my children because they are still young. If we (my husband and I) get sick, it will be difficult for us to support my children because they are still young..." (P8).*

*"...If I get sick for a long time, then I die leaving my young children behind, who will take care of them? ..." (P10)*

#### **4. Discussion**

The results of this study provide new information due to the limited literature related to hypertension in Belu Regency, East Nusa Tenggara. A discussion of each finding is provided below.

##### **4.1. Characteristics of the Participants**

The majority of the participants were women (62.5%). The results of field observation showed that women were more involved in the activities of *Posbindu* (Integrated Health Post). This finding is almost the same as other findings in which, in the productive age group, more women suffer from hypertension than men [17, 9, 18]. Even though the overall proportion of women suffering from hypertension is larger, if it is based on age, the incidence of hypertension is higher in the group of young adults. With increasing age, women have a higher incidence of hypertension due to various hormonal changes throughout their life cycle. When entering the menopause phase, there are quite drastic hormonal changes. Decreased estrogen will increase blood pressure in women [9].

##### **4.2. Patients' Perceptions of the Factors Causing Hypertension**

The participants have different perceptions regarding the factors that cause hypertension. The perceptions related to the risk factors in hypertension in this study include modifiable and non-modifiable factors. The non-modifiable risk factor is heredity while the modifiable risk factors are chemicals, blood glucose levels, blood cholesterol, fatigue, pregnancy, lack of rest, psychological problems such as the death of a family member, and high salt consumption. Perceived information related to the risk factors in hypertension is crucial because understanding hypertension risk factors can support hypertensive patients in managing a healthy lifestyle in everyday life. Gibran et al., reveal in their research that patients who know the risk factors that cause hypertension in their lives tend to increase adherence to managing their lifestyle to be able to maintain blood pressure in a controlled state [18]. Other findings are reported from China by Wu et al which individuals who perceive hypertension risk factors in their lives, such as diabetes, alcohol consumption, hyperlipidemia, and smoking, generally have a higher total lifestyle score when compared to those who are not aware of the risk factors [20].

##### **4.3. Individual perceptions**

One of the problems with the individual perceptions expressed by the participants in this study is an assumption that anyone whose blood pressure is measured must have had high blood pressure, so measurements are taken continuously. This erroneous perception also causes hypertensive patients to skip regular control of blood pressure. As stated by previous researchers, some hypertensive patients perceive medication to be a poison that will damage the kidneys and other vital organs [21]. A similar opinion is conveyed by Sukrillah et al stating that the many myths about hypertension make patients confused about who to believe [22]. This is similar to the finding of this study in which hypertensive patients do not routinely have their blood pressure checked at healthcare facilities. Therefore, myths or erroneous perceptions must be taken into account in hypertension treatment programs to improve patients' self-efficacy as part of the additional therapy for hypertension sufferers [22].

##### **4.4. Patients' Perceptions of the Impacts of Hypertension**

The impact of hypertension is often experienced and realized by the sufferers. In this study, the participants state that if blood pressure is not properly controlled it can lead to such health problems as stroke and heart attack. This is in line with the explanation from the Ministry of Health of the Republic of Indonesia that, if not controlled, hypertension can cause complications in the form of heart disease, stroke, kidney failure, retinopathy, plaque, neurological disorders, and cerebral disorders. It is reemphasized that the higher the blood pressure, the higher the risk of damage to the heart and blood vessels, especially in large organs such as the brain and kidneys [23]. Being increasingly aware of the late effects of hypertension makes patients intensify their efforts to adopt a healthy lifestyle [19].



#### 4.5. Understanding of Self-Care Motivation

The results of this study show that the participants understand motivation as an intention and encouragement to implement a healthy lifestyle and adequate self-management. Understanding this motivation is interpreted as an intention and enthusiasm to practice self-care related to hypertension that they experience. This finding is in line with Warren et al who reported that high motivation from a person can support the control of blood pressure [24]. Dianita et al add that the widespread practice of motivational interviewing in the health sector can improve adherence to medication, diet, and exercise protocols in patients with diabetes, hypertension, HIV, and obesity [25]. From the 16 people with hypertension interviewed, the only two definitions of motivation obtained are intention and enthusiasm, indicating that, in general, hypertensive individuals remain unaware of what motivation truly is. Therefore, additional interventions are needed to increase their awareness and motivation in self-management.

#### 4.6. Intrinsic Motivation

Information from the participants shows that intrinsic motivation is crucial in arousing enthusiasm by within oneself to practice self-care. Intrinsic motivation identified from the participants is a drive from within oneself, self-awareness, there must be strong intention, and there must be effort from inside. The results of this study support previous research, which shows that the standard of care involving motivational interviewing is an effective client-centered approach that can improve medication adherence, decrease mean blood pressure, and increase self-efficacy [26]. In addition, Minnaar et al explain that intrinsic motivation does not automatically come from reinforced external encouragement, but patients can maintain enthusiasm, creativity, and sustained efforts. Intrinsic motivation should be explored further to build on the patients' potential to reduce treatment dropouts [27].

#### 4.7. Extrinsic Motivation

The extrinsic motivation in practicing self-care includes support from the spouse, support from other family members, support from co-workers, and consideration that the children are still young. This finding is in line with previous research which explains that social support has a strong and positive relationship with hypertension treatment adherence. Compliance with the treatment of hypertensive patients correlated positively with three sub-groups of social support, including social resources ( $r=0.568$ ) which had a greater impact than kinship ( $r=0.364$ ) and the nuclear family ( $r=0.262$ ) [25]. Other findings were reported from Uganda in which most of the participants reported considerable family support (82%,  $n = 76$ ) although their medication adherence was reported to remain suboptimal (43%). This is because family support remains unspecific due to the lack of knowledge of hypertension [28]. Hypertensive patients generally have inadequate motivation, both intrinsic and extrinsic, so an adequate intervention model is needed to increase the motivation to comply with blood pressure control.

### 5. Conclusions and Recommendations

This study has identified patients' perceptions of hypertension and their motivation to practice self-care related to hypertension. The hypertensive individuals in this study have wrong perceptions of hypertension and low motivation to practice self-care. To improve such perceptions and motivation, it is necessary to promote literacy by continuously providing information and health education as well as increasing motivation until patients can practice self-care through some efforts to maintain blood pressure within normal limits. This study provides additional information for implementing health education programs regarding hypertension to the whole community and encouraging people to adopt healthy lifestyle behavior. It is recommended that people with hypertension are involved in health education programs and strategies to increase self-care motivation. Further research needs to be conducted to identify the strategies to increase self-care motivation to control blood pressure.

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