# Analysis of Knowledge of the Batak Ethnic Community About the Causes of Hypertension 

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#### Abstract

Hypertension is a condition in which a person experiences an increase in blood pressure above normal $140 / 90 \mathrm{mmHg}$ which results in an increase in morbidity, mortality and mortality. This study aims to determine public knowledge about hypertension. This research is a quantitative research with a design descriptive. The population in this study were 635 people. Retrieval technique sample using purposive sampling technique, the sample in the study There are 86 people with hypertension, data collection is done by distributing questionnaires. Univariate data analysis in distribution frequency. The conclusion of the research results obtained based on the level of knowledge of respondents with good categories, namely 7 respondents ( $8.1 \%$ ), respondents with sufficient category 29 respondents ( $33.7 \%$ ), respondents with less category 50 respondents ( $58.1 \%$ ). From the results of this study can be used as information and increase knowledge about the causes of hypertension.


Keywords: Knowledge • Batak Ethnicity • Hypertension

## 1 Background

Hypertension is the most common condition encountered in primary care. Hypertension according to the World Health Organization (WHO) is a condition in which blood vessels have persistently high blood pressure (systolic blood pressure $>140 \mathrm{mmHg}$ and diastolic blood pressure $>90 \mathrm{mmHg}$ ). Blood pressure is the force of the blood against the pressure of the arterial walls when the blood is pumped by the heart throughout the body. The higher the blood pressure, the harder the heart works [1].

According to WHO, the number of people with hypertension or high blood pressure has killed 9.4 million people in the world every year. The number of people with hypertension increases every year along with the growing population.

Based on the results of the Basic Health Research (RISKESDAS) in 2018, the prevalence rate of hypertension measured reached $34.1 \%$, a sharp increase from $25.8 \%$ in 2013. With the highest prevalence rate in the province of South Kalimantan at $44.1 \%$ and the lowest in the province of Papua. by $22.2 \%$. Gorontalo Province itself in the 2013 Riskesdas results reached $29.0 \%$ and in 2018 Riskesdas it became $31.0 \%$ and is in 20th place out of 34 provinces [2].

Based on data from the South Tapanuli Health Office, the number of people with hypertension in 2019 from January to December amounted to 4,396 people, and in 2020 the number of hypertension sufferers increased from January to December amounting to 9,381 people [3].

From the results of a preliminary survey conducted in the Sitinjak Angkola Barat Health Center area, the number of hypertension sufferers in 2020 was 635 people [4, 5].

High blood pressure can be handled in two ways, namely by pharmacological and non-pharmacological. Pharmacological management is by using chemical drugs, several types of antihypertensive drugs currently circulating, such as diuretics, adrenergic blockers, calcium antagonists, inhibitors of the angiotensin converting enzyme [6].

The purpose of this study was to analyze the Batak Angkola ethnicity about the causes of hypertension in 2021.

## 2 Research Methodology

This type of research is quantitative research. Descriptive research design is research that functions to describe or provide an overview of the object under study through data, samples and population as it is, without analyzing and making conclusions that apply to

Table 1. Characteristic Distribution Table

| Characteristic General | n | $\%$ |
| :--- | :--- | :--- |
| Age | 40 | 47.6 |
| $40-55$ | 23 | 26.7 |
| $56-60$ | 14 | 16.7 |
| $61-69$ | 9 | 10.7 |
| $>70$ | 17 | 19.8 |
| Gender | 69 | 80.2 |
| Man |  |  |
| Woman | 19 | 21.2 |
| Education | 35 | 40.7 |
| Elementery School | 22 | 25.6 |
| Junior high school | 10 | 11.6 |
| Senior High School |  |  |
| College | 33 | 38.4 |
| Work | 19 | 22.1 |
| Farmer | 12 | 14.0 |
| Trader | 22 | 25.6 |
| Government employees | $\mathbf{8 6}$ | $\mathbf{1 0 0}$ |
| Others |  |  |
|  |  |  |

Table 2. Distribution Table of Length of Suffering $(\mathrm{N}=86)$

| Long Suffering | n | $\%$ |
| :--- | :--- | :--- |
| $1-3$ | 38 | 44.2 |
| $3-6$ | 36 | 41.9 |
| $>7$ | 12 | 14 |
|  | $\mathbf{8 6}$ | $\mathbf{1 0 0}$ |

Table 3. Knowledge Level Distribution Table $(\mathrm{N}=86)$

| Knowledge Level | Frekuensi | Presentasi \% |
| :--- | :--- | :--- |
| Good | 38 | 44.2 |
| Enough | 36 | 41.9 |
| Not Enough | 12 | 14 |
|  | $\mathbf{8 6}$ | $\mathbf{1 0 0}$ |

the public6. This research design will be used to analyze the knowledge of the Angkola Batak ethnic community about the causes of hypertension [7].

## 3 Research Result

Based on the Table 1, it can be seen that the majority of respondents are aged $40-55$ years, namely 40 respondents ( $46.5 \%$ ) female gender 69 respondents ( $80.2 \%$ ) with junior high school education level $35(40.7 \%)$ and the majority of farmers working 33 respondents (38.4\%).

Based on the Table 2, it shows that the majority of long-standing hypertension sufferers in the Sitinjak Health Center Work Area are 1-3 years as many as 38 respondents $(44.2 \%)$, then $3-6$ years as many as 36 respondents ( $41.9 \%$ ), and $>7$ years as many as 12 respondents ( $14.0 \%$ ).

Based on the Table 3, it shows that the majority of knowledge of hypertension sufferers at the Sitinjak Health Center is less, namely 50 respondents ( $58.1 \%$ ), enough, namely 29 respondents ( $33.7 \%$ ), both 7 respondents ( $8.1 \%$ ).

## 4 Discussion

With increasing age, there are changes in the arteries in the body to become wider and stiffer which results in the capacity of the blood being accommodated through the blood vessels to decrease. This reduction causes the systolic pressure to increase in aging also causes disruption of neuro-hormonal mechanisms and also causes an increase. Peripheral plasma concentrations as well as the presence of glomerular sclerosis due to aging. The results showed that those aged $>45$ were more at risk than those who were younger than 45 years [8]. Hypertension is more common in women than men. Hypertension is suffered by women over 45 years old because at that age women have experienced
the menopausal cycle. In accordance with the theory put forward by John Dewey in Mahyuliansyah that through education a person will have the mental and emotional skills that help someone [9].

To be able to develop to reach maturity level. The higher the knowledge, the more skills, both intellectually and emotionally, and the more developed the mindset they have. Family members who work will be able to improve the economy so that they can provide the facilities needed for hypertensive patients in their care. According to knowledge, knowledge is the result of human sensing, or the result of someone knowing about objects through their senses (eyes, nose, ears, etc.) [10] and behavior based on knowledge will be more lasting than behavior that is not based on knowledge.

## 5 Conclusion

Based on research on the description of the knowledge of the Batak community about the causes of hypertension in the work area of the Sitinjak Angkola Barat Health Center in 2021, it can be concluded that:

The results of the study on the majority of respondents lack knowledge, namely 48 respondents ( $57.1 \%$ ), sufficient knowledge, namely 29 respondents ( $34.5 \%$ ), and good knowledge, namely 7 respondents ( $8.3 \%$ ).

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