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Analysis of Nursing Care for the Elderly Using Benson Relaxation Therapy to Lower Blood Pressure

Mifta Rilli Adzkia *
Hang Tuah University Pekanbaru
INDONESIA

Siska Mayang Sari 2
Hang Tuah University Pekanbaru
INDONESIA

Abdurrahman Hamid 3
Hang Tuah University Pekanbaru
INDONESIA

Yumiati 4
Hang Tuah University Pekanbaru
INDONESIA

*** Corresponding author:**
Mifta Rilli Adzkia, Hang Tuah University, Pekanbaru, Indonesia. ✉ @miftaadzki1@gmail.com

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Abstract

Hypertension is a condition in which a person experiences an increase in systolic and diastolic blood pressure beyond normal limits. One of the main problems with hypertension is the increase in blood pressure. In Indonesia, the prevalence of hypertension reaches 25%, increasing sharply in the elderly: 45.3% (45-54 years), 55.2% (55-64 years), 63.2% (65-74 years), and 69.5% (75+ years). In 2024, at the Khusnul Khotimah Social Services Unit, out of 90 elderly people, 46 people experienced hypertension as the number one disease. Non-pharmacological blood pressure management can be done by applying Benson relaxation therapy. This scientific paper aims to analyze nursing care for Mrs. N and Mr. H and evaluate the application of Benson relaxation therapy in reducing blood pressure in elderly people with hypertension at the Husnul Khotimah Social Services Unit, Riau Province Social Services correctly, appropriately and in accordance with professional nursing standards. This application uses a one-group pretest-posttest design with 2 subjects. The research instrument uses an observation sheet. The intervention was administered from November 29 to December 1, 2025. This intervention was carried out for 15 minutes for 3 consecutive days, morning and afternoon. The results of blood pressure for 3 days with an average systolic value before therapy was 148.75 and a diastolic value of 94.17 after therapy, the average systolic value was 144.33 and a diastolic value of 90.75. Meanwhile, the average decrease in blood pressure for 3 days was a systolic of 4.42 and a diastolic of 3.42. The results of Benson relaxation therapy have been proven to reduce blood pressure. It is hoped that this scientific paper report can be used as a guide in providing nursing care, especially the application of Benson relaxation interventions.

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INTRODUCTION

An elderly person is an individual aged 60 years and above who is in the final stages of the human life cycle. The World Health Organization (WHO, 2023) defines an elderly person as someone aged ≥60 years who is naturally experiencing the aging process, accompanied by a decline in physical, psychological, and social functions. Globally, the number of elderly people continues to increase, estimated to reach 1.2 billion in 2025 and increase to 2 billion in 2050 (Royani & Siska, 2023). In Indonesia, the percentage of elderly people in 2024 reached 12%, up from 11.75% the previous year (BPS, 2024). In Riau Province, particularly Pekanbaru City, the number of elderly people also showed an increase across various age groups (BPS Riau Province, 2025).

The increasing elderly population has led to an increased prevalence of degenerative diseases, one of which is hypertension. The WHO (2023) reported that approximately 1.28 billion people

worldwide aged 30–79 suffer from hypertension. In Indonesia, hypertension ranks fourth among the most common diseases, with approximately 70 million sufferers. In Pekanbaru City, 37,699 people were recorded as having hypertension (Unyui & Roni, 2025). Data from the Riau Province Husnul Khotimah Nursing Home (UPT PSTW) in 2024 showed that out of 90 elderly residents, 46 suffered from hypertension, making it the most prevalent disease in the nursing home.

Hypertension is a condition characterized by elevated systolic blood pressure of ≥140 mmHg and diastolic blood pressure of ≥90 mmHg (Gina & Nina, 2022). This disease is known as a silent killer because it is often asymptomatic, but it has the potential to cause serious complications such as heart disease, stroke, kidney failure, and retinopathy (Nurmaulina & Hadiyanto, 2021). In the elderly, hypertension is associated with changes in blood vessel structure, which become stiffer and less elastic, as well as hormonal changes that occur with age (Susanti, 2023).

Hypertension management includes pharmacological and non-pharmacological therapies. Non-pharmacological therapies include lifestyle changes and complementary therapies such as relaxation techniques (Wartonah & Riyanti, 2022). One easy-to-implement technique is Benson relaxation. Benson relaxation is a breathing method that combines elements of focus and spiritual beliefs to create a relaxed state, thereby reducing sympathetic nervous system activity and blood pressure (Adelia & Eska, 2024). This technique is considered suitable for the elderly because it is simple, safe, and aligns with their spiritual needs (Firdaus & Fitri, 2024).

Research shows that Benson relaxation is effective in lowering blood pressure in people with hypertension (Zainaro, Dessy, & Hermawan, 2022; Margiati & Setyajati, 2023; Atmojo et al., 2020). However, its application as part of elderly nursing care at the UPT PSTW Husnul Khotimah, Riau Province, is still limited. Therefore, this study aims to analyze elderly nursing care using Benson relaxation therapy to reduce blood pressure in hypertensive patients at the UPT PSTW Husnul Khotimah, Riau Province, with the hypothesis that there is an effect of Benson relaxation therapy on reducing blood pressure in elderly with hypertension.

METHOD

The Evidence-Based Nursing Practice (EBNP) method used as the basis for implementing nursing interventions includes evidence-based interventions, PICOT analysis, Standard Operating Procedures (SOPs), implementation evaluation, and research ethics. The intervention used refers to Simahati's (2024) study on the effect of Benson relaxation on reducing blood pressure in hypertensive patients with a quasi-experimental one-group pretest–posttest design. Before the intervention, the researcher explained the purpose, procedure, and respondent rights, then obtained informed consent. Benson relaxation therapy was administered for 10–20 minutes, three times a week, with blood pressure measurements before and after the intervention using a sphygmomanometer. The results of the PICOT analysis showed that the population was hypertensive patients who were able to communicate verbally, the intervention was Benson relaxation, without a comparison group, with the outcome being a significant decrease in systolic and diastolic blood pressure (p=0.001) after one week of therapy. The Benson relaxation SOP was implemented through pre-interaction, orientation, work, and termination stages, with a focus on regular breathing and repetition of positive meaningful expressions (Simahati et al., 2024). Evaluation of the implementation was conducted by comparing pretest and posttest results to assess changes in blood pressure. This study has passed the ethics review of Hang Tuah University, Pekanbaru, Number 058/KEPK/UNIV-HTP/XII/2025-KIAN and applies ethical research principles including respect for human dignity, privacy and confidentiality, fairness, and the balance of benefits and risks (Notoatmodjo, 2018).

RESULTS AND DISCUSSION

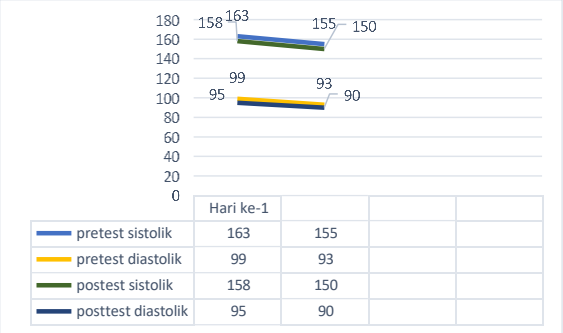
Results

Nursing care for two elderly people with hypertension, namely Mrs. N and Mr. H, who received Benson relaxation therapy intervention at UPT PSTW Husnul Khotimah. Mrs. N is 86 years old with complaints of weakness, dizziness, numbness in the legs, and visual impairment due to cataracts,

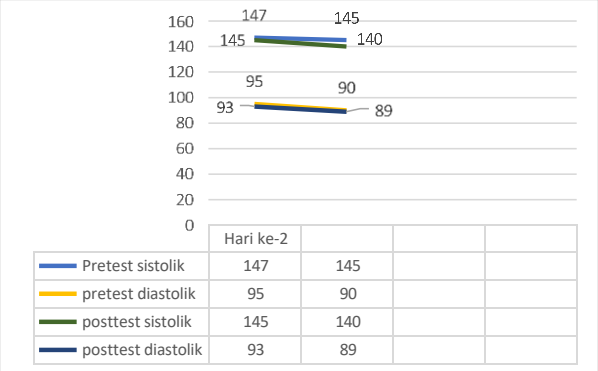
with an initial blood pressure of 163/99 mmHg. Mr. H is 69 years old with complaints of occasional dizziness, palpitations if he forgets to take his medication, a habit of drinking coffee, and a history of bilateral cataract surgery, with an initial blood pressure of 165/100 mmHg. Both have a history of hypertension, independent functional status based on the KATZ index, and a moderate risk of falling.

The primary nursing diagnoses for both clients were risk of decreased cardiac output related to altered contractility and risk of falls related to visual impairment. Interventions focused on addressing the risk of decreased cardiac output through vital sign monitoring, comfortable positioning, gradual activity recommendations, and Benson relaxation therapy for three consecutive days, twice daily for 15 minutes.

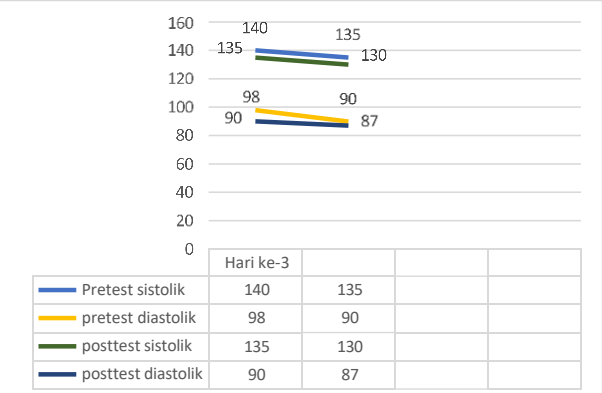
Grafik 4.1 Tekanan darah pada pasien intervensi Ny. N hari ke-1



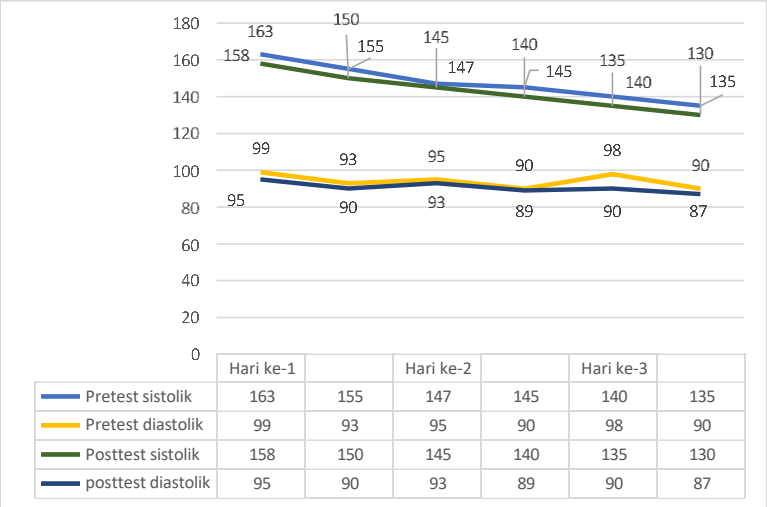
Grafik 4.2 Gambar tekanan darah pada pasien intervensi Ny. N hari ke-2



Grafik 4.3 Tekanan darah pada pasien intervensi Ny. N hari ke-3

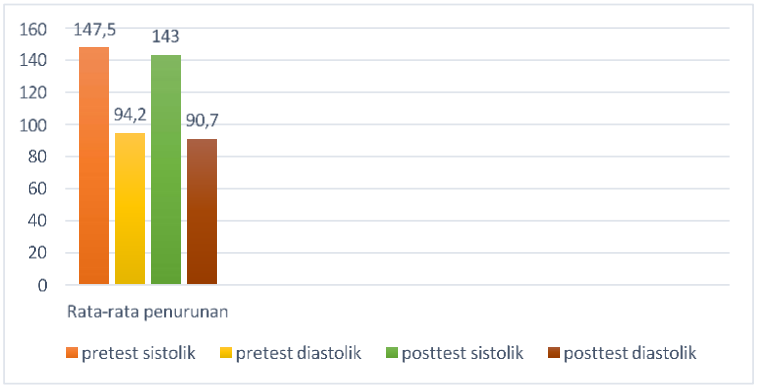


Grafik 4.4 Tekanan darah pada pasien Ny.N selama 3 hari



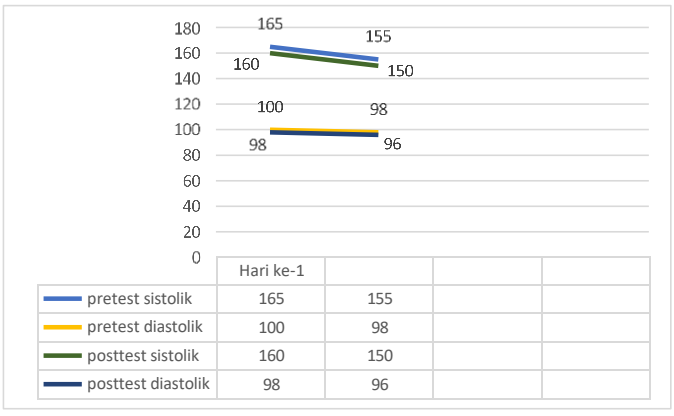
	Hari ke-1		Hari ke-2		Hari ke-3	
Pretest sistolik	163	155	147	145	140	135
Pretest diastolik	99	93	95	90	98	90
Posttest sistolik	158	150	145	140	135	130
posttest diastolik	95	90	93	89	90	87

Grafik 4.5 Rata-rata penurunan tekanan darah pada pasien Ny.N



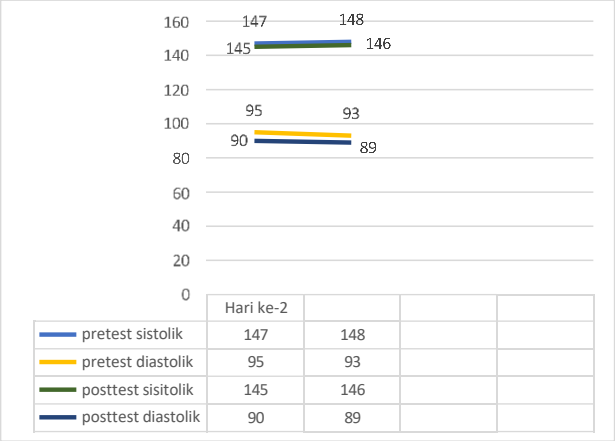
The daily evaluation results shown in Graphs 4.1–4.5 for Mrs. N show a gradual decrease in blood pressure from the first to the third day, with an average decrease of 8.0 mmHg.

Grafik 4.6 Tekanan darah pada pasien intervensi Tn.H hari ke-1

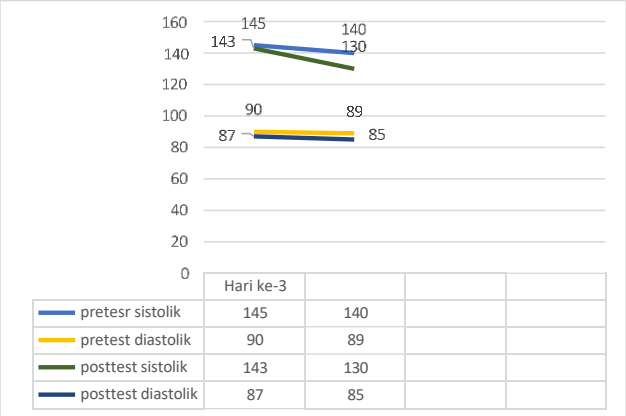


	Hari ke-1			
pretest sistolik	165	155		
pretest diastolik	100	98		
posttest sistolik	160	150		
posttest diastolik	98	96		

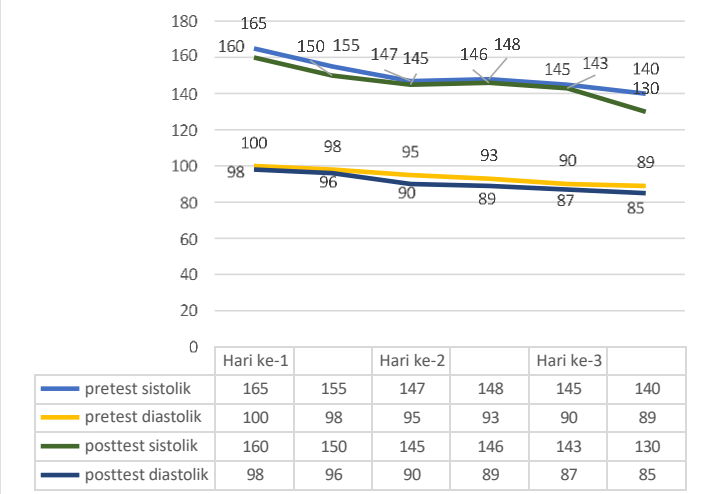
Grafik 4.7 Tekanan darah pada pasien intervensi Tn. H hari ke-2



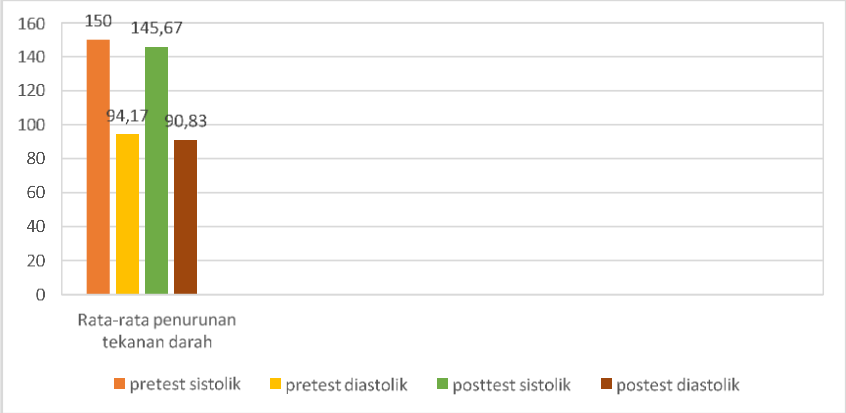
Grafik 4.8 Tekanan darah pada pasien intervensi Tn. H hari ke-3



Grafik 4.9 Tekanan darah pada pasien Tn. H selama 3 hari



Grafik 5.0 Rata-rata penurunan tekanan darah pada pasien Tn. H



Meanwhile, the evaluation results for Mr. H presented in Graphs 4.6–5.0 also show a consistent decrease in blood pressure with an average decrease of 7.66 mmHg.

Based on the SOAP evaluation results, the risk of decreased cardiac output in both clients was assessed as resolved, while the risk of falls was controlled through monitoring and mobilization assistance. These findings indicate that Benson relaxation therapy provides a positive response in lowering blood pressure in elderly patients with hypertension, and align with Simahati's (2024) research, which states that Benson relaxation is effective as a non-pharmacological intervention in controlling blood pressure.

Discussion

Hypertension is a chronic disease characterized by elevated blood pressure in the arteries and is a major health problem in the elderly. This condition often occurs without typical symptoms, thus being known as a silent disease, but it has a serious impact on morbidity and mortality due to cardiovascular, cerebrovascular, and kidney complications (Kemenkes Riau, 2024; Wulandari & Sari, 2023). The results of the assessment of Mrs. N, aged 86 years and Mr. H, aged 69 years, showed subjective complaints in the form of headaches, weakness, numbness in the extremities, and heart palpitations, which are in line with the clinical manifestations of hypertension as stated by Ramatillah (2023) and Wartonah (2022). The similarity in these complaint patterns reinforces that hypertension in the elderly is often expressed through subjective complaints related to circulatory disorders and increased cardiac workload.

Age is the dominant factor influencing the occurrence of hypertension in both clients. The aging process causes a decrease in blood vessel elasticity, thereby increasing peripheral resistance and blood pressure (Luh, 2023; Aknes Falo, 2023). In addition to age, Mr. H has a history of hypertension in both parents, which increases the risk of hypertension due to the interaction of genetic and environmental factors (Wulandari, Senja & Sari, 2023). Lifestyle factors also play a role, particularly Mr. H's habit of regularly consuming coffee since a young age. Caffeine is known to increase sympathetic nervous system activity, stimulate the release of epinephrine, and increase heart rate and blood pressure (Meyke, Indrani & Djannah, 2023). The combination of age, genetics, and lifestyle factors explains why Mr. H's initial blood pressure was higher than Mrs. N's.

Based on the assessment results, both clients are in the stage 2 hypertension category according to the AHA classification, so they are at risk of experiencing decreased cardiac output due to increased afterload. The nursing diagnosis of risk of decreased cardiac output related to changes in contractility and afterload is a priority, because increased blood pressure causes the heart to have to pump with a greater load, which in the long term can reduce the heart's pumping ability (Tsuroyya, 2025). This diagnosis is in accordance with the Indonesian Health Survey (IDHS) (2018) and is supported by objective data in the form of systolic blood pressure ≥140 mmHg and diastolic ≥90 mmHg.

Nursing interventions focused on increasing cardiac output and lowering blood pressure through vital sign monitoring, health education, collaborative medication administration, and the

implementation of non-pharmacological therapy in the form of Benson relaxation. This therapy was chosen because it is simple, safe, inexpensive, and appropriate for the characteristics of older adults who tend to have a spiritual closeness (Simandalahi, 2022). Benson relaxation is performed using deep breathing techniques accompanied by repetition of the spiritual phrase "Subhanallah," which aims to trigger a relaxation response, reduce tension, and increase inner peace (Simahati, 2024).

Implementation of therapy for three consecutive days showed a decrease in blood pressure in both Mrs. N and Mr. H. The average decrease in systolic blood pressure was 4.42 mmHg and diastolic blood pressure was 3.42 mmHg, indicating that this therapy had a significant clinical effect. These results are in line with research by Hidayati et al. (2022) and Khotimah & Prajayanti (2024) which proved the significant effect of Benson relaxation therapy on reducing blood pressure in hypertensive patients. The mechanism of action of this therapy involves activating the parasympathetic nervous system and suppressing the sympathetic nervous system, thereby reducing the secretion of stress hormones such as cortisol, epinephrine, and norepinephrine, causing vasodilation and a decrease in heart rate (Fahrizal, Saputra & Purwono, 2022).

The morning and afternoon blood pressure reductions were not directly related to the pharmacological effects of amlodipine, as the drug was taken in the afternoon and has an onset of action of 4–8 hours (Sudarmin et al., 2022). This confirms that blood pressure changes are primarily influenced by the Benson relaxation intervention. Therefore, this therapy can be categorized as an effective complementary intervention in the management of hypertension in the elderly.

Daily blood pressure variations that persist are influenced by other factors such as sleep quality, diet, and coffee consumption. Mrs. N experienced an increase in blood pressure on the second day, which was related to a poor night's sleep. Lack of sleep can increase the activity of the sympathetic nervous system and stress hormones, thus triggering an increase in blood pressure (Margiati, 2023). On the third day, meat consumption also contributed to blood pressure fluctuations due to its high sodium and saturated fat content (Zainaroh, 2022). Meanwhile, Mr. H experienced a slight increase in blood pressure after consuming coffee in the morning, which is in accordance with the theory of Melizza & Masruroh (2023).

The implications of these findings for healthcare services are that nurses have a strategic role in integrating Benson relaxation therapy as part of routine nursing care for older adults with hypertension. This therapy can be incorporated into standard operating procedures in social care facilities or healthcare facilities as a supportive non-pharmacological intervention. For nursing education, the results of this implementation can serve as teaching materials and references for evidence-based geriatric nursing practice. For the nursing profession, this research contributes to enriching alternatives for effective and safe independent nursing interventions. For older adults, this therapy increases independence in simple blood pressure management. For future researchers, these findings can form the basis for research with experimental designs and larger sample sizes.

The primary contribution of this study is to provide empirical evidence that Benson relaxation therapy combined with the spiritual element of "Subhanallah" is effective in lowering blood pressure in elderly people with hypertension in a social care setting. This research also strengthens the integration of bio-psycho-socio-spiritual aspects in nursing care.

Limitations of the application include the very limited number of respondents, the lack of a control group, and environmental factors that are not always conducive. Furthermore, confounding variables such as diet, caffeine consumption, and sleep quality could not be fully controlled.

Based on these results and limitations, it is recommended that future research use a quasi-experimental or randomized controlled trial design with a larger sample size and longer intervention duration. Furthermore, measurement of supporting variables such as stress levels, sleep quality, and dietary adherence is necessary to obtain a more comprehensive picture. For nursing practice, it is recommended that nurses consistently teach and facilitate Benson relaxation therapy as part of health education for elderly people with hypertension.

CONCLUSION

Based on the results of nursing care provided to Mrs. N and Mr. H at the UPT PSTW Husnul Khotimah, Riau Province Social Service, the application of Benson relaxation therapy has been

proven effective in helping to reduce blood pressure in elderly with hypertension. The nursing care process starts from assessment, formulation of nursing diagnosis, preparation of intervention plan, implementation of actions in the form of Benson relaxation therapy, to evaluation of the results of the action. The therapy was carried out for three consecutive days from November 29 to December 1, 2025, with a duration of 15 minutes each session in the morning and afternoon. The evaluation results showed a decrease in blood pressure after the intervention, with an average decrease in systolic blood pressure of 4.42 mmHg and diastolic of 3.42 mmHg. These findings indicate that Benson relaxation therapy is effective as a non-pharmacological intervention in the management of hypertension in the elderly. The decrease in blood pressure occurs because Benson relaxation is able to stimulate the release of endorphins, serotonin, and melatonin which provide a calming effect, reduce tension, and suppress the release of stress hormones, thereby helping to stabilize blood pressure .

CONFESSION

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AUTHOR CONTRIBUTION STATEMENT

The preparation and implementation of this Final Scientific Paper for Nurses (KIAN) was carried out through collaborative, complementary roles. MRA, as the main author, is responsible for designing, implementing, and evaluating the entire KIAN implementation process comprehensively. This process begins with the preparation of plans, determining methods appropriate to the objectives, collecting and analyzing data, and drawing conclusions based on the results obtained. In each stage, the author consistently upholds the principles of honesty, objectivity, and scientific ethics, ensuring that the entire implementation process is in accordance with applicable academic principles. Throughout the preparation process, SMS plays a role in providing continuous direction, guidance, and input, from the title determination stage to the preparation of the final report. The guidance provided helps ensure that the substance, methods, and systematics of the KIAN writing are systematically arranged and in accordance with academic standards.

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