

The Effect of Mindfulness and Spiritual Combination Breathing Exercises towards Anxiety, Depression and Blood Pressure of Ischemic Stroke Patients

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ABSTRACT

Background: Ischemic stroke causes serious ongoing problems in the lives of sufferers, including biological, psychological and spiritual changes so that comprehensive and multidisciplinary nursing care is necessary.

Purpose: The purpose of this research is to analyze the effect of Mindfulness and Spiritual Combination Breathing Exercises towards anxiety, depression and blood pressure of ischemic stroke patients.

Methods: This research is a quantitative research that uses a quasy experimental research design with a pretest - posttest control group design approach. The population of all ischemic stroke patients at RSAU dr. M.Munir Lanud Abdulrachman Saleh Malang as many as 108 people. The sample size is 50 respondents. The sampling technique is purposive sampling. The intervention group was given a combination of Mindfulness and Spirituality Breathing Exercises within 10-15 minutes 2 times a day for 5 days and the control group was given intervention according to hospital standards. Analysis used the Manova test with a significant p value <0.05.

Results: The results of the study using the Manova test showed that there was a significant effect between anxiety, depression and blood pressure after giving the Combination of Spiritual Mindfulness and Breathing Exercise showed that p value = 0.000, with the highest partial Eta Squared value of 0.643 anxiety followed by 0.579 depression and 0.263 blood pressure.

Conclusion: A combination of Spiritual Mindfulness and Breathing Exercises effectively reduce the level of anxiety, depression and blood pressure of ischemic stroke patients.

Keywords: anxiety, breathing exercises, depression and blood pressure, ischemic stroke, spiritual mindfulness

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BACKGROUND

Ischemic stroke occurs as a result of obstruction or blockage in the blood vessels of the brain by the presence of atherosclerotic plaques, blood clots or a combination of the two which causes obstruction or disruption of blood flow to certain areas of the cerebral blood vessels so that one has an impact on frontal lobe damage (Prayoga & Rashid, 2022). Ischemic stroke causes serious ongoing problems in the lives of sufferers, including biological, psychological and spiritual changes, so it is necessary to carry out comprehensive and multidisciplinary nursing care.(Lavu et al., 2022). In general, ischemic stroke sufferers experience problems including fear of pain, fear of disability, fear of death, fear of losing personal independence and loss of role function in daily life, causing various psychological problems of anxiety, stress and depression which are very deep.(Mahyuvi & Nursalam, 2020).

Stroke is ranked 2nd in the world as a non-communicable disease that causes death after heart disease. Every year more than 2 million people experience a stroke and an increase of 6.7% annually. Based on WHO (World Health Organization) data, stroke is the 5th cause of death in America, reaching 129 thousand people per year. Stroke sufferers in the United States aged between 55-64 years as many as 11% have cerebral infarction, the prevalence increases to 40% at the age of 80 years and 43% at the age of 85 years (Mahyuvi & Nursalam, 2020). The prevalence of stroke in Indonesia has increased from 7% in the 2018 Riskesdas to 10.9% in 2020. The prevalence of stroke in East Java Province is ranked 3rd in Indonesia, reaching 302,987 sufferers(Mahyuvi & Nursalam, 2020). Data on stroke patients at RSAU dr. M.Munir Lanud Abdurachman Saleh Malang in August - September 2022 totaling 108 patients consisting of 78 had ischemic strokes and 30 had hemorrhagic strokes. The stroke patient has never been subjected to spiritual intervention and breathing exercises and the hospital does not have standard operating procedures related to spiritual midfullness and breathing exercises.

Psychological changes in ischemic stroke patients that are felt can be seen from their physical condition and changes in behavior, including patients always feel confused, feel insecure, dependent and become passive individuals. Ischemic stroke sufferers are less able to perform optimally as before, before they had an ischemic stroke (Mahyuvi & Nursalam, 2020). Patients often experience problems including loss of job, income, freedom, decreased life expectancy and sexual function so that it can cause anger and will lead to a condition of anxiety and depression as a result of ischemic stroke.(Armyati & Pravitasari, 2022).

Anxiety experienced by ischemic stroke sufferers can be caused by threats to physical integrity and threats to the integrity of body systems. Threats to physical integrity are related to decreased ability to carry out activities of daily living. Meanwhile, threats to the integrity of body systems involve damage to one's identity, self-esteem, and integrated social functioning(Iszakiyah et al., 2019). Anxiety that does not get proper treatment can lead to irrational behavior, conflict, non-compliance with care, fear, inability to carry out daily activities and fear of death. (Li et al., 2019).

Most (53.3%) stroke sufferers experience severe anxiety (Khairunnisa et al., 2022). Apart from anxiety, depression is a disease that affects the body, feelings (mood) and thoughts which are characterized by loss of energy and motivation, feelings of guilt, difficulty concentrating, decreased appetite and thoughts of death which can become a very serious problem if ischemic stroke is not get serious treatment and appropriate intervention. Factors that cause depression in ischemic stroke patients include biological, genetic and psychosocial factors which include: real or imagined loss of attachment, for example loss of one's love, physical function, position or self-esteem, role changes and economic burdens.

Depression is caused by the uncertainty of the future and the fear of death (Kaplan & Sadock, 2015).

Results of research (Thunder & Maria, 2017) stated, of the 96 stroke patients, 46.9% had mild depression, 39.6% moderate and 13.5% had severe depression. These results are consistent with research (Budianto et al., 2022) stated that out of 50 respondents, the majority of stroke sufferers experienced moderate depression, namely as many as 31 (62.0%), then there were 18 (36.0%) experienced low depression, and only one respondent experienced severe depression. Depression in ischemic stroke patients will result in a slow rehabilitation process, low quality of life and increased mortality. Severe depression has an impact on the emergence of prolonged, excessive feelings of helplessness that increases the risk of suicide. Stroke survivors who experience depression have a longer rehabilitation time than stroke survivors without depression (Lavu et al., 2022).

In patients with ischemic stroke who experience anxiety and depression, there is an increase in high blood pressure if optimal management is not carried out. In ischemic stroke patients who experience anxiety and depression will cause an increase in sympathetic nerve activity which can then lead to a gradual increase in blood pressure (Mahyuvi & Nursalam, 2020). The level of anxiety and depression with the level of blood pressure has a correlation, which means that the more severe the condition of anxiety and depression, the higher the blood pressure (Arifuddin & Nur, 2018). Anxiety and depression can occur where the state of the body is disrupted due to psychological stress and depression can trigger hormones in the body that control the mind of someone who is experiencing anxiety and depression so that it can increase blood pressure. The condition of the body that is experiencing psychological stress makes the body produce more adrenaline, thereby increasing the workload of the heart. The blood pressure will remain high and the person will experience constant anxiety and depression (Lindayani et al., 2020).

An increase in anxiety and depression will affect both effective and ineffective coping patterns. Coping is a person's way of finding solutions, getting problem solving, adapting to change, reacting to situations that pose a threat. Effective coping can result in new adaptations and knowledge. When coping is ineffective, there is an increase in anxiety and depression in physical, psychological and social functioning which results in physical illness and psychosocial disorders, including physical illness caused by psychosomatics is an increase in high blood pressure. Research result (Mahyuvi & Nursalam, 2020) states that the majority of ischemic stroke sufferers experience high blood pressure.

To overcome anxiety, depression and high blood pressure in patients with ischemic stroke requires good cooperation between the medical team, patients, as well as families and the environment. Education to patients and families about the disease and complications will help improve treatment outcomes, and is expected to help improve the quality of life of ischemic stroke sufferers. There are two risk factors for ischemic stroke, namely factors that cannot be modified including genetic factors, age, gender, and ethnicity and factors that can be modified include anxiety, depression, obesity and nutrition (Hisni et al., 2022). Anxiety and depression in ischemic stroke patients that cannot be reduced or managed properly will pose a risk, one of which is attacking physical problems. In healthy individuals, anxiety and depression will be managed properly, this can be seen by the ability to describe the sources of anxiety and depression so that they can mention ways to avoid them, including: learning what anxiety and depression are, recognizing symptoms of anxiety and depression that occur in yourself, changing behavior patterns and utilizing a series of techniques and relaxation of anxiety and depression management that is quick and simple (Almhdawi et al., 2021).

The strategy for managing anxiety and depression in ischemic stroke patients can be carried out by administering pharmacological therapy/drugs or non-pharmacological interventions. Based on evidence based practice (EBP) there are many ways we can do to reduce anxiety and depression in ischemic stroke sufferers, including: distraction relaxation, mindfulness, deep breathing relaxation or breathing exercise, progressive muscle relaxation, music therapy, guided imagery, spiritual relaxation and so forth (Woranush et al., 2021).

Spirituality is one way to minimize anxiety and depression which acts as a positive psychological factor (free from anxiety and depression) through the functional limbic system which can lead to positive coping mechanisms (Yusuf et al., 2015). Spirituality can significantly assist patients in adapting to changes caused by ischemic stroke. Spiritual intervention is believed to be able to reduce anxiety and depression optimally so that blood pressure stability occurs in patients with ischemic stroke because it can be carried out independently, anytime and anywhere, is not expensive and is non-toxic. The relationship between humans and the Creator is the first element in spirituality. Getting closer to God is the most frequently used coping strategy by patients to deal with anxiety and depression in ischemic stroke sufferers (Yusuf et al., 2016). One of the spiritual interventions to reduce anxiety and depression as well as blood pressure is using breathing exercise.

The above is supported by research (Wiyono & Putra, 2021) which states that breathing exercise has a significant effect on reducing anxiety levels in patients. And also supported (Sharma & Varshney, 2022) which states that relaxation can reduce anxiety, stress depression and improve the quality of life of stroke patients. Nurses can use it as a stimulus to reduce anxiety, depression and blood pressure in stroke patients through the breathing exercise method with surrender to God (mindfulness). Mindfulness can be interpreted as an individual's ability to be fully aware of where one is, where one is, what one is doing, and not overreact to what is happening around him and by surrendering to God (Lindayani et al., 2020).

Efforts to maximize surrender to God or Spiritual Mindfulness in ischemic stroke patients use breathing exercise. It is supported literature reviews (Rokhyati et al., 2019) which states that non-pharmacological therapy Islamic Spiritual Mindfulness can reduce stress anxiety and depression. Also Supported study (Alfikrie et al., 2020) which states that Spiritual Mindfulness can reduce anxiety and blood pressure. Based on this background, optimal management of nursing care in ischemic stroke patients is needed holistically by combining therapy to optimize care, namely by intervening a combination of Spiritual Mindfulness and Breathing Exercises to surrender to God as a type of therapy performed by nurses in overcoming anxiety, depression and controlling blood pressure in ischemic stroke patients.

METHOD

This research is a quantitative research that uses a quasy experimental research design with a pretest - posttest control group design approach, the technique uses purposive sampling And the researcher selects respondents according to the inclusion criteria; Patients willing to become respondents, Awareness composure and in a stable condition, Age over 20 years to ≤ 60 years, Ischemic stroke patients undergoing treatment or rehabilitation, Ischemic stroke patients with comorbid hypertension and diabetes mellitus. Have a moderate to high level of anxiety based on the Zung self-Rating Anxiety Scale and moderate to high depression based on the Depression Anxiety Stress Scale sub depression. The number of respondents was 50 divided into the intervention group and the control group. In the intervention group respondents were given A combination of Spiritual Mindfulness and

Breathing Exercise. The intervention combination spiritual mindfulness and breathing exercises given three times a day for five days, the duration of the intervention is approximately 10 to 15 minutes. The results obtained are to see changes in anxiety, depression and blood pressure in ischemic stroke patients. Anxiety instruments used SAS/SRAS, depression instruments based on DASS and blood pressure were measured using a sphygmomanometer. Prior to conducting the research the protocol had been carried out as ethically feasible and declared ethically feasible with number 027/011/V/EC/KEP/LCBL/2023. The research was carried out in May-June 2023 at RSAU dr. M.Munir Lanud Abdurachman Saleh Malang. The statistical test of the research results used the Multivariate Analysis of Variant (MANOVA).

RESULTS

The research results obtained by the researchers are as follows:

Table 1. Data on the distribution of age, gender, education and occupation of respondents

Characteristic Data	Intervention		Control	
	Frequency	%	Frequency	%
Age				
18-40 years	-	-	-	-
41-60 years	25	100.0	25	100.0
> 60 years	-	-	-	-
Amount	25	100	25	100
Gender				
Man	19	76.0	17	68.0
Woman	6	24.0	8	32.0
Amount	25	100	25	100
Education				
Elementary School	1	4.0	1	4.0
Junior High School	3	12.0	7	20.0
Senior High School	17	68.0	13	60.0
College	4	16.0	4	16.0
Amount	25	100	25	100.0
Work				
Work	7	28.0	8	32.0
Doesn't work	18	72.0	17	68.0
Amount	25	100	25	100

Table 2. Analysis of anxiety before and after administration of Mindfulness and Spiritual Combinations Breathing Exercises in the intervention group and the control group

Group		Means	N	SD	SE	95% CI	t	p-value
Intervention	Before	71.48	25	6.145	1,229	10.634 -	13,950	.000
	After	59.00	25	7,692	1,538	14.326		
Control	Before	70.32	25	6,210	1,242	-.066 -	1978	.059
	After	68.80	25	6,928	1,386	3.106		

Table 3. Analysis of depression before and after administration of Mindfulness and Spiritual Combinations Breathing Exercises in the intervention group and the control group

Group		Means	N	SD	SE	95% CI	t	p-value
Intervention	Before	20.80	25	6.145	1,229	5.258 -	9,487	.000
	After	14.08	25	7,692	1,538	8.182		
Control	Before	19.04	25	5,842	1.168	-.263 -	1,244	.225
	After	18.64	25	6,068	1,214	1.063		

Table 4. Analysis of blood pressure before and after administration of Mindfulness and Spiritual Combinations Breathing Exercises in the intervention group and the control group

Group		Means	N	SD	SE	95% CI	t	p-value
Intervention	Before	136.16	25	12,182	2,436	8,461 - 15,059	7,358	.000
	After	124.40	25	10033	2007			
Control	Before	136.04	25	12,273	2,455	-.417 - 5.777	1,786	.087
	After	133.36	25	11,750	2,350			
Intervention	Before	88.16	25	6,974	1,395	4.177 - 7.903	6,691	.000
	After	82.12	25	5061	1012			
Control	Before	87.96	25	7,586	1,517	-.238 - 3.758	1,818	.082
	After	86.20	25	6,776	1.355			

Table 5. Results of the Multivariate Analysis of Variant (MANOVA) analysis of anxiety, depression and blood pressure

Variable	Mean Square d	F	Sig.	Partial Eta Squared
Worry	1501520	86,369	.000	.643
Post depression	499,280	66013	.000	.579
Systolic blood pressure	1030580	17.153	.000	.263
Diastolic blood pressure	228,980	10,453	.002	.179

Based on table 5. The results of the Multivariate Analysis of Variant (MANOVA) analysis show that the p value is anxiety.000 and Partial Eta Squared value.643, depressed p-value.000 and nPartial Eta Squared value.579, systolic blood pressure p value.000 and nPartial Eta Squared value.263, diastolic blood pressure p value.000 and nPartial Eta Squared value .179 which means that there is the influence of Mindfulness and Spiritual Combination Breathing Exercises on anxiety, depression and blood pressure of ischemic stroke patients.

DISCUSSION

Anxiety of Ischemic Stroke Patients

The results of the analysis of table 2 show that the average anxiety before being given a combination of Spiritual Mindfulness and Breathing Exercises in the intervention group it was 71.48 with a standard deviation of 6.145 and after being given the intervention it was found that the average anxiety decreased to 59.00 with a standard deviation of 7.692. according to hospital standards, the average decrease in anxiety was 68.80 with a standard deviation of 6.928.

Ischemic stroke patients experience physiological and psychological problems, after being given a Combination of Spiritual Mindfulness and Intervention Breathing Exercises Ischemic stroke patients experience a decrease in their level of anxiety, because with this intervention the patient can slowly accept all forms of conditions they are experiencing while always being enthusiastic and surrendering to God Almighty. This is evidenced by the results of the research conducted in table 2. proving that there is a significant decrease in anxiety in ischemic stroke patients after being given a combination of Spiritual Mindfulness and Breathing Exercises with a p value = .000. It is supported literature reviews (Rokhyati et al., 2019) which states that non-pharmacological therapy Islamic Spiritual Mindfulness can reduce anxiety. Also supported by research (Alimuddin, 2020) which states that the spiritual mindfulness intervention based on breathing exercise has a positive effect on reducing anxiety in type 2 DM patients. It is also supported by the results of the study (Efa Herfita et al., 2022) who stated that the Islamic spiritual Mindfulness intervention had an effect on reducing anxiety in elderly hypertensives. As well as research (Trisnawati et al., 2022) states that mindfulness spiritual therapy based on breathing exercise is proven to be effective in reducing the anxiety level of hypertensive patients.

Anxiety occurs characterized by feelings of worry accompanied by somatic symptoms indicating an excessive activity in which general but non-specific symptoms occur that often occur (Almhdawi et al., 2021). Anxiety is a feeling of fear that is not clear and is not supported by situations and conditions (Handayani et al., 2020). Anxiety in ischemic stroke patients can occur in every life, especially when faced with new things which are feelings of fear that are not clear accompanied by feelings of uncertainty, insecurity, helplessness and isolation due to their illness (Sulistyoningsih et al., 2018). Several things related to anxiety in response to ischemic stroke patients can include insomnia, changes in concentration, reduced productivity and interpersonal conflict, stigma, fear of the disease they are experiencing (Mahyuvu et al., 2022). Ischemic stroke patients have very complex problems, both physically and psychologically, so they require holistic and comprehensive treatment (Mahyuvu et al., 2022). Giving a combination of Spiritual Mindfulness and Breathing Exercise to ischemic stroke patients is needed so that significantly the anxiety experienced by ischemic stroke patients decreases so that it can optimally improve the quality of life of ischemic stroke patients as optimally as possible.

Anxiety experienced by ischemic stroke patients is an unclear feeling of fear accompanied by feelings of uncertainty, insecurity, and helplessness due to their illness. Increased levels of anxiety is a mental health problem that often occurs in ischemic stroke patients. Facing a difficult situation in the life of an ischemic stroke patient can increase the level of anxiety, especially when there is a potential risk of death. So this can cause vulnerable individuals to have a high risk of health problems. Therefore it is important to have anticipation so that the health of ischemic stroke patients is maintained (Iswari, 2019). Investigation of the factors that influence anxiety in ischemic stroke patients can help to better understand the development and maintenance of anxiety as well as to develop possible preventive measures and therapeutic interventions (Wiyono & Putra, 2021).

Anxiety that occurs in ischemic stroke patients can be overcome with one of the non-pharmacological therapies, namely the Combination of Spiritual Mindfulness and Breathing Exercise which is a relaxation with breathing exercises using slow and deep breathing techniques, and using the diaphragm muscle, allowing the abdomen to be lifted slowly and the chest expands fully to the maximum while saying motivational sentences, gratitude and self-surrender (Islamic prayers) as well as making attention-focusing strategies to deal with cognitive problems and reactivate the power of the mind to reduce emotional distress. In a

state of relaxation that involves all the senses so that a feeling of calm is created as a result of a balance between mind, body and soul.

The researchers argue that the complementary therapy intervention of a combination of Spiritual Mindfulness and Breathing Exercise which is carried out continuously and slowly will be able to stop thoughts that make ischemic stroke patients feel anxious. Factors that influence the anxiety of ischemic stroke patients include age, education and work because these factors will also affect the success of the Combination Spiritual Mindfulness and Breathing Exercise intervention. In addition, the experience gained in one's life influences one's mindset and also influences anxiety as a result of the atmosphere experienced by the patient. Therefore, providing a combination of Spiritual Mindfulness and Breathing Exercise interventions can solve anxiety problems in ischemic stroke patients.

Depression in Ischemic Stroke Patients

The combination of Spiritual Mindfulness and Breathing Exercise is a relaxation exercise with breathing exercises using slow and deep breathing techniques, and using the diaphragm muscles, so as to allow the abdomen to be lifted slowly and the chest to be fully expanded while saying motivational sentences, gratitude and self-surrender (Islamic prayers) as well as create a strategy of focusing attention to deal with cognitive problems and reactivate the power of thought to reduce emotional distress. The results of the study in the control group before and after the intervention given by nurses according to hospital standards experienced changes in depression but not significant,

The above is shown in the results of the research conducted in table 5 which proves that there is an effect of giving a combination of Spiritual Mindfulness and Breathing Exercise to reducing depression levels in ischemic stroke patients with a p value = .000. This is in line with the research conducted (Asiah, Dwidiyanti, & Diyan, 2019) stated that the Islamic spiritual mindfulness intervention reduced the level of depression. Other research conducted (Pristianto et al., 2022) proves that psychoeducation can reduce the level of depression. Also supported by research based on meta analysis conducted by (Yuniartika et al., 2016) proves that the provision of Education and Providing Mindful Breathing Exercise is proven effective in reducing the severity of depression in adolescents. This research is corroborated by (Pujiati, 2023) which proves that giving the right combination of Mindfulness Spiritual-Based Cognitive Therapy and Hypnosis to depressed patients is effective in reducing depression levels because patients will be more able to control themselves in managing depression.

Relaxation given through a combination of Spiritual Mindfulness and Breathing Exercise can reduce depression. Spiritual is one of the actions to reduce depression. Relaxation therapy and Breathing Exercises are based on spirituality in the form of support, motivational sentences, thanksgiving and submission, individual self-acceptance and creating attention-focusing strategies to deal with cognitive problems and reactivate the power of the mind to reduce emotional distress. As long as the patient performs a combination of Spiritual Mindfulness and Breathing Exercise while silently reciting sentences of support and motivation, gratitude, patience, sincerity, resignation, create a strategy of focusing attention to deal with cognitive problems and reactivate the power of thought to reduce emotional distress. (Pujiati, 2023).

These sentences aim to regulate emotions by reducing amygdala activation, then a stimulus is sent to the prefrontal cortex in the form of a learning process (a careful learning process through a process of selection, organization, and interpretation of the stressor it receives) which will then result in a change in self-perspective in the form of awareness to take wisdom and self-acceptance or self-acceptance of the conditions experienced at this time

(Asiah, Dwidiyanti, & Wijayanti, 2019). Awareness in taking lessons and self-acceptance will increase tolerance to stress and reduce muscle tension which will then change the individual's cognitive and emotional spiritual response, so that it can reduce Corticotropin Releasing Factor (CRF). Then CRF stimulates the pituitary gland (pituitary) to secrete or release endorphins as neurotransmitters which affect the mood to be relaxed, maintain positive emotions, namely self-acceptance, increased confidence and motivation to stay healthy. This will cause positive effects, including increased concentration, awareness of body and mind (Asiah, Dwidiyanti, & Diyan, 2019). This situation will then increase the patient's self-awareness of the current situation, so that the patient can accept his condition without criticizing or blaming himself and his environment.

Blood Pressure in Ischemic Stroke Patients

The combination of Spiritual Mindfulness and Breathing Exercise has a significant effect on changes in blood pressure. This is shown in the results of the research conducted in table 5 which proves that there is an effect of giving a combination of Spiritual Mindfulness and Breathing Exercise to reducing systolic and diastolic blood pressure in ischemic stroke patients, with a p value = .000 in systolic blood pressure and p value value = .000 in diastolic blood pressure. This research is in line with research conducted by (Muthoharoh et al., 2022) proves that giving Spiritual Deep Breathing Exercise can reduce high blood pressure. The results of the systematic review conducted (Intarakamhang et al., 2020) that giving mindufness has a significant effect on reducing blood pressure. Research conducted (AlKhabbaz et al., 2022) proves that giving Modalities of Mindfulness-Based can reduce high blood pressure in hypertension sufferers. Several studies have shown that the management of high blood pressure with a non-pharmacological therapeutic approach includes weight loss, restriction of alcohol, sodium and tobacco, exercise and relaxation is a mandatory intervention that must be carried out in every administration of therapy in patients with high blood pressure. (Smeltzer & Bare, 2014).

The combination of Spiritual Mindfulness and Breathing Exercise does not directly affect blood pressure in ischemic stroke patients, but from the combination of Spiritual Mindfulness and Breathing Exercise given, there is a decrease in anxiety and depression levels so that patients become better and are able to change the pattern or lifestyle of ischemic stroke patients to become healthy lifestyle. This ultimately has an impact on the physiological functions of the body, namely blood pressure drops and becomes more controlled.

Efforts made to control high blood pressure are contained in the SOP for the Combination of Spiritual Mindfulness and Breathing Exercise. In giving the combination of Spiritual Mindfulness and Breathing Exercise, it explains how the relaxation technique is done by breathing slowly and deeply, and using the diaphragm muscles, so as to allow the abdomen to be lifted slowly and the chest to be fully expanded while saying motivational sentences, gratitude and self-surrender (do'). Islamic a-do'a) as well as create a strategy of focusing attention to deal with cognitive problems and reactivate the power of thought to reduce emotional distress so that further high blood pressure decreases.

CONCLUSION

1. A combination of Spiritual Mindfulness and Breathing Exercises reduce the anxiety level of ischemic stroke patients.
2. A combination of Spiritual Mindfulness and Breathing Exercises reduce the level of depression in ischemic stroke patients.
3. A combination of Spiritual Mindfulness and Breathing Exercises reduce/control systolic and diastolic blood pressure in ischemic stroke patients.

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CONFLICTS OF INTEREST

All research teams agree with the final results of this study and there is no conflict in conducting this research.

REFERENCES

- Alfikrie, F., Purnomo, A., & Selly, R. (2020). Pengaruh Relaksasi Napas Dalam Terhadap Kecemasan Pada Pasien Gagal Ginjal Kronis Yang Menjalani Hemodialisa. *BORNEO NURSING JOURNAL (BNJ)*, Vol. 2 No.(n1), 18–24. <https://doi.org/10.24198/jkp.v3n1.3>.
- Alimuddin, T. A. (2020). Efektivitas Spiritual Midnfulness Based On Breathing Exercise terhadap Kecemasan Pasien Diabetes Melitus. *Ners Journal Awal Bros*.
- AlKhabbaz, A., AlMusa, B. M., Estrella, E. D., & Keperawatan Padjajaran, J. (2022). The Effect of Different Modalities of Mindfulness-Based Interventions on Blood Pressure. *Jurnal Keperawatan Padjajaran*, 10(1), 45–57. <https://doi.org/10.24198/jkp>.
- Almhdawi, K. A., Alazrai, A., Kanaan, S., Shyyab, A. A., Oteir, A. O., Mansour, Z. M., & Jaber, H. (2021). Post-stroke depression, anxiety, and stress symptoms and their associated factors: A cross-sectional study. *Neuropsychological Rehabilitation*, 31(7), 1091–1104. <https://doi.org/10.1080/09602011.2020.1760893>.
- Arifuddin, A., & Nur, F. A. (2018). Pengaruh Efek Psikologis Terhadap Tekanan Darah Penderita Hipertensi. *Jurnal Kesehatan Tadaluko*, 3.
- Armyati, E. O., & Pravitasari, D. N. (2022). Gambaran Tingkat Kecemasan pada Lansia Terhadap Penyakit Stroke Di Puskesmas Ponorogo Selatan. *Jurnal Health Sains*, 3(4), 556–564. <https://doi.org/10.46799/jhs.v3i4.472>.
- Asiah, A., Dwidiyanti, M., & Wijayanti, D. Y. (2019). Pengaruh Intervensi Mindfulness Spiritual Islam terhadap Tingkat Depresi pada Pasien di RSJD Dr. Amino Gondohutomo Provinsi Jawa Tengah [Tesis]. Universitas Diponegoro.
- Asiah, Dwidiyanti, M., & Diyan, Y. W. (2019). Reduce Depression Level In Patients With Islamic Spiritual Minfulness Intervention. *Jurnal Keperawatan Jiwa*.
- Budianto, A., Sari, R., & Setya Pratama, R. (2022). Family Support On Depression In Elderly Patients Post Hemoragic Stroke (Vol. 11, Issue 1). <https://ejournal.umpri.ac.id/index.php/JIK|176>.
- Efa Herfita, K., Maryatun, & Hidayah, A. (2022). Intervensi Mindfulness Spiritual Islam Upaya Penurunan Kecemasan pada Lansia Hipertensi Era New Normal Covid 19 di Desa Bangunrejo Ngawi. *Jurnal Formil (Forum Ilmiah) KesMas Respat*, 8(1), 23–33. <http://formilkesmas.respati.ac.id>.
- Guntur, M., & Maria, F. (2017). The Relation Of Family Roles With The Levels Of Depression On Stroke Patient At Department Of Neurology Regional Public Hospital Sultan Syarif Mohammad Alkadrie Pontianak. *Tanjungpura University*.
- Handayani, ina T., Suminanto, Darmayanti, A. T., Widiyanto, A., & Atmojo, J. T. (2020). Kondisi Dan Strategi Penanganan Kecemasan Pada Tenaga Kesehatan Saat Pandemi

- Covid-19. *International Journal of Africa Nursing Sciences*, 13(3), 365–374. <https://doi.org/10.1016/j.ijans.2020.100233>.
- Hisni, D., Evelianti Saputri, M., & Surjani. (2022). Faktor - Faktor Yang Berhubungan Dengan Kejadian Stroke Iskemik Di Instalasi Fisioterapi Rumah Sakit Pluit Jakarta Utara.
- Intarakamhang, U., Macaskill, A., & Prasittichok, P. (2020). Mindfulness interventions reduce blood pressure in patients with non-communicable diseases: A systematic review and meta-analysis. In *Heliyon* (Vol. 6, Issue 4). Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2020.e03834>.
- Iswari, M. F. (2019). Pengaruh Spiritual Therapy Terhadap Tingkat Kecemasan, Stres Dan Depresi Keluarga Pasien Yang Dirawat Di Ruang Intensive Care Unit. Seminar Dan Workshop Nasional Keperawatan “Implikasi Perawatan Paliatif Pada Bidang Kesehatan.”
- Iszakiyah, N., Suhita, B. M., & Siyoto, S. (2019). Anxiety, Self Concept and Meaning of Life Patients Post Stroke Earning Age. *JOURNAL FOR QUALITY IN PUBLIC HEALTH*, 2(2), 12–21. <https://doi.org/10.30994/jqph.v2i2.32>.
- Kaplan, H. I., & Sadock, B. J. (2015). Kaplan-Sadock Sinopsis Psikiatri Ilmu Pengetahuan Prilaku Psikiatri Klinis (edisi-7). Binarupa Aksara.
- Khairunnisa, S., Elita, V., & Bayhakki. (2022). Faktor-Faktor Yang Berhubungan Dengan Kecemasan Pada Pasien Pasca Stroke (Vol. 10, Issue 3).
- Lavu, V. K., Mohamed, R. A., Huang, R., Potla, S., Bhalla, S., al Qabandi, Y., Nandula, S. A., Boddepalli, C. S., Gutlapalli, S. D., & Mohammed, L. (2022). Evaluation and Treatment of Depression in Stroke Patients: A Systematic Review. *Cureus*. <https://doi.org/10.7759/cureus.28137>.
- Li, W., Xiao, W. M., Chen, Y. K., Qu, J. F., Liu, Y. L., Fang, X. W., Weng, H. Y., & Luo, G. P. (2019). Anxiety in patients with acute ischemic stroke: Risk factors and effects on functional status. *Frontiers in Psychiatry*, 10(APR). <https://doi.org/10.3389/fpsy.2019.00257>.
- Lindayani, L., Hendra, A., Juniarni, L., & Nurdina, G. (2020). Effectiveness Of Mindfulness Based Stress Reduction On Depression In Elderly: A Systematic Review. *Journal Of Nursing Practice*, 4(1), 8–12. <https://doi.org/10.30994/jnp.v4i1.101>.
- Mahyuvi, T., Fanani, M., Indasah, Prasetyo, J., & Peristiowati, Y. (2022). Pentingnya Menjaga Kestabilan Tekanan Darah pada Penderita Hipertensi untuk Mencegah Terjadinya Stroke di Masyarakat. *Tata Mutiara Hidup Indonesia*.
- Mahyuvi, T., & Nursalam, N. (2020). The Effect of Social Cognitive Theory-Based Psychoeducation 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>.
- Muthoharoh, A., Anggraini, R., & Santy, W. H. (2022). Spiritual Deep Breathing Exercise Is Effective In Reducing Anxiety And Stabilizing Oxygen Saturation In COVID-19 Patients. *Interest : Jurnal Ilmu Kesehatan*, 166–176. <https://doi.org/10.37341/interest.v0i0.346>.
- Prayoga, A., & Rasyid, Z. (2022). Determinants of Ischemic Strokes Disease Inpatient Ward in Public Hospital Petala Bumi Riau Province 2019. *Journal Of Community Health*, 8(1), 52–58. <https://doi.org/10.25311/keskom.vol8.iss1.640>.
- Pristianto, A., Hastuti, R. P., Auliya, F., Novitasari, T. H., Putri, B. F. I., & Faiz, C. I. (2022). Edukasi dan Pemberian Mindfull Breathing Exercise untuk Mengatasi Depresip Siswa

- Kelas XI MIPA di SMA Muhammadiyah Program Khusus Kota Barat. *Jurnal Abdi Masyarakat*, 6(1). <https://doi.org/10.30737/jaim.v6i1.3332>.
- Pujiati, E. (2023). Pengaruh Kombinasi Mindfulness Spiritual - Based Cognitive Therapy dan Hypnosis terhadap Derajat Depresi, Kadar Kortisol, dan Kadar Serotonin pada Pasien HIV dengan Depresi [Tesis]. Universitas Diponegoro.
- Rokhyati, Dwidiyanti, M., & Padmasari, S. (2019). Non-Pharmacological Intervention On Stress Levels Of Chronic Kidney Disease Patients That Have Hemodialisa ; Literature Review. *Jurnal Ilmu Keperawatan Jiwa*, 2(1).
- Sharma, P., & Varshney, N. (2022). Impact of Stress, Anxiety, and Depression on Cognition and Quality of Life in Stroke Patients: Influence of Cognitive Behavioral Therapy. https://doi.org/10.4103/ijptr.ijptr_20_22.
- Smeltzer, S. C., & Bare, B. G. (2014). *Keperawatan Medikal Bedah Brunner and Suddarth's*. EGC.
- Sulistyoningsih, T., Mudayatiningsih, S., & Metrikayanto, W. D. (2018). Pengaruh Peran Perawat Sebagai Edukator Terhadap Kecemasan Keluarga Pasien Stroke diUnit StrokeRumah Sakit Panti Waluya Malang. In *Nursing News* (Vol. 3, Issue 1).
- Trisnawati, D., Suryati, Y., & Susilawati, S. (2022). Spiritual Mindfulness Based on Breathing Exercise terhadap Kecemasan dan Kadar Glukosa Darah pada Pasien DM Tipe 2. *Jurnal Keperawatan Silampari*, 6(1), 425–438. <https://doi.org/10.31539/jks.v6i1.4427>.
- Wiyono, H., & Putra, P. P. (2021). Penurunan Tingkat Kecemasan Melalui Breathing Exercise. *Jurnal Ilmu Keperawatan Jiwa*, 4, 481–486.
- Woranush, W., Moskopp, M. L., Sedghi, A., Stuckart, I., Noll, T., Barlinn, K., & Siepmann, T. (2021). Preventive approaches for post-stroke depression: Where do we stand? a systematic review. In *Neuropsychiatric Disease and Treatment* (Vol. 17, pp. 3359–3377). Dove Medical Press Ltd. <https://doi.org/10.2147/NDT.S337865>.
- Yuniartika, W., Dwidiyanti, M., & Mu, M. (2016). Reducing depression level of diabetes mellitus patient by psychoeducation by means of poster. *Nternational Journal of Research in Medical Sciences*, 4(8), 3348–3353.
- Yusuf, A., Nihayati, H. E., Iswari, M. F., & Okviasanti, F. (2016). *Kebutuhan Spiritual Konsep Dan Aplikasi Dalam Asuhan Keperawatan*. Mitra Wacana Media.
- Yusuf, A., PK, R. F., & Nihayati, H. E. (2015). *Buku Ajar Keperawatan Kesehatan Jiwa*. Salemba Medika.