

Combined With Rose Aromatherapy And Progressive Muscle Relaxation Intervention To Maintain Stability Of Blood Pressure And Pain In Hypertensive Patients

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ABSTRACT

Background: The increase in hypertension cases is leading to an increase in premature deaths worldwide. Hypertension is a condition in which blood pressure increases due to a continuous increase in blood vessels. Globally, the prevalence of hypertension is as many as 1.13 billion people suffering from hypertension; Where 1 in 4 men and 1 in 5 women are at risk of developing hypertension. (WHO, 2023).

Purpose: To determine the impact of the administration of rose aromatherapy and Progressive Muscle Relaxation on the reduction of hypertension in the working area of the Sabbangparu Health Center.

Methods: This study uses a descriptive method in the form of a case study using a nursing process approach starting from assessment, diagnosis, planning, nursing actions, and evaluation of nursing results.

Results: That with the administration of rose aromatherapy and progressive muscle relaxation can lower blood pressure and relieve pain.

Conclusion: The intervention was given 1x/day in the afternoon at 16:30 WITA for 15 minutes which was carried out for 3 consecutive days. After 3 days of intervention, there was an improvement in blood pressure and pain reduction in hypertensive patients.

Keywords:

rose aromatherapy; progressive muscle relaxation; pain; hypertension.

BACKGROUND

Hypertension is a significant global health problem, contributing to increasing rates of premature death worldwide.(Ardiana 2022)This condition is characterized by increased blood pressure due to continuous blood vessel resistance, and is a major cause of cardiovascular disease. Globally, more than 1.13 billion people suffer from hypertension, making it a serious threat, especially in Indonesia, where the prevalence increased from 25.8% in 2013 to 34.1% in 2019.(WHO 2023)Especially in Sabbangparu, Wajo, hypertension is the most common disease, with around 357 sufferers.(Ministry of Health 2019)

The increasing incidence of hypertension is largely due to negative lifestyle changes, such as lack of physical activity, obesity, excessive consumption of fast food, and high sodium intake. These modifiable risk factors, together with non-modifiable factors such as age, genetics, race, and gender, indicate the need for effective management strategies. Despite the availability of treatments, many people with hypertension remain undiagnosed or do not comply with prescribed treatment, leading to uncontrolled blood pressure that can have serious consequences.(Mahendra et al. 2021)

Previous studies have shown that non-pharmacological interventions, such as aromatherapy and progressive muscle relaxation (PMR), can be effective alternatives in managing blood pressure in people with hypertension. For example, research conducted by(Yahya, Dareda, and Kilian 2020)found that consistent administration of rose aromatherapy for 10 minutes in the afternoon was effective in improving blood circulation as well as the physical, mental, and emotional health of hypertensive patients. In addition,(Puspitosari and Nurhidayah 2022)In their research, they showed that providing progressive muscle relaxation for 30 minutes consistently for 8 consecutive days can lower blood pressure in middle-aged adult hypertension sufferers.

OBJECTIVE

Facing the limitations of pharmacological interventions, non-pharmacological approaches such as aromatherapy and progressive muscle relaxation (PMR) offer promising alternatives. Studies have shown that rose aromatherapy and PMR can effectively lower blood pressure and promote relaxation in hypertensive patients. This study aims to assess the impact of these interventions on lowering blood pressure in hypertensive patients in Sabbangparu, with the ultimate goal of improving nursing care and health outcomes in the region.

METHODS

This study used a descriptive method in the form of a case study of 10 respondents using a nursing process approach starting from assessment, diagnosis, planning, nursing actions, and evaluation of nursing results.

RESULTS

Table 1. Systolic Blood Pressure

<i>Variable</i>	<i>frequency</i>	<i>Percent</i>
<i>Systolic Pre</i>		
140	2	20.0%
150	2	20.0%
160	2	20.0%
170	2	20.0%
180	2	20.0%
<i>Systolic Post</i>		
120	2	20.0%
130	3	30.0%
140	3	30.0%
150	2	20.0%
Total	10	100%

These data show that before the intervention, all respondents had high systolic blood pressure, with an even distribution among the various levels of hypertension and These data show that the intervention was quite effective in lowering systolic blood pressure in most respondents. Previously, blood pressure was in the hypertension category, but after the intervention, many have dropped to safer levels

Table 2. Diastolic Blood Pressure

<i>Variable</i>	<i>frequency</i>	<i>Percent</i>
<i>Diastolic Pre</i>		
90	7	70.0%
100	3	30.0%
<i>Diastolic Post</i>		
70	1	10.0%
80	7	70.0%
90	1	10.0%
100	1	10.0%
Total	10	100%

These data show that before the intervention, the majority of respondents had high diastolic blood pressure, with some even at the hypertension level and These data indicate that the intervention was effective in reducing diastolic blood pressure in most

respondents, which was reflected in a decrease in diastolic blood pressure values to a safer level.

Table 3. The Intensity of Pain

<i>Variable</i>	<i>frequency</i>	<i>Percent</i>
<i>Pain Pre</i>		
4	7	70.0%
5	3	30.0%
<i>Pain Post</i>		
2	7	70.0%
3	3	30.0%
Total	10	100%

These data provide an initial picture of the intensity of pain felt by respondents, namely moderate to severe pain and These data show significant improvement after the intervention. Most respondents experienced a decrease in pain. This shows that the intervention was effective in reducing pain.

DISCUSSION

Research shows that rose aromatherapy can improve blood circulation and provide a calming effect on the nerves, which contributes to lowering blood pressure. This is supported by research(Rahman, Fauzi, and Andayan 2022), which found that rose aromatherapy can lower systolic and diastolic blood pressure, as well as research(Feri Pradana et al. 2023), which highlights the effects of linanol in rose oil which functions as a nerve calmer and blood circulation enhancer.

Progressive muscle relaxation techniques are also effective in lowering blood pressure.(Sartika, Wardi, and Sofiani 2018)reported that this technique reduces sympathetic nerve stimulation and increases parasympathetic nerve performance, leading to decreased vascular resistance and decreased blood pressure. In addition,(Puspitosari and Nurhidayah 2022)demonstrated a difference in blood pressure reduction between deep breathing therapy and progressive muscle relaxation, supporting the effectiveness of these techniques in blood pressure management.

Study(Astuti and Nugrahwati 2018)showed that acute pain in hypertensive patients can be overcome with interventions such as rose aromatherapy and progressive muscle relaxation. The implementation of these interventions in our study showed a significant decrease in pain intensity from moderate (5) to mild (2) within three days. This decrease is in line with research(Astuti and Nugrahwati 2018), which indicates that aromatherapy can create feelings of relaxation and calmness, and with research(Rosdiana and Cahyati 2019), which shows that progressive muscle relaxation can effectively reduce pain and anxiety.

CONCLUSION

The intervention of rose aromatherapy and progressive muscle relaxation techniques was carried out once a day in the afternoon at 16:30 WITA for 15 minutes. The results of the implementation of this intervention showed significant improvements. The pain score which was initially at a moderate level (5) decreased to a mild level (2) after three days of intervention. In addition, there was a significant decrease in blood pressure, in line with the findings of previous studies showing that rose aromatherapy and progressive muscle relaxation techniques are effective in reducing blood pressure and pain. Rose aromatherapy plays a role in facilitating blood circulation and providing a calming effect, while progressive muscle relaxation techniques help reduce sympathetic nerve stimulation and increase blood vessel elasticity. These results strengthen the evidence that these two non-pharmacological therapies are effective approaches in pain management and blood pressure control in hypertensive patients.

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