



DOI:

10.22301/IJHMCR.2528-3189.1796

Article can be accessed online on:
<http://www.ijhmcr.com>

ORIGINAL ARTICLE

**INTERNATIONAL JOURNAL
OF HEALTH MEDICINE AND
CURRENT RESEARCH**

RELATIONS KNOWLEDGE SOCIETIES GENESIS HYPERTENSION IN ISLAND KAKARA CLINIC NORTH HALMAHERA TOBELO

Sarlota Andea^{1*}, Frangkie Mapanawang¹, Alexsander Maengkong¹

¹ Nursing Program Of Sekolah Tinggi Ilmu Kesehatan Makariwo Halmahera (STIKMAH) - Tobelo

ARTICLE INFO

Article History:

Received 17th April, 2020.

Received in revised form

18th June, 2020.

Accepted 19th August, 2020.

Published online 30th Sept, 2020.

Key words:

*Relationship, level of knowledge,
society with hypertension*

***Correspondence to Author:**

Sarlota Andea

*Student of Nursing Program,
Sekolah Tinggi Ilmu Kesehatan
Makariwo Halmahera (STIKMAH) -
Tobelo*

ABSTRACT

Blood pressure is the pressure of blood flow in blood vessels. When the heart beats, typically 60 to 70 times a minute at rest (sitting or lying), blood is pumped into and through the arteries stating that blood pressure occurs because the work of the heart, which is the heart consists of four chambers covered by a layer of muscle.

The purpose of this study is to investigate, analyze and describe the level of public knowledge in the village on the island Kakara high blood pressure or hypertension.

This type of research uses quantitative methods, with a cross-sectional approach (cross-sectional). Research test using SPSS analyst with chi-square test results on the Relationship research knowledge community as much as 30 respondents mostly good level of knowledge as much as 70%, which is pretty much as 20%, less 10%.

Copyright © 2020, **Sarlota Andea**. This is an open access article distributed under the creative commons attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Sarlota Andea^{1*}, Frangkie Mapanawang¹, Alexsander Maengkong¹, 2020 "Relations Knowledge Societies Genesis Hypertension In Island Kakara Clinic North Halmahera Tobelo", International Journal Of Health Medicine And Current Research, 5, (03), 1796-1806.

Preliminary

Hypertension or high blood pressure is a risk factor for cardiovascular disease and is a major problem in both developed and developing countries. Cardiovascular disease is also the number one cause of death in the world every year. WHO data in 2015 indicated that about 1.13 billion people worldwide suffer from hypertension. That is, 1 in 3 people in the world diagnosed with hypertension, only 36.8% of whom were taking medication. Number of patients with hypertension in the world continues to increase, it is estimated by 2025 there will be 1.5 billion people are affected by hypertension and every year there are 9.4 million people died of hypertension and complications

In Indonesia, hypertension is a major cause of mortality and morbidity, so the treatment of this disease is very common in interventions performed at various levels of health facilities (Zaenurrohmah, 2017). According to the Ministry of Health (2017), hypertension remains a major challenge in Indonesia because it is a condition that is often found in primary health services such as health centers. Hypertension is the number 3 after stroke mortality and tuberculosis, where the proportion of his death reached 6.7% of the population mortality at all ages in Indonesia.

Kakara village island is one of the Clinic Tobelo. From the data obtained (data and PIS-PK), village kakara included in one of the villages with the level prevalent hypertension is high and some people diagnosed with hypertension do not know if they have been diagnosed with hypertension for a long time because it never checks (one citizens with the results of the blood pressure 200/110 mmHg but without symptoms). This is the reason for researchers to make rural communities as subjects kakara island penelitian.

Based on the results of the exposure and the above phenomenon makes researchers interested in

studying the relationship level of public knowledge about the disease high blood pressure or hypertension in the village of Island Kakara.

1.1 Formulation of the problem

In the scheme of this research, the focus of the problems to be observed by the researchers is how the level of public knowledge about hypertension in the village of Island Kakara.

1.2 Research purposes

The purpose of this study is to investigate, analyze and describe the level of public knowledge in the village on the island Kakara high blood pressure or hypertension.

1.3 Benefits of Research

1.3.1 Theoretical benefits

The results of this study are expected to provide a contribution to the development of nursing science, especially in the nursing family and community nursing.

1.3.2 Practical benefits

a. The benefits for the nursing profession

Practical benefits from this research that health professionals, especially nurses can know and perform their duties as educators and counselors in the community and not just focusing on the health center or hospital alone.

b. Benefits to society

It is expected that the results of this study that people can understand and participate in the government program Healthy Indonesia. Society can become independent in maintaining health, especially hypertension.

Literature review

2.1 Blood pressure

Blood pressure is the pressure of blood flow in blood vessels. When the heart beats, typically 60 to 70 times a minute at rest (sitting or lying), blood is pumped into and through the arteries (Kowalski,

2010) as well as by Palmer & Williams (2007) states that blood pressure occurs because the heart work, the heart consists of four rooms covered by a layer of muscle. Four spaces are left and right atrium, and the left and right ventricles. The heart muscle contracts and the fourth wall of the heart chamber are depressed like a clenched hand.

Ie (Kowalski, 2018):

1. Pressure receptors in various organs that can detect changes in blood pressure and then adjust the pressure by changing the strength and speed of contraction of the heart, as well as the total resistance to the pressure.
2. The kidneys are responsible for the adjustment of blood pressure in the long term through the renin-angiotensin system involving many compounds.
3. The response to the high levels of potassium or angiotensin, aldosterone steroid is released from the adrenal gland, one of which is in the kidney. These hormones increase spending Selanjutnyam potassium by the kidneys and increase retention of sodium in the body.

2.1.1 The circulatory system or circulatory system (Palmer & Williams 2017):

The circulatory system consists of a series of heart and arteries and veins that carry blood. Arteries carry oxygen-rich draw away from the heart, veins carry deoxygenated blood (which oxygen content is already taken) back toward the heart. It contains heart muscle and in charge of pumping blood throughout the body.

2.2 Hypertension / High Blood Pressure

2.2.1 Definition

Hypertension is the increase in systolic blood pressure greater than 140 mmHg and diastolic blood pressure over 90 mmHg on two occasions with an interval of five minutes with enough rest/quiet.

The classification of hypertension according to JNC (Joint National Committee on the prevention, evaluation, and treatment of high blood pressure in 2003, based in America in the Ministry of Health (2017):

Classification of Blood Pressure	Systole Blood Pressure (mmHg)	Diastolic blood pressure (mmHg)
Normal	<120	<80
prehypertension	120-139	80-89
Hypertension stage 1	140-159	90-99
Hypertension stage 2	160 or > 160	100 or > 100

2.2.2 Etiology (MoH, 2017)

The classification of hypertension is divided into:

1. based on the causes
 - a. Primary hypertension / essential hypertension
Hypertension of unknown cause (idiopathic), although attributed to a combination of lifestyles such as lack move (inactivation)and diet. About 90% occur in people with hypertension.
 - b. secondary hypertension
Hypertension is a known cause. Approximately 5-10% of patients' hypertension cause is kidney disease. In about 1-2% the cause is hormonal abnormalities or usage of certain drugs (eg birth control pills).
2. Based forms of hypertension
Diastolic hypertension, hypertension mixture (systole and diastole elevated) systolic hypertension.
3. pulmonary hypertension
A disease characterized by increased blood pressure in the arteries of the lungs that causes shortness of breath, dizziness, and fainting during activity.
4. Hypertension in pregnancy

Basically, there are 4 types of hypertension that normally occur during pregnancy, namely:

- a. Preeclampsia-eclampsia or also known as hypertension caused by pregnancy/pregnancy poisoning (other than blood pressure, also found abnormalities in the urine). Preeclampsia is a disease caused by signs of hypertension, edema, and proteinuria arising from pregnancy.
- b. Chronic hypertension is hypertension that has existed since before the fetus expectant mothers
- c. Gestational hypertension or hypertension at that moment.

The cause of hypertension in pregnancy, in fact, is unclear. Some say that it is caused by abnormal blood vessels, dietary factors, and genetic factors.

2.2.3 Clinical manifestations

The symptoms are (MoH, 2017): 9

1. Headaches/heaviness in the nape
2. vertigo
3. Heartbeat
4. easily fatigued
5. blurred vision
6. Ringing in the ears (tinnitus)
7. Nosebleed

The risk of hypertension is long-term organ damage (Davey, 2017):

1. Cerebrovascular disease: thrombotic and hemorrhagic stroke
2. Vascular disease: coronary heart disease
3. Left ventricular hypertrophy: a compensation mechanism against chronic blood pressure elevation.
4. Renal failure: Hypertension causes damage renovascular and glomerular damage.

With severe complications are still many patients who want treatment on the grounds that (Kowalski, 2017):

1. Many people do not understand function so that the blood pressure does not respond
2. Many people are not willing to take the drug

2.2.4 Prevention

The government in hypertension disease control measures has been implementing the Healthy Indonesia Program with Family Approach (PIS-PK) and Healthy Life Society Movement (GERMANS).

2.2.5 Hypertension Management

Lifestyle modifications can be made by (MoH 2017):

1. Limiting salt intake of no more than 1/4 - 1/2 teaspoon (6 grams/day)
2. Lose weight
3. Avoid caffeinated beverages
4. Avoid smoking and alcohol
5. Exercising. Exercise is also recommended for patients with hypertension, which can be a road, jogging cycling diving with a frequency of 20-25 minutes 3-5 times a week.
6. Get enough rest (6-7 hours per day)
7. Control stress.

As for the food to be avoided or limited by people with hypertension are:

1. Foods high in saturated fat (brain, kidney, kidney, coconut oil)
2. The food was processed using sodium salt (biscuits, crackers, crisps, and salted dry food)
3. Food and beverages in cans (sardines, sausage, corned beef, vegetables and buy-canned fruit, soft drinks)
4. Preserved foods (beef jerky, pickled vegetables/fruits, shredded, salted fish, boiled, dried shrimp, salted egg, peanut butter)
5. Full cream milk, butter, margarine, cheese, mayonnaise, as well as animal protein sources are high in cholesterol such as red meat (beef/lamb), egg yolk, chicken skin)

6. Spices ketchup, Maggi, toma shrimp paste sauce, chili sauce, sauce, and other flavorings generally contain sodium.
7. Alcohol and foods containing alcohol such as tape. with knowledge, the symptoms and risk factors of hypertension patients can be expected to prevent and management by modifying dietary / lifestyle or medication so that complications can be avoided.

2.2.6 Supporting investigation

Investigations in hypertensive patients are (Davey, 2005):

1. Ensure hypertension: blood pressure checks are repeated in health care.
2. Search secondary cause: kidney disease (dipstick urine examination, the examination of the levels of creatinine, renal size, noninvasive renal artery imaging with MRI).
3. Make checks organ damage: ECG, ultrasound of the heart (to look for left ventricular mass), renal function.

2.2 Definition of Knowledge

Knowledge is the result of know undertook by humans against a specific object through the more dominant sensing process occurs through visual senses with eye and hearing with telinga.¹¹

2.2.1 Level of Knowledge

Tercangkep knowledge into six levels, namely:

1. Know (Know)
Tofu is a process of increasing again (Recall) will be a material that has been learned.
2. Understand (Comprehension)
Understanding is the ability to describe things appropriately and correctly on an object that has been known and can interpret the matter by explaining, cite examples, infer, predict, and so forth as an object that has been learned.
3. Application (Application)

Application is the ability to use a material that has been studied in a situation or a condition that is real.

4. Analysis (Analysis)

The analysis is the ability to define an object into components, but still within an organizational structure and still has something to do with each other will be assessed and measured using verbs such as can a portrait (draft), differentiate, separate, grouping, etc

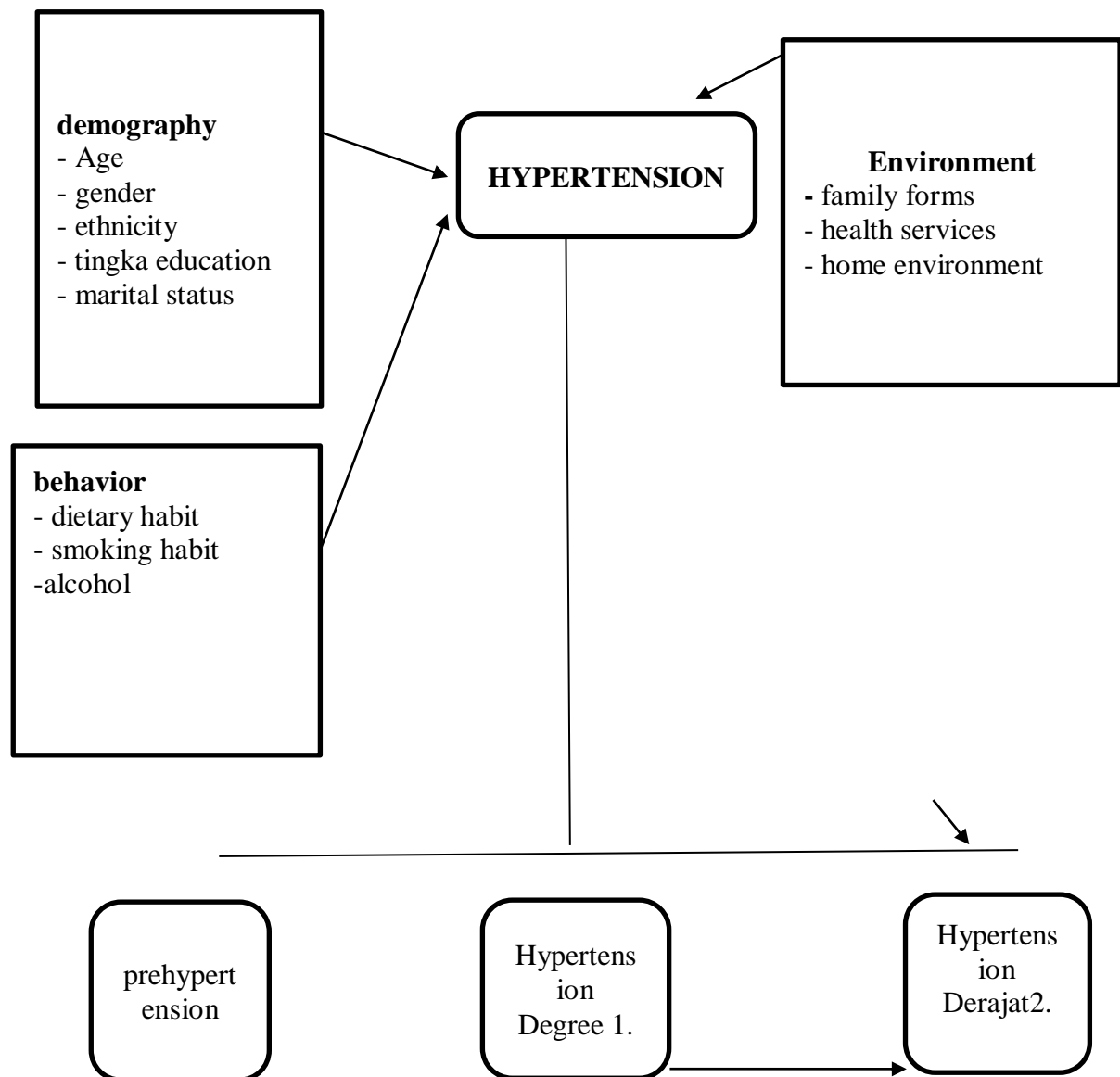
5. Synthesis (Sintesis)

Synthesis is an ability to place or connect the parts in the shape of new knowledge or to develop new formulations of formulations that have been there.

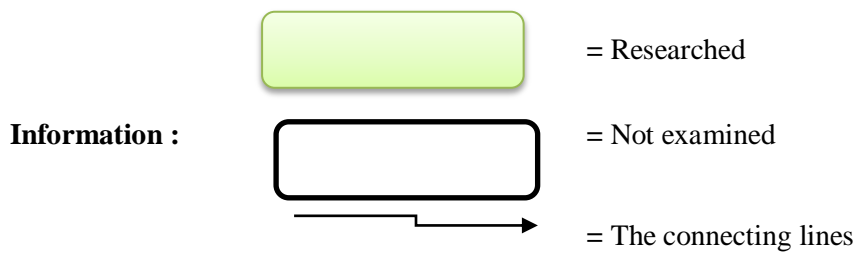
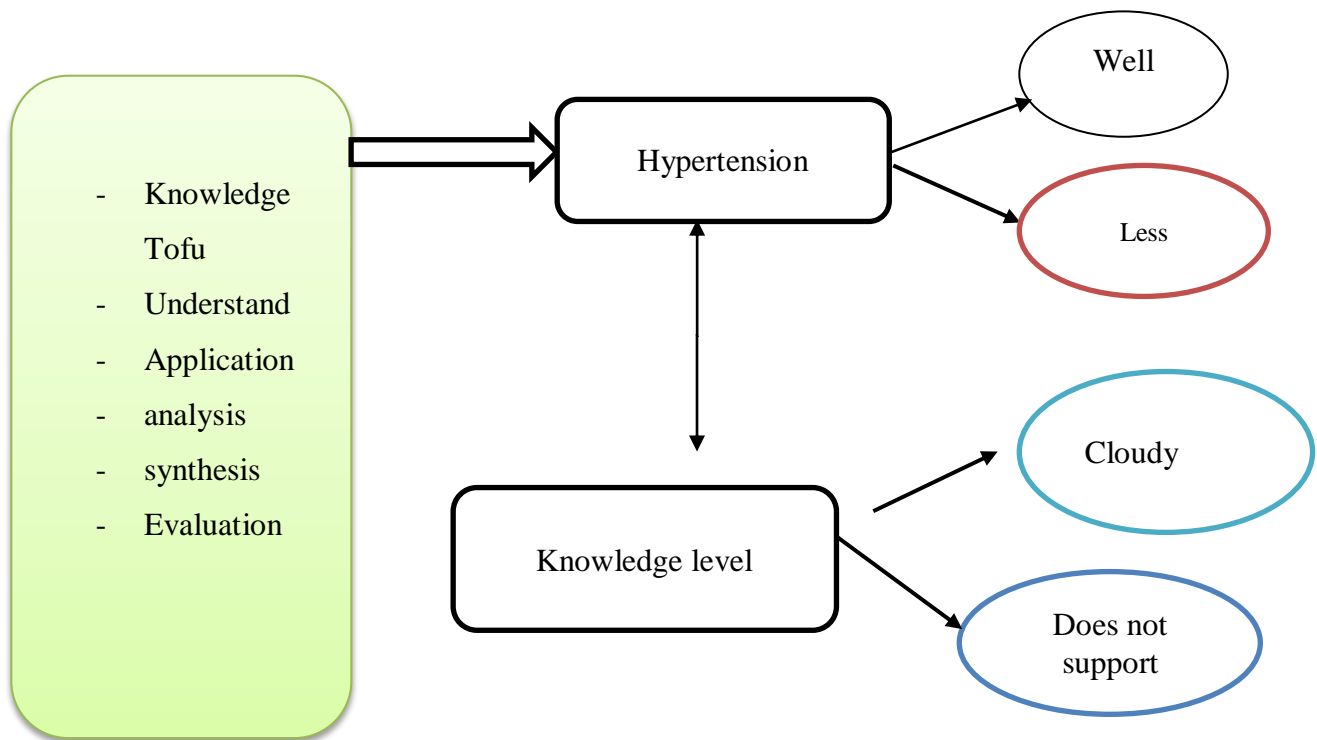
6. Evaluation (Evaluation)

Evaluation is an ability to justify or assessment of a material or object that is based on a criterion that has been setting themselves or using criteria that have been there.

3.1 Theoretical framework



3.2 Conceptual framework



Research methods

4.1 Advanced Research design

In this study, researchers used qualitative research methods for researchers expect to describe and understand phenomena in the social world that is related to health (Dharma, 2016). Participants research/data source

Participants were selected using purposive sampling. Purposive sampling is a sampling technique determination made in accordance with particular desired traits (Nasir et al, 2011). Researchers made several traits in determining the participant, namely:

- a. Participants are the people who are older than 20 years.
- b. Participants lived in the village of Island Kakara
- c. Partisipipan is willing to become respondents and able to communicate well.
- d. The number of participants in the study participants is 2 persons.

4.3 Data collection techniques

1. Interview

The interview is a method of data collection is done in a way to interact, ask questions and listen to what was presented orally by the participants. This method is used to determine the ideas, opinions, thoughts or perceptions of participants on a given topic (Dharma, 2016).

Observation

In collecting the data, the researchers used a technique observant. Observation is used because this way the researchers were able to find things that are not revealed in the interview that is sensitive or want to be covered. This type of observation is observation overtly or covertly (Sugiyono, 2015).

2. Data collection tool used is:

- a. Using the interview guide. An interview guide contains a list of questions to be asked of participants (attached).

- b. Camera: To take a picture when making observations and interviews.

4.4 Data analysis

Researchers used the data analysis model of Miles and Huberman (in Sugiyono, 2010). Activities in the analysis of this data consist of data reduction, data display, and conclusion drawing/verification.

a. *Data Reduction* (data reduction)

The data obtained in the field are recorded accurately and in detail later researchers summarize, choosing the subject matters, focusing on things that are important, look for themes and patterns.

b. *Data Display* (Presentation of data)

Reduced data will be presented in the form of text/description are narrative. In the display data, the data will be grouped arranged in order so that the structure can be understood. Further in-depth analysis.

c. *Conclusion Drawing / Verification*

The last step is to draw conclusions from the data that has been presented. The initial conclusion that was found still provisional, and will change if they do not correspond with the evidence in the next stage of data collection. Conclusions should be consistent and supported with valid evidence that the conclusion in the early stages and when the researchers returned to the field to collect data.

Discussion

Based on the results of from research Gender is one factor that can influence the increase in cholesterol, the results research on 30 respondents at can that most respondents who suffer from hypertension obtained amount kind gender Male - Male as many as six people (20%) and women were 24 people (80 %) ask found a significant relationship between sex with hypertensive disease in which women have a higher risk of disease

hypertension they are due because lifestyle food in consumption, while other factors that influence is age.

In this research shows is obtained from 30 respondents, respondents with age > 35 years as many as 15 people (50%), whereas the fewest respondents are with age < 20 years as many as five people (16.6%).

To research by the level of education, obtained hypertension 30 respondents with a background of respondents with low levels of education, namely SMA as many as 15 people (50%). While the least is the respondents with a higher education level is Bachelor / S1 by 1 person (3.33%). This is because the higher education A more accepting of information respondents, the more knowledge and information to be received by the respondent in the living habits healthy this research I have found in patients who are at home skit Tobelo common areas but their knowledge through Hypertension disease is already more widely and knowledge is more and more.

Based on work research result respondents who are on the job IRT is 5 respondents (16.66%), most jobs are farmers 25 respondents (83.33%) and PNS 5 respondents (16.66%) according to the theory expressed in everyday life work is the main thing, this research found in public hospitals in the area Tobelo district Halmahera north mostly the work of farmers but work as a farmer at once not affect the quality of their lives where that higher job the better the knowledge of one, and the lower employment the lower the knowledge.

This research was conducted in June 2019 with the number of respondents 30 people who are patients in the clinic Tobelo kakara island village. This study uses a quantitative research study design type of research using quantitative methods, with a cross-sectional approach (cross-sectional). Among the relationship of knowledge in hypertensive patients kakara island village Clinic working area north Halmahera Tobelo district,

Responden the knowledge level of 30 respondents One Blood pressure is the pressure of blood flow in blood vessels. When the heart beats, typically 60 to 70 times a minute at rest (sitting or lying), blood is pumped into and through the arteries (Kowalski, 2016) as well as by Palmer & Williams (2017) which states that the blood pressure occurs because the heart work, the heart consists of four rooms covered by a layer of muscle. the relationship of knowledge in hypertensive patients kakara island village Clinic working area north Halmahera Tobelo district.

From the results obtained from the research in 30 respondents Correct answers of 25 respondents with a percentage of 83.33% and a wrong answer 5 respondents using the Square test scores ($P = 0.00 < \text{sig} 0.05$) and the level of knowledge of Good as much as 25 respondents with a percentage (83.33%), knowledge Self-5 respondents with a percentage (16.66%) and less knowledge 0 with a percentage of 0%.

Based on the research Chi-Square Analysis of 30 respondents obtained $P = .00$ Where a small Sig P-value < 0.005 shows that there is a level of knowledge of the patient's relationship Hypertension.

knot

Relations Events Knowledge Societies of Hypertension In Kakara Island work Regional Health Center North Halmahera Tobelo

1. level of knowledge based on the relationship of knowledge, most respondents are good knowledge of respondents ie 20 (66.66%), while respondents who are knowledgeable enough at least as many as 10 people (33.3%).
2. Knowledge level by hypertension, most respondents who answer correctly are 25 people who said one of 5 people (16.66%).

3. Chi-Square Analysis is no relationship between the level of knowledge of patients against diseases Hypertension is from 30 respondents obtained ($P = .00$ Where small Sig P -value < 0.005)

References

1. L. Mapanawang Arend et al, Effect Of Golobe Fruit (HORNSTEDTIA ALLIACEA) Toward The Decreasing Of Blood Pressure At Pregnant Moms With Hypertension International Journal Of Medicine And Health Current Research, 2016; 1 (01): 12-16, DOI: 10.22301 / IJHMCR.2528-3189.12
2. Irene Megawati Umbas et al, Hubungan between smoking and hypertension in the clinic Kawangoan, e Journal keperawata, 2019; 7 (1): 1-8
3. Dedy Wahyuddin et al, No berolaraga, obesity, and smoking triggers of hypertension in men aged 40 years and over, Wiyata Journal, 2016; 3 (2): 1-6
4. Voila afria et al, Relationship unite to increase the dangers of smoking on packs of cigarettes and smoking behavior in adolescent boys in Palembang, Journal of Public Health, 2018; Doi 10.26553 / Jikm
5. Almina Rospiatari Taringan et al, Effect of knowledge, attitude and family support for hypertension diet in the village of stone Pancur Hulu subdistrict in 2016, Health Journal, 2018; 1 (1):
6. Rotua Sumihar Sitorus, relationship patterns with hypertension in patients living in a white neighborhood sei 111 East 11 health centers working wilaya hamper Medan, nursing journals priority, 2018; (2): 105-114
7. Provingsi North Maluku Health Office, 2017;
8. Provil North Halmahera District Health 2018;
9. Book Register, (PHC Gosoma) Central Tobelo North Halmahera disease Hypertension, Male 42 and female 88 jumlah 130 in 2019;
10. Melkior T et al, Comparison of blood hemoglobin levels in male smokers and nonsmokers, e-Biomedical Journal, 2016; 4 (1)
11. Amri Aji et al, Isolation of nicotine from cigarette butts as insecticides, UNIMAL Journal of Chemical Technology, 2015; 100-120
12. Octavian Yoshinta Gita Setyanda et al, Relationship smoke with hypertension in males aged 35-65 years in the desert city, andalas Health Journal, 2015;
13. M. Nakkeeran et al, Association Of Urinary 6 Sulfatoxymelatonin Levels And Endothelial Dysfunction In Hypertension Subjects, International Journal Of Medicine And Current Health Research, 2017; 2 (04): 673-678, DOI: 10.23301 / IJHMCR.2528-3189.673
14. Karina Ayu Wulandari et al, social biopsiko Profile dah adherence in hypertensive patients in the clinic order to Surabaya, Surabaya University students scientific journal, 2018; 7 (1): 758-767
15. Dudi Irwan et al, Prototype smart instrument for the classification of hypertension berdasarkan jnc-7, Journal of information technology and applied sciences, 2017; 4 (02): 111-117, DOI: 10.25047 / JTIT.V4i2.68
16. Bianti Nuraini, Risk of hypertension, J Majority, 2015; 4 (4): 10-19
17. Endng Trianto, nursing care for patients with hypertension in an integrated manner, Graha Science, 2014;
18. H. Alfian Yusuf et al, Relationship lifestyle with hypertension at bay clinic visitors in Banjarmasin, health scale Journal, 2015; 6 (1)
19. L. Mapanawang Arend et al, Effect Of Golobe (Hornstedtia Alliacea) Fruit Extracts On THE

Changes Of Blood Pressure In Patiens With Hypertension, International Journal Of Medicine And Current Health Research, 2016; 1 (01): 79-84, DOI: 10.22301/IJHMCR.2528-3189.79

20. Saftia Aryzki dkk, Effect of brief counseling on fat intake in hypertensive patients in hospitals dr.H.Moch Banjarmasin Saleh Ansari, pharmaceutical and clinical science journal, 2018; 5 (1): 33-39
21. Dna Raras Mardena, keefektivitas Effect of smoking on the treatment of hypertension in patients with hypertension smoker in four health centers in 2017, the journal of tropical pharmacy and chemisty, 2017; 4 (2)
22. Yeni Mulyani et al, Correlation smoking behavior with the degree of hypertension in patients with hypertension in the clinic working Wilaya Banjarmasin health department, health scale Journal, 2014; 5 (2)
23. Mapawawang, Research in the Field of Health. Tobelo, Halmahera Medika Mandiri, 2016;
