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## THE EFFECTIVENESS OF BENSON RELAXATION THERAPY THROUGH FAMILY EMPOWERMENT ON REDUCING BLOOD PRESSURE IN HYPERTENSIVE ELDERLY

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### ABSTRACT

**Introduction:** Hypertension is a degenerative disease affecting all ages, especially the elderly. This condition with poor management can cause fatal complications. One of the interventions to reduce blood pressure is the Benson relaxation technique which is very simple and can be practiced by patients themselves. This study aims to explore the effectiveness of Benson relaxation therapy through family empowerment on lowering blood pressure in the elderly with hypertension. **Method:** This research is quantitative with a pretest and post-test study design. A total of 44 respondents agreed to participate divided into intervention and control groups. This study was conducted in three three-month periods of data collection (July-September 2023) at one of the community health centers, in Indonesia. Instruments used in this study are measuring demographic characteristics and blood pressure observation. **Result:** The majority of respondents were aged 55-65 years old (54.5%) and female. There was a statistically significant effect of Benson Relaxation therapy through family empowerment on blood pressure in elderly hypertension with  $p$ -value  $< 0.005$ . **Conclusion:** It can be concluded that Benson Relaxation therapy through Family Empowerment is effective on the fourth day of measurement in reducing systolic blood pressure and effective on the third day of measurement in reducing diastolic blood pressure in the elderly with hypertension.

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## 1. INTRODUCTION

Older people have a higher risk of developing hypertension because of the condition of thickening arterial walls (Adrian, 2019). According to data from the World Health Organization (WHO), the prevalence of hypertension is increasing worldwide. A total of 40% of the adults aged 25 years above experienced hypertension and a rise in 2020. The estimated number of elderly with hypertension is 60%, while in 2025 it is predicted that there will be 1.5 billion people affected by hypertension (World Health Organization, 2023). The prevalence of hypertension in the elderly in Indonesia continues to increase, in 2017 it was 59.9 and in 2018 was 64.1% (Ministry of Health, Indonesia 2022).

Hypertension that is not well treated quickly can cause fatal complications. People with hypertension need to maintain their blood pressure to prevent hypertension complications to achieve a good quality of life. The interventions to reduce both pharmacological and non-pharmacological. The role of the nurse is crucial to carry out non-pharmacological interventions. One of the therapies is Benson relaxation therapy for hypertensive elderly by involving the family. Benson relaxation therapy is a non-pharmacological method, which is thought to lower blood pressure. Benson's relaxation technique is very simple and can be done with guidance or on your own (Mardliyana, N. E. & Puspita, I. M, 2023).

The Benson relaxation method integrates relaxation methods alongside a component of belief. This approach has been extensively employed for alleviating tension and attaining states of calmness, aiding in various conditions like alleviating pain, stress, anxiety, insomnia, lowering blood pressure, and combating depression. Through the repetition of prescribed phrases and the removal of intrusive thoughts, this technique aims to direct attention towards a singular focus (Phuchum & Darmawati, 2022). Family empowerment is needed in implementing Benson relaxation therapy because influence support for elderly. Benson relaxation therapy can reduce tension and achieve a relaxed body state, with positive effects such as reducing anxiety and lowering blood pressure (Solehati, T., & Kosasih, C. E, 2015). From the description above, the researcher will be interested in exploring is the effectiveness of Benson relaxation therapy through family empowerment on lowering blood pressure in elderly hypertension

## 2. METHOD

### Research Design

The research design used in this research is an experimental study of Quasy Experimental with pre and post-test design.

### Population and Sample

The total population in this study is 48 elderly with hypertension who visit one of community health center in Indonesia. Data collection conducted on during three-month period from May to July 2023. Respondents divided into 2 groups with 22 people in intervention and control groups. The technique sampling in this study was total sampling. The inclusion criteria are older adults aged 60 years above and registered as patients in one of the Community Health Centers in Indonesia, willing to be research respondents, do not experience hearing loss or cognitive impairment, able to communicate well, and do not take the hypertension medication Lamipril.

## Instrument

Instruments used in this study are measuring demographic characteristics and blood pressure observation.

## Research Procedure

A total of 48 respondents were divided into two groups intervention and control. Both groups were treated the same, gained an explanation about the research procedures, and blood pressure was measured. For intervention groups the Benson's relaxation technique works by focusing on certain words or sentences that are said repeatedly with a regular rhythm, accompanied by an attitude of surrender to God Almighty, while breathing deeply with several steps procedures.

## Data Analysis

Data analysis includes univariate, bivariate, and multivariate. To test the normality data, the researcher carried out the Kolomogrov-Smirnov test and result p-value  $>0.005$  indicates data normality therefore analysis can use the Parametric Test. This study used an independent t-test which aims to see the comparison between the intervention group and the control group. General Linear Model- Repeated Measure (GLM-RM) was used to determine the effectiveness of Benson relaxation therapy in reducing blood pressure in elderly people with hypertension, which was carried out by repeated measurements for 7 days.

## Ethical Clearance

This study gained ethical permission from the Ethic Committee-University of Muhammadiyah Jakarta Number 1142/F.9-UMJ/VIII/2023 at August 3th, 2023 and concluded that no human right violation or harms to respondents should be take into consideration from this study.

## 3. RESULT

**Tabel 1. Demographic Characteristic (n=44)**

Variables	Intervention Control	
<b>Age (years old)</b>		
55-65	12 (54.5%)	12 (54.5%)
66-74	9 (40.9%)	7 (31.8%)
75-90	1 (4.5%)	3 (13.6%)
<b>Gender</b>		
Male	7 (31.8%)	9 (40.9%)
Female	15 (68.2%)	13 (59.1%)
<b>Latest Education</b>		
Elementary School	3 (13.6%)	1 (4.5%)
Junior High School	3 (13.6%)	7 (31.8%)
Senior High School	16 (72.7%)	14 (63.4%)

The majority of respondents in both groups were aged 55-65 years old with a total of 12 (54.5%). More than half were women, in the intervention group there were 15 p (68.2%). %, and in the control group there were 1e (59.1%), while the characteristics of the respondents were based on their last education in both groups, the majority had high school education, namely in the

intervention group there were 16 people (72.7%), and in the control group there were 14 people (63.4%)

**Table 2. The Analysis Difference of Blood Pressure**

Blood Pressure	Intervention		Control	
	Mean	p-value	Mean	p-value
<b>Systolic</b>				
Pre	171.05	0.00	176.95	0.13
Post	152.77		179.32	
<b>Diastolic</b>				
Pre	91.41	0.00	94.68	0.12
Post	84.05		95.32	

The results of the Paired Samples t Test show that statistically significant difference in the intervention group of systolic and diastolic blood pressure ( $p < 0.005$ ), while in the control group there is no difference ( $p < 0.005$ ).

**Table 3. Tests of Within-Subject Contrasts Diastolic and Systolic**

	Measurement	Sig	Partial Eta Squared
<b>Diastolic</b>	Day 1- Day 2	0.58	0.01
	Day 2- Day 3	0.03	0.21
	Day 3- Day 4	0.01	0.27
	Day 4- Day 5	1.00	0.00
	Day 5- Day 6	0.02	0.23
	Day 6- Day 7	0.33	0.04
	<b>Systolic</b>	Day 1- Day 2	0.16
Day 2- Day 3		0.00	0.29
Day 3- Day 4		0.00	0.32
Day 4- Day 5		0.00	0.36
Day 5- Day 6		0.02	0.23
Day 6- Day 7		0.02	0.23

Based on the table 3, it shows that there is a difference in the average level of change in systolic blood pressure from the first day to the seventh day in diastolic and systolic measurement. Benson's relaxation is effective in reducing systolic blood pressure on the fourth day to the fifth day of measurement. It can be seen from the Partial Eta Squared that the largest value is on the measurement from the fourth day to the fifth day, namely (0.364), so it can be concluded that the 4th day measurement is the optimal time.

#### 4. DISCUSSION

Individuals with higher levels of education tend to have better access to health knowledge. They will be more aware of the importance of a healthy lifestyle, a balanced diet, and physical activity, factors that can play a role in preventing hypertension. This knowledge can motivate healthy living behavior. The results of the study showed that statistically, there was a significant difference between the average Systolic and Diastolic Blood Pressure before and after implementing Benson Relaxation Therapy in hypertensive elderly. In accordance with the theory that Benson relaxation therapy is a non-pharmacological method, which is thought to improve the

patient's well-being and reduce blood pressure. The Benson relaxation technique is very simple and can be done with guidance or alone (Atmojo, J. T., Putra, M. M., Astriani, N. M. D. Y., Dewi, P. I. S., & Bintoro, T. (2019).

The Benson Relaxation Technique is very simple, this therapy can be done alone or with help. Because the people involved in this study are elderly, family assistance is needed to help remind or teach this therapy. Elderly people experience a decline in cognitive function so they will easily forget the stages of this relaxation, so family help is needed in reminding them of the therapy (Sutarto, 2016). Physical limitations that may be experienced by the elderly such as muscle weakness or balance problems can affect their ability to perform complex relaxation techniques, so physical assistance from family members can help in adopting the correct position or carrying out the necessary steps during therapy (Harnilawati, 2013) . Relaxation therapy also involves important aspects of emotional support. Elderly people often feel more comfortable and calm when family members are present with them, because this practice involves a close relationship between the individual and their family, which can provide a sense of security and emotional support needed during therapy (Kamila, A., & Zulaikha, L. I. (2023).

The use of medication in hypertension sufferers has several disadvantages, including the high cost, requiring a relatively long time to reduce blood pressure and the frequent boredom of taking medication in hypertensive patients (Dalimatra, S., 2018). These results are supported by research conducted at Kudus Hospital which showed that the control group showed no significant change in average blood pressure (Sukarmin, S., & Himawan, 2020). According to the researchers' analysis, pharmacological therapy is the most widely used therapy because it is considered faster in reducing blood pressure without considering the side effects of the pharmacological therapy. Antihypertensive drugs work by inhibiting angiotensin II receptors, so angiotensin II does not work. By consuming this drug, blood vessels will widen and it will be easier for the heart to pump blood, so that blood will decrease.

The results of the study could identify differences in the average level of change in systolic blood pressure from the first day to the seventh day. On the second day, there were no significant changes in systolic blood pressure measurements. However, quite significant changes occurred on the third day, and significant declines continued to occur from the fourth to the seventh day. From the research results, it was found that Benson Relaxation therapy was effective in reducing systolic blood pressure, especially on the fourth day of measurement.

It can be seen that the largest value occurred on the 7th day of measurement. Therefore, it can be concluded that the 7th day is the optimal time for implementing Benson Relaxation therapy through family empowerment for hypertensive elderly. In accordance with the theory, relaxation is a combination of relaxation response techniques with an individual's belief system or faith factor. This therapy focuses on certain phrases that are said repeatedly using a regular rhythm accompanied by a resigned attitude. This therapy can be done for 10-15 minutes in the chosen expression, the more often the therapy is done, the more positive effects it can have because this therapy is done by taking deep breaths which can stimulate increased blood flow throughout the body, especially in vital organs such as the brain, so that There is sufficient O<sub>2</sub> in the brain and the body will relax (Solehati, T., & Kosasih, 2021). This is supported by another research, which found that there was an influence of family empowerment on family support for families with

hypertension (Husna, 2019). The results of previous research showed that providing intervention with Benson relaxation for 3 days could reduce blood pressure in hypertensive patients (Margiyati, 2023). The results of the researcher's analysis regarding the average value of systolic and diastolic blood pressure before Benson Relaxation therapy was carried out through family empowerment in the intervention group and blood pressure before and after without therapy in the control group were based on the belief that the action of family empowerment with Benson Relaxation therapy would have an impact on changes in the average value of blood pressure in the intervention group. Researchers assumed that before the intervention, the intervention group and the control group had mean blood pressure values that were not significantly different.

## 5. CONCLUSION

It can be concluded that Benson Relaxation therapy is through Family Empowerment effective on the fourth day of measurement in reducing systolic blood pressure, and effective on the third day of measurement in reducing diastolic blood pressure in elderly people with hypertension. Based on the results of this research, it is hoped that Benson relaxation therapy through family empowerment can be used as a nursing intervention that can be applied in nursing services for elderly people with hypertension.

## 6. REFERENCES

- Adrian, S. J. (2019). Hipertensi esensial: diagnosis dan tatalaksana terbaru pada dewasa. *Cermin Dunia Kedokteran*, 46(3), 172-178.
- Atmojo, J. T., Putra, M. M., Astriani, N. M. D. Y., Dewi, P. I. S., & Bintoro, T. (2019). Efektifitas terapi relaksasi benson terhadap tekanan darah pada penderita hipertensi. *Interest: Jurnal Ilmu Kesehatan*, 8(1), 51-60.
- Husna, A. R., Asri, S. K., Moh Farid Wildani Pusva, M., & Juwita Suciatiningsih, M. Pengaruh Family Empowerment Terhadap Family Support Pada Keluarga Hipertensi Di Wilayah Kerja Puskesmas Mojo Surabaya.
- Idha, K., & Setiawan, R. . (2022). Analisis Faktor Risiko Kejadian Hipertensi Di Puskesmas Sronol Semarang. *Jurnal Kedokteran Muhammadiyah*, 54.
- Kamila, A., & Zulaikha, L. I. (2023). Penyuluhan dan Pemberian Terapi Komplementer Pijat Refleksi Pada Menopause Dan Premenopause Di Desa Samiran. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(5), 11106-11109.
- Mardiyana, N. E., ST, S., Keb, M., Puspita, I. M., & Keb, S. (2023). Terapi Komplementer Pada Pelayanan Kebidanan. Deepublish.
- Ministry of Health, Indonesia (2022). Infodatin Lanjut Usia (lansia). Pusat Data dan Informasi Kementerian Kesehatan RI (p. 12).
- Margiyati, M., & Setyajati, A. P. (2023). Penerapan Terapi Relaksasi Benson Untuk Menurunkan Tekanan Darah Pada Lansia Dengan Hipertensi Di Keluarga Wilayah Binaan Puskesmas Pegandan Semarang. *Jurnal Keperawatan Sishthana*, 8(1), 37-46.
- Maulidina, F., Harmani, N., Suraya, I., Studi, P., Masyarakat, K., Bekasi, P. J., & Gizi, S. (2019). Faktor-Faktor yang Berhubungan dengan Kejadian Hipertensi di Wilayah Kerja Puskesmas Jati Luhur Bekasi Tahun 2018 Factors Associated with Hypertension in The Working Area Health Center of Jati Luhur Bekasi 2018. 4(July), 149–155.

- Phuchum, P., & Darmawati, I. (2022). The Effectiveness of Benson's Relaxation Therapy on Sleep Quality in Hemodialysis Patient: A Narrative Literature Review. *Jurnal Pendidikan Keperawatan Indonesia*, 8(1), 48-54.
- Putri, R. S. M., & Mazarina, H. (2022). Terapi Komplementer Untuk Mengatasi Hipertensi. *JAPI (Jurnal Akses Pengabdian Indonesia)*, 7(1), 73-78.
- Solehati, T., & Kosasih, C. E. (2015). Konsep dan aplikasi relaksasi dalam keperawatan maternitas. *Bandung: PT. Refika Aditama*.
- Sukarmin, S., & Himawan, R. (2020). Relaksasi Benson Untuk Menurunkan Tekanan Darah Pasien Hipertensi di Rumah Sakit Daerah Kudus. *Jurnal Ilmu Keperawatan Dan Kebidanan*, 6(3).
- Triandini, R. (2022). Faktor-faktor yang Berhubungan dengan Kejadian Hipertensi Di Puskesmas Dua Puluh Tiga Ilir Kota Palembang Tahun 2021. 22(1), 308–313.

