# The Effect Of Health Education In Prevention Hypertension Of Patient Knowledge In Tolo' Public Health Center Jeneponto District

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#### Abstract

Hypertension can increase the risk of death and complications. Health education is carried out with the aim of increasing health knowledge while increasing public awareness of the importance of maintaining health. It is known that there is an effect of health education in preventing hypertension on the knowledge of patients at the Tolo' Public Health Center, Jeneponto Regency. The type of research used is quantitative with a descriptive research design using a cross sectional approach. To determine the relationship between the independent variable and the dependent variable by using joint measurements, the total population is 170 people, the sampling of this study used purposive sampling technique so that the results were 32 respondents, the data measurement instrument used a questionnaire. There is an effect of health education in preventing hypertension on knowledge of patients and there is an influence of knowledge in preventing hypertension on knowledge of patients at the Tolo' Public Health Center, Jeneponto Regency. obtained p-Value = 0.000 ( $\alpha$ <0.05). There is an effect of health education and knowledge in preventing hypertension on knowledge of patients at the Tolo' Public Health Center, Jeneponto Regency.

Keywords: Hypertension, Health Education and Prevention.

#### I. INTRODUCTION

The World Health Organization (WHO) reports that cardiovascular disorders are the number one killer in the world. This disorder causes more than 17 million deaths representing 13% of global deaths (Ministry of Health, 2019). Some cardiovascular disorders that often occur are coronary heart disease, congenital heart disease and hypertension (Karo, 2016). For the Makassar area, based on data from the Disease Control and Environmental Health (P2PL) Division of the Makassar City Health Service (2015) revealed that hypertension ranks as the third highest cause of death with a total of 370 people. Hypertension can increase the risk of death and complications. Approximately 70% of patients with chronic hypertension will die of coronary heart disease or heart failure, 15% will have brain tissue damage, and 10% will experience heart failure. Hypertension is associated with an increased risk of heart enlargement, heart attack, stroke and death from a heart disease or stroke (Noviyanti, 2015). The Ministry of Health of the Republic of Indonesia (Kemenkes) in basic health research shows that the population aged 18 years and over who often suffers from hypertension reaches 28% (Karo, 2016). This is based on the results of the Agency for Health Research and Development (2013) where the prevalence of hypertension tends to be higher in the group with low education and the group who does not work. The Agency for Health Research and Development (2018) shows that the highest prevalence of cardiovascular disease in Indonesia is CHD, which is 1.5%. Of this prevalence, the highest number is in East Nusa Tenggara Province (4.4%) and the lowest is in Riau Province (0.3%) (IDHS (Indonesian Demographic and Health Survey), 2017). The prevalence of hypertension in Indonesia obtained through measurements at the age of 18 years is 25.8%. In the Makassar area, hypertension ranks second with the highest number of diseases with a total of 73,420 people (South Sulawesi Health Office, 2019). Patients with hypertension in Indonesia are estimated at 15 million, but only about 4% are able to control hypertension.

The older the age, the higher the risk of a person getting hypertension, especially those aged 40 years and over. This is supported by research conducted by Apriyadi (2010) at the Outpatient Unit at the Bhineka Bakti Husada Hospital, Jakarta, which showed that the prevalence of hypertension with age > 45 years experienced hypertension by 58%. The control method is carried out by carrying out treatment and control so

as to avoid the possibility of excessive blood pressure attacks. To control hypertension effectively requires knowledge and awareness of clients about the risk of hypertension (Bustan, 2014). Health education is carried out with the aim of increasing health knowledge while increasing public awareness of the importance of maintaining health. This is in accordance with research conducted by Wang C, Lang J, Xuan L, Li X (2017) that hypertensive patients with low levels of awareness should be given education and effective interventions such as direct guidance. This will be able to improve health management in the community and poor selfmanagement of hypertension sufferers. Seeing the high number of hypertension sufferers, researchers want to know about the effect of hypertension prevention education on the patient's level of knowledge. The provision of health education to people with hypertension must pay attention to the cultural aspects that exist in the community. One aspect of culture in society is the language used. The results of a study conducted by Beune, E. J (2014) in Africa showed that a culture-based health education intervention was able to increase the adherence of patients with uncontrolled hypertension to lifestyle changes that support the care needs of hypertensive patients. Based on the initial data collection carried out at the Tolo' District Health Center. Jeneponto found the number of hypertension sufferers from 2018 as many as 1980, in 2019 as many as 1859, in 2020 as many as 1215, and in 2021 from January to March as many as 170 patients with hypertension (Medical Records of Tolo Health Center'. 2021)

#### II. METHODS

The type of research used is Pre-Experimental research in the Design One Group Pretest-Postest, namely research that has been observed so that researchers can examine the changes that occur after the treatment by means of Q1-P-Q2. This research was conducted in May – June 2021 at the Tolo' District Health Center. Jeneponto. The sample in this study as many as 32 people were taken using purposive sampling technique. The research instrument is a questionnaire. The purpose of this study is to know the effect of health education in preventing hypertension on the knowledge of patients at the Tolo' Public Health Center, Jeneponto Regency.

#### III. RESULT

#### A. Univariate Analysis

From table 1 above, it can be seen that the largest age group of the sample is the age category 56 – 75 years as many as 20 (62.5%). The gender of the respondents were 21 women (65.6%). On the characteristics of education, the category SMA is the most, namely 28 people (87.5%) and the most occupations are housewives as much as 21 (65.6%).

**Table 1.** Characteristics of Respondents by Age, Gender, Education and Occupation

Variabel	F	%			
Age					
41-55 Years	12	37.5			
56-75 Years	20	62.5			
Total	32	100.0			
Gender					
Woman	21	65.6			
Man	11	34.4			
Total	32	100.0			
Education					
High Scool	28	87.5			
Bachelor	4	12.5			
Total	32	100.0			
Work					
Civil Servant	3	9.4			
Retired	3	9.4			
Farmer	5	15.6			
Housewife	21	65.6			
Total	32	100.0			

Source: Primary Data 2021

#### B. Bivariate Analysis

**Table 2.** The Effect of Health Education in Preventing Hypertension on Knowledge of Patients at the Tolo' Public Health Center, Jeneponto Regency

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		Paired	Paired Differences						df	Sig. (2-tailed)
		Mean	Std.	Std. Erro	95%	Confidence	Interval			
			Deviation	Mean	of the	Difference				
					Lowe	r Upper				
Pair 1	Pre	- 5.000	9.504	1.680	1.574	8.426		2.976	32	.006
	Post									

The results of Table 2 show that there are differences in the results of providing education to the group of hypertension sufferers before and after education which can be seen from the sign value of p value -0.006 (<0.05).

**Table 3.** The Effect of Knowledge in Preventing Hypertension on Knowledge of Patients with Tolo' Public Health Center, Jeneponto Regency

Paired Samples Test									
		Paired D	Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std.	Std.	95% Confid	dence Interval			
			Deviati	Error	of the Differ				
			on	Mean	Lower	Upper			
Pair 2	pre post	- 1.90625	1.65314	.29224	1.31023	2.50227	6.523	31	.000

The results of Table 3 show that there is a difference in the results of knowledge of the group of patients with hypertension before and after education which can be seen from the sign value of p value -0.000 (<0.05).

#### IV. DISCUSSION

### A. The Effect of Health Education in Preventing Hypertension on Knowledge

Characteristics of respondents provide an overview of age group, gender, last education, and type of work. The results of this study (Table 4.7) show that respondents with hypertension in the intervention group providing education were more in the age group 56-75 as many as 20 (62.5), in the gender group more in the female sex as much as 21 (65.6%), education level is higher than high school education level as many as 28 (87.5%) and more occupations in the IRT (housewife) category as much as 21 (65.6%). Education is one of the efforts to increase knowledge related to the prevention and control of hypertension. This study shows that there is an increase in participants' knowledge after receiving education.

Increased knowledge of participants covers various aspects such as risks associated with high blood pressure, drugs/medications, potential side effects/adverse effects of drugs, risks of hypertension related to the kidneys and eyes, prevention of high blood pressure, blood pressure measurement procedures. The existence of new information about something will provide a cognitive basis for the formation of attitudes towards it. The variety of subjective messages carried by the information is quite strong and provides an affective basis in assessing something so that new knowledge is formed. This study is in line with Putri's research (2016) which found that there were more pregnant women in the early adult age group (26-35 years) by 75%. The distribution of respondents based on diastolic blood pressure shows that most respondents are in the diastolic blood pressure group, which is 80-89 mmHg by 50%. This shows that the average blood pressure of pregnant women is included in the prehypertension category.

## B. The Effect of Knowledge in Preventing Hypertension on Knowledge

Research on 32 respondents who checked at the Tolo' Jeneponto Health Center, there was an increase in the number of people who had a good level of knowledge about hypertension which could be seen from the p value (0.006). The results of this study are supported by several previous studies, one of the results of the study said that there was a significant difference between before and after health education about hypertension was carried out on hypertension treatment in hypertensive patients aged 50-60 years in the experimental group (Hamdana. 2019). The mechanism for this significant difference in knowledge is due to information and communication factors that affect the formation of knowledge.

The information provided directly or indirectly has an influence in increasing knowledge, forming people's opinions and beliefs. In the health sector, information can be obtained through face-to-face contact with information providers such as educators, health workers, community leaders, religious leaders and supporting government officials and can be obtained through various mass media such as radio, television, magazines, newspapers, etc.Research conducted by Adiatman & Nursasi AY (2020) found that there was an effect of knowledge on the prevention of hypertension. Education is one of the efforts to increase knowledge related to the prevention and control of hypertension. This study shows that there is an increase in participants' knowledge after receiving education. Increased knowledge of participants covers various aspects such as risks associated with high blood pressure, drugs/medications, potential side effects/adverse effects of drugs, risks of hypertension related to the kidneys and eyes, prevention of high blood pressure, blood pressure measurement procedures.

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