

**FAMILY NURSING CARE WITH THE APPLICATION OF PROGRESSIVE
MUSCLE RELAXATION (ROP) FOR ACUTE PAIN IN HYPERTENSION
PATIENTS WITH NURSING PROBLEMS OF INEFFECTIVE FAMILY HEALTH
MANAGEMENT IN THE ELDERLY IN AIR TERBIT VILLAGE, TAPUNG
DISTRICT, KAMPAR REGENCY**

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Abstract

Elderly is a condition that occurs in human life. Aging is a lifelong process, which does not only start from a certain time, but starts from the beginning of life. One of the diseases that many elderly people experience is hypertension. Hypertension is increased blood pressure due to blood vessel problems. This means that oxygen and nutrients in the blood cannot reach the body tissues that need it. The purpose of the Final Scientific Paper for Nurses is to provide an overview of the results of the practice of the Nursing Profession with the Application of Nursing Problems of Ineffectiveness of Family Health Management in the Elderly with Acute Hypertensive Pain in Air Terbit Village, Tapung District, Kampar Regency. The method used in implementing nursing interventions is the provision of progressive muscle relaxation techniques (ROP). Writing starts from June 14-June 19, 2025. The advantages of progressive muscle relaxation techniques (ROP) reduce muscle tension, anxiety, neck and back pain, high blood pressure, heart rate, metabolic rate, Lowering blood pressure (Hypertension). The implementation of progressive muscle relaxation was carried out for 3 days for 10-15 minutes. The results of this case study after being carried out for 3 days of subjects applying progressive muscle relaxation showed that on average after being given there was a significant difference in family success in the recommended activities before and after being given progressive muscle relaxation and there was a significant difference between pain intensity before and after progressive muscle relaxation in elderly people with hypertension.

Keyword: Progressive Muscle Relaxation (ROP) 1; Acute Pain 2; Hypertension 3; Elderly 4.

INTRODUCTION

Elderly is a condition that occurs throughout human life. Aging is a lifelong process, not just starting at a specific point in time, but starting from the beginning of life (Firmansyah et al., 2025). One factor affecting the quality of life and health of the elderly is limited access to healthcare services. Furthermore, the lack of information regarding the importance of health check-ups among the elderly is a contributing factor to the increasing prevalence of health problems in the community. One of the most common diseases among the elderly is hypertension (Asdar, 2023). Hypertension, or high blood pressure, is a significant health problem worldwide, including in Indonesia. Hypertension is high blood pressure caused by blood vessel problems. This means that oxygen and nutrients in the blood cannot reach the body's tissues that need them. This condition occurs when systolic blood pressure is above 140 mmHg and diastolic blood pressure is above 90 mmHg (Fatmawati et al., 2024). Long-term (persistent) high blood pressure can cause damage to the kidneys (kidney failure), heart (coronary heart disease), and brain (stroke) if not detected early and treated adequately (Asdar, 2023). Acute headaches caused by hypertension originate from increased blood flow to the blood vessels in the brain, resulting in narrowing of the blood vessels. Some elderly people are

often non-compliant in taking antihypertensive medication, this is caused by several factors such as busy work, decreased memory for taking medication, and taking medication only when relapses occur (Sundari et al., 2024).

Nursing problems that can arise based on the above factors are Ineffective Family Health Management and Acute Pain. The outcome criteria for Family Health Management are: the ability to explain the health problem experienced, family activities to address health problems appropriately, actions to reduce risk factors, verbalization of difficulties in carrying out prescribed care, and symptoms of family members' illnesses. Meanwhile, the outcome criteria for pain levels are complaints of pain, grimacing, protective attitudes, anxiety, and difficulty sleeping. Hypertensive pain management is divided into two categories: pharmacological, which utilizes medications for the healing process, such as antihypertensives, diuretics, or beta-blockers like chlorothiazide, chlorthalidone, hydrochlorothiazide/HCT, indapamide, and metolazone. Non-pharmacological therapy involves non-drug therapies, such as progressive muscle relaxation (PMR) techniques (Arifiani & Fijianto, 2021).

Progressive Muscle Relaxation (PMR) therapy involves tightening and relaxing muscles in one part of the body at a time to create a feeling of physical relaxation from head to toe or vice versa (Margiyati & Setiawan, 2023). Progressive Muscle Relaxation (PMR) is a complementary therapy currently used to reduce pain in people with hypertension. Based on interviews with 3 elderly people, it was found that 3 people stated that the symptoms they experienced were generally the same, such as headaches in the last 6 months due to acute pain, neck pain, numbness in the hands. In general, acute pain is felt at night before bed, to relieve the acute pain, the client just takes a rest. Progressive Muscle Relaxation (PMR) technique is a therapy that is easy to do by elderly families. Based on the results of the preliminary study obtained, researchers are interested in conducting research on "Family Nursing Care with the Application of Progressive Muscle Relaxation (PMR) for Acute Pain in Hypertension Patients with Nursing Problems of Ineffective Family Health Management in the Elderly in Air Terbit Village, Tapung District, Kampar Regency".

RESEARCH METHODS

The implementation method used is an experimental technique on families with hypertension through interviews. Intervention actions are carried out by measuring before and after the application of Progressive Muscle Relaxation Technique (ROP) therapy to the family. The implementation time is carried out for 6 days, namely from the date of implementation starting from TUK 1 to TUK 5. Specifically, TUK 3 is carried out for 3 days. The time for administering progressive muscle relaxation techniques (ROP) is carried out 1x a day for 10-15 minutes. The implementation location was carried out at the home of a family with hypertension in Air Terbit Village, Tapung District, Kampar Regency, a family with hypertension. The subjects were 3 elderly families with hypertension in RT 02 and 03, Air Terbit Village, Tapung District, Kampar Regency, a family with hypertension.

RESEARCH RESULTS

The study data was conducted in Air Terbit Village, Tapung District, Kampar Regency, in families with elderly people with hypertension aged 60 to 85 years. The type of elderly family is middle-aged. The ethnicity of the elderly is generally Javanese. The religion of the elderly is Islam. The socio-economic status of the elderly is self-employed by working as oil palm farmers. Recreational activities of the elderly are rare, usually they go on recreation when invited by their children. 2 family members with the stage of family development with elderly

and 1 family member with the stage of family development of middle-aged. The characteristics of neighbors and communities in Air Terbit Village, Tapung District, Kampar Regency are less active, the elderly rarely participate in community activities such as elderly posyandu and weekly wirid. The elderly rarely eat fruits and vegetables every day. The geographical mobility of the elderly never moves from one area to another and has lived there for decades.

The use of health facilities, the 3 elderly people chose not to go to the community health center because the health service is far away, they usually only go to the village midwife, they only go to the doctor if they feel symptoms, they do not routinely have a check-up once a month. Two of the three elderly said they did not regularly attend the elderly posyandu because no one took them because their children were married and did not live with the elderly, while another elderly person said they rarely had a health check because they often forgot to take their hypertension medication and felt it would heal itself, if the hypertension medication ran out, the elderly bought it when they remembered. Economic function, the income of the elderly from the elderly because on average the elderly still work, but 1 in 3 elderly people also receive remittances from their children every month. Caring for sick family members, if the elderly are sick the family only recommends resting at home. Elderly beliefs about health, the elderly are worried that if they continue to take medication there will be side effects, the elderly also said they often forget to take medicines and feel they will heal themselves. The elderly man still actively smokes and drinks coffee. The family also said that the elderly never does progressive muscle relaxation (ROP). The family said that the elderly still often consumes high-salt foods such as salted fish, instant noodles, canned foods like sardines, and often cooks food with coconut milk. The family and the elderly said they already know that he has hypertension but do not understand enough about it. Most of the family said that the elderly often experiences pain in the neck, dizziness, and numbness in the hands that comes at night before bed. Most family members said they do not know how to prevent and reduce problems in sick family members.

General condition of 3 elderly people obtained blood pressure results: 152-192 / 71-104 mmHg. Pulse: 70-90 x / minute. Respiration: 16-20 x / minute. Temperature: 36.0-37.2 °C. The average pain scale of the elderly is 5-7 with the Numeric Rating Scale (NRS). Level of consciousness: Compos Mentis. Urinary pattern: 4-7 x / day. Ability to urinate and defecate independently. Eating pattern, 2-3x / day, good appetite, independent eating habits, elderly people often consume foods high in salt and foods with coconut milk, rarely consume fruits and vegetables, 3 elderly people still often consume salty foods. Drinking pattern 4-6 x / day, 2 of 3 elderly people said they still often drink coffee or tea in the morning. Hearing, touch, smell and taste functions are good. Wrinkled and inelastic skin. Dental hygiene: there are caries, Ears: Looks clean, hair and head: graying and hair distribution is sparse. Interaction with the elderly, both elderly are very friendly, communicate fluently and are willing to follow the student's instructions. Daily self-care for the elderly: bathing and dressing are done independently.

Table 1. Average Value of Increase in Ineffectiveness of Family Health Management Against the Implementation of Progressive Muscle Relaxation Technique :

No.	Result Criteria	N	<i>Pre Test</i>	<i>Post Test</i>
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1.	Ability to explain health problems experienced	3	2.3	4.6
2.	Family activities to address health problems appropriately	3	2	4.3
3.	Actions to reduce risk factors	3	2	5
4.	Verbalization of difficulty carrying out prescribed treatments	3	2	4.6
5.	Symptoms of family members' illnesses	3	2	4.3

Source: primary data

It can be concluded that there is an increase in family health management in the application of progressive muscle relaxation techniques before the lowest average value is 2, while after the highest average value the increase in health management is 5.

Table 2. Average Acute Pain Score in Response to Progressive Muscle Relaxation Technique

No.	Result Criteria	N	<i>Pre Test</i>	<i>Post Test</i>
1.	Complaints of pain	3	5	2
2.	Grimace	3	4.6	2
3.	Protective behavior	3	3	2
4.	Anxiety	3	4.6	2
5.	Difficulty Sleeping	3	5	2

Source: primary data

It can be concluded that there was a decrease in acute hypertensive pain due to the application of progressive muscle relaxation techniques before the average value increased by 5, while after the average value of the decrease in acute pain was 2.

DISCUSSION

Based on research (Palaman et al., 2024), the results of progressive muscle relaxation to reduce blood pressure and pain were obtained for 3 consecutive days from Tuesday, July 25, 2023 to Thursday, July 27, 2023. Patients with complaints of decreased headaches, decreased grimacing, improved weakness and decreased blood pressure were found. The results of research conducted by (N. R. Anggraini, 2024) after non-pharmacological therapy with progressive muscle relaxation techniques, Mrs. S said that pain decreased and the average blood pressure after being given progressive muscle relaxation intervention was 120 mmHg systolic and 90 mmHg diastolic, from these results it was found that the average blood pressure in Mrs. S decreased. Based on research conducted by (Witantri, 2024) There was a change in blood pressure from 211/88 mmHg to 199/88 mmHg and a pain scale from 6 to 4.

It can be concluded that progressive muscle relaxation can reduce pain in hypertensive patients. It can be concluded that there is an increase in family health management in the application of progressive muscle relaxation techniques before the lowest average value is 2, while after the highest average value the increase in health management is 5. Meanwhile It

can be concluded that there was a decrease in acute hypertensive pain due to the application of progressive muscle relaxation techniques before the average value increased by 5, while after the average value of the decrease in acute pain was 2.

CONCLUSION

Nursing assessment, using a family nursing assessment format, interview methods, observation, and physical examination to gather necessary data on hypertension patients. The results of the assessment showed that the majority of elderly families still frequently consume foods high in salt, such as salted fish, eat packaged foods like sardines, and frequently cook with coconut milk. The elderly men still actively smoke and like to drink coffee. Nursing diagnosis, based on the results of data analysis in the elderly nursing assessment conducted, supported by the existence of data that strengthens the establishment of a nursing problem, a diagnosis can be formulated, namely Ineffectiveness of Family Health Management. Nursing intervention, the first diagnostic intervention of Ineffective Family Health Management given to 3 elderly people is based on SIKI. The main intervention given is 5 family health tasks and the provision of progressive muscle relaxation techniques to the elderly which are selected based on the results of the evidence-based practice journal obtained. Implementation of nursing, implementing 5 family health tasks and providing progressive muscle relaxation techniques was carried out for 3 days in each respondent's house, providing information on progressive muscle relaxation techniques, teaching the provision of progressive muscle relaxation techniques for elderly hypertension pain for 6 minutes, each leg was carried out for 10-15 minutes according to the SOP. Nursing evaluation, from the evaluation results it was found that the problem was resolved with the family's ability to recognize hypertension problems in the elderly, the family was able to make decisions with a healthy diet that did not contain high salt for the elderly, the family was able to care for the elderly by providing progressive muscle relaxation techniques and implementing a high salt diet, the family was able to modify the environment such as non-slippery floors, providing lighting in all rooms of the house which is a fall prevention for the elderly, the family was also able to take the elderly to check their health to health facilities and to the elderly posyandu.

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