

Original Research**The Effect Of Guided Imagery Based On Spiritual Care On Stress Level And Blood Pressure Of Hypertension Patients****Agustina Ekawati^{1*}, Ah Yusuf², Wesiana Heris Santy³**¹Master of Applied Nursing Program, Faculty of Nursing and Midwifery, Nahdlatul Ulama University Surabaya, Indonesia²Faculty of Nursing, Airlangga University, Surabaya, East Java, Indonesia³Nursing Professional Education Study Program, Faculty of Nursing and Midwifery Nahdlatul Ulama University Surabaya, Indonesia**ABSTRACT**

Background: Stress and increased blood pressure experienced by a person are factors that cause hypertension. Hypertension that is not realized and not treated immediately can cause various complications that can end in death.

Methods: The sample size is 34 respondents, and the sampling technique is purposive sampling. The intervention group was given Guided Imagery-Based On Spiritual Care for 15-20 minutes, and the control group was given standard intervention (usual care) for one week. The variables studied were stress levels and blood pressure. The analysis used the Wilcoxon Signed Rank Test for pre and post-treatment as well as the Mann-Whitney test to determine the difference between the intervention group and the control group, with a significant value of <0.05.

Results The results of the analysis of systolic blood pressure using the Wilcoxon Signed Rank Test showed a p-value of 0.001 in the intervention group and a p-value of 0.564 in the control group. The results of the analysis of Diastolic Blood Pressure using the Wilcoxon Signed Rank Test were a p-value of 0.003 in the intervention group and a p-value of 0.046 in the control group. The results of the analysis using Mann-Whitney obtained a p-value of 0.000 stress, a Systolic Blood Pressure p-value of 0.000, and a Diastolic Blood Pressure p-value of 0.000 between the intervention group and the control group.

Conclusion Guided Imagery-Based Spiritual Care is effective in reducing stress levels and blood pressure of hypertensive patients. This technique is easy to do, so it can be applied as a nursing intervention in inpatient rooms for the development of nursing science in hospitals.

ARTICLE HISTORYReceived: July 21th, 2022Accepted: October 13th, 2022**KEYWORDS**

blood pressure, guided imagery, hypertension, stress, spiritual;

CONTACT

Agustina Ekawati

tina.rsjjs@gmail.com

Master of Applied Nursing Program, Faculty of Nursing and Midwifery, Nahdlatul Ulama University Surabaya, Indonesia. Jl. Raya Jemursari No.57, Jemur Wonosari, Kec. Wonocolo, Kota Surabaya, Jawa Timur, Indonesia 60237.

Cite this as: Ekawati, A., Yusuf, A., & Santy, W. H. (2022). The Effect Of Guided Imagery Based On Spiritual Care On Stress Level And Blood Pressure Of Hypertension Patients. *Interest : Jurnal Ilmu Kesehatan*, 76-88. <https://doi.org/10.37341/interest.v0i0.470>

INTRODUCTION

Hypertension is a group of non-communicable diseases that can trigger health problems if not taken seriously. Hypertension occurs due to an increase in blood

pressure values above normal. This increase is in the form of systolic and diastolic values which are at least 140/90 mmHg.

Severe stress is one of the causes of hypertension, both in the elderly, young adults, and people of middle age. Stress and increased blood pressure experienced by a person are factors that cause hypertension. Hypertension that is not realized and not treated immediately can cause various complications that can end in death (Sholikhah *et al.*, 2021). Thus, there is a need for non-pharmacological therapy to reduce stress and blood pressure in patients with hypertension so that it does not become a cause of death.

Data from the World Health Organization 2020 shows that around 26.4% of the world's population has hypertension, with a ratio of 26.6% of men and 26.1% of women. The prevalence of hypertension will increase sharply. It is predicted that by 2025, as many as 29% of adults worldwide will be affected by hypertension.

Hypertension has resulted in the deaths of about eight million people every year. About 1.5 million of those deaths occur in Southeast Asia, whose population suffers from hypertension. It can cause an increase in the burden of health care costs. In addition, hypertension is more common at the ages of 35–44 years (6.3%), age 45–54 years (11.9%), and age 55–64 years (17.2%). Approximately 60% of people with hypertension are in developing countries, including Indonesia.

Indonesia is one of the countries with a very high rate of patients with degenerative diseases. One of the diseases in question is hypertension (Kemenkes RI, 2019). From the 2021 medical record data from the 10 largest specialties at the Jemursari Islamic Hospital in Surabaya, hypertension ranks 2nd, with details in January-March 2021 of 103 cases, April-June 2021 as many as 126 cases, July-September 2021 as many as 111, and October-December 2021 as many as 137 cases.

Hypertension that occurs in the long term and continuously can trigger strokes, heart attacks, and heart failure, and is even the main cause of chronic kidney failure. Patients with hypertension who experience stress will experience an increase in sympathetic nerve activity, which can then increase blood pressure gradually (Tyas & Zulfikar, 2021). This is supported by research (Tyas & Zulfikar, 2021) which states that there is a significant relationship between stress levels and blood pressure levels, which means that the heavier a person's stress condition, the higher their blood pressure.

Stress can occur when the condition of the body is disturbed due to psychological pressure, and stress can trigger hormones in the body that control the mind of a person experiencing stress so that it can increase blood pressure. The condition of the body experiencing stress makes the body produce more adrenaline, thereby increasing the workload of the heart. Stress will remain high and the person will experience hypertension if stress occurs continuously (Susanti *et al.*, 2022; Suwardianto, 2021).

Increased stress will affect coping patterns, both effective and ineffective. Coping is a person's way of finding solutions, getting solutions to problems, adapting to change, and reacting to situations that pose a (Jubaedah & Pratiwi, 2021). Effective coping can result in adaptation and new knowledge. When coping is not effective, there is an increase in stress on physical, psychological, and social functions, which results in physical illness and psychosocial disorders, including physical illness caused by stress (psychosomatic). There is an increase in high blood pressure, also called hypertension (Trihandini *et al.*, 2018).

Hypertension requires good cooperation between the medical team, patients, families, and the environment. Education of patients and families about the disease and complications will help improve treatment outcomes and is expected to improve the

quality of life of patients. There are two groups of risk factors for hypertension, namely those that cannot be modified, including genetic factors, age, gender, and ethnicity, and those that can be modified, including stress, obesity, and nutrition. Stress that cannot be reduced or managed properly will cause a risk, one of which is physical problems. In a healthy individual, stress can be managed well.

This can be seen by his ability to describe the sources of stress and ways to avoid stress, such as: learning what stress is, recognizing stress symptoms that occur within oneself, changing behavior patterns, and utilizing a series of activities. Techniques for relaxation and stress management are quick and simple. Stress management strategies in hypertension sufferers can be done by giving pharmacological therapy or drugs or non-pharmacological interventions.

Based on *evidence-based practice* (EBP), there are many things we can do to reduce stress in people with hypertension, including distraction relaxation, mindfulness, deep breath relaxation, progressive muscle relaxation, music therapy, *guided imagery*, spiritual relaxation, and so on. *Duguid imagery* is a technique that uses an individual's imagination with directed imagination to reduce stress (Potter *et al.*, 2014). *Guided imagery* is a behavioral intervention to overcome anxiety, stress, and pain and can reduce blood pressure (Smeltzer & Bare, 2014).

Research Muryati, (2015) states that there is a significant effect of *guided imagery* on reducing stress levels in coronary heart patients in hospitals. This is supported by research Lefu, (2018) which states that *guided imagery* can reduce the stress scale. In addition to reducing stress, *guided imagery* can also lower blood pressure. This is evidenced by Alifianingrum, (2020) who stated that *guided imagery* affected the reduction of blood pressure in hypertensive patients at Sultan Agung Hospital. Research is also supported A'yunin *et al.*, (2022); Wulandari *et al.*, (2021) that therapy-guided *imagery* can reduce blood pressure in the elderly with hypertension *relaxation*.

As a form of effort in increasing the effectiveness of providing *guided imagery* using a spiritual approach, the spiritual is multidimensional, including existential and religious dimensions. The existential dimension focuses on the purpose and meaning of life, while the religious dimension focuses more on the individual's relationship with God Almighty (Yusuf *et al.*, 2016). The results of the study Fatmasari *et al.*, (2019) stated that spiritual relaxation can reduce stress levels in hypertensive patients.

It is also supported by research Fatmasari *et al.*, (2019) which states that spirituality therapy has a significant effect on reducing systolic and diastolic blood pressure and pulse rate in hypertensive patients. It is also supported by the results of research Kirnawati *et al.*, (2021), which states that the higher the spiritual level, the more stable the blood pressure control will be. Based on the description above, researchers are interested in conducting research on combining or combining *guided imagery* with spiritual *care* to reduce stress levels and blood pressure in hypertensive patients. The study aimed to determine the effect of guided imagery-based spiritual care on the level of stress and blood pressure in hypertension patients.

MATERIALS AND METHOD

This research is a quantitative research that uses a quasi-experimental research design with a pretest-posttest control group design approach to find a cause-and-effect relationship between the independent variable and the dependent variable within a certain period. The population in this study was all patients with a diagnosis of hypertension at the Jemursari Islamic Hospital in Surabaya, based on data from October

to December 2021 of 137 patients. The inclusion criteria in this study were cooperative patients, willing to volunteer, patients with uncomplicated hypertension, patients with GCS: 456, and having moderate to high-stress levels as measured by the DASS sub-stress. I have never done *Guided Imagery* Based on *Spiritual Care*, which is known through a questionnaire using closed questions.

Exclusion Criteria The exclusion criteria in this study are hypertensive patients with complications Patients with awareness below GCS: 456, and the required sample size is 34 respondents. The measuring instrument used in this research is a stress assessment questionnaire using the DASS 42 questionnaire by Lovibond & Lovibond, (1995). To find out the level of stress, the instrument used was a questionnaire that contained 14 specific items for measuring stress levels.

Measurement with this questionnaire, researchers collect data formally from the subject to answer questions in writing. The purpose of the research is to conduct an analysis of *pretest-posttest stress* and blood pressure using the independent t-test followed by a normality test with a significance level of 5%. This means that if the p-value < 0.05 with a significance level of 5%, it means that if the p-value < 0.05, it means that there is an influence of imagery on *Spiritual Care* Guided Stress Levels and Blood Pressure of Hypertensive Patients.

This research has passed the ethical review conducted by the Research Ethics Committee (KEPK) at Jemursari Islamic Hospital Surabaya No. 454/UNUSA-FKK/Akd.E-1/IV/2021.

RESULTS

Analysis results based on the Table show that the Systolic Blood Pressure before being given *Guided Imagery*. Based on *Spiritual Care* in the intervention group almost half had Stage 1 Hypertension, namely 47.1% and after being given the intervention it was found that almost all of them decreased to Pre Hypertension, namely 76.5%. While the control group for Systolic Blood Pressure before being given treatment according to hospital standards, it was found that most had stage 1 hypertension, namely 58.8%, and after being given treatment according to standards, most had stage 1 hypertension, namely 59.2%.

Diastolic Blood Pressure before being given *Guided Imagery* *Spiritual Care* in the intervention group, almost half had stage 1 hypertension, namely 35.3%, and after being given the intervention, it was found that most of them decreased to normal, namely 58.8%. While the Diastolic Blood Pressure control group before being given treatment according to hospital standards, it was found that most of them had stage 1 hypertension, namely 52.9%, and after being given treatment according to standards, almost half had stage 1 hypertension, which was 41.2%. Analysis The Wilcoxon *Signed Ranks Test* related to Systolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital Surabaya obtained a *value* of 0.001 in the intervention group and 0.564 in the control group.

Analysis The *Wilcoxon Signed Ranks Test* related to Diastolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital, Surabaya, obtained 0.003 in the intervention group and 0.046 in the control group, which means that there is an effect based on *Guided Imagery* on *Spiritual Care* on the reduction of Systolic and Diastolic Blood Pressure in hypertensive patients at Jemursari Islamic Hospital, Surabaya.

Table 1. Data analysis of Blood Pressure before and after giving *Guided Imagery* based on Spiritual Care in the intervention group and the control group

	<i>Pre</i>		<i>Post</i>	
	Frequency (f)	%	Frequency (f)	%
Intervention (Systole)				
Normal	-	-	3	17.6
Pre Hypertension	4	23.5	13	76.5
Hypertension Stage 1	8	47.1	1	5.9
Hypertension Stage 2	5	29.4	-	-
Total	17	100	17	100
Control (Systole)				
Normal	1	5.9	1	5.9
Pre Hypertension	6	35.3	7	41.2
Hypertension Stage 1	10	58.8	9	59.2
Hypertension Stage 2	-	-	-	-
Total	17	100	17	100
Intervention (Diastole)				
Normal	2	11.8	10	58.8
Pre Hypertension	6	35.3	5	29.4
Hypertension Stage 1	6	35.3	2	11.8
Hypertension Stage 2	3	17.6	-	-
Total	17	100	17	100
Control (Diastole)				
Normal	3	17.6	1	5.9
Pre Hypertension	5	29.4	7	41.2
Hypertension Stage 1	9	52.9	7	41.2
Hypertension Stage 2	-	-	2	11.8
Total	17	100	17	100

Based on the analysis results Analysis The Wilcoxon *Signed Ranks Test* related to Systolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital Surabaya obtained a *value* of 0.001 in the intervention group and 0.564 in the control group. Analysis The Wilcoxon *Signed Ranks Test* related to Diastolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital Surabaya obtained 0.003 in the intervention group and 0.046 in the control group.

Table 2. Analysis of differences in stress levels and blood pressure between the intervention group and the control group

Variables	Group	N	Mean Rank	p-value
Stress	Intervention	17	24.29	.000
	Control	17	10.71	
Systolic Blood Pressure	Intervention	17	25.06	.000
	Control	17	9.94	
Diastolic Blood Pressure	Intervention	17	24.82	.000
	Control	17	10.18	

Based on Table 5.5, the results of the analysis using the *Mann-Whitney* obtained a *p-value* of 0.000 for Stress, a *p-value* of 0.000 for Systolic Blood Pressure, and a *p-value* of 0.000 for Diastolic Blood Pressure between the intervention group and the control group, which means that there is a difference in Stress and Blood Pressure Levels (Systolic and Diastole) between the intervention group and the control group in hypertensive patients before and after being given *Guided Imagery* based on *Spiritual Care*.

DISCUSSION

The results of research conducted at Jemuarsari Islamic Hospital Surabaya showed that the level of stress in hypertension patients based on the table showed that the stress level before being given *Guided Imagery*. Based on *Spiritual Care* in the intervention group was the most severe, and after being given the intervention, there was a decrease in stress levels. to be normal. While the control group before and after being given treatment according to hospital standards had the highest level of severe stress and increased.

This fact is shown based on the results of the research conducted in table 5.3, which proves that there is a significant reduction in stress levels after being given *Guided Imagery* a *Spiritual Care* with a *p-value* of = 0.000. This is supported by research Muryati, (2015) which states that the *Guided Imagery* effect on reducing stress levels in patients with *coronary artery disease* who experience stress in the hospital. This is supported by the results of research by Zaki et al., (2018), which states that there is a significant effect of guided imagery in reducing stress levels of the elderly in orphanages.

Research is also strengthened Christian et al., (2020), which states that guided imagery is effective in reducing stress scale and improving the quality of life in infertile women. Hypertension patients experience physiological and psychological problems. So, after being given the *Guided Imagery* *Spiritual Care*, the patient experienced a decrease in stress level because, with the intervention, the hypertension patient slowly accepted all forms of conditions suffered by being enthusiastic and surrendering to Allah SWT/God Almighty.

Research by Yunitasari et al., (2020) states that spiritual care with mutual can reduce stress, anxiety, and depression levels in cancer patients. And Rismawan et al., (2022) in their research stated that spiritual therapy is an effective complementary therapy proven to be able to overcome stress in drug users. Spirituality is one way to minimize stress that acts as a positive psychological factor (free from stress and anxiety) through the functional limbic system, which can lead to positive coping mechanisms (Wisnusakti, 2018).

Spirituality can significantly assist patients in adapting to changes caused by hypertension. Spiritual intervention is believed to reduce stress optimally because it can be carried out independently, anytime and anywhere, and is inexpensive and non-toxic (Yusuf *et al.*, 2020). The relationship between man and the Creator is the first element of spirituality. Getting closer to God is an effective coping strategy used by patients to cope with the stress of hypertension patients.

Stress affects many aspects of human life, especially in hypertension patients who are hospitalized. In the cognitive aspect, stress causes disturbances in cognitive function by decreasing or increasing attention to something. In the emotional aspect, stress can cause fear, which is a common reaction when individuals feel threatened, creates

feelings of sadness or depression, and triggers anger, especially when individuals experience situations that are dangerous or frustrating (Sumarsih *et al.*, 2019).

Stress is a phenomenon that affects all dimensions of a person's life, whether physical, emotional, intellectual, social, or spiritual (Yunitasari *et al.*, 2020). People who experience stress will experience muscle tension, decreased endurance, nervousness, difficulty sleeping, nausea, and so on. This will indirectly affect a person's life satisfaction, which will also have an impact on that person's quality of life (Khasanah, 2021).

Stress in patients with hypertension arises due to sudden changes in individual activities that cause physical and emotional changes. There are 3 causes of stress in patients with hypertension, namely organizational causes, individual causes, and environmental causes. The organizational cause in question is the pressure or burden of the demands of a job or task that cannot be completed, so it can cause stress. The individual in question has a personal life, such as family, economic, and environmental problems in question, namely the existence of racial differences and lifestyles in an environment that does not suit us (Musslifah, 2022) (Saragih, 2021).

Stress in hypertension patients stimulates the release of adrenaline hormones that increase the work of the cardiovascular system, such as increased heart rate, constriction of blood vessels, and increased breathing. If this situation occurs continuously, humans can experience an increase in blood pressure and can suffer from high blood pressure. They need to be aware of the negative impacts and complications that may arise, including stroke, heart disorders, and kidney disorders such as kidney failure.

Stress raises the heart rate faster, causing blood pressure to rise. Stress at a high level (severe) is a risk factor for hypertension or an increase in blood pressure. Prolonged stress is closely related to cardiovascular disease, especially hypertension (Saragih, 2021). Stress at a high level (severe) is a risk factor for increasing blood pressure or hypertension (Kozier, 2011).

Stress that occurs in hypertension patients can be overcome with one of the non-pharmacological therapies, namely *Guided Imagery* based on *Spiritual Care*. Which is a technique used to imagine oneself as the main subject where the mind gets or receives positive affirmations and the body is relaxed while reciting the sentences in the heart. Motivation, gratitude, and submission to God Almighty (Allah SWT), as well as making attention-focusing strategies to deal with cognitive problems and reactivate the power of the mind to reduce emotional distress, which is carried out within 10-15 minutes 2-5 days a week in hypertensive patients.

As a result of the balance between mind, body, and soul. *Guided Imagery Spiritual Care* that is carried out can increase the response of endorphin hormones that can affect the mood of hypertensive patients so that they can reduce stress levels. The researcher argues that the *guided imagery* of spiritual care, which is carried out repeatedly, will slowly stop the feelings or thoughts that make the patient feel stressed.

The factors that influence the stress of hypertension sufferers include age, education, and occupation because these factors will also affect the success of *Guided Imagery Spiritual Care*. In addition, one's life experience will affect one's mindset, which will also affect the level of stress on the frame and atmosphere experienced by the patient. Therefore, by giving *guided imagery* based on spiritual care, it can solve the problem of stress in hypertensive patients.

The results of research conducted at Jemursari Islamic Hospital Surabaya based on Table 5.4 and Figure 5.2 show that the Systolic Blood Pressure before being given

Guided Imagery based on *Spiritual Care* in the intervention group almost half had Stage 1 Hypertension, namely 47.1% and after given the intervention it was found that almost all of them decreased to Pre Hypertension, namely 76.5%. While the control group for systolic blood pressure before being given treatment according to hospital standards, it was found that most had stage 1 hypertension, namely 58.8%, and after being given treatment according to standards, most had stage 1 hypertension, namely 59.2%. Diastolic Blood Pressure before being given *Guided Imagery Spiritual Care* in the intervention group almost half had stage 1 hypertension, namely 35.3%, and after being given the intervention, it was found that most of them decreased to normal, namely 58.8%.

While the diastolic blood pressure control group before being given treatment according to hospital standards, it was found that most of them had stage 1 hypertension, namely 52.9%, and after being given treatment according to standards, almost half had stage 1 hypertension, which was 41.2%. Analysis The Wilcoxon *Signed Ranks Test* related to Systolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital Surabaya obtained a *value* of 0.001 in the intervention group and 0.564 in the control group. Analysis of the *Wilcoxon Signed Ranks Test* related to Diastolic Blood Pressure of Hypertensive Patients at Jemursari Islamic Hospital, Surabaya, obtained 0.003 in the intervention group and 0.046 in the control group, which means that there is an effect based on *Guided Imagery on Spiritual Care* on the reduction of Systolic and Diastolic Blood Pressure in hypertensive patients at Jemursari Islamic Hospital, Surabaya.

The results of the research above are in line with research Setyan et al., (2019) that shows relaxation therapy *guided* affects blood pressure reduction in the elderly with hypertension. Supported by research Alifianingrum, (2020) states that there is an effect of *guided imagery* in reducing blood pressure in hypertension patients at Sultan Agung Islamic Hospital, Semarang. It is also supported by research Wulandari et al., (2021) that relaxation therapy *with guided imagery* can reduce blood pressure in elderly people with hypertension.

It is also supported by research Muslim & Arofiati, (2019) which states that spirituality therapy has a significant effect on reducing systolic and diastolic blood pressure and pulse rate in hypertensive patients. It is also supported by the results of research Kirnawati et al., (2021), which states that the higher the spiritual level, the more stable the blood pressure control will be. Some of the studies above show that the management of high blood pressure with non-pharmacological therapeutic approaches includes weight loss, restriction of alcohol, sodium, and tobacco, exercise, and relaxation, which are mandatory interventions that must be carried out in every therapy given to patients with high blood pressure (Smeltzer & Bare, 2014).

Blood pressure is the force exerted by the walls of the arteries by pumping blood from the heart. Blood flows due to changes in pressure, where there is a movement from areas of high pressure to areas of low pressure. The physiology of blood pressure starts with the heart pushing blood through the arteries. The blood exerts pressure on the artery walls (Mahyubi & Nursalam, 2020).

Blood pressure is determined by two main factors, namely cardiac output and peripheral resistance (Wulandari et al., 2021). Cardiac output is the combination of heart rate and the amount of blood pumped out of the heart with each contraction (stroke volume). Peripheral resistance is the resistance of blood vessels to blood flow. Peripheral resistance affects blood pressure and the work required by the heart to pump

blood. When resistance increases, the heart has to pump harder to push blood into the veins.

Peripheral resistance can be reduced when the blood vessel walls are stretched (distension). When peripheral resistance is low, the heart does not have to pump as hard, and blood pressure decreases. However, the walls of blood vessels must have a certain level of elasticity for blood to circulate.

The amount of blood in the circulatory system also affects blood pressure. When the total amount of circulating blood decreases, the amount of blood available to be pumped by the heart with each contraction decreases, and blood pressure also decreases. On the other hand, if the circulating volume is too high, the stroke volume increases, and the blood pressure increases (Susanti et al., 2022).

Guided Imagery based on *Spiritual Care* is a technique used to imagine oneself as the main subject where the mind gets or receives positive affirmations and the body is relaxed while reciting motivational sentences, gratitude, and submission to God Almighty (Allah SWT). In hypertensive patients, focusing attention to deal with cognitive problems and reactivate the power of the mind to reduce emotional distress is done in 10-15 minutes, twice a day, five days a week. *Guided Imagery Spiritual Care* uses mind awareness to create mental images to stimulate physical changes in the body, improve well-being, and/or increase self-awareness.

Guided Imagery Spiritual Care is self-directed when the individual creates a mental picture of himself or herself or is guided as long as a practitioner leads the individual through a particular scenario. *Guided imagery* and spiritual care will produce endorphins. Endorphins are neurohormones associated with pleasurable sensations (Antara et al., 2022).

These endorphins tend to have a relaxing effect, which helps relieve nervous tension from experiencing excessive and strong pressure. *Guided Imagery* based on *Spiritual Care* makes relaxation and positive imagination decrease sympathetic activity so that it relaxes blood vessels and smooth muscles and causes a decrease in blood pressure. When someone relaxes and has a positive image, it will stimulate the brain to release serotonin and endorphins (Susanti et al., 2022).

The serotonin hormone has an effect on increasing baroreceptor reflexes and endorphins have an effect on mood. A baroreceptor reflex is one of the nervous system controllers for blood pressure that is specifically located on the walls of several large systemic arteries. The results of research conducted at Jemursari Islamic Hospital Surabaya Ahmad Yani on Hypertension based on Table the results of the analysis using the Mann-Whitney test obtained a p-value of 0.000 for Stress and a p-value of 0.000 for Systolic Blood Pressure and a p-value of 0.000 for Blood Pressure Diastole between the intervention group and the control group, which means that there is a difference in the level of stress and blood pressure (systolic and diastole) between the intervention group and the control group in hypertension patients.

The results of the hypothesis testing state that *Spiritual Care-based Guided Imagery* can reduce stress levels and blood pressure in hypertension patients compared to interventions that are usually given by nurses daily, so it is necessary to add methods to provide nursing interventions based on evidence-based practice in hypertension patients before and after treatment. After being given guided imagery based on spiritual care. *Spiritual Care-based Guided Imagery* can be useful in providing a feeling of calm and comfort and can reduce muscle tension throughout the body so that cardiopulmonary stretching occurs, which can increase baroreceptors so that it

stimulates the parasympathetic nerves, which can reduce tension, anxiety, and control the heart rate function, which makes the body relax (Nuwa & Kiik, 2020).

Hypertension patients will also benefit from guided imagery based on spiritual care. This will affect the mind, relaxation response, comfort, and tranquility. In a safe and calm atmosphere, a person will experience the opposite anxiety and stress responses so that feelings of discomfort, tension, blood pressure, oxygen use, and so on will decrease (Kulthe & Bhattacharya, 2020).

Referred to as a relaxation response, which, of course, can be obtained by them by way of guided imagery based on spiritual care. Patients with physiological disorders of high blood pressure horizontally will also cause psychological disorders, one of which is stress due to illness and the process of care and treatment as well as hospitalization during hospitalization (Naryati & Sartika, 2021). Therefore, guided imagery based on spiritual care can stimulate the reward center so that it creates a feeling of calm.

As an ejector of a sense of relaxation (relaxed) and feelings of calm that arise, the midbrain will release gamma amino butyric acid (GABA), enkephalin, and beta-endorphins so that it can reduce stress, both physical and emotional stress, namely lowering stress levels and blood pressure so that the quality of life for hypertension patients increases with minimal complaint level. This is in line with research Gurvinder et al., (2015) which states that guided imagery can reduce stress levels and high blood pressure in the elderly.

CONCLUSION

It can be concluded that Spiritual Care-Based Guided Imagery significantly reduces the stress level of hypertensive patients. Spiritual Care-Based Guided Imagery significantly reduces the blood pressure of hypertensive patients. There is a significant difference in the level of stress and blood pressure of hypertension patients between the intervention group and the control group.

The hospital can provide a policy regarding the influence of Spiritual Care-Based Guided Imagery in reducing the level of stress and blood pressure of hypertensive patients so that the quality of service increases. Nurses in the treatment room can apply the results of this study to provide nursing interventions to fulfill the psychological and physiological needs of hypertension patients. This research is expected to provide additional multidisciplinary nursing knowledge regarding the non-pharmacological handling of psychological and physiological problems of hypertension patients.

Further, researchers can examine different variables such as hemodynamic status with a different number of samples and more respondents. Furthermore, researchers must be able to ensure and guarantee the safety of respondents against side effects that may arise.

REFERENCES

A'yunin, Q., Noerjoedianto, D., & Lesmana, O. (2022). Knowledge, Attitudes, Age, Education Level Factors to Waste Management. *Journal of Applied Nursing and Health*, 4(1 SE-Articles), 9–15. <https://doi.org/10.55018/janh.v4i1.27>

Alifianingrum, K. (2020). *Pengaruh Terapi Guided Imagery Terhadap Tekanan Darah Pada Pasien Hipertensi Di Rsi Sultan Agung Semarang*. Universitas Sultan Agung Semarang.

- Antara, I. G. N. P. J., Yanti, N. P. E. D., & Susiladewi, I. A. M. V. (2022). Reducing Nurse Stress at Covid-19 Isolation Room Through Guided Imagery Training. *Jurnal Keperawatan*, *14*, 247–254.
- Christian, P., Patel, S., & Tiwari, A. (2020). Effectiveness Of Guided Imagery Therapy On Stress And Quality Of Life Among Infertile Women. *Indian Journal Of Applied Research*, 6–8. <https://doi.org/10.18203/2320-1770.ijrcog20160846>.
- Fatmasari, D., Widyana, R., & Budiyan, K. (2019). Spiritual Emotional Freedom Technique (SEFT) untuk Menurunkan Stres pada Pasien Hipertensi. *Jurnal Psikologi*, *15*(1), 10–19.
- Gurvinder, K., Poonam, S., & Adiba, S. (2015). Effectiveness of Guided Imagery Technique on Blood Pressure and Stress Level among Elderly People. *International Journal of Science and Research (IJSR)*, *4*(7), 2281–2284.
- Jubaedah, & Pratiwi, A. (2021). Kemampuan Koping Dengan Tingkat Kecemasan Klien Hipertensi. *Adi Husada Nursing Journal*, *7*(2), 99–106.
- Kemendes RI. (2019). *Hasil Utama Riset Kesehatan Dasar Tahun 2018*. Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan.
- Khasanah, T. A. (2021). Relationship Between Stress Level and Sodium Intake with Blood Pressure in Hypertensive Patients. *Jurnal Pangan Kesehatan Dan Gizi*, *2*(November), 72–81.
- Kirawati, A., Susumaningrum, L. A., Rasni, H., & Susanto, T. (2021). Hubungan Tingkat Spiritual dan Religiusitas dengan Tekanan Darah pada Lansia Hipertensi. *JKEP*, *6*(1), 26–39.
- Kozier, B. (2011). *Buku Ajar Fundamental Keperawatan : Konsep, Proses, & Praktik Volume 2*. EGC.
- Kulthe, V. R., & Bhattacharya, C. (2020). Effectiveness of Guided Imagery (GI) in Reduction of Stress among Patients with Chronic Renal Failure (CRF) Undergoing Haemodialysis in Selected Hospital. *International Journal of Health Sciences and Research*, *10*(May).
- Lefu, A. R. L. (2018). *Pengaruh pemberian terapi guided imagery terhadap penurunan tingkat stres pada mahasiswa akhir dalam menyusun skripsi di Program Studi Teknik Sipil Universitas Tribhuwana Tungadewi Malang*. Universitas Tribhuwana Tungadewi.
- Mahyuni, T., & Nursalam. (2020). The Effect Of Social Cognitive Theory-Based Psycho- Education Towards Depression And Blood Pressure Of Ischemic Stroke Patients. *Journal for Quality in Public Health*, *4*(1), 202–207. <https://doi.org/10.30994/jqph.v4i1.140>

- Muryati. (2015). The Effect Of Guided Imagery Towards Reduction Of Stress Level In The Coronary Heart Patient. *Healthy Journal*, III(1).
- Muslim, A., & Arofiati, F. (2019). Efektifitas Kombinasi Latihan Pernafasan Dalam Dan Terapi Spiritual Terhadap Perubahan Parameter Kardiovaskuler Pada Pasien Hipertensi Di Desa Darungan Kabupaten Kediri. *Nursing of Journal STIKES Insan Cendekia Medika Jombang*, 17(1), 30–39.
- Musslifah, A. R. (2022). Optimization Of Islamic Counseling And Understanding Of Well Being in Reducing Anxiety and Stress In Face-To-Face Learning After The Covid-19 Pandemic. *Journal of Applied Nursing and Health*, 4(1 SE-Articles), 103–109. <https://doi.org/10.55018/janh.v4i1.60>
- Naryati, & Sartika, J. (2021). Faktor-Faktor Yang Berhubungan Dengan Pengendalian Tekanan Darah Pada Penderita Hipertensi Di Rw 01 Kelurahan Pulau Panggang Kecamatan Kepulauan Seribu Utara. *MANUJU: Malahayati Nursing Journal*, 3.
- Nuwa, M. S., & Kiik, S. M. (2020). Pengaruh Spiritual Guided Imagery and Music terhadap Kecemasan Pasien Kanker yang Menjalani Kemoterap. *Jurnal Ners Dan Kebidanan (JNK)* <Http://Jnk.Phb.Ac.Id/Index.Php/Jnk>, 95–106. <https://doi.org/10.26699/v7i1.ART.p095>
- Potter, P. A., Perry, A. G., Stockert, P., & Hall, A. (2014). *Fundamental Keperawatan Edisi 7*.
- Rismawan, W., Irmayanti, E., & Aprianti, R. (2022). Spiritual terhadap Stress pada Pengguna Narkoba. *Syntax Literate: Jurnal Ilmiah Indonesia*, 7(4).
- Saragih, P. P. (2021). *Literature Review : Hubungan Stres Dengan Kejadian Hipertensi*. Politeknik Kesehatan KEMENKES Medan.
- Setyan, H. I., Arifianto, & Rohana, N. (2019). The Effect Of Guided Imagery Relaxation Therapy On Reducing Blood Pressure In The Patient With Hypertension. *Jurnal Ners Widya Husada*, 6(2), 49–56.
- Sholikhah, N. P. N., Laksmi, A. T., & Supratman. (2021). Gambaran Tingkat Stres dan Kecemasan Penderita Hipertensi. *Prosiding Seminar Nasional Keperawatan Universitas Muhammadiyah Surakarta 2021*, 69–75.
- Smeltzer, S. C., & Bare, B. G. (2014). *Keperawatan Medikal Bedah Brunner and Suddarth's*. EGC.
- Sumarsih, T., Wahyuningsih, T., & Sawiji. (2019). Pengaruh Relaksasi Spiritual terhadap Perubahan Tingkat Ansietas dan Stres Pasien Tuberkulosis Paru di RS PKU Muhammadiyah Sruweng. *Sekolah Tinggi Ilmu Kesehatan Muhammadiyah Gombong*, 645–653.
- Susanti, N. K. M., Ayubbana, S., & HS, S. A. S. (2022). Application Of Guided

Imagery Relaxation Therapy On Blood Pressure Of Hypertension Patients. *Jurnal Cendikia Muda*, 2.

Suwardianto, H. (2021). Critical Nursing Care With Nursing Problems, Impaired Gas Exchange and Inhibition of Spontaneous Ventilation in Patient with Coronary Heart Disease: A Case Study. *STRADA Jurnal Ilmiah Kesehatan*, 10(1), 632–638. <https://doi.org/https://doi.org/10.30994/sjik.v10i1.679>

Trihandini, B., Fatmasari, D., Hartati YK, L. E., & Sudirman, S. (2018). Effect of Spiritual Nursing Care on the Level of Anxiety in Patients With Stroke. *Belitung Nursing Journal*, 4(1), 98–103. <https://doi.org/10.33546/bnj.346>

Tyas, S. A. C., & Zulfikar, M. (2021). Hubungan Tingkat Stres Dengan Tingkat Tekanan Darah Pada Lansia. *Jurnal Penelitian Keperawatan Kontemporer*, 75–82.

Wisnusakti, K. (2018). The Relationship Between Levels Of Spiritual Welfare and Anxiety in Elderly. *Jurnal Pendidikan Keperawatan Indonesia*, 4(2), 91–96. <https://doi.org/10.17509/jpki.v4i2.13638>

Wulandari, F., Majid, Y. A., & Zairinayati. (2021). Pengaruh Terapi Relaksasi Guided Imagery Terhadap Tekanan Darah Pada Lansia Penderita Hipertensi. *Jurnal Masker Medika*, 9, 542–550.

Yunitasari, E., Sutrisno, I. T., & Santoso, B. (2020). The effects of spiritual caring with murottal on stress anxiety, and depression among cervical cancer patients undergoing chemotherapy. *EurAsian Journal of BioSciences*, 14(June), 1663–1668.

Yusuf, A., Iswari, M. F., Sriyono, S., & Yunitasari, E. (2020). The effect of combination of spiritual deep breathing exercise therapy on pain and anxiety in postoperative nonpatological orthopedic fracture patients. *EurAsian Journal of BioSciences*, 14(1), 1625–1631.

Yusuf, A., Nihayati, H. E., Iswari, M. F., & Okviasanti, F. (2016). *Kebutuhan Spiritual Konsep Dan Aplikasi Dalam Asuhan Keperawatan*. Mitra Wacana Media.

Zaki, M. M., Ahmed, F. M., & Sayed, F. S. (2018). Effect of Guided Imagery in Reduction of Stress among Elderly People in Geriatric Homes. *American Journal of Nursing Research*, 6(6), 380–387. <https://doi.org/10.12691/ajnr-6-6-5>