

Correlation Between “PATUH” Program and Blood Pressure Values in Elderly Hypertensive Patients in Posyandu in Ledug Village

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ABSTRACT

Blood pressure is a primary cause of death among hypertensive patients. Physiologically, advancing age increases the risk of hypertension. Factors contributing to hypertension include unhealthy lifestyle patterns. The PATUH program is a beneficial initiative for hypertensive patients in managing blood pressure. PATUH stands for regular health check-ups and following doctor's recommendations, managing diseases with appropriate and regular medication, maintaining a balanced diet and nutrition, engaging in safe physical activities, and avoiding cigarette smoke, alcohol, and other carcinogenic substances. The research design employed was descriptive retrospective with a cross-sectional approach. The study population consisted of 93 elderly hypertensive patients in Posyandu (Elderly Integrated Health Post) in Ledug Village. The sample included 38 elderly individuals who met the inclusion and exclusion criteria. Based on PATUH behavior, 35 elderly individuals (92.1%) were classified as adherent, 2 (5.3%) as moderately adherent, and 1 (2.6%) as non-adherent. In terms of average blood pressure results, 19 individuals (50%) were classified as pre-hypertensive, 18 (47.4%) as stage 1 hypertensive, and 1 (2.6%) as stage 2 hypertensive. There is a significant correlation between the PATUH program and blood pressure values in elderly hypertensive patients in Posyandu in Ledug Village, with a P value ($p=0.000^{**}$) and a correlation coefficient of 0.76, indicating a highly significant and strong correlation.

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1. INTRODUCTION

According to data from the World Health Organization (WHO), in 2019, the incidence of hypertension worldwide reached 1.13 billion people with hypertension. The data proves that every year the number of people with hypertension continues to increase and it is estimated that 9.4 million people die from hypertension.

The high rate of hypertension not only occurs in developed countries but also in developing countries such as Indonesia. Based on the results of the 2018 Basic Health Study (RISKESDAS), the measured prevalence of hypertension reached 34.1%, a sharp increase from 2013 of 25.8%, with the highest prevalence in South Kalimantan Province at 44.1% and the lowest in Kalimantan (Adam 2019).

Hypertension is a condition where a person's blood pressure is higher than normal, which is if the systolic blood pressure ≥ 140 mmHg and diastolic blood pressure ≥ 90 mmHg. Hypertension also causes a number of

complications, such as coronary heart disease, stroke, kidney disease, nerve disorders, and retinal damage. (Azzahra et al. 2020).

An elderly person is someone who has entered the age of 60 years and above (Indonesian Ministry of Health, 2019). The prevalence of hypertension also increases as the age group increases. This occurred in two recent basic health studies in 2013 and 2018. Physiologically, the older a person is, the higher the risk of developing hypertension. The number of hypertensive patients aged 55 to 64 years was 45.9% in 2013 and increased to 55.2% in 2018.

In an effort to prevent and control hypertension, the "PATUH" program is a movement that is very useful for people with hypertension in controlling blood pressure (Kementrian Kesehatan RI, 2022). "PATUH" stands for check your health regularly and follow the doctor's recommendations, Manage disease with appropriate and regular treatment, Maintain a balanced diet and nutrition, Strive for physical activity safely, Avoid cigarette smoke, alcohol and other carcinogenic substances (Ministry of Health RI, 2019).

Based on data from the Banyumas Regency Health Office in 2021, the number of people suffering from hypertension was 129,817 out of a total of 40 health centers in Banyumas Regency. Based on data obtained from the Posyandu for the elderly in the working area of Puskesmas Kembaran II at the Posyandu for the elderly in Ledug Village, the number of elderly suffering from hypertension is quite high, as many as 50% of the elderly suffering from hypertension at the Posyandu for the elderly in Ledug Village. There are many cases of patients dropping out of hypertension treatment control. Almost all elderly suffering from hypertension do not comply with the prevention and control of hypertension awareness through the "PATUH" program.

2. RESEARCH METHOD

The research design used was descriptive retrospective with a cross section approach. This research was conducted in November 2023 - February 2024 at the Ledug Village elderly posyandu. In this study, researchers took a total sampling sample of 38 elderly people who met the inclusion criteria and exclusion criteria. The inclusion criteria in this study include elderly people suffering from hypertension, permanent residence in Ledug village, age 60-90 years, blood pressure > 130/80 MmHg, Cooperative, willing to become research respondents. The exclusion criteria include the elderly who do not come to the elderly posyandu in 2 consecutive months.

The variables of this study include the "PATUH" program (independent) and blood pressure values (dependent). The instruments used consisted of 3, namely: the first questionnaire of respondent characteristics which included age, gender, daily activity, latest education, exercise, health insurance / health facilities. Second, the "Obedient" program questionnaire consisting of 15 questions was arranged using a guttman scale, namely value 1 if the answer is Yes and value 0 if the answer is No. Third, the blood pressure observation sheet. Third, blood pressure observation sheet. The validity test was carried out at the Kembaran I Health Center on prolanis patients with a total of 25 respondents with a validity value of > 505 and a high reliability value of 0.952. The data analysis used in this study was the Kendall Tau-B test.

3. RESULTS AND DISCUSSIONS

3.1. Univariat

Based on **Table 1**, it is known that based on age characteristics that most respondents are elderly with an age range of 60-74 years, as many as 32 people (84.2%). Based on gender, most of the respondents were female, as many as 35 people (92.1%). Based on daily activities, most respondents were housewives, as many as 27 people (71.1%). Based on the latest education, most respondents have elementary school education, as many as 30 people (78.9). Based on exercise, most respondents exercised walking, namely as much as 30 minutes / day 19 people (50%) and elderly gymnastics, namely as many as 19 people (50%). Based on health insurance / health facilities, most respondents with Non BPJS, as many as 31 people (81.6%).

Based on **Table 2**, the results of research on elderly people with hypertension at the Ledug Village elderly Posyandu in February 2024, based on the "Obedient" behavior showed that most of the elderly were obedient as many as 35 people (92.1%), quite obedient 2 people (5.3%) and disobedient 1 person (2.6%). The results of the above study indicate that most of the "PATUH" program has been carried out well at the Ledug Village elderly Posyandu. The "PATUH" program is a program to control hypertension hypertension disease control with PATUH, namely: Check your health regularly and follow the doctor's recommendations, Manage disease with appropriate and regular treatment, Stay on a diet with balanced nutrition, Strive for physical activity safely and Avoid cigarette smoke, alcohol and carcinogenic substances (Kemenkes RI, 2019).

Based on **Table 3**, the results of research on elderly people with hypertension at the Ledug Village elderly Posyandu in February 2024, based on the average blood pressure results in November 2023, December 2023, January 2024, February 2024 showed that 19 people (50%) were pre-hypertension, 18 people (47.4) were grade 1 hypertension, and 1 person (2.6%) was grade 2 hypertension.

Table 1. Characteristics of Elderly Respondents with Hypertension Based on Age, Gender, Daily Activities, Last Education, Sports, Health Insurance / Health Facilities at Posyandu Lansia Desa Ledug (N=38)

Characteristics of Respondents	f	%
Age		
60-74 years	32	84,2
75-90 years	6	15,8
Gender		
Male	3	7,9
Female	35	92,1
Daily Activities		
Farming	7	18,4
Housewife	27	71,1
Retired	4	10,5
Last Education		
Elementary School	30	78,9
Junior High School	3	7,9
High School	1	2,6
College	4	10,5
Sports		
Walking 30 minutes/day	19	50
Elderly gymnastics	19	50
Health Insurance / Health Facilities		
BPJS Health	3	7,9
BPJS Employment	4	10,5
Non BPJS	31	81,6
Total	38	100

Table 2. "PATUH" Program for Elderly Patients with Hypertension at Posyandu Lansia Desa Ledug (N=38)

Variable	F	%
"PATUH" program		
Compliant	35	92,1
Compliant Enough	2	5,3
Non-compliant	1	2,8
Total	38	38

Table 3. Blood Pressure in Elderly People with Hypertension at Posyandu Lansia Desa Ledug (N=38)

Variable	F	%
Blood Pressure		
Normal (<120/<80 mmHg)	0	0
Pre Hipertensi (120-139/80-89 mmHg)	33	86,8
Hipertensi Tingkat 1 (140-159/90-99 mmHg)	44	10,5
Hipertensi Tingkat 2 ($\geq 160/\geq 100$ mmHg)	31	2,6
Total	38	100

From these data it is known that the hypertension experienced by respondents is pre-hypertension. Treatment of hypertension is one of the important aspects towards the prevention of hypertension. If people do not prevent hypertension, it will affect their health. For this reason, hypertension treatment is an important aspect that affects the anticipation of hypertension.

Elderly whose blood pressure is in the prehypertension category are patients whose blood pressure is measured when they have been running the "PATUH" program for 4 months. Elderly who are obedient in running the "PATUH" program on their blood pressure, where blood pressure will decrease when compared to before

running the "PATUH" program. The results of this study are in line with research (Toharin et al., 2015) that the decrease in blood pressure in hypertensive patients can be influenced by several factors, including compliance in the consumption of antihypertensive drugs balanced with lifestyle changes.

3.2. Bivariat

Based on the table 4, The results showed that of the 38 respondents, 33 people (94.3%) with obedient had pre-hypertension blood pressure, 2 people (5.7%) with obedient had grade 1 hypertension blood pressure, 2 people with moderately obedient had grade 1 hypertension blood pressure, 1 person with non-compliant had grade 2 hypertension blood pressure. The results obtained from the Kendall's tau-b test p value = 0.000** so it can be concluded that there is a very significant relationship between the "PATUH" program and blood pressure values in elderly people with hypertension at the Ledug Village elderly Posyandu. The correlation value of the two variables is 0.76 which indicates a very strong relationship.

Table 4. The relationship between the "PATUH" program and blood pressure values in elderly people with hypertension at the Ledug Village Elderly Posyandu

Independence Variable		Pre Hipertensi		Hipertensi Tingkat 1		Hipertensi Tingkat 2		Total		P value
		f	%	f	%	f	%	f	%	
"PATUH" program	Compliant	33	94,3	2	5,7	0	0	35	100	0,000 **
	Compliant Enough	0	0	2	0	0	0	2	0	
	Non-compliant	0	0	0	0	1	0	1	0	
Total		33	94,3	4	5,7	1	0	38	100	

This study can be seen that compliance in the "PATUH" program greatly affects a person in preventing hypertension. The more obedient or routine a person is to the "PATUH" program, the more he will be aware that hypertension prevention is very beneficial for his health, with this awareness will form a concern, especially for his own health in controlling blood pressure.

4. CONCLUSIONS

This study shows that there is a relationship between the "PATUH" program and the value of blood pressure in the elderly with hypertension at the Ledug Village elderly Posyandu is very significant and very strong. Therefore, it is hoped that the "PATUH" program can be applied in everyday life in controlling blood pressure in elderly people with hypertension.

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