Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

The relationship between coping mechanisms and level of hypertension Cot Masam village, Kuta Baro sub-district, Aceh besar district

Yadi Putra[1], Mansuriza[2], Syifa Karmila[3]
[1,2,3]Universitas Abulyatama Fakultas Ilmu-Ilmu Kesehatan Program Studi Diploma III Keperawatan

Article Info
Keywords:
Coping Machanisme,
Adaptive Coping,
Maladaptive Coping,
Level of Hypertension

ABSTRACT
Hypertension is a condition where systolic blood pressure ≥ 140 mmHg and diastolic blood pressure ≥ 90 mmHg. An unhealthy lifestyle is one of the causes of increasing blood pressure so that a coping mechanism is needed. This study aims to determine the relationship of coping mechanisms with the level of hypertension in Cot Masam village, Kuta Baro District, Aceh Besar. This study uses a descriptive correlative design that uses a cross sectional approach. The sample in this study was the Cot Masam community who experienced hypertension as many as 59 respondents. The sampling technique in this study was total sampling. The instruments used in this study used questionnaire sheets, sphygmomanometer and stestoscope. The results showed that the distribution of adaptive coping mechanisms was 16 respondents (48.5) with stage II hypertension. While out of 26 respondents with maladaptive coping mechanisms, 13 respondents (50.0%) were in prehypertension. The p-value is 0.012. This means that the p-value is < α = 0.05. So it can be stated that there is a relationship between coping mechanisms and the level of hypertension in Cot Masam village, Kuta Baro District, Aceh Besar Regency. Conclusions based on research that has been carried out 01-07 March 2023 in Cot Masam can be concluded that hypertension is in stage II and coping is maladaptive. Researchers suggest to respondents to approach coping mechanisms in lowering blood pressure experienced.

Corresponding Author:
Yadi Putra
Fakultas Ilmu-Ilmu Kesehatan Universitas Abulyatama
yadi_putra@abulyatama.ac.id

INTRODUCTION

Non-communicable diseases (NCDs) are one of the health problems that are the main cause of death and physical disability suffered by the world community, including in Indonesia. According to the World Health Organization (WHO), more than two-thirds (70%) of the global population will die from NCDs which are expected to continue to increase worldwide, especially in poor and middle class countries. Non-communicable diseases are diseases that cannot be spread from one person to another so that they do not pose a threat to others, but if risk factors cannot be controlled, it will affect the increase in cases every year (Profil Kesehatan Indonesia, 2019).

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Hypertension is a non-communicable disease characterized by a chronic increase in blood pressure with systolic blood pressure values ≥140 mmHg and diastolic blood pressure >90 mmHg. The upper pressure (systolic) is a condition that shows the upward pressure of arterial vessels when the heart beats or pulses, while the lower pressure (diastolic) is a condition at the pressure when the heart rests between pumping. Increased blood pressure can occur because the heart works hard to pump blood to meet the needs of oxygen and nutrients in the body (Hasma, 2021).

Hypertension often causes no symptoms, while persistently high systolic blood pressure over a long period of time can lead to complications. Therefore, hypertension needs to be detected early, namely by checking systolic blood pressure regularly (Sitorus, 2018). Increased systolic blood pressure that lasts long and continuously (persistent) can cause damage to the kidneys, one of which is kidney failure, in the heart can occur coronary heart disease and in the brain can cause stroke if not detected early and get adequate action (Zaenurrohmah, 2017).

The Indonesian Ministry of Health (2020) states that there are several factors that influence the increase in systolic blood pressure, namely, stress is a trigger for the increase or decrease in systolic blood pressure is the emotional condition you are experiencing, including stress levels. Stress is known to affect overall physical condition, and cause your systolic blood pressure to increase suddenly and can be overcome with adaptive coping.

Coping mechanisms are self-defense mechanisms against changes that occur both from within and from outside. Anxiety can increase from severe to panic levels, the behavior exhibited by a person becomes strong and the possibility of injustice and quality of life decreases (Purwaningsih, 2016).

Coping mechanisms are divided into two, namely adaptive and maladaptive coping mechanisms. Adaptive coping mechanisms are coping mechanisms that support the functions of integration, growth, and achieving goals. Maladaptive coping mechanisms are coping mechanisms that inhibit the function of integration, break growth, reduce autonomy, and tend to control the environment (Stuart and Sundeen, 2016).

World Health Organization (WHO) in 2013 explained that hypertension can cause complications in the form of coronary heart disease, infarction (blockage of blood vessels that cause tissue damage) of the heart (54%), stroke (36%), and kidney failure (32%). The highest prevalence of hypertension in the world is in the African region at 27%. The Eastern Mediterranean is the second highest at 26%, and Southeast Asia is the third highest at 25% of the total population (Ministry Indonesian of Health, 2019). About 31.1% of the world's adult population suffers from hypertension, 28.5% live in high-income countries and 31.5% live in low- and middle-income countries (Mills et al., 2016). The 2018 Riskesdas results show that the prevalence rate of hypertension in Indonesia is 34.11%. South Kalimantan Province was in the highest position at 44.13%, followed by West Java at 39.6%, East Kalimantan 39.3 and Aceh 26.45% (Ministry of Health RI, 2019). Based on data from Riskesdas (2019), it was found that the prevalence of hypertension in Banda Aceh was 23.32%, and Aceh Besar had 25.01% prevalence of hypertension.

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Data from the Kuta Baro Aceh Besar Health Center in 2022 indicate that Cot Masam is number 4 with 39 people with hypertension, first there are Lampoh Keude 54 people, Babah Jurong 46 people and Lambro Bile 42 people with hypertension. Based on data from health cadres in Cot Masam village, Kuta Baro District, the number of family heads in Cot Masam is 127, the total population is 423, there are 59 people with hypertension in 2022 consisting of 47 women and 12 men.

Based on preliminary data obtained by researchers by interviewing 6 respondents, 4 hypertensive patients explained that they were quickly offended, irritable, tired and quickly stressed. 2 sufferers said they were often patient and calmed themselves when there were problems in their daily lives by praying. Based on the description above, the researcher is interested in further research on "The Relationship of Coping Mechanisms with Hypertension Levels in Gampong Cot Masam, Kuta Baro District, Aceh Besar".

METHODS

This type of quantitative research with a correlative descriptive design that uses a cross sectional approach. The population studied was all people who experienced hypertension totaling 59 people. The sampling technique was total sampling. The questionnaire used was standardized, namely Brief Cope, the research was conducted in Cot Masam village, Kuta Baro sub-district, from March 01 to 07, 2023.

RESULTS AND DISCUSSION

The following are the results of research from 59 respondents from the Cot Masam Village community consisting of adults and elderly people with hypertension obtained from filling out questionnaires that have been distributed. The analysis consists of two data analyses, namely: univariate analysis and for bivariate analysis in the table below.

Table. 1 Frequency Distribution of Age of Hypertension Patients in Gampong Cot Masam, Kuta Baro District, Aceh Besar

No	Age	Frequency	Percent (%)
	Age Depkes RI (2009) in (Ramadhan, 2014).		
1	Early Adults	6	10,2
2	Late Adults	14	23,7
3	Early Elderly	8	13,6
4	Late Elderly	21	35,6
5	Elders	10	16,9
	Total	59	100,0

Based on the results of the research in table 1. seen from the most age at the age of Late Elderly as many as 21 respondents (35.6%).

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Table 2. Frequency Distribution of Gender of Hypertension Patients in Gampong Cot Masam, Kuta Baro District, Aceh Besar

No	Gender Type	Frequency	Percent (%)
1	Male	12	20,3
2	Female	47	79,7
	Total	59	100,

Based on the results of the study in table 2, it can be seen from the gender of most women as many as 47 respondents (79.7%).

Table 3. Frequency Distribution of Occupations of Hypertension Patients in Gampong Cot Masam, Kuta Baro District, Aceh Besar

No	Level Of Education	Frequency	Percent (%)
1	Primary junior high school (SD, SMP)	11	18,6
2	High School(SMA/MA)	41	69,5
3	High (D3/S1/S2)	7	11,9
	Total	59	100,0

Based on the results of the research in table 3. seen from the education of hypertensive patients, the High School (SMA / MA) as many as 41 respondents (69.5%).

Table 4. Frequency Distribution of Hypertension in Gampong Cot Masam, Kuta Baro District, Aceh Besar

No	Hypertension	Frequency	Percent (%)
1	Prehypertension	18	30,5
2	Stage I Hypertension	16	27,1
3	Stage II Hypertension	25	42,4
	Total	59	100,0

Based on the results of the study in table 4. seen from the classification of hypertensive patients, the majority are stage II hypertension as many as 25 respondents (42.2%).

Table 5. Frequency Distribution of Coping Mechanisms in Hypertension in Gampong Cot Masam, Kuta Baro District, Aceh Besar

No	Coping Mechanisms	Frequency	Percent (%)
1	Adaptive	33	55,9
2	Maladaptive	26	44,1
	Total	59	100,0

Based on the results of the study in table 5. seen from the coping mechanism of the majority of hypertensive patients, namely adaptive as many as 33 respondents (55.9%).

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

Table 6. Relationship between coping mechanisms and hypertension levels in Gampong Cot Masam, Kuta Baro District, Aceh Besar.

Coping Mechanisms	Level Hypertension						Total		P-Value
	Prehypertension		Stage I Hypertension		Stage II Hypertension				
	N	%	N	%	N	%	N	%	
Adaptive	5	15.1	12	36.4	16	48.5	33	100,0	0,012
Maladaptive	13	50.0	4	15.4	9	34.6	26	100,0	
Total	18	30.5	16	27.1	25	42.4	59	100,0	

Based on table 6. above shows that of the 33 respondents with adaptive coping mechanisms there were 16 respondents (48.5) with stage II hypertension. Meanwhile, of the 26 respondents with maladaptive coping mechanisms, 13 respondents (50.0%) were in prehypertension. From the analysis, the p-value is 0.012. This means that the p-value is $< \alpha = 0.05$. So it can be stated that there is a relationship between coping mechanisms and the level of hypertension in Gampong Cot Masam, Kuta Baro District, Aceh Besar Regency.

Relationship between coping mechanism and hypertension level in Gampong Cot Masam, Kuta Baro District, Aceh Besar.

Based on table 4.3.1 shows that of the 33 respondents with adaptive coping mechanisms there were 16 respondents (48.5) with stage II hypertension. Meanwhile, of the 26 respondents with maladaptive coping mechanisms, 13 respondents (50.0%) were in prehypertension. After statistical testing (chi-square), a p-value of 0.012 (P <0.05) was obtained that there was a relationship between coping mechanisms and the level of hypertension in Gampong Cot Masam, Kuta Baro District, Aceh Besar.

Nasir & Muhith said that coping mechanism is a way that a person can use in solving a problem, overcoming a change that occurs, and a threatening situation, both cognitively and behaviorally. Coping can also be said to be an individual's process of managing the imbalance between the demands and abilities of the individual in a stressful situation. In other words, when an individual is in a stressful situation, the individual will take an action to overcome the stress they experience (Lavari et al., 2019).

Stuart dan Sundeen (2016) coping mechanisms are divided into 2, namely adaptive coping mechanisms are effective problem-solving mechanisms and maladaptive coping mechanisms are mechanisms that inhibit integration functions, breaking down growth. This self-defense behavior is regulated by the limbic system which is closely related to the hypothalamus which consists of the autonomic nervous system. The autonomic nervous system consists of sympathetic and parasympathetic nerves that work antagonistically.

In line with Dewi's research (2019) The Relationship of Coping Mechanisms with Blood Pressure in Hypertension Patients at UPTD Puskesmas Tabanan III in 2019. The type of research used is non-experimental with a correlational type and cross sectional approach using non probability sampling with purposive sampling. The number of samples was 60

Jurnal eduHealt
Volume 15 , Number 01, 2024, DOI 10.54209/eduhealth.v15i01
ESSN 2808-4608 (Online)
https://ejournal.seaninstitute.or.id/index.php/healt

people. Data collection using the Brief Cope questionnaire and blood pressure measurements using a digital sphygmomanometer. The results showed that most hypertensive patients were aged 66-70 years (38.3%), female gender (54%), working (61.7%), elementary school education (40%), maladaptive coping mechanisms (63.3%), stage 1 hypertension for systolic and diastolic blood pressure, namely (80%) and (55%). coping mechanisms with systolic blood pressure with a value of p = 0.000 and a value of r = 0.910, and coping mechanisms with diastolic blood pressure with a value of p = 0.000 and a value of r = 0.713. There is a significant relationship between coping mechanisms and blood pressure in hypertensive patients at UPTD Puskesmas Tabanan III.

Researchers give the opinion that there is a relationship between coping mechanisms and the level of hypertension in Gampong Cot Masam, Kuta Baro District, Aceh Besar Regency. The coping mechanism implemented is adaptive coping where people do sports activities, recitation, or gather to discuss with each other while maladaptive coping obtained in the field the community still tends to consume salty foods, contain high fat, do not exercise regularly and do not check their health at the nearest posyandu or fakes.

CONCLUSION

After conducting research on the relationship between coping mechanisms and hypertension levels in Gampong Cot Masam, Kuta Baro District, Aceh Besar Regency from the data that has been obtained after statistical testing (chi-square), obtained a p-value of 0.012 (P <0.05) that there is a relationship between coping mechanisms and hypertension levels in Gampong Cot Masam, Kuta Baro District, Aceh Besar.

ACKNOWLEDGEMENT

The researcher would like to thank all those who have helped in completing this research, to the head of Cot Masam village, Kuta baro Health Center which has given permission for me to carry out research, to the entire team that helped in my research process, not forgetting I thank the LPM Abulyatama University which has facilitated this research.

REFERENCE

Dewi, N, M, R, K. (2019). Hubungan Mekanisme Koping Dengan Tekanan Darah Pada Pasien Hipertensi Di UPTD Puskesmas Tabanan III. Diploma Thesis, Politeknik Kesehatan Kemenkes Denpasar Jurusan Keperawatan.

Hasma., (2021). Pengaruh Edukasi Emo Demo tentang Hipertensi terhadap Perubahan Pengetahuan dan Sikap Pada Masyarakat di Wilayah Kerja Puskesmas Anggeraja Kabupaten Enrekang. Skripsi sarjana. Fakultas Kesehatan Masyarakat. Universitas Hasanuddin, Makassar.

Kemenkes RI, (2019), Profil Kesehatan Indonesia Tahun 2018.

Kemenkes RI. (2020). Gejala Hipertensi. Direktorat P2PTM. Jakarta : Kemenkes RI.

Lavari, Waiez dkk. (2019). “Gambaran Mekanisme Koping Mahasiswa Dalam Menyusun Skripsi Di Program Studi Ilmu Keperawatan Stikes Hang Tuah Pekanbaru.” Jurnal Ilmu Keperawatan (Journal of Nursing Sciences) 8(1):32–41.

Mills K, Bundy J, Kelly T, Reed J, Kearney P, & Reynolds K. (2016). Global Disparities of Hypertension Prevalence and Control. Circulation Research. 2016; 134(6):441-450.

Purwaningsih, Wahyu dan Andriyani, A. (2016). Mekanisme Koping untuk Mengatasi Nyeri Persalinan Kala I. Jurnal Infokes Apikes Citra Medika. Vol. 04, No. 1 tahun 2016.

Riskesdas. (2018). Badan Penelitian Dan Pengembangan Kesehatan Kementerian Kesehatan RI Tahun 2018. Jakarta: Kemenkes RI.

Sitorus, J. (2018). Pengaruh Pola Makan Dan Aktivitas Fisik Terhadap Kejadian Hipertensi Pada Pasien Rawat Jalan Di RSU HKBP Balige Tahun 2017. Journal Universitas Sumatera Utara Skripsi, December 2017, 1–144.

Stuart, G. W., dan Sundeen. (2016). Principle and Practice of Psychiatric Nursing,. (1st edition). Singapore : Elsevier.

Zaenurrohmah, D. H., & Rachmayanti, R. D. (2017). Hubungan Pengetahuan dan Riwayat Hipertensi dengan Tindakan Pengendalian Tekanan Darah pada Lansia. Fkm_Unair, 39(4), 833843. https://doi.org/10.20473/jbe.v5i2.2017.174-184