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RESEARCH ARTICLES

Pemberian *Health Education Salt Dietary* terhadap Pasien Hipertensi

Providing Health Education Salt Dietary to Hypertension Patients

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Abstract

Hypertension is still a big health problem. It needs treatment in other forms besides medication, namely increasing understanding regarding salt or natrium consumption. Providing information can be done with various approaches, one of which is by using the health education method. The purpose of this study was to determine the effect of providing health education on salt dietary on hypertensive patients in Majene Regency. This research was an experimental research with a One-group pre-post test design with a sample of 32 subjects who met the inclusion criteria. This study used the wilcoxon signed rank test with a significance level of α < 0,05. The results of this study indicated that after conducting health education, most of the subjects experienced increased knowledge about dietary salt through the provision of health education information. There were differences in knowledge about the Salt diet before and after being given health education with a p-value of 0,003. Based on the results of this study, researchers recommend that nurses master several learning methods in implementing health education. Maintain the BPJS health prolanis community as a forum for communication with the same problem and become a medium for providing mutual support in improving the quality of life for people with hypertension. Nurses should continue to respect the patient's salt consumption habits slowly. Structured and scheduled in changing the client's salt consumption habits.

Keywords: *health education, hypertension, salt dietary*

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Abstrak

Permasalahan Hipertensi masih menjadi masalah kesehatan yang cukup besar. Perlu penanganan dalam bentuk lain selain pengobatan yaitu peningkatan pemahaman terkait konsumsi garam atau natrium. Tujuan studi ini adalah mengetahui pengaruh pemberian *health education salt dietary* terhadap pasien hipertensi di Kabupaten Majene. Penelitian ini merupakan penelitian eksperimen dengan desain penelitian yaitu *one-group pre-post test design* dengan sampel 32 subjek yang memenuhi kriteria inklusi. Penelitian ini menggunakan uji *wilcoxon signed rank test* dengan taraf signifikansi $\alpha \leq 0,05$. Hasil penelitian ini menunjukkan bahwa setelah dilakukan *health education*, sebagian besar responden mengalami peningkatan pengetahuan tentang *salt dietary* melalui pemberian informasi *health education*. Terdapat perbedaan pengetahuan tentang *salt dietary* sebelum dan setelah diberikan *health education* dengan nilai *p value* 0,003. Berdasarkan hasil penelitian ini, peneliti merekomendasikan kepada perawat untuk sebaiknya menguasai beberapa metode pembelajaran dalam melaksanakan *health education*. Pertahankan komunitas Prolanis BPJS Kesehatan sebagai wadah komunikasi dengan masalah yang sama dan menjadi media untuk saling memberikan dukungan dalam meningkatkan kualitas hidup penderita Hipertensi yang lebih baik. Perawat sebaiknya tetap menghormati kebiasaan konsumsi makan garam pasein dengan perlahan. terstruktur dan terjadwal dalam mengubah kebiasaan konsumsi garam klien.

Kata Kunci: health education, hipertensi, salt dietary

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INTRODUCTION

High blood pressure, also called hypertension, is blood pressure in which the systolic and diastolic levels are higher than normal. Hypertension has traditionally been defined as persistent blood pressure where the systolic pressure is above 140 mmHg and the diastolic pressure is above 90 mmHg (Smeltzer dan Bare, 2013). Until now, hypertension is a non-communicable disease that has become a major public health problem. Based on data in Indonesia obtained from the latest Basic Health Research in 2018, the incidence of hypertension reached 34,11% (Tirtasari dan Kodim, 2019). The prevalence of hypertension is greatest among older adults and it has increased significantly in patients aged 60 years and over.

However, recently we have begun to frequently find the incidence of hypertension at a relatively younger age in our society. This can be seen from the prevalence of hypertension in Indonesia in 2013 in the young age group, namely the 18–24-year age group of 8,7%, the 25–34-year age group of 14,7% and the 35–44-year age group of 24,8%. And from the results of the latest research in 2018 this figure has increased significantly to 13,2% in the age group 18-24-years, 20,1% in the age group 25-34-years and 31,6% in the age group 25-44-years (Tirtasari dan Kodim, 2019).

In 2015, blood pressure test checks were carried out in the target group and found as many as 55.911 people (61,22%), a number that showed a very significant increase compared to the previous year, which was only around 16,57%. From the targets whose blood pressure was measured, it was found that 3.725 (6,7%) people were included in the hypertension category, with details of 1.525 men and 2.200 women. It appears that hypertension is more common in women. Based on the 2015 morbidity report from the public health center, the ten most common diseases were in Majene Regency.

Hypertension was in the second highest position with a total of 7.675 cases or 5,99% of the total number of disease cases, as many as 318 sufferers or 6,1% (Dinas Kesehatan Kabupaten Majene, 2016).

In 2019 at the Lembang Health Center, high blood pressure cases were found from 3.486 visits, 1.487 cases (43%) were identified. In 2021 there was a decrease in the number of visits to 1.036 identified 295 (28%) having high blood pressure. The data shows that although there has been a decrease in sufferers of high blood pressure in the work area of the Public Health Center, the number of cases is still in the high category.

In relation to the previous explanation, many people with high blood pressure can lower their blood pressure into a healthy range or keep their numbers in a healthy range not only by taking medicine and therapeutic modalities, but also by consuming an adequate diet. WHO recommends reducing sodium intake or dietary salt to reduce blood pressure and the risk of cardiovascular disease, stroke and coronary heart disease in adults. Furthermore, WHO recommends intake of sodium (Na)<2 g/day or equivalent to <5 g of salt (NaCl) for adults (Atmarita *et al.*, 2016).

The need for information about a low-salt diet in hypertensive patients is needed so that food control, especially sodium consumption, can be implemented by hypertensive patients. Providing information can be carried out using various methods, one of which is by Health Education.

Based on the above data, hypertension is still a major health problem. It needs treatment in other forms besides medication, namely increasing understanding regarding the consumption of salt or natrum. Several concepts from experts illustrate that providing information can be effectively carried out using the Health Education method. Therefore, researchers are interested in conducting research on the Effect of Providing Health Education Salt Dietary to Hypertension Patients in Majene Regency.

METHODS

This type of research uses Experimental design, namely pre-post experimental design with a *One-group pre-post-test* design approach. The population in this study were all hypertension patients in the working area of the Lembang Health Center, totaling 32 people. Based on the population, total sampling was carried out so that the total sample was 32 subject. This study conducted in April-November 2022. The characteristic of this type of research is to attempt to reveal a causal relationship by involving a group of subjects. The subject group was observed before the intervention or treatment, then the group was observed again after the intervention. Causal testing is done by comparing the results of the pre-test with the post-test without making comparisons with the effect of the treatment imposed on other groups.

Table 1. The process of collecting data in this study

Subject	Pre-Test	Treatment	Post-Test
Hypertension Patients in Majene District	Stage 1 Pre-Test Questionnaires distribution	Stage 2 Delivering Health Education on Salt Dietary	Stage 3 Post-Test Questionnaires distribution

The process of collecting data in this study (Table 1) began with first observing the research location, then conducting interviews with headmen or representatives in order to collect the required initial data. After obtaining the data needed by the prospective researcher, that data was then entered into the background of the study as

initial data. Further, the prospective researcher would determine the sample group to be studied. The researcher would first distribute questionnaires (pre-test) to subjects which would later be used to see their perspectives before being given health education on dietary salt in hypertensive patients.

After that, counseling about health education related to dietary salt was carried out using posters and leaflets as media. After carrying out the counseling, the researcher would distribute the second different questionnaire (post-test) to the subjects to measure whether the counseling had been provided by the subjects in their daily. *Wilcoxon Signed Test* is used for data analysis. If p-value<0,05, it indicates that there is a difference between the variables studied before and after the experiment. This study obtained ethical permission approved by the Ethic Committee of Faculty of Health Science, Universitas Sulawesi Barat grant No: 14/UN55.4/KOM.ETIK/2022.

RESULTS AND DISCUSSIONS

In Table 2, it was found that most of the subjects were women 68,8% (22 people) and the majority were young elderly 43,8% (14 people). They had a moderate category 50% in the level of education (16 people) and 43,8% low (14 people).

Table 2. Characteristic of subjects (n=32)

Category	n	%
Gender		
Female	22	68,8
Male	10	31,3
Age		
Young	13	40,6
Young elderly	14	43,8
Middle elderly	5	15,6
Education		
Poor	14	43,8
Moderate	16	50,0
High	1	3,1
Not school	1	3,1
Information about Low Salt Consumption		
Yes	20	62,5
No	12	37,5
Source of Low Salt Consumption Information		
Health workers	20	62,5
Family	4	12,5
Media	1	3,1
Not getting information	7	21,9
Amount of Salt Consumed Per Day		
1500 mg	6	18,8
2000 mg	25	78,1
>2000 mg	1	3,1
Total	**32**	**100**

Source: Primary data, 2022

In the Table 2 also showed that most of the subjects had received information about low salt consumption, namely 62,5%, which was obtained from health workers, 62,5%. Even though they had received information about low salt consumption, the large amount of salt consumed was still mostly 2000 mg, namely 78,1% (25 people).

Table 3. The increased knowledge of subjects

		n	%
Post Test - Pre Test	Decrease Knowledge	7	22
	Increase Knowledge	23	72
	Constant Knowledge	2	6
	Total	**32**	**100**

Source: Primary data, 2022

In Table 3, the results showed that most of them experienced an increase in knowledge, namely 72% (23 people). In Table 4 Asymp Value. Sig (2-tailed) 0,003<0,05 indicates that there are differences in the knowledge of subjects before and after being given health education about low salt consumption.

Table 4. Determine the effect of providing health education on salt dietary on hypertensive patients

	Median (Minimum-Maximum)	***p-value***
Knowledge before Health Education	7 (2-10)	0,003
Knowledge after Health Education	8 (4-9)	

Source: Primary data, 2022

From the results of the study, it was found that there was an increase in the knowledge of the subjects after being given health education which indicated that there were differences in knowledge before and after health education was carried out. There was an effect of health education on the behavior (knowledge, attitudes and actions) of a low-salt diet in hypertensive patients (Umah *et al.*, 2013). Past research has demonstrated that providing health education is an effective means of enhancing knowledge, attitudes, and practices among individuals with hypertension, counseling emerges as the most optimal approach for positively influencing attitudes (Gusty, 2023).

Health education is implemented through lectures and simulations, using posters, leaflets and props in the form of salt, gram scales and examples of fast food. An additional research paper asserts that interactive education successfully enhances the knowledge of individuals (Lu *et al.*, 2015). The lecture method has functions in building knowledge that was not previously known. Providing the basics concept will stimulate the participants' rationality in responding to the information obtained. The lecture which is an auditory learning method is also combined with leaflets as a source of visual information. After the lecture, it was followed by a simulation of measuring the amount of salt as recommended, namely 1500 mg which is equivalent to 1⁄3-½ teaspoon and showing examples of fast food to find out the sodium composition through the packaging label. This learning method uses audio and visual aids and simulations which are able to provide a complete understanding and are easy to apply.

The researcher above employs a repetition strategy in implementing health education. Information is conveyed repeatedly using different methods. Short attention

spans, decreased ability to comprehend and memory problems or loss are significant functional limitations that impede effective learning and frustrate or demotivate older adults. These limitations make health education for the elderly must be delivered in a short period of time, taught slowly, and repeated as many times as needed, and take advantage of reality. objects and living examples, and actual equipment (Kim dan Oh, 2020).

The Lembang Health Center had provided information on reducing salt intake through health workers, yet it appeared that some information had not been effectively communicated or well understood by the participants. By providing repetition and adding interesting information but still easy to implement, participants can restructure their existing knowledge with repetitive and new information from the team. In accordance with the theory of the Health Promotion Model by Pender that the frequency of the same or similar behavior to past behavior will tend to provide changes in health promotion knowledge and behavior (Pender, 1987).

Health education can increase participants' knowledge because participants are in the same community, namely Prolanis BPJS Kesehatan, which allows health education to be carried out in a focused manner on certain information. Interventions grounded in health education play a crucial role in enhancing both knowledge and behavior among individuals (Kusuma *et al.*, 2017). Health education can be successful with a community approach with good boundaries, making it easier to give and receive information (Hou, 2014). The use of group health education activities can contribute to motivating the elderly, self-care, personal growth and active health promotion, supporting active aging with a better quality of life for the elderly. On the other hand, nurses can be facilitated in carrying out educational health horizontally and prioritizing dialogue (Mendonça *et al.*, 2017).

This health education can be successful because participants have a clear orientation to solving the problem of hypertension they are suffering from. This stimulates the participants to focus on receiving information and will try to find ways to implement all the recommendations contained in the health education. This circumstance demonstrates that consistent health education enhances an individual's understanding and confidence in taking charge of their own well-being (Movahedi *et al.*, 2019). Pender stated in the theory of the health promotion model that the condition of hypertension experienced by patients is categorized into biological, psychological, and sociocultural factors that influence the individual's desire to deal with the problem so that individuals are motivated (personal psychological) to shape new behavior (Pender, 1987). The patient's behavior is adjusted to personal biological conditions such as age, sex, body mass index, puberty status, menopause status, aerobic ability, strength, speed, and balance.

In addition, there are personal sociocultural factors that are attached to the patient which will be related to support from family, group or socio-economic factors which influences the provision of the patient's needs in carrying out all or part of the recommendations on health education. It’s supported by The World Health Organization that factors that influence the health and well-being of individuals are economic and societal standing, educational attainment, surrounding physical conditions, social backing systems, cultural norms and traditions, genetic factors, availability of healthcare services, and gender of the individual (WHO, 2017). Green et al in (Hou, 2014) concluded the same thing, namely that health education is limited to health-directed behavior consciously and is most effective when people are clearly oriented towards solving behavioral or health problems that are important to them.

Pender stated that there must be a factor of perceived benefits for an action which is a positive result that is anticipated due to a health action. Therefore, the theme presented in this health education is "Low Salt Consumption" which is a theme that becomes need and priority for sufferers related to the management of hypertension. Not many people know about the sodium/salt levels that should be consumed in people with hypertension. This judgment can be proven by 78.1% still consuming 2000 mg/day of salt, above the recommended threshold, namely 1500 mg/day (Pender, 1987).

Pender (1987) stated that in carrying out recommendations in health promotion, perceived obstacles often appear. Hypertension sufferers actually complain about the suggestions to reduce salt consumption because they like salty food. Because of these obstacles, health education provides an alternative to overcome these obstacles, namely by using other kitchen ingredients such as using lime juice, vinegar, garlic, shallots, ginger, bay leaves, galangal and pepper. This material also contains sodium, but in small amounts, which is around 40-60 grams per 100 grams. These are common seasonings prepared in the kitchen. This alternative did not completely change the habits of the participants, but made a few modifications that could still be tolerated.

Health education is one of the nursing interventions that can increase public knowledge. The study outcomes indicated that delivering nursing care to hypertensive patients, with an emphasis on addressing knowledge gaps through health education interventions (penkes), led to improvements, in these instances, patients and their families gained a better understanding of hypertension diets (Husein *et al.*, 2021). Health education should be implemented using media that overcomes the impact of decreased physiological and cognitive function of clients. Information repetition might reduce the client's interest, but it can be overcome by using several different learning methods that will increase the client's interest in paying attention to the material presented. On that account, nurses should master several learning methods. To increase client interest, a community should be formed based on the members' problems.

This will make it easier to facilitate nurses in implementing health education. Besides that, clients can support each other to improve a better quality of life and set specific themes according to client needs. It is suggested that in implementing health education, it should always respect the client's culture. Therefore, the nurse needs to make the right decision whether the client's culture can be used as part of the intervention, the need to modify the client's culture or reconstruct the culture.

CONCLUSIONS

There are differences in knowledge about salt dietary before and after being given health education. Most of the subjects experienced an improvement in their knowledge about salt dietary through the provision of health education information. It is recommended for nurses to master several learning methods in carrying out health education. The nurses should maintain a forum for communication with the same problem and become a medium for providing mutual support in improving the quality of life for people with hypertension, such as the Prolanis BPJS Kesehatan community. In addition, nurses should respect the patient's salt consumption habits by slowly and scheduled in changing the client's salt consumption habits.

CONFLICT OF INTEREST

The authors declare that they have no conflict interest

REFERENCES

Atmarita A, Jahari AB, Sudikno, Soekatri M. 2016. Asupan Gula, Garam dan Lemak: Analisis Survei Konsumsi Makanan Individu (SKMI) 2014. Gizi Indonesia, 39(1): 1–14. https://doi.org/10.36457/gizindo.v39i1.201

Dinas Kesehatan Kabupaten Majene. 2016. Profil Kesehatan Kabupaten Majene Tahun 2015.

Gusty RP. 2023. Health Education Model for Elderly Hypertension on Knowledge, Attitudes, and Adherence to Following the Dietary Approaches to Stop Hypertension (DASH). Jurnal Aisyah: Jurnal Ilmu Kesehatan, 8(2): 955–962. http://dx.doi.org/10.30604/jika.v8i3.2093

Hou S-I. 2014. Health Education: Theoretical Concepts, Effective Strategies and Core Competencies. Health Promotion Practice, 15(5): 619-621. https://doi.org/10.1177/1524839914538045

Husein RFH, Kumara LR, Kriswoyo PG. 2021. The Effectiveness of Giving Health Education Nursing Actions to a Hypertension Family with a Knowledge Deficit in Pucangsewu. Yogyakarta Respati Nursing Journal, 8(3). http://dx.doi.org/10.35842/jkry.v8i3.630

Kim MY, Oh S. 2020. Nurses' Perspectives on Health Education and Health Literacy of Older Patients. International Journal of Environmental Research and Public Health, 17(18): 1-11. https://doi.org/10.3390/ijerph17186455

Kusuma YS, Burman D, Kumari R, Lamkang AS, Babu B V. 2017. Impact of Health Education Based Intervention on Community's Awareness of Dengue and Its Prevention in Delhi, India. Global Health Promotion, 26(1): 50–59. https://doi.org/10.1177/1757975916686912

Lu C, Tang S, Lei Y, Zhang M, Lin W, Ding S, Wang P. 2015. Community-Based Interventions in Hypertensive Patients : a Comparison of Three Health Education Strategies. BMC Public Health, 15(33): 1–9. https://doi.org/10.1186/s12889-015-1401-6

Mendonça FTNF de, Santos Á da S, Buso ALZ, Malaquias BSS. 2017. Health Education with Older Adults : Action Research with Primary Care Professionals. Revista Brasileira de Enfermagem, 70(4): 792–799. http://dx.doi.org/10.1590/0034-7167-2016-0349

Movahedi M, Khadivi R, Rouzbahani R, Tavakoli-Fard N. 2019. Effect of Training through Short Message Service on Compliance and Mean Blood Pressure of Hypertensive Patients. International Journal of Preventive Medicine, 10(200): 1–5.

Pender NJ. 1987. Third Edition Health Promotion Model in Nursing Practice. Ann Arbor: University of Michigan.

Smeltzer SC, Bare BG. 2013. Buku Ajar Keperawatan Medikal-Bedah Volume 1-Brunner dan Suddarth. Jakarta: EGC.

Tirtasari S, Kodim N. 2019. Prevalensi dan karakteristik Hipertensi Pada Usia Dewasa Muda di Indonesia. Tarumanagara Medical Journal, 1(2): 395–402.

Umah K, Madyastuti L, Rizqiyah Z. 2013. Pengaruh Pendidikan Kesehatan terhadap Perilaku Diet Rendah Garam Pada Pasien Hipertensi. Journals of Ners Community, 4(2): 1-5.

WHO. 2017. Determinants of Health. World Health Organization.