Relationship Between Perceptions of Disease and Dieting Behavior in Hypertension Sufferers

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Abstract

Introduction: The factor that influences dietary behavior in hypertension sufferers is the perception of disease. This study aims to determine the relationship between perceptions of disease and dietary behavior in hypertensive patients. Methods: This study uses a correlation descriptive design with a cross sectional approach. The samples in this study were 79 respondents and were taken using a purposive sampling technique. The analysis used was bivariate analysis using the Chi-Square test. Results: The univariate results showed that the respondent was 56-65 years old, female, high school education, housewife, had suffered from hypertension for 1-3 years, had a perception that hypertension was dangerous, hypertension was a chronic disease, had complete control, hypertension treatment can help, many have severe symptoms, worry about disease, clearly understand hypertension, lack of emotional impact, and hypertension is caused by diet, stress, sleep patterns, heredity and having good dietary behavior. The results of the statistical test of disease perception with dietary behavior in hypertensive patients showed consequences (p=0.020), disease duration (p=0.540), personal control (p=0.000), treatment control (p=0.000), anxiety (p=0.000), identity/symptoms (p=0.056), understanding of disease (p=1.000), and emotion (p=0.099). Conclusion: There is a relationship between perceptions of disease in terms of consequences, personal control, treatment control, and anxiety with dietary behavior in hypertensive patients and there is no relationship between perceptions of disease in terms of disease duration, identity/symptoms, understanding of disease, and emotions with dietary behavior in hypertension.

Keywords: Perception of disease, Consequences, Duration of Disease, Personal control, Treatment control, Identity, Concern, Understanding of disease, Emotion, Dieting behavior, Hypertension

INTRODUCTION

Hypertension is a condition where there is an increase in systolic blood pressure > 140 mmHg and diastolic blood pressure > 90 mmHg (Isnaini & Dewi, 2020). According to the World Health Organization (WHO), around 1.3 billion people in the world have hypertension, meaning that 1 out of 3 people in the world is diagnosed with hypertension. The number of people with hypertension continues to increase every year. The prevalence of hypertension globally is 22% of the total population in the world. The highest prevalence of hypertension is in the African continent 27% and the lowest is in the Americas 18%, while in Southeast Asia it is in the 3rd highest position with a prevalence of hypertension of 25% (Cheng et al., 2020). So that it is necessary to target government programs related to the prevalence of hypertension.

Based on the results of Riskesdas measurements, the prevalence of hypertension in people aged 18 and over in Riau ranks 23 out of all provinces in Indonesia, which is around 29.14% (Ministry of Health, 2019). Pekanbaru is one of the areas with a high incidence of hypertension in Riau (Riau Provincial Health Office, 2019). Based on the results of data recap from the Pekanbaru City Health Office (2021), the number of cases of hypertension in 2021

was 24,428 cases. The results of this recap come from 21 Community Health Centers in Pekanbaru City. The highest cases in 2021 were in the working area of the Rejosari Health Center with a total of 3,546 cases (Pekanbaru City Health Office, 2021).

The large number of cases of hypertension above, there are several factors that contribute to the risk of contracting hypertension in the form of gender, racial ancestry, and age which are the first factors that cannot be changed. While the second causal factor is a factor that can be changed by lifestyle modifications including obesity, smoking, lack of physical activity, excessive salt and fat consumption, alcohol consumption, poor sleep patterns, psychosocial and stress (Ekarini, Wahyuni, & Sulistyowati , 2020). As a result of these factors if not treated immediately will have unwanted effects and can cause complications such as stroke, kidney disorders, impaired vision and can even end in death. Actions taken to avoid complications are to do good prevention with pharmacological therapy and non-pharmacological therapy (Prasetyaningrum, 2014). Pharmacological therapy is therapy using hypertension drugs that can lower blood pressure. Then non-pharmacological therapy is therapy with lifestyle modifications, one of which is diet.

Diet is an action and treatment of hypertension without serious side effects because it uses natural controls (Utami, 2018). Dieting behavior is behavior that seeks to limit food and drink to certain doses, certain times, and certain types of food (Abdul, 2018). According to Ribeiro (2018), the hypertension diet is able to maintain normal blood pressure and is one of the most effective ways. The hypertension diet is not easy to do, because sufferers must know how to apply it (Hayani et al., 2021). Forms of the hypertension diet include a low salt/sodium diet, a low fat diet, a low calorie diet and a high fiber diet (Taqiyah, Ramli, & Najihah, 2021). According to research conducted by Wati (2018), as many as 69 (82.1%) of 84 respondents had bad hypertension diet behavior due to lack of dietary knowledge in hypertension sufferers. Lack of knowledge will affect how a person behaves. However, in addition to knowledge, dietary behavior can also be influenced by perceptions related to the illness (Wibrata et al, 2023).

Perception is a condition where individuals can understand and interpret their health problems, individuals can think about the impact or consequences of a problem, and how individuals behave (Oktarinda & Surjaningrum, 2018). Perception is important to be owned by the individual because with the perception will apply healthy behavior or not for people with hypertension. If an individual feels vulnerable to a disease that is being suffered and is considered serious (serious), then the individual will take an action and take health action depending on the perceived benefits and obstacles that will be found (Afifa, 2019). Health care and treatment of hypertension can be said to be low if you have a bad perception of the disease, conversely if the patient has a good view of a disease then the health care and treatment of the patient with hypertension is said to be high (Robiyanto, Prayuda, & Nansy, 2016).

According to research conducted by Perdana (2018), many hypertensive sufferers misperceive their illness by ignoring the symptoms, not worrying about their illness, not behaving well and complying with treatment because the treatment is carried out both in terms of pharmacology and non-pharmacology. pharmacology does not provide benefits even their blood pressure is still not controlled. Hypertension sufferers consider hypertension to be an ordinary disease and can be cured even in a long time. People with hypertension feel worried about their disease but lack good behavior. Hypertension sufferers believe that if they have not felt the impact of a disease, then hypertension is not a serious illness so there is no need to comply with medical and non-medical recommendations (Batlajery, 2019). Based on research conducted by Prazuliana (2022), there is a relationship between perception of

disease and adherence to taking medication in hypertensive patients. It was found that as many as 54 (58.7%) respondents had a negative perception of their illness and as many as 38 (41.3%) respondents had positive perception of the disease. The more positive the perception of the disease that hypertension sufferers have, the more obedient they are in taking hypertension medication. This is supported by research conducted by Pratiwi, Untari, and Robiyanto (2020), there is a relationship between patient perceptions of hypertension and the quality of life of hypertensive patients. It was found that as many as 94 (79.66%) respondents had negative perceptions of their disease and as many as 24 (20.34%) of respondents have a positive perception of the disease. The more positive the perception of disease about hypertension, the better the quality of life of hypertensive patients. conversely the more negative the perception of disease about hypertension, the worse the quality of life.

Based on the presentation of a preliminary study conducted by researchers on March 11, 2023 at the Rejosari Health Center, the results of interviews with 10 hypertension sufferers, it was found that 4 out of 10 sufferers had a good perception of hypertension by assuming that hypertension would affect life if effective treatment was not carried out, they said the symptoms of hypertension such as headaches, palpitations, neck pain would be reduced by treatment and management carried out such as taking medication and maintaining a diet, they had a high understanding of the types and development of hypertension by carrying out routine blood pressure control, and they assume if blood pressure is always high will cause complications. On the other hand, 6 out of 10 sufferers have a bad perception of hypertension by saying that the disease will last a long time and will not heal because the treatment and therapy are not useful, they say symptoms of hypertension such as headaches, heart palpitations, neck feels heavy are normal symptoms. which does not require treatment, and they say that proper management of hypertension can only be done when it has complications. This is supported by the dietary behavior of hypertension sufferers, where 50% of sufferers said they often consumed excessive salt, often consumed foods high in salt such as salted fish, often consumed foods containing coconut milk, often processed meat by frying and rarely consumed vegetables and fruits. Conversely, 50% of people with hypertension avoid foods that are high in salt, fatty foods such as coconut milk and cooking oil, and often consume vegetables and fruits every day. Based on the background above, the researcher is interested in conducting research with the title "the relationship between perceptions of disease and dietary behavior in hypertension sufferers".

RESEARCH METHODS

This research uses a quantitative research type with a correlation descriptive design with a cross sectional approach. The sample in this study were 79 respondents who visited the Rejosari Health Center and were taken using a purposive sampling technique. The data collection tool used was a disease perception questionnaire, namely the Brief Illness Perception Questionnaire (B-IPQ) which had been modified by the researcher and previous research by Wulandari (2013) as well as a diet behavior questionnaire which the researcher made himself then modified from previous research by Wati (2018)). The questionnaire used by the researcher has been tested for validity and reliability. Then the research procedure carried out by the researcher starts from the preparation, implementation, and final stages, namely compiling a research report. Researchers also conducted a normality test with the Kolmogorov-Smirnov test (the number of samples in the study was more than 50). The decision making criterion is if the significance value is > 0.05, then the variable is normally distributed (using the mean) and if the significance value is <0.05, then the variable is not normally distributed using the median). The analysis used was bivariate analysis using the Chi-Square test.

RESEARCH RESULTS AND DISCUSSION
Univariate Analysis
Characteristics of Respondents

Univariate analysis in this study is the frequency and percentage distribution of the characteristics of the respondents consisting of age, gender, education, occupation, and duration of suffering from hypertension. identity/symptoms, concerns, understanding of disease, emotions and causes of hypertension and dietary behavior in hypertension sufferers. The results of univariate analysis can be seen as follows:

Table 1. Distribution of Respondent Characteristics

Characteristics of Respondents	Frequency (n)	Percentage (%)
1. Age		
35-45 years (late adulthood)	5	6,4
46-55 years (early elderly)	23	29,1
56-65 years (late elderly)	43	54,4
66 years and over (seniors)	8	10,1
Total	**79**	**100**
2. Gender		
Female	51	64,6
Male	28	35,4
Total	**79**	**100**
3. Education		
Elementary School	19	24,1
Junior High School	20	25,3
Senior High School	32	40,5
College (DIII/S1/S2, et al)	8	10,1
Total	**79**	**100**
4. Work		
Housewife	42	53,2
Trader	7	8,9
Unemployment	7	8,9
Farmer	3	3,8
Self-employed	8	10,1
Businessman	3	3,8
Teacher	1	1,3
Laborer	4	5,1
Gardening	4	5,1
Total	**79**	**100**
5. long suffered from hypertension		
<1 year	14	17,7
1-3 year	45	57,0
>3-5 year	20	25,3
Total	**79**	**100**

Based on table 1, it is known that of the 79 respondents, some of the hypertension patients were in the 56-65 year group, as many as 43 people (54.4%), female sex as many as 51 people (64.6%), 32 people with senior high school education (40, 5%), 42 people (53.2%) work as housewives, and 45 people (57.0%) suffer from hypertension in the range of 1-3 years.

Perception of Disease

Table 2. Distribution of Perceptions of Disease

Disease perception indicator	Frequency (n)	Percentage (%)
1. Consequences of hypertension		
Dangerous	42	53,2
Less dangerous	37	46,8
Total	**79**	**100**
2. Duration of hypertension disease		
Chronic	58	73,4
Acute	21	26,6
Total	**79**	**100**
3. Personal control of hypertension		
Have full control	41	51,9
Lack of control	38	48,1
Total	**79**	**100**
4. Control of hypertension treatment		
Help	42	53,2
Less helpful	37	46,8
Total	**79**	**100**
5. Identity/symptoms of hypertension		
Many have severe symptoms	40	50,6
Less severe symptoms	39	49,4
Total	**79**	**100**
6. Concerns about hypertension		
Worry	43	54,4
Worry less	36	40,6
Total	**79**	**100**
7. Understanding of hypertension		
Understand clearly	47	59,5
Not understanding clearly	32	40,5
Total	**79**	**100**
8. Emotions from hypertension		
Less emotional impact	56	70,9
Emotionally impactful	23	29,1
Total	**79**	**100**
9. Causes of hypertension		
Descendants	35	14,8
Dietary habit	58	24,5
Stress	48	20,3
Sleep pattern	37	15,6
Age	27	11,4
Physical activity	22	9,3
Smoke	10	4,2
Total	**237**	**100**

Based on table 2, it is known that from 79 respondents based on the consequence aspect of the disease, some hypertensive patients considered hypertension to be dangerous as many as 42 people (53.2%), based on the duration aspect of hypertension, the majority of hypertensive patients considered hypertension to be a chronic disease, as many as 58 people (73.4 %), based on the personal control aspect of the disease, some hypertensive patients had full control over their disease as many as 41 people (51.9%), based on the control aspect of hypertension treatment, some hypertensive patients thought that the treatment they were undergoing could help as many as 42 people (53.2%), based on the identity/symptoms aspect of the disease, some hypertensive patients felt many symptoms as many as 40 people (50.6%), based on the concern aspect of the disease, some hypertensive patients were worried about their disease as many as 43 people (54.4%), based on the understanding aspect

of hypertension, some hypertensive patients clearly understood the disease as many as 47 people (59.5%), based on emotions towards the disease some hypertensive patients considered their disease to have less emotional impact as many as 56 people (70.9%), and based on aspects of the causes of hypertension some hypertensive patients considered hypertension to be caused by diet of 58 people (24.5%), stress of 48 people (20.3%), sleep pattern of 37 people (15.6%), and heredity of 35 people (14.8%).

Dieting Behavior

Table 3. Diet Behavior Distribution

Dieting Behavior	Frequency (n)	Percentage (%)
Good	44	55,7
Bad	35	44,3
Total	79	100

The table describes dietary behavior in hypertension sufferers, where out of 79 respondents some hypertensive patients had good dietary behavior as many as 44 people (55.7%).

Bivariate Analysis
Correlation Between Perceptions Of Disease Consequences With Dieting Behavior In Patients With Hypertension

Table 4. Perceptions of Disease Aspects of Consequences with Dietary Behavior

The consequences of hypertension	Dieting Behavior				Total		OR (95%CI)	P value
	Good		Bad					
	n	%	N	%	n	%		
Dangerous	29	69,0	13	31,0	42	100	3,272 (1,295-8,265)	0,020
Less dangerous	15	40,5	22	59,5	37	100		
Total	44	55,7	35	44,3	79	100		

The results of the analysis of the relationship between perceptions of disease consequences and dietary behavior showed that 29 (69.0%) respondents considered their disease to be dangerous had good dietary behavior, while 15 (40.5%) respondents who considered their disease to be less dangerous had good dietary behavior. The statistical test results obtained p = 0.020 where the p value <0.05. This means that Ho is rejected and it can be concluded that there is a relationship between perceptions of disease consequences and dietary behavior in hypertension sufferers. From the analysis results, it was also obtained that the odds ratio (OR) = 3.272, meaning that respondents who considered their disease to be dangerous had a possibility (odd) 3.272 times to have good dietary behavior than respondents who considered their disease to be less dangerous.

The Relationship Between Perceptions Of Disease Duration Aspects Of The Disease With Diet Behavior In Patients With Hypertension

Table 5. Perceptions of Disease Aspects of Disease Duration with Dietary Behavior

Duration of Hypertension	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Good					
	N	%	N	%	N	%		
Chronic	34	58,6	24	41,4	58	100	1,558	0,540

Acute	10	47,6	11	52,4	21	100	(0,571-
Total	44	55,7	3	43,3	79	100	4,250)

The results of the analysis of the relationship between the perception of the disease duration aspect of the disease and dietary behavior showed that there were 34 (58.6%) respondents who considered hypertension to be a disease with a chronic duration and had good dietary behavior, while in the respondents who considered hypertension to be a disease with an acute duration there were 10 (47 .6%) had good dietary behavior. The statistical test results obtained p = 0.540 where the p value > 0.05. This means that Ho failed to be rejected and it can be concluded that there is no relationship between perceptions of disease duration of disease and dietary behavior in hypertension sufferers.

Relationship Between Personal Control Aspects of Disease Perceptions and Diet Behavior in Hypertension Sufferers

Table 6. Personal Control Aspects of Disease Perceptions with Dieting Behavior

Personal Control of Hypertension	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Bad					
	N	%	n	%	n	%		
Have full control	32	78,0	9	22,0	41	100	7,704	
Lack of control	12	31,6	26	68,4	38	100	(2,813-	0,000
Total	44	55,7	35	44,3	79	100	21,095)	

The results of the analysis of the relationship between the perception of disease in terms of personal control and dietary behavior showed that there were 32 (78.0%) respondents who had full control having good diet behavior, while for respondents who lacked full control there were 12 (31.6%) had dietary behavior Good. The statistical test results obtained p = 0.000 where the p value <0.05. This means that Ho is rejected and it can be concluded that there is a relationship between perceptions of disease in terms of personal control and dietary behavior in hypertension sufferers. From the results of the analysis, the odds ratio (OR) = 7.704 means that respondents who have full control have the possibility (odd) 7.704 times to have good dietary behavior than respondents who have less control.

Correlation Between Perceptions Of Disease Control Aspects Of Treatment With Diet Behavior In Patients With Hypertension

Table 7. Perceptions of Disease Control Aspects of Treatment with Dietary Behavior

Control of Hypertension Treatment	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Bad					
	N	%	N	%	N	%		
Help	32	76,2	10	23,8	42	100	6,667	
Less helpful	12	32,4	25	67,6	37	100	(2,480-	0,000
Total	44	55,7	34	44,3	79	100	17,92)	

The results of the analysis of the relationship between perceptions of disease control aspects of treatment and dietary behavior showed that there were 32 (76.2%) of respondents who considered hypertension treatment to be helpful in having good dietary behavior, while among respondents who considered hypertension treatment to be unhelpful there were 12 (32.4%) have good dietary habits. The statistical test results obtained p = 0.000 where the p value <0.05. This means that Ho is rejected and it can be concluded that there is a relationship

between perceptions of disease in the control aspect of treatment and dietary behavior in hypertension sufferers. From the analysis results, the odds ratio (OR) = 6.667 was also obtained, meaning that respondents who considered hypertension treatment helpful had a 6.667 times probability (odd) of having good dietary behavior than respondents who considered hypertension treatment unhelpful.

The Relationship Between Perceptions Of Illness Aspects Of Identity, Symptoms And Dieting Behavior In Patients With Hypertension

Table 8. Perceptions of Disease Control Aspects of Treatment with Dietary Behavior

Identification/Symptoms of Hypertension	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Bad					
	N	%	n	%	n	%		
Many Have Severe Symptoms	27	67,5	13	32,5	40	100	2,688 (1,076-6,715)	0,056
Less Severe Symptoms	17	43,6	22	56,4	39	100		
Total	44	55,7	35	44,3	79	100		

The results of the analysis of the relationship between the perception of the disease aspect of identity/symptoms and dietary behavior showed that there were 27 (67.5%) of respondents who considered that many had severe symptoms of the disease had good dietary behavior, while there were 17 respondents (43) who considered there were few symptoms of the disease. .6%) had good dietary behavior. The statistical test results obtained p = 0.056 where the p value > 0.05. This means that Ho failed to be rejected and it can be concluded that there is no relationship between the perception of the disease aspect of identity/symptoms and dietary behavior in hypertensive patients.

Correlation Between Perceptions Of Disease Aspects Of Worries With Dieting Behavior In Patients With Hypertension

Table 9. Perceptions of Disease Aspects of Concern with Dietary Behavior

Concern About Hypertension	Dieting Behavior				Total		OR (95%CI)	P value
	Good		Bad					
	N	%	N	%	n	%		
Worry	29	67,4	14	32,6	43	100	2,900 (1,156-7,275)	0,038
Worry less	15	41,7	21	58,3	36	100		
Total	44	55,7	35	44,3	79	100		

The results of the analysis of the relationship between the perceived aspect of worry and dietary behavior found that there were 29 (67.4%) of respondents who were worried about their illness had good dietary behavior, while in the respondents who were less worried about their illness there were 15 (41.7%) had good dietary behavior . The statistical test results obtained p = 0.038 where the p value <0.05. This means that Ho is rejected and it can be concluded that there is a relationship between perceptions of the disease aspect of concern and dietary behavior in hypertension sufferers. From the analysis results, the odds ratio (OR) = 2.900 is also obtained, meaning that respondents who are worried about their disease have a 2.900 times probability (odd) of having good dietary behavior than respondents who are less worried about their disease.

The Relationship Between Perceptions Of Disease Understanding Aspects Of The Disease With Diet Behavior In Patients With Hypertension

Table 10. Perceptions of Disease Control Aspects of Treatment with Dietary Behavior

Understanding of Hypertension	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Bad					
	N	%	n	%	N	%		
Understand Clearly	26	55,3	21	44,7	47	100	0,963 (0,390-2,830)	1,000
Not Understanding Clearly	18	56,2	14	43,8	32	100		
Total	44	55,7	35	44,3	79	100		

The results of the analysis of the relationship between the perception of the disease aspect of understanding the disease and dietary behavior showed that there were 26 (55.3%) of respondents who were able to clearly understand their illness had good dietary behavior, while 18 (56.2%) of respondents who did not clearly understand their disease had good dietary behavior The statistical test results obtained p = 1.000 where the p value > 0.05. This means that Ho failed to be rejected and it can be concluded that there is no relationship between perceptions of disease in terms of understanding disease and dietary behavior in hypertension sufferers.

Relationship Between Perceptions of Emotional Aspects of Illness With Dieting Behavior in Patients With Hypertension

Table 11. Perceptions of Emotional Aspects of Illness with Dietary Behavior

Emotions of Hypertension Disease	Dieting Behavior				Total		OR (95% CI)	P value
	Good		Bad					
	N	%	N	%	N	%		
Less emotional impact	35	62,5	21	37,5	56	100	2,593 (0,957-7,026)	0,099
Emotionally impactful	9	39,1	14	60,9	23	100		
Total	44	55,7	35	44,3	79	100		

The results of the analysis of the relationship between the perception of emotional aspects of illness and dietary behavior showed that there were 35 (62.5%) of respondents who considered hypertension to have less emotional impact, had good dietary behavior, while there were 9 (39.1%) of respondents who considered hypertension to have an emotional impact. have good dietary habits. The statistical test results obtained p = 0.099 where the p value > 0.05. This means that Ho failed to be rejected and it can be concluded that there is no relationship between perceptions of emotional aspects of disease and dietary behavior in hypertension sufferers.

Discussion
Univariate analysis
Age

Based on the results of the study of 79 respondents, it can be seen that some hypertensive patients are in the age range of 56-65 years, namely 43 people (54.4%) compared to other ages. According to the Ministry of Health, the age of 56-65 years is the late elderly, at which age the risk of developing hypertension is high. This is in line with research conducted by Cahyani (2018), which noted that 84% of patients aged 60 years and over will have higher blood pressure over time.

Gender

Based on the results of the study from 79 respondents, it can be seen that some of the hypertension patients were women, 51 people (64.4%). This research is in line with research

conducted by Pebrisiana, Tambunan, and Baringbing (2022), it was found that 72 respondents (72.7%) were female, this was because many female respondents visited the Puskesmas. In addition, when women enter menopause due to hormonal disturbances, the risk of developing hypertension increases so that the prevalence is higher than men. This is caused by the production of the hormone estrogen decreasing during menopause, causing blood pressure to increase

Education

Based on the results of the study of 79 respondents, it can be seen that some of the education of hypertensive patients is high school as many as 32 people (40.5%). This is in line with research conducted by Musfirah and Masriadi (2019), it was found that the majority of respondents' education was high school, as many as 56 people (41.2%) which stated that the higher a person's education level, the lower the risk of developing hypertension. The higher the level of education, the higher the level of health awareness. Elementary school criterion education level reduces the risk of hypertension by 66% while high school education criteria reduces the risk of hypertension by 72%.

Work

Based on the research results from 79 respondents, it can be seen that some of the occupations of hypertension patients are housewives (IRT) of 32 people (40.5%). this research is supported by Akbar, Syamsidar, and Nengsih (2020), the majority of sufferers' occupations are housewives with as many as 18 people (75%). Work as an IRT tends to cause severe hypertension because of the source of stress. Inadequate work facilities, endless work, unclear roles and work, work demands, and family demands make them often complain because of the burden on their minds which can cause blood pressure to increase.

Long Suffering from Hypertension

Based on the results of the study of 79 respondents, it can be seen that 45 people (57.0%) had suffered from hypertension for a period of 1-3 years. Disease duration is one of the factors that can affect adherence to medication and other therapies. This is in line with research conducted by Ihwatun, Ginandjar, Saraswati, and Udiyono (2020), there is a positive correlation between adherence and duration of suffering from hypertension. Patients whose disease is 1-3 years old tend to be compliant in carrying out treatment, both from a medical and non-medical perspective. Meanwhile, patients who have been diagnosed with hypertension for more than 3 years tend to be non-adherent to treatment because they feel bored and bored with the treatment, but it does not provide a cure.

Bivariate Analysis
Based on Consequences Aspect

The results of the statistical analysis showed that the p value = 0.020 where the p value < 0.05. This means that Ho is rejected and it is concluded that there is a relationship between the perception of disease consequences and dietary behavior in hypertension sufferers. According to Nurfitriyana and Coralia (2015), the consequences of disease refer to an assessment of the perceived threat to the risks that will arise as a result of the disease. This is the same as research conducted by Kurniawati, Kusumawati, and Prabamurti (2020), there is a relationship between perceived seriousness and participation in Posyandu. One's perception related to the illness will determine how the individual behaves. The behavior of an individual can be influenced by the perception of the disease he is suffering from. If a person thinks that his illness may worsen, his will will encourage the individual to take

medication, one of which is the hypertension diet, by maintaining the diet consumed, such as limiting excessive salt intake, reducing consumption of foods high in fat. and consuming more fibrous foods (Komalasari, Salahuddin, & Harun 2020).

Based on the Aspect of Disease Duration

The results of the statistical analysis showed that the p value = 0.540 where the p value was > 0.05 and it was concluded that there was no relationship between perception of disease control aspects of disease duration and dietary behavior in hypertension sufferers. According to Fauzi, Efendi, and Mustakim (2020), the duration of illness or timeline is the time of how long the illness will last for an individual. This research is supported by Lorensia, Yulia, and Wahyuningtyas (2016), There is no relationship between timeline dimension pain perception and asthma symptom control, because apart from the timeline aspect or disease duration, many factors can influence treatment behavior such as age, cognitive function, income, education level, perception of treatment control aspects, worries, and beliefs about the treatment. Efforts to control hypertension by implementing health behaviors, one of which is the hypertension diet which is a natural way and is thought to be the most effective in controlling the patient's blood pressure.

Under Personal Control

The results of the statistical analysis showed a p value = 0.000 where the p value <0.05 and it can be concluded that there is a relationship between perceptions of disease in terms of personal control and dietary behavior in hypertension sufferers. According to Veronika, Kurniyanti, and Ramadhani (2021), personal control is a form of activity controlling behavior and directing forms of behavior that can bring individuals in a more positive direction. This is supported by research conducted by Rachmania, Siswoaribowo, and Novitasari (2022), the temptation for life behavior is not only a lack of physical activity, stress, but also food factors that they are unable to prevent. Dietary behavior carried out by individuals can be influenced by perceptions of disease, especially in aspects of something they believe in. Someone who lacks control or has low self-control has difficulty determining the consequences of actions taken that cause deviant health behavior (Fakhkurnia & Rosid, 2017).

Based on Treatment Control

The results of the statistical analysis showed that the p value = 0.000 where the p value <0.05 and it can be concluded that there is a relationship between perceptions of disease control aspects of treatment and dietary behavior in hypertension sufferers. According to Suharmanto (2021), treatment control is an action taken by an individual in treating a disease that is being suffered. This is in line with research conducted by Soesanto and Marzeli (2020), there is a relationship between elderly perceptions of the profit aspect and health behavior. A person's behavior towards a disease is influenced by how the individual responds, both passively (knowing, behaving, and perceiving the disease and pain), or actively (actions related to the disease and illness). Health improvement can be in the form of implementing a diet carried out by people with hypertension to control blood pressure in a natural way and be able to minimize the side effects caused

Based on Identity/Symptoms

The results of the statistical analysis showed that the p value = 0.056 where the p value was > 0.05 and it can be concluded that there is no relationship between the perception of the identity aspect of disease and dietary behavior in hypertension sufferers. According to Kurniawan, Kusummawati, and Prambamurti (2020), the identity/symptoms of the disease

refer to the clinical manifestations that are felt about the disease being suffered. This is in contrast to research conducted by Afdhalia (2017), there is a significant relationship between perception of pain in the identity dimension and compliance behavior in the treatment of Chronic Kidney Disease (CKD) patients undergoing hemodialysis at Regional General Hospital A Wahab Sjahranie Samarinda. Identity/symptoms are labels given to a disease or diagnosis and symptom experience. The symptoms felt by sufferers are something that becomes a cue for individuals in carrying out an action of treatment, especially carrying out a healthy lifestyle by controlling food.

Based on Concern

The results of the statistical analysis showed that the p value = 0.038 where the p value <0.05 and it can be concluded that there is a relationship between perceptions of the disease aspect of concern and dietary behavior in hypertension sufferers. This research is supported by Laili (2020), there is a relationship between perceptions of vulnerability to efforts to control hypertension in the work area of the Sumbang 1 Health Center. The community, especially people with hypertension who get disease, and do not feel pain (disease but illness), of course, will not do anything. what about the disease, but if the individual feels vulnerable to the disease and gives a view of the disease as a serious (serious) problem, then he will take certain actions to overcome the disease (Nurmala, 2020).

Based on Understanding Disease

The results of the statistical analysis showed that the p value = 1.000 where the p value was > 0.05 and it can be concluded that there is no relationship between perception of disease in terms of understanding disease and dietary behavior in hypertension sufferers. According to Ferdian and Pratama (2022), understanding disease is cognitive which describes the course of the disease suffered. This is in line with research conducted by Lorensia, Yulia, and Wahyuningtyas (2016) which stated that there is no relationship between perceptions of disease, understanding aspects of disease, and control of asthma symptoms in outpatients. These results were obtained for treatment not only because of the understanding aspect of the disease, but also the control of treatment and the correct interpretation of the symptoms of the disease which provide a significant relationship. Treatment control is an effort made to control the disease, what negative effects need to be avoided when taking treatment, and with treatment being able to accept the disease so that the treatment is able to overcome the disease being suffered. Meanwhile, identity is a symptom felt by sufferers related to hypertension. Formation of good behavior towards controlling hypertension complications, one of which is by implementing a hypertension diet such as limiting fatty foods, reducing salty foods, not drinking alcohol and consuming lots of fibrous foods (Kurnia, 2020).

Based on Emotions

The results of the statistical analysis showed that the p value = 0.999 where the p value was > 0.05 and it can be concluded that there is no relationship between perceptions of emotional disease and dietary behavior in hypertension sufferers. According to Bijayanti, Primatanti, and Ningrum (2022), emotion is a reaction pattern that involves experience, behavior, and physiology that is used to deal with problems or events that occur in an individual's life. This research is not in line with research conducted by Hernanda (2020), where there is a relationship between emotional stability and self-control in hypertensive patients at the Islamic center clinic in Samarinda. Individual emotional control also requires family support on the emotional aspect. Family emotional support is able to provide

sympathy, attention, togetherness so as to make individuals feel enthusiastic in carrying out dietary behavior.

CONCLUSION

Based on the results of research on "The relationship between perception of disease and dietary behavior in hypertension sufferers" of 79 respondents, it was concluded that most of the respondents were aged 56-65 years, female sex, graduated from high school, housewife job, long suffered from hypertension 1-3 years, have a disease perception that views hypertension as dangerous, hypertension is a chronic disease, have full control, medication can help, have many severe symptoms, worry about disease, clearly understand hypertension, lack emotional impact, and hypertension is caused by diet , stress, sleep patterns, heredity and have good dietary behavior. This study shows that there is a relationship between perceptions of disease in terms of consequences, personal control, medication control, and anxiety with dietary behavior in hypertension sufferers. However, this study showed that there was no relationship between perception of disease on the aspects of disease duration, identity/ symptoms, disease understanding, and emotions with dietary behavior in hypertension sufferers. Then for future researchers it is better to conduct research not only on patients who visit the Puskesmas, but also respondents who do not visit the Puskesmas can also be researched in order to obtain complex data.

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