

Original Research Article**EFFECTIVENESS OF HEALTH EDUCATION WITH FLIPCHART MEDIA ON
IMPROVING QUALITY OF LIFE AND DIET COMPLIANCE
IN HYPERTENSION PATIENTS**SosiloYobel¹⁾, Rina Budi Kristiani^{2)*}¹⁾ Bachelor of Nursing, STIKES Artha Bodhi Iswara Surabaya, Indonesia²⁾ Nursing Program, STIKES Adi Husada Surabaya, Indonesia*Corresponding Author, E-mail: rinabudikristiani.rb@gmail.com**ABSTRAK**

Introduction. The problem is, there are still many hypertension sufferers who don't take care of their diet that which can affect the condition and lead to complications that impact on quality of life. The purpose of this study was to determine the effectiveness of health education using flipchart media to improve quality of life and dietary compliance in hypertensive patients. **Method.** This research is a pre-experimental study with the "One Group Pretest-Posttest design without control" approach. The sample is 18 elderly who suffer from hypertension. Analysis to find out the difference in average hypertension sufferers before and after health education was carried out using the Wilcoxon signed ranks test. **Results & Analysis.** The Wilcoxon test showed a P value = 0.000 ($P < 0.05$), there was an effect of health education on quality of life and dietary adherence. **Discussion.** Hypertensive patients can make strides in their quality of life and dietary commitment after being given well-being instruction utilizing flipchart media, usually upheld by the capacity to tune in mindfully and communicate well to encourage decision-making approximately utilizing methodologies to make strides in the quality of life.

Keywords: Diet Compliance, Health Education, Hypertension, Quality of Life.

INTRODUCTION

Hypertension or tall blood weight could be a clutter of the circulatory framework which increases blood pressure over ordinary values. Hypertension may be a common infection endured by numerous individuals (Radovanovic, et. al., 2014).

According to the World Health Organization (2014), around 1.13 billion individuals around the world endure

hypertension, which suggests that 1 in 3 individuals in the world is analyzed with hypertension. Every year the number of individuals with hypertension proceeds to extend, with an evaluated 1.5 billion individuals enduring hypertension in 2025 and it is assessed that each year the passing rate due to hypertension and its complications is 9.4 million (Mills, et. al., 2020). The predominance of hypertension in Indonesia at the age of 18 a long time and

over is 34.1%. The evaluated number of individuals with hypertension in Indonesia is 63,309,620, and the passing rate due to hypertension is 427,218. The highest prevalence of hypertension is in East Java with 70,506 people, while in Surabaya there are 5,195 people (Kementerian Kesehatan Republik Indonesia, 2022).

Efforts for primary prevention, early detection, and appropriate treatment to avoid complications in hypertensive patients include dietary compliance, especially efforts to limit the intake of certain nutrients (Marques da Silva et al., 2015). Patient consent is required to accept the hypertension diet. Factors that influence dietary adherence include knowledge, family support, communication, and support from health facilities, patients/individuals, and health workers (Maytasari & Sartika, 2020). Several studies have shown that there is a relationship between knowledge and adherence to a hypertension diet. Lack of knowledge can affect attitudes toward adherence to a hypertension diet (Kementerian Kesehatan RI, 2013).

Nurses are expected to play a role in providing information and supervision to hypertensive patients to address health problems in the community. One of the nurses' efforts to increase nutritional knowledge in hypertension is health education (Esa Al Shatari & H Al-Juboori,

2019).

Health education can be used as a strategy for disease prevention and health promotion. Health education can be delivered through various media. Effective media makes it easier for respondents to receive information conveyed quickly (Dombi, 2021).

Several studies have shown significant changes after implementing health education using flipchart media. In the research, it appeared that there was an increase in information within the group that was given well-being instruction employing a flip chart with a p-value of 0.000 (Fitriani et al., 2022).

The purpose of this study was to test the effectiveness of health education using flipchart media to improve quality of life and dietary compliance in hypertensive patients.

METHOD AND ANALYSIS

This research is a pre-experimental study with a "one group pretest-posttest design without control", namely the research design by conducting a pretest before the intervention and a posttest after the intervention is given. This method was carried out to compare the results of the study before and after being given treatment (Rukminingsih, et.al., 2020). The inquiry was conducted in August 2022 within the city of Surabaya with a populace of all

elderly individuals enduring hypertension and the tests gotten were 18 elderly individuals enduring hypertension. The inspecting strategy in this consideration utilizes Non-Probability Testing with an immersed testing method, specifically a testing procedure in which all individuals of the populace are examined.

The independent variable in this study was Health Education using Flip Chart media while the dependent variable was Quality of Life and Diet Compliance. This study used an instrument in the form of an SOP (Standard Operating Procedure) sheet guidelines, and quality of life instruments using the Mini Quality of Life Questionnaire in Blood Hypertension (MINICHAL) which consists of four domains namely physical health, psychological well-being, social relations, and environmental relations. Questionnaires in research are interpreted as a list of statements that have been prepared properly and respondents provide answers according to their understanding. The compliance questionnaire consists of 10 questions. Before the questionnaire was used in research, trials had been carried out. The data obtained will be analyzed using the Wilcoxon test.

RESULTS

The research was conducted in BulakBantengCempaka Surabaya with a

total of 18 respondents who experienced hypertension in August 2022. All 18 people were given flip-chart game interventions.

1. Characteristics of Respondents

Table 1. Characteristics of Respondents

No.	Total	
	N	%
1. Gender		
Man	3	16.7%
Female	15	83.3%
Total	18	100%
2. Age		
45 – 54 years old	10	55.6%
55 – 65 years old	3	16.7%
66 – 74 years old	4	22.2%
75 – 90 years old	1	5.6%
Total	18	100%
3. Last education		
Elementary school	3	16.7%
Junior high school	5	27.8%
Senior high school	10	55.6%
Total	18	100%
4. Long suffered from hypertension		
< 5	13	72.2%
> 5	5	27.8%
Total	18	100%
5. Information		
Exposure		
Yes	8	44.4%
No	10	55.6%
Total	18	100%

Abbreviation: F =Frequency, (%) = Percentage

The table above shows that the sex of the majority of respondents is female with a frequency of 83.3% and 55.6% of respondents aged 45-54 years old. Most patients aged <5 years with a frequency of 72.2%. The highest education is Senior High School with a frequency of 55.6%. Most of the information is missing at 55.6%.

2. Quality of Life

Table 2 with the results before being given the intervention showed 33.3% of

respondents showed a good quality of life, after being given the intervention the number of respondents with quality of life increased to 16 people (88.9%).

Table 2. Quality of Life of Hypertension Patients Before and After Health Education Intervention with Flipchart Media

Quality of Life	Pre		Post	
	F	(%)	F	(%)
Good sleep quality	6	33.3%	16	88.9%
Poor sleep quality	12	66.7%	2	11.1%
N	18	100%	18	100%
Statistical Test Results				
Mean	9.11		6.22	
SD	0.832		1.215	
P-value	0.000			

Abbreviation: F= Frequency, N= Number of respondents, SD = Standard Deviation

Based on the table 2, the quality of life of patients some time recently and after being given the Wellbeing Instruction mediation utilizing Flip chart media with the Wilcoxon marked positions to test. P value = 0.000 (P <0.05) there is an effect of giving interventions playing flip cards on dietary compliance in hypertensive patients.

3. Dietary Compliance

Table 3. Dietary Compliance of Hypertension Patients Before and After Health Education Intervention with Media Flip Chart

Chart				
Dietary Compliance	Pre		Post	
	F	%	F	%
Good Compliance	2	11.1%	8	44.4%
Poor Compliance	16	88.9%	10	55.6%
Total	18	100%	18	100%
Statistical Test Results				
Mean	9.56		6.0	
SD	0.784		1.237	
P-value	0.000			

The table 3 shows, before being given the intervention most of the respondents had a frequency of compliance of 11.1%, after being given the intervention the number of respondents who were obedient increased to 44.4%. Dietary compliance before and after being given Health Education with the Wilcoxon test showed P-value = 0.000 (P <0.05) there was an effect of providing flip card intervention on dietary compliance in hypertension sufferers.

DISCUSSION

1. Characteristics of respondents

The research respondents were the elderly group, where the older they are physiologically they will experience physical, mental, economic, and psychosocial changes which can reduce their ability to take care of themselves independently. This is what causes the elderly to experience dependence on other people in their daily activities and in general the ability to interact with the surrounding environment decreases. So do not be surprised if the elderly can experience hypertension because the ability to care for themselves independently decreases. Moreover, if the educational status is low, then the higher a person's education, the more adequate his skills, mental and emotional. The higher the knowledge, the more developed the mindset it has. High

education will affect one's knowledge, especially in finding out about hypertension, participating in suppressing hypertension cases, and how to control hypertension (Suprayitno& Damayanti, 2020).

This can be backed by the information that most of the respondents have high school instruction. A person's level of instruction influences how they respond to things that come from the exterior. Those with higher education may respond more rationally and be more motivated to work than those with lower or intermediate education. The lower the level of education, the more difficult it is to get advice from health workers. Your education level determines whether you can easily absorb and understand the hypertension diet (Ferreira, et.al., 2018).

The inquire about comes about gotten appeared that most of the respondents needed data sources, so it can be concluded that data sources have a noteworthy impact on dietary adherence in hypertension sufferers (Espinell et al., 2023). Respondents with poor information sources will be at high risk of developing hypertension.

2. The Effectiveness of Health Education Using Flip Chart Media to Improve the Quality of Life of Hypertensive Patients

In this study before being given health education 33.3% of respondents had a good

quality of life, after being given the intervention the number of respondents with quality of life increased to 88.9%. The comes about of measurable tests appear that well-being instruction utilizing flip chart media can progress the quality of life of hypertensive patients. This can be bolstered by investigations comes about which appear that giving instructive intercessions can progress the quality of life of individuals with this infection (Esa Al Shatari& H Al-Juboori, 2019).

A flip chart is a card game derived from playing cards. The flip chart game can be played by 2 players taking turns. This game uses a deck of 10 cards. Each flipchart shows the daily food menu for people with hypertension. At the end of the card, there is also a card number to determine the value of each card.

Flip chart games can be played by hypertension patients and other family members. These games can help people with high blood pressure improve their quality of life by sticking to a diet, interacting with other players, training their minds, and even improving their cognitive abilities(Talakua&Aloatuan, 2021).

3. The effectiveness of health education using flip chart media in increasing dietary adherence in hypertensive patients

In this study, the results obtained before the intervention was given were that 11.1% of respondents had good dietary

compliance with hypertension, after being given the intervention the number of respondents increased to 44.4%. This appears that there's a significant contrast between the level of pre-test and post-test information given by health education. The effect of health education using Flip chart media on dietary adherence was analyzed using the Wilcoxon statistical test. The results obtained were $p = 0.000$ from $p \leq 0.05$, which means that there was a significant effect of health education using Flip chart media on Diet Compliance in Hypertension.

Health education can significantly improve dietary adherence. After participating in flip chart games, patients tend to eat less fatty foods, sweets, and sugary drinks. Adherence to diet and nutritional intake in hypertensive patients is a complex problem that is of great concern to public health and the affected population (de Souza, et. al., 2014).

Wellbeing instruction is an exertion to move forward people's skills/knowledge to alter person or community behavior within the well-being segment. The results of this study are consistent with the review analysis conducted that health education using flip charts effectively increases the knowledge and compliance of respondents in carrying out dietary programs. The choice of media when conducting health education is also very important to convey

messages to respondents properly. Flip charts are a medium for giving well-being instruction with straightforward pictures and content that are effectively caught on by the gathering of people (World Health Organization, 2014)

According to Notoatmodjo. S (2018) Health education tools, commonly known as visual aids, are tools used by educators in distributing educational materials designed to support and demonstrate something in the educational process, using various types of tools or media. Then one can gain experience and knowledge (Bel-Ann Ordu, 2021).

The well-being instruction strategy is an action or exertion to communicate well-being messages to communities, bunches, or people. Ideally, this message will empower individuals, bunches, and people to gotten to be more educated approximately well-being (Kebede et al., 2022).

Compliance is the extent to which patient behavior is taken after the arrangements given by health workers (Shim, et. al., 2020). Health education using flip chart media about the hypertensive diet can improve dietary adherence and can affect the quality of life of hypertensive patients. Patients who maintain a pattern of nutritional intake can help control blood pressure so that the patient's quality of life is better and prevent

complications. It is means that dietary compliance makes the higher quality of life hypertensive patients.

CONCLUSION

This study shows that to improve the quality of life and dietary compliance in hypertensive patients by listening carefully and building dialogue that can be used in healthcare settings, health education can be done using flip chart media. Health education can facilitate decision-making about implementing a healthy lifestyle that can improve the quality of life of hypertensive patients.

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