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Family Support Related to Stress Management among People Living with Hypertension

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ABSTRACT

Hypertension is one of emerging chronic diseases globally. One of the factors affecting hypertension is stress. Family support in terms of attitude and actions of family members can help in stress management. This research aimed to determine the relationship between family support and stress management for people with hypertension in one subdistrict in Tangerang. This study used a correlational descriptive design with a cross-sectional approach. This study recruited 72 participants using convenience sampling technique. The instruments used in this research were the family support questionnaires and stress management questionnaire. Data analysis used descriptive and bivariate analysis (Chi Square test). Descriptive analysis showed that 72,2% respondents who had good family support and 90,3% respondents who has good stress management. The bivariate analysis obtained p-value <0.001. As conclusion, there was significant relationship between family support and stress management in hypertension. We suggest for future research to conduct other research method such as intervention on how each family support in managing stress among people live with hypertension

Keywords: family support; hypertension; stress management

INTRODUCTION

Hypertension is a medical condition when there is an increase in systolic blood pressure greater than or equal to 140 mmHg and diastolic blood pressure greater than or equal to 90 mmHg.⁽¹⁾ Hypertension is high among non-communicable diseases according to the World Health Organization with an estimated 1.28 billion adults aged 30–79 years globally with hypertension and most of them living in low- and middle-income countries. Furthermore, there are 7.1 million people dying each year due to hypertension globally.⁽²⁾ The prevalence of people with hypertension in Indonesia reached 34.1% and the number of cases was 63,309,620.⁽³⁾ The total hypertension cases at Banten Province in 2020 was 1,839,842 people.⁽⁴⁾ Moreover, based on Indonesia's Basic Health Research 2018, the highest number of cases of hypertension in Banten province were in Tangerang and Lebak districts with 622,060 cases and 617,997 cases respectively.⁽⁵⁾

Risk factors for hypertension are genetics, age, gender, ethnicity, obesity, lifestyle, and environmental influences as in previous Indonesian study.⁽⁶⁾ A person with hypertension may find it difficult to avoid stressors in daily living, so they need help and support from others.⁽⁷⁾ Family is the main and closest support for hypertensive patients.⁽⁸⁾ Family support involves an acceptance attitude towards of other family members, which can be informational, judgmental, instrumental (material), and emotional.⁽⁹⁾

Family support is an important factor to help individuals overcome difficulties, increase self-confidence and motivation in the face of difficulties, and increase life satisfaction.⁽¹⁰⁾

Based on data from the Tangerang District other Health Office in 2021, the estimated number of hypertension sufferers aged ≥ 15 years at the Binong Health Centre was 17,538 people with 8,599 male patients and 8,939 female patients. Data obtained from the Binong Health Centre recorded 184 visits of hypertensive patients as of March 2022.⁽¹¹⁾ Based on the results of two studies conducted by Subrata⁽¹²⁾ and Ramdani,⁽¹³⁾ there is a significant relationship between stress levels and increased blood pressure. Meanwhile, it was suggested that there is an interrelated relationship between family support and hypertension control.⁽¹⁴⁾ Subjects who had high family support were 11 times more likely to control hypertension, but in this research, it was not explained what hypertension control factors were influenced by family support.

Preliminary interviews among eight residents with hypertension in Binong Village were done. It was found that four of them said they received family support both emotionally, materially, informationally, and felt very helpful in controlling hypertension, especially in managing perceived stress. Two of them said they received material family support, but lacked emotional, informational, and assessment support so they felt less helped in controlling hypertension, especially in managing perceived stress. Two said they received emotional support and good judgment from their families but lacked material and informational support from their families and said they were able to manage their own stress during hypertension.

Tangerang district, specifically Binong village has significant hypertension cases and family support need to be assessed as its correlation in stress management of the people with hypertension. This study aimed to analyse the correlation between family stress and stress management among people with hypertension.

METHODS

The design used in this research was correlational descriptive design with a cross sectional approach. This research was conducted in Binong Village, Curug District, Tangerang Regency, Banten between January and May 2023. Previous study used as baseline data which has hypertension cases in Binong Village in 2022 which is 184 peoples¹¹. Use of the Slovin formula resulted with 72 respondents needed. Patients who met criteria during their visit to health centre were recruited consecutively right after they finished their visit. Some patients were recruited based on the information of the health cadres and the researcher did home visitation to collect data.

This current study was family support modified⁽¹⁵⁾ of and a stress management questionnaire from previous study⁽¹⁶⁾ were used to collect the data. The validity and reliability tests for those two instruments were performed at the Kelapa Dua Health Centre, Tangerang district among 30 people diagnosed with hypertension. Family support instruments consisted of 17 items using four point Likert scales ranged 0 to 3. Total score ranged 0 to 51. The level of family support: poor (<18), medium (18-33), and good (>33). Stress management instruments consisted of 17 items using four-point Likert scales. The scale consisted of positive items (1 to 4) and negative items (4 to 1). Total score ranged 17-68. The level of stress management: poor (17-41) and good (42-68). The validity and reliability test of the family support questionnaire resulted in 17 valid and reliable questions, which $r_{count} > r_{table}$ ($r_{table} = 0.306$) and reliable with Cronbach's alpha value of 0.766. Stress Management questionnaire validity and reliability test resulted 17 valid and reliable questions, with $r_{count} > r_{table}$ ($r_{table} = 0.306$) and reliable with Cronbach's alpha value of 0.752.

Ethical approval was obtained from faculty review board with number 039/KEPFON/I/2023. Data analysis techniques in this research are univariate analysis using descriptive analysis using percentage and bivariate analysis using Chi square correlation test.

RESULTS

Table 1 showed mostly the 45-59 years old (70.8%), woman (73.6%), work as housewife (56.9%), high school graduate (47.2%). The comorbid diseases such as diabetes mellitus (36.2%) and most respondents had hypertension less than 10 years (91.7%). Meanwhile, most respondents had more than 160 mmHg systolic pressure 100 mmHg diastolic pressure (31.9%).

Table 1. Distribution of demographic data of people with hypertension in Binong Village

Demographic characteristics	Category	Frequency	Percentage
Age	25-35 years old	4	5.6
	36-45 years old	17	23.6
	45 -59 years old	51	70.8
Gender	Female	53	73.6
	Male	19	26.4
Duration living with hypertension	≤ 10 years	66	91.7
	> 10 years	6	8.3
Job	Housewife	41	56.9
	Self employed	9	12.5
	Private employees	12	16.7
	Civil servants	3	4.2
	Retired or out of work	7	9.7
Education	Elementary school	22	30.6
	Junior high school	9	12.5
	Senior high school	34	47.2
	College	7	9.7
Other comorbid diseases	Gastritis	13	18.1
	Cardiovascular diseases	8	11.1
	Diabetes mellitus	13	18.1
	Arthritis	4	5.6
	No other comorbid history	34	47.2
Degree of hypertension	140-159 mmHg / 90-99 mmHg	49	68.1
	>160 mmHg/ >100 mmHg	23	31.9

Table 2. Distribution of family support and stress management of people with hypertension in Binong Village

Variable	Category	Frequency	Percentage
Family support	Good	52	72.2
	Medium	14	19.4
	Poor	6	8.3
Stress management	Good	65	90.3
	Poor	7	9.7

Table 2 showed most respondents had family support (72.2%) while most had good stress management (90.3%).

Table 3. Analysis of family support relationship with stress management of hypertensive patients

Family support	Stress management				p-value
	Good		Poor		
	Frequency	Percentage	Frequency	Percentage	
Good	51	98.1	1	1.9	0.001
Medium	14	100	0	0	
Poor	0	0	6	100	

Table 3 showed significant correlation between family support and stress management with a significance value of $p < 0.001$. It can be interpreted that there was a relationship between family support and stress management

DISCUSSION

Duration of hypertensive diagnosis showed that less than 10 years by 66 respondents (91.7%). Previous Indonesian study⁽¹⁷⁾ in their research explained that the longer a person suffers from hypertension anxiety due to the greater risk of complication can increase. Indonesian study in Manado previously stated that the longer the hypertension diagnosed, it might affect specifically elder with hypertension to routinely visit to health centre regarding their condition.⁽¹⁸⁾

History of other diseases in the respondents of this research the majority were ulcers and Diabetes Mellitus. Previous Indonesian study⁽¹⁹⁾ found that people who suffer from diabetes mellitus for 5-10 years are at risk of suffering from hypertension three times. Diabetes mellitus triggers atherosclerosis causing blood flow to narrow. This condition causes higher blood vessel wall pressure to meet the body's circulatory needs.

Regarding respondent's occupation this current study showed mostly work as housewife with a total of 41 respondents. This current study result was in line with⁽¹⁹⁾ previous research which found that the incidence of hypertension is most experienced by housewives. The high incidence of hypertension in housewife was caused by high stress levels, excessive dietary habits, and body mass index.^(20,21) The high incidence of hypertension in housewife is influenced by the stress factors experienced by housewife is quite high. Stress on housewife arises because of the many household activities that must be handled.^(22,23)

This current study did not analyse by sub variable analysis as conducted in Kii.⁽⁹⁾ The results of this research found that most respondents (56.9%) received information support related to hypertension from their families. Families also support emotional (59.7%), instrumental (44.4%), and judgment (50%) who help in monitoring and reminding respondents of ongoing therapy. In addition, 48.6% of respondents to this research were accompanied by family when going to health services.

This current study is inconsistent with research which discussed the factors that influence the behaviour of people with hypertension in controlling blood pressure.⁽²⁴⁾ This research found that 70% of people with hypertension received inadequate family support. That previous study⁽⁹⁾ explained that most patients (66.3%) had long been diagnosed with hypertension and (80.3%) respondents had difficulty accessing health services. Nuryono's study was based on interviews most respondents and families have less information related to hypertension and its treatment.⁽²⁴⁾ Furthermore, there was a lack of a family role in reminding respondents to comply with the treatment or therapy and the lack of family participation in accompanying respondents to health services.

Family support provides and adds a sense of self-confidence that motivates family members to face problems.⁽²⁵⁾ Family support can be provided through verbal information, advice, emotional help, and acceptance that makes family members feel good. Family supports people with hypertension in undergoing regular treatment and medication therapy.

In this study most (90.3%) respondents had good stress management. This current study has contrary result with previous research conducted on 40 hypertensive patients at the cardiac outpatient department of public hospital Dr Wahidin Sudiro Husodo Mojokerto City. That previous study showed 29 respondents had moderate stress management. It might be due to different setting from this research, namely at the cardiac outpatient

department of heart of the hospital.⁽²⁶⁾ Previous Indonesian study⁽²⁷⁾ explained that patients will make referrals to higher health facilities because their conditions are getting worse and lack of adequate facilities. One of the causes of referrals is the lack of adequate facilities at the health centre to handle the patient's condition including its severity. Hypertensive patients who seek treatment at cardiac outpatient department in higher level of hospital possible has more complicated condition than this current study. It could be needing more stress management ability of hypertensive patients at community setting is better than hypertensive patients who seek treatment at the health centre.

Other research that is at variance to this research is research conducted by Hanum which on its study on 64 elderly people aged between 60-90 years who have chronic diseases using the Perceived Stress Questionnaire (PSQ) to collect data.⁽²⁸⁾ The results of the pre-test conducted obtained an average value of stress level of 37.25 with bad stress management.

We assume that the high level of stress in research respondents⁽²⁸⁾ is due to respondents who are old elder⁽²⁹⁾ explained that the elderly experiences many changes in almost every aspect of their lives. These changes cause a decrease in quality of life, difficulty sleeping, increased anxiety, pain susceptibility and decreased immune system function. Elderly generally has chronic diseases due to decreased body functions and other aspects that cause vulnerability to stress.⁽³⁰⁾ The elderly in this situation needs stress management ability. According to one Indonesian study,⁽³¹⁾ stress management is an individual's ability to manage, regulate, and cope with perceived stress or pressure.

This research found a significant relationship between value family support and stress management in hypertensive patients in Binong Village ($p < 0.01$). Other Indonesian study⁽³²⁾ explain good level of spirituality and religion helps patients with chronic diseases have good coping. One study⁽³³⁾ explained that the level of spirituality helps individuals in managing stress better. This research explains that one technique for managing stress is through good spirituality.

Other study in line with this study was conducted by Akinola on 400 hypertensive patients with a cross-sectional study. That study obtained the results of most respondents (83%) from this research living with family and the majority (86.4%) of respondents had good psychological well-being.⁽³⁴⁾

One study⁽³⁵⁾ explained that one of the main roles of family support is to encourage patients with hypertension in managing hypertension both through diet, activity, adherence in therapy and stress management. This current study is in line with other Indonesian study⁽³⁶⁾ which explains that the family is very dominant to influence family members in doing health to prevent hypertension. Good family support is essential in helping patients manage stress about their illness. In addition, family support helps and motivates people with hypertension including spirituality to support their psychological well-being.

Research conducted by Wahyuni on 50 respondents in the Sukowono Health Centre Working Area in cross-sectional research found inversely proportional results that 52% of respondents had low family support and 67% of hypertensive patients did not manage hypertension properly. Other previous Indonesian study in his research showed that most respondents (70%) were elementary school graduates and as many as (66%) had never received any health information.⁽³⁷⁾

Knowledge is related to the level of education which affects a person's ability to receive information well.⁽³⁸⁾ Respondents and families with a high level of knowledge are expected to be able to know, understand, and understand the importance of the benefits and objectives of treating hypertension.⁽³⁹⁾ Families and respondents with low levels of education certainly have low knowledge as well. This affects the family's support in informing other family members, which can reduce the stress management skills of family members.

CONCLUSION

Our result show significant relationship between family support and stress management in people with hypertension. Future research may conduct more detailed research of how each family supports both emotionally, appreciation, informationally, and instrumentally can affect stress management in people with hypertension.

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