ORIGINAL ARTICLE

THE RELATIONSHIP BETWEEN KNOWLEDGE AND RECURRENCE OF HYPERTENSION IN THE VILLAGE OF DUM-DUM, THE WORKING AREA OF THE DUM-DUM COMMUNITY HEALTH CENTER, KAO TELUK SUB-DISTRICT, NORTH HALMAHERA REGENCY.

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ABSTRACT

Recurrence is the recurrence of symptoms that have previously progressed (Stuart and larai) in chronic mental disorders, it is estimated that 50% recurrence in the first year and 70% in the second year. The process of life is needed Good health and always optimal and we should not ignore it altogether, because without optimal health everything will be meaningless, one of the many diseases that occur in the population, both adults, elderly and it does not rule out the possibility of occurring in the adolescent population. hypertension.[1] Hypertension is a non-communicable disease that is still a health problem, where systolic blood pressure is $\geq$ 140 mmHg and diastolic pressure $\geq$ 90 mmHg. [2]

This type of research is an analytic survey using a cross-sectional approach design, namely a study where data collection is carried out simultaneously. This study was conducted with the main aim of seeing and knowing the relationship between knowledge and recurrence of hypertension.

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The relationship between knowledge and recurrence of hypertension in the village of Dum-Dum, the working area of the Dum-Dum Community Health Center, Kao Teluk sub-district , North Halmahera District is called the results of statistical tests (SPSS). North This can be proven from the results of the Chi-square statistical test, there is a relationship between knowledge and recurrence of hypertension, which is obtained from 50 respondents (P = 0.03 where the significant value <0.005).

The results of the research I got, to conclude that the Relationship between Knowledge and Recurrence of Hypertension in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency, where the knowledge and recurrence are good as many (10) respondents while those who have poor knowledge and recurrence are (10) respondents.

PRELIMINARY

1.1. Background

The process of life is needed Health is good and always optimal and we must not ignore it altogether, because without optimal health everything will be meaningless, one of the many diseases that occur in the population, both adults, elderly and it does not rule out the possibility of occurring in the adolescent population is hypertension. 1 Hypertension is a non-communicable disease which is still a health problem, where systolic blood pressure is ≥ 140 mmHg and diastolic pressure ≥ 90 mmHg. 2

The background for a relapse is a recurrence event Symptoms that have previously progressed (stuart and larai) in chronic mental disorders are estimated to experience a recurrence of 50% in the first year and 70% in the second year

The World Health Organization estimates that currently the proportion of hypertension globally is 22% of the total world population, of a number of sufferers, only less than one fifth of those who take preventive measures against their blood pressure. This condition can be a burden both from a financial perspective, due to reduced productivity of human resources as a result of complications of this disease, as well as from a health system perspective. The highest proportion occurred in the African region, amounting to 27%. The lowest proportion is in the American region at 18%. In general, men have a higher proportion of hypertension than women. 3 g

Based on Riskesdas 2018, the proportion of hypertension based on the measurement results of the population aged 18 years is 34.1%, the highest in Kalimantan South (44.1%), while the lowest was Papua (22.2%). Hypertension occurs in the age group of 31-44 years (31.6%), age 45-54 years (45.3%), age 55-64 years (55.2%). From the proportion of hypertension, 34.1%, it is known that 8.8% were diagnosed with hypertension and 13.3% of people diagnosed with hypertension did not take medication and 32.3% did not regularly take medication. This shows that most hypertension sufferers do not know that they are hypertensive so they do not

get treatment. The proportion of North Maluku Province the number of people with hypertension is 24% .4

North Halmahera Regency sufferers of hypertension until January to June 2020 as many as 1704 people.[5] While the results of preliminary observations in the village of Dum Dum, Kao Teluk Subdistrict, found that people aged 30-40 and 41-60 years have a history of hypertension as many as 96 people.

Hypertension or high blood pressure is a health problem that occurs worldwide. Hypertension is also a major risk factor for cardiovascular disease. If not treated properly, hypertension can lead to stroke, myocardial infarction, heart failure, dementia, kidney failure, and visual disturbances.

One way to overcome health problems is the occurrence of hypertension for the general public and prevention of recurrence in hypertension sufferers in particular. Prevention of recurrence or controlling hypertension needs to be done by all hypertension sufferers so that blood pressure increases are not more severe. But unfortunately not all people with hypertension can control their disease. This is due to the level of knowledge, behavior and attitudes of hypertensive sufferers themselves. 7 In line with the research journal Ester W (2019), knowledge greatly influences efforts to prevent hypertension with a value of $p = 0.000 < 0.05.8$

Based on the description of the explanation presented above, the researchers were encouraged to conduct research on the Relationship between Knowledge and Recurrence of Hypertension in the Work Area of the Dum - Dum Health Center, Kao Teluk sub-district , North Halmahera Regency.

RESEARCH METHODS

3.1 Research design

The research used was an analytic survey using a cross sectional design approach, namely a study where data collection was carried out simultaneously. This study was conducted with the main aim of seeing and knowing the relationship between knowledge and recurrence of hypertension. 31

3.2 Place and time of research

a. Research Place

This research plan will be conducted in Dum Dum Village, Kao Teluk sub-district , North Halmahera Regency.

b. Research time

Research is planned will be done for a month 2020

3.3 Population and Sample

a. Population

Population is a generalization area consisting of objects / subjects that have certain qualities and

characteristics that are determined by the researcher to study and then draw conclusions.

total The population in this study were all dum-dum villagers aged 30-40 and 41-60 who had a history of hypertension during 2020 (March to June) as many as 96 people.

b. Sample

The sample is a part or representative of the population studied and is considered to represent the population. where the proportional sampling is calculated using the Slovin formula as follows: 33

$$n = \frac{N}{1 + N.(d)2}$$

Ket. :   n   = number of samples

N   = total population

d   = the level of confidence / accuracy desired 10%

n   = $96/1 + 96 (0.1)^2$

=   96/1 + 96 (0.01)

=   96/1 + 0.96

=   96 / 1.96

`   =   49.98 rounded 50

From the formula above, a sample size of 50 respondents was obtained, and the sampling technique used was non-random (non-probability sampling), with purposive sampling technique, namely the sampling method was carried out by selecting samples that met the research

criteria up to a certain time bracket so that the number of samples fulfilled. 34

3.4 Inclusion and Exclusion Criteria

a. Inclusion criteria

It is a criterion by which the research subject can represent a sample in the study that meets the requirements as a sample. 35

The inclusion criteria of this study were:

1. Respondents aged 40-55 years
2. Respondents who live in the village dum dum
3. Respondents have a history of hypertension
4. Respondents are willing to be samples in this study.

b. Exclusive criteria

It is a criterion in which the research subject cannot represent the sample because it does not meet the requirements as a sample. The exclusion criteria in this study were:

1. Respondents are not willing to be respondents
2. The respondent is not domiciled in the dum dum village

2.5 Data collection

a. Data source

1. Primary data

Primary data is data obtained directly from research sources, namely data obtained by visiting research locations in the dum dum village and distributing questionnaires to be filled in by respondents themselves.

2. Secondary Data

Secondary data is data obtained from public health centers, from dum dum village office and supporting data obtained from other sources.

b. Method of collecting data

The data collection method used in this research is by visiting the researcher to meet the respondent and giving an explanation of the provisions or how to fill out the questionnaire. Respondents are given the opportunity to ask the researcher if the respondent does not understand the contents of the statement in the questionnaire. Respondents who have filled out the questionnaire are obliged to give back the questionnaire that has been answered to the researcher.

4.6 Research Instruments

Data collection instruments Data collection tools in this study used a questionnaire. The questionnaire is a data collection technique which is done by giving a set of questions or written statements to the respondent to answer, consisting of 10 questions about knowledge, 10 questions on the prevention of hypertension.

4.7 Data Complaining

The data that has been collected is then carried out data processing, the research data processing process is carried out in the following stages:

a. Editing

Editing This is done by re-examining the completeness of the data including the completeness of the identity, the questionnaire sheet and the completeness of the questionnaire, whether the questionnaire sheet is complete, done at the data collection point

b. Coding

Giving code to the survey data is very important because the data will be processed using a computer.

c. Tabulating

Entering research data into the table and then processed with the help of a computer

d. Data entry

Transferring data into computer files with the help of computerized programs

4.8 Data analysis

In this study, the data that has been collected is then processed. After the research data is obtained, the researcher enters the tabulated data into a computer and analyzes it statistically. The process of data entry and data processing uses a computer software application using the SPSS program. This study uses two methods in analyzing data, namely univariate and bivariate data analysis.

a. Univariate Analysis

Univariate analysis was carried out on the variables from the research results resulting in a frequency distribution of each variable under study.

b. Bivariate Analysis

After the data is tabulated, an interpretation is made of the collected data using computerization. The statistical formula used in this study is the chi-square test to determine the relationship between knowledge and

efforts to prevent hypertension with a significance value of P <0.05.

4.9 Research Ethics

This research was conducted after obtaining permission from the ethics committee. This research also fulfills several ethical principles. that is :

a. *Self determination*

Respondents are given the freedom to determine whether they are willing or not to participate in research activities voluntarily by signing the informed consent sheet. The objectives, benefits, and risks that may occur in conducting the research are explained, before the respondent gives consent.

b. *Privacy (confidentiality)*

Researchers maintain the confidentiality of the respondent's identity by not writing it down name, but with certain codes so that respondents do not feel worried.

c. *Confidentially*

Researchers maintain the confidentiality of the respondent's identity and the information provided. All records and respondent data are kept as researcher documentation.

d. *Protection from discomfort*

The research subjects tried to be free from discomfort.

e. *Beneficience*

The results of this study have the potential to determine the relationship between knowledge and attitudes of mothers with the incidence of diarrhea disease in infants.

f. *Justice*

This study did not discriminate on irrelevant criteria when selecting research subjects, but based on reasons which relates directly to the research problem

RESEARCH RESULT

4.1 Research Results

4.1.1 Overview of Research Sites

Dum-Dum Pante village is a village located in Kao Teluk sub-district in North Halmahera district with the following regional boundaries:

A. North side by the village Barumadehe

B. South side by the village of Macao

C. To the west is the village of Mailoa

D. East side by the sea

4.1.2 Description of Research Results

The research started from October 8 to November 8, 2020, which was conducted through direct interviews using a questionnaire to 49 respondents.

This type of research uses a quantitative method with a cross sectional approach (cross-sectional) in order to determine whether there is a relationship between knowledge and recurrence in the incidence of hypertension. In the working area of the Public Health Center, Kao Teluk Subdistrict, North Halmahera District

The data obtained from the survey results are then drawn based on the research objectives to be achieved

Data collected through direct interviews with respondents using a questionnaire that had been compiled beforehand. After the data is collected, the results of the research can be presented descriptively and analytically in the form of tables as follows. Of the 49 respondents

4.1.3 Univariate Analysis
4.1.4 Characteristics of Respondents Based on age

Table 1: Frequency Distribution of Respondents by Age in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency.

Age	Frequency	Presentac
30-40	8	16.0%
41-60	42	84.0%
Total	50	100%

Based on the data in Table 1: shows that of the 50 respondents the highest number was 30-40 as many as 8 people 16.0% and 41-60 as many as 42 people 84.0%

Table 2: Frequency Distribution of Respondents by Gender in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency

Gender	Freight	Presentation
Male	23	46.0%
Women	27	54.0%
Total	50	100%

Based on Table 2: shows that of the 50 respondents based on male gender as many as 23 people 46.0%, and for women as many as 27 people 54.0%

Table 3: Frequency Distribution of Respondents by Level of Education in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency

Education	Frequency	Percentage
SD	29	58.0%
Junior High	20	40.0%
High school	1	2.0%
Total	50	100%

Based on Table 3: it shows that of the 50 respondents with an elementary education background as many as 29 respondents 58.0% and junior high school as many as 20 respondents 40.0% and college as many as 1 respondent 2.0%

Table 4: Frequency Distribution by Occupation in the Work Area of Puskesmas Dum - Dum, Kao Teluk sub-district , North Halmahera Regency

Profession	Frequency	Percentage
FARMERS	20	40.0%
IRT	26	52.0%
ENTREPRENEUR	3	6.0%
Civil servants	1	2.0%
Total	50	100%

Based on Table 4: shows that of 50 respondents with farmer workers as many as 20 respondents 40.0%, IRT as many as 26 respondents 52.0% and WIRASWASTA as many as 3 respondents 6.0% and WIRASWASTA as many as 1 respondent 2.0%

4.1.5 Bivariate Analysis

Bivariate analysis was carried out to see the frequency distribution of data from dependent and interdependent data in this study regarding knowledge of recurrence of hypertension disease.

Table 5: Relationship between Knowledge and Recurrence of Hypertension in the Village of Dum-Dum Pante, the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera District

	Recurrence			
The respondent's	Not	Yes	Total	
knowledge is lacking	32	8	40	
good	4	6	10	0.02
Total	36	15	50	

Based on table 5: above, the analysis results show that the relationship between knowledge and recurrence It is known from 50 respondents who have less knowledge of 32 respondents and those who have good knowledge are 4 respondents And good recurrence is 8 while less recurrence is 32 respondents

4.1.6 Discussion

Based on the results of the analysis, it shows that the relationship between knowledge and recurrence is known from 50 respondents who have good knowledge as many as 4 respondents and those with less knowledge are 32 respondents and good recurrence is 8 respondents while less recurrence is as many as 6 respondents. , obtained the value of P Value = 0.02 with alpha 0.05 (P Value <0.05). This means that there is a relationship between knowledge and recurrence of hypertension in the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency. The results of this study are the same as the research conducted by Utomo T P. The Relationship between Knowledge Levels of Hypertension and Prevention of Hypertension Recurrence in the Elderly in Blulukan Village, Colomadu District, Karanganyar Regency 2019. Where from 78 respondents who had good

knowledge as many as 38 people (26.3%), while those with less knowledge were 20 people (41.7%). And those who had good recurrence were 12 people (25.0%), 8 people (17.3%) had less recurrence where the Chi Square test results obtained a P value = 0.02 with an alpha of 0.05 (P Value <0, 05) This means that there is no relationship between the Relationship between Knowledge Level about Hypertension and Prevention of Hypertension Recurrence in the Elderly in Blulukan Village, Colomadu District, Karanganyar Regency 2019

4.1.7. Univariate Analysis
4,1.8. Age

From the results of the research above shows that of the 50 respondents, the highest number of ages was between 30-40 as many as 8 people 16.0% and 41-60 as many as 42 people 84.0%.

From the results of the research above shows that of the 50 respondents, it was found that most hypertension sufferers were male as many as 23 respondents 46.0%. And at least in the female gender as many as 27 respondents 54.0%. Because women are more likely to experience arteriosclerosis, which appears when plaque (fat

deposits) clogs the artery walls, because in addition to arteriosclerosis, one of the properties of estrogen is to hold onto salt, the hormone estrogen causes fat accumulation that supports arteriosclerosis. The prevalence of hypertension in men is the same as in women. However, women are better protected from cardiovascular disease before menopause.

From the results of the research above shows that of the 50 respondents obtained with the highest educational background is SD as many as 29 respondents 58.0% and the least education background is junior high school as many as 20 respondents 40.0%. and at least 1 respondent with a high school education background 2.0% Because education is an important role in human life because the better one's education, the better the person's insight, so that they can young learn or understand health problems, thus facilitating a good solution regarding the health problems faced.

From the results of the research above shows that of the 50 respondents, it was obtained hypertension sufferers with the most occupations from as many as 26 respondents 52.0% of IRT. with jobs at FARMERS as many as 20 respondents 40.0% on civil servants as much as 1 respondent 2.0%. And the least number of them is WIRASWASTA as many as 3 respondents 6.0%.

Work is one of the important things in human life, because the better a person's job, the better that person's income will make it easier for that person to access health facilities of good quality, but if someone doesn't have a job that is proper to eat, it will also greatly affect people's opinions. so that it will be difficult for someone to reach good health facilities

Relationship between Knowledge and Recurrence of Hypertension in the Work Area of Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency.

From the results of the above research, based on Table 5, it shows the relationship between knowledge and recurrence of hypertension from 50 respondents. Relationship between Knowledge and Recurrence The good incidence of hypertension is 10 respondents, while 40 respondents are less with

Statistical test results Chi Square test, because the P value is less than the value of a, the value obtained is the value of P (Value) = 0.02 with a (alpha) = <0.05. So Ho is rejected and Ha is accepted, it is concluded that there is a correlation between knowledge and recurrence of hypertension disease has a relationship.

CONCLUSIONS AND SUGGESTIONS

5.1 Conclusion

1. The results of the research I got, to conclude that the Relationship between Knowledge and Recurrence of Hypertension in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency, where there are 10 respondents who have good knowledge and recurrence while those who have poor knowledge and recurrence 40 respondents

2. The results of the above study concluded that the relationship between knowledge and disease recurrence
Hypertension in the working area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmahera Regency. This can be proven from the results of the Chi-square statistical test, which is that there is a relationship between knowledge and recurrence of hypertension, namely 50 respondents obtained (P = 0.02 where sing value 0.005). **5.2 Suggestions**

1. For Research Sites

This research can be used as a reference for further researchers related to the analysis of the Knowledge Relationship with the Recurrence of Hypertension in the Work Area of the Dum-Dum Health Center, Kao Teluk sub-district , North Halmehera Regency in 2020

with this research for the community to always carry out checks at the health center and maintain health and never forget to control blood to the nearest health center

2. For health institutions

It is hoped that they will be even more active in providing counseling so that people who, although with limitations in going to school, have good knowledge. Moreover, provide counseling about hypertension.

3. for further research

It is hoped that further research can develop research on the relationship between knowledge and recurrence of hypertension by developing different variables and using different designs.

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