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The Effect of Combined Slow Deep Breathing and Zikr on Family Anxiety in the ICCU of Dr. Soehadi Prijonegoro Regional Hospital, Sragen

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Abstract

Background: Based on data from the Medical Records of patients in the ICCU (Intensive Cardiology Care Unit) of dr. Soehadi Prijonegoro Hospital, Sragen, the number of new patients increased from 388 in 2023 to 537 in 2024 (38.4%). The death rate in the ICCU Room from January to December 2024 was 102 people (18.9%). A preliminary survey showed that 7 out of 10 patient families (70%) experienced anxiety symptoms. To date, slow deep breathing and dhikr have not been applied by patient families to reduce anxiety. The combination of dhikr and slow deep breathing is a therapy that can relieve anxiety.
Objective: This study aimed to determine the effect of the combination of slow deep breathing and dhikr on anxiety levels in families of patients in the ICCU Room of dr. Soehadi Prijonegoro Hospital, Sragen.
Methods: This study used a quantitative approach with a pre-experimental design (one-group pretest–posttest). The sample consisted of 41 families of ICCU patients, selected using a purposive sampling technique. The instrument used was the HARS (Hamilton Anxiety Rating Scale) questionnaire. Data were analyzed using the Wilcoxon test.
Results: The statistical test results showed a significant effect of the combination of slow deep breathing and dhikr on family anxiety levels in the ICCU Room of dr. Soehadi Prijonegoro The combination of slow deep breathing and dhikr effectively reduced anxiety among patient families in the ICCU Room of dr. Soehadi Prijonegoro Hospital, Sragen, and may be considered as a complementary approach in anxiety management.

Keywords: Anxiety; dhikr; slow deep breathing

Introduction

According to Safitri et al. (2019), Intensive Care Unit (ICU) care can cause stress, anxiety, and fear not only in patients but also in their families. The unfamiliar environment, unit regulations, emotional changes, and disruption of daily activities are among the factors that trigger stress in families. Similarly, Winarsih & Widyaningsih (2022) state that the fast-paced and busy atmosphere in the ICU makes it difficult for families to interact with patients and staff, limiting their understanding of the patient's condition. This often results in uncertainty and increased anxiety. Based on medical records from the Intensive Cardiology Care Unit (ICCU) of Dr. Soehadi Prijonegoro Regional Hospital, Sragen, the number of new patients increased from 388 in 2023 to 537 in 2024 (38.4%), with a mortality rate of 102 cases (18.9%) in 2024. Pardede (2020) reported that 10–42% of families of ICU patients experience anxiety, with 10.7% classified as mild, 78.6% moderate, and 10.7% severe. Yang et al. (2023) further explain that unfamiliarity with the hospital environment, difficulty understanding medical language, and separation from loved ones contribute to family stress, underscoring the importance of effective communication and support from nursing services.

To address such conditions, spiritual therapy can be considered as it helps alleviate psychological disorders like anxiety and depression. According to Rahmawati (2020c), spiritual

therapy enhances self-acceptance, enabling individuals to manage negative emotions while fostering closeness to God. Dhikr, as a form of spiritual practice, is believed to calm the soul and provide inner peace. Michon in Subandi (2009) describes dhikr as an awareness that strengthens one's relationship with the Creator, while Anggraini et al. (2014) highlight its relaxing effect in reducing tension. In addition to spiritual approaches, relaxation techniques such as Benson relaxation, progressive relaxation, guided imagery, distraction, massage, and music therapy are also effective (Ovari & Anggreini, 2022). Specifically, deep breathing techniques help stimulate the parasympathetic nervous system and inhibit sympathetic activity, thereby reducing anxiety (Nipa, 2017).

A preliminary survey conducted on March 5, 2025, involving 10 families of ICCU patients at Dr. Soehadi Prijonegoro Regional Hospital, Sragen, revealed that 7 families (70%) showed signs of anxiety such as restlessness, panic, excessive worry, insomnia, tremors, and inability to remain calm. Coping strategies typically included talking with close relatives, resting, and maintaining proper nutrition, but none had attempted slow deep breathing combined with dhikr as an anxiety management technique. Therefore, this study aims to examine the effect of combining slow deep breathing and dhikr on anxiety levels in families of ICCU patients at Dr. Soehadi Prijonegoro Regional Hospital, Sragen.

Methods

Study Design

This study employed a quantitative approach with a pre-experimental, one-group pretest–posttest design. The research was conducted from May 1-31, 2025, in the ICCU Room of Dr. Soehadi Prijonegoro Regional Hospital, Sragen.

Samples

The sample in this study consisted of 41 families of ICCU patients, selected using a purposive sampling technique. Inclusion criteria were applied to determine eligible participants, namely family members responsible for patients in the ICCU of Dr. Soehadi Prijonegoro Regional Hospital, Sragen, who were Muslim, able to read and write, willing to participate by signing informed consent, and waiting for the patient in the ICCU for the first time. Meanwhile, exclusion criteria were applied to omit participants with conditions that could interfere with the study, namely family members with a history of asthma or those unable to communicate effectively.

Instruments

Respondents received a combination of slow deep breathing and dhikr. The stages of slow deep breathing were implemented according to the SOP described by Regina (2013) in Latifah's study (2022).

Interventions

The interventions used were slow deep breathing and dhikr, According to Regina (2013) in Latifah's research (2022), the stages of the procedure for implementing slow deep breathing use SOP (Standard Operating Procedure) for Slow Deep Breathing and Zikir.

Data Collection

Data were collected through self-administered HARS questionnaires. Respondents read and completed the questionnaires independently, with assistance from the researcher when reading difficulties occurred.

Data Analysis

Univariate analysis was performed to describe the frequency distribution of variables such as age, gender, education, occupation, relationship to the patient, length of stay, prior ICCU experience, and ICCU level. Bivariate analysis was conducted using the Wilcoxon test, as the data were not normally distributed.

Ethical Considerations

This study obtained ethical approval from Dr. Soehardi Prijonegoro Regional General Hospital, Sragen, with permit number 249/Etik-Crssp/IV/2025. Prior to participation, respondents were

provided with an informed consent form that included the research title and its potential benefits. The form was explained in detail to ensure that respondents received honest and complete information about the study and clearly understood its objectives. Participation was entirely voluntary, and if respondents declined to participate, the researchers respected their decision and upheld their rights without any form of coercion.

Results

Based on Table 1, the majority of respondents were male (22 respondents; 53.7%). The predominant age category was pre-elderly (45–59 years), with 19 respondents (46.4%), and the average age was 48 years. Regarding education, most respondents had completed high school or vocational school (21 respondents; 51.2%). The majority of respondents worked as housewives, farmers, or laborers (13 respondents; 31.7%). The relationship with the patient was mostly as husband or wife (22 respondents; 53.7%). In terms of patient history, most families were accompanying patients admitted to the ICCU for the first time (38 respondents; 92.7%). All patients were classified as ICCU level I (41 respondents; 100%), and the average length of stay was 4 days.

Table 1. Table of Respondent Characteristics Based on Gender, Age, Last Education, Occupation, Relationship with Patient, Level of ICCU Care and History of Patient Being Treated in the ICCU Room and Length of Patient Treatment

Characteristics	Amount	Percentage (%)	
Gender			
Man	22	53.7	
Woman	19	46.3	
Age Category			
Adults (19-44 Years)	14	34.1	Mean = 48.17
Pre-Elderly (45-59 Years)	19	46.4	(Min-Max) = (24-65)
Elderly (>60 Years)	8	19.5	SD = 12.47
Last education			
Elementary School	4	9.8	
JUNIOR HIGH SCHOOL	10	24.4	
High School/Vocational School	21	51.2	
College	6	14.6	
Work			
Students	2	4.9	
civil servant	6	14.6	
Private sector employee	12	29.3	
Self-employed	8	19.5	
Etc	13	31.7	
Relationship with patients			
Husband and wife	22	53.7	
Child	12	29.3	
Parent	1	2.4	
Brother sister	4	9.8	
Etc	2	4.9	
Patient Care Level			
Level I	41	100	
Level 2	0	0	
Level 3	0	0	
Patient History of Treatment in the ICCU Room			
1 time	38	92.7	
>1 Time	3	7.3	
Length of Patient Treatment	Mean = 4 days, (Min-Max) = (2-9 days), SD = 1.84		
Total	41	100	

Based on Table 2, before the intervention, most family members experienced moderate anxiety (22 respondents; 53.7%), followed by severe anxiety (17 respondents; 41.5%), and very severe anxiety (2 respondents; 4.9%). After the intervention, anxiety levels decreased, with 18 respondents (43.9%) reporting normal anxiety and 18 respondents (43.9%) reporting mild anxiety, while only 5 respondents (12.2%) remained in the moderate category.

Table 2. Frequency Distribution of Respondents Based on the Level of Anxiety in the Patient's Family Before and After the Combination of Slow Deep Breathing and Zikr

Level Anxiety	*Pre-test*		*Post-test*	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Normal	0	0	18	43.9
Light	0	0	18	43.9
Currently	22	53.7	5	12.2
Heavy	17	41.5	0	0
Very heavy	2	4.9	0	0
Total	41	100	41	100

Based on Table 3, descriptive statistics show that the mean pre-test anxiety score was 29.83 (SD = 6.95), while the mean post-test score was 15.63 (SD = 4.38). The pre-test scores ranged from 21 (moderate anxiety) to 47 (very severe anxiety), whereas post-test scores ranged from 7 (normal anxiety) to 27 (moderate anxiety). This indicates a substantial reduction in anxiety levels after the intervention.

Table 3. Descriptive Results of Pre-Test and Post-Test Anxiety

Variables	N	Average	Min-Max	Standard Deviation
Anxiety				
Pre-test	41	29.83	21-47	6,946
Post-test	41	15.63	7-27	4,380

As shown in Table 4, the Wilcoxon test results revealed a significant difference between pre-test and post-test scores ($p = 0.0001$, $p < 0.05$). This indicates that the intervention of slow deep breathing combined with dhikr effectively reduced anxiety levels among the families of ICCU patients.

Table 4. Wilcoxon Test Results for Anxiety Data

Anxiety	N	Average	Difference	IK95%	*p-value*
Before	41	29.83	14.2	12.74-15.65	0.0001
After	41	15.63			

Discussion

The results of this study indicate that the majority of families of patients before the combination of slow deep breathing and dhikr therapy experienced moderate anxiety, with 22 respondents (53.7%). Moderate anxiety is a psychological state characterized by increased vigilance and mild to moderate physiological and cognitive disturbances. According to Peplau's theory in Morton et al. (2022), individuals with moderate anxiety can still focus, but emotional discomfort persists. This is particularly relevant in the ICCU context, where strict visitation rules, limited direct communication, and incomplete medical information contribute to heightened stress among families. Poku & Azizah (2024) note that psychosocial services are often unavailable in hospitals, which further exacerbates unaddressed anxiety.

After the intervention, anxiety levels decreased significantly, with the majority shifting to normal and mild categories (18 respondents or 43.9%). This finding aligns with Handriani

(2023), who emphasized that combining slow deep breathing with dhikr reduces physiological stress responses—such as heart rate, blood pressure, and cortisol—while simultaneously enhancing spiritual calm and surrender. The synergy between relaxation techniques and spiritual practices thus provides both psychological and physiological benefits.

The pre-test and post-test mean scores also showed significant differences (29.83 vs. 15.63, $p < 0.05$), confirming that the intervention was effective in reducing anxiety among patient families in the ICCU of Dr. Soehadi Prijonegoro Regional Hospital, Sragen. Kusumawaty (2022) highlights that families of ICCU patients commonly face high levels of anxiety due to uncertainty and the patient's critical condition, making non-pharmacological interventions an essential alternative.

This study's findings are consistent with prior research showing the effectiveness of relaxation and spiritual therapies. According to Berek (2024), deep breathing activates the parasympathetic nervous system, producing a calming effect, while zikr provides inner peace and strengthens resilience through religious practice. Setiyo Purwanto et al. (2024) also demonstrated the benefits of integrating breathing and zikr for psychological well-being. Empirical studies reinforce these findings: Pangastuti (2018) showed that zikr significantly reduced anxiety in families of ICU patients; Pomalango (2019) reported that combining deep breathing with health education effectively lowered anxiety in families of Acute Coronary Syndrome patients; and Agustin (2018) found that integrating deep breathing with psychoreligious therapy reduced post-ICU stress ($p = 0.006$).

Collectively, these results suggest that combining slow deep breathing and dhikr provides a safe, practical, and effective intervention for reducing family anxiety in intensive care settings. The mechanism involves both physiological regulation and spiritual coping, making it particularly valuable in contexts where families face emotional crises and limited psychosocial support.

Conclusion

This study concludes that the combination of slow deep breathing and dhikr significantly reduces anxiety among families of patients in the ICCU of Dr. Soehadi Prijonegoro Regional Hospital, Sragen. The intervention provides both physiological relaxation and spiritual calm, making it an effective non-pharmacological strategy for addressing family anxiety in critical care settings. Practically, families can independently apply this combination while waiting in the ICCU to prevent anxiety disorders and maintain emotional stability. It is recommended that healthcare providers in ICCU settings integrate guided slow deep breathing and dhikr as part of routine psychosocial support for patient families, given its safety, simplicity, and effectiveness. Broader implementation and structured guidance by nurses and hospital staff may further enhance family coping and improve overall quality of care in intensive care environments.

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References

Agustin, I. M. (2018). *Pengaruh kombinasi terapi relaksasi nafas dalam dan psikoreligius terhadap tingkat stres pasien pasca perawatan di ruang ICU-ICCU RSUD Dr. Soedirman Kebumen* [Undergraduate thesis, Universitas Muhammadiyah Gombong].

Rahmawati, A. Y. (2020). *Pengaruh pembekalan kesejahteraan spiritual terhadap tingkat kecemasan keluarga pasien di ruang Intensive Care Unit (ICU) RSD Dr. Soebandi Jember*, 11, 1–23.

Anggraieni, W. N., & Subandi, S. (2014). Pengaruh terapi relaksasi zikir untuk menurunkan stres pada penderita hipertensi esensial. *Jurnal Intervensi Psikologi, 6*(1), 81–102. https://doi.org/10.20885/intervensipsikologi.vol6.iss1.art6

Berek, P. A. L. (2024). *Slow deep breathing: Salah satu intervensi non-farmakologis dalam penanganan hipertensi*. Yogyakarta: Filosofis Indonesia Press.

Pertiwi, E. R. (2024). Analysis of the application of deep breathing relaxation techniques in reducing blood pressure in hypertension patients. *Omni Health Journal, 1*(2), 40–45. https://omnijournal.id/index.php/health/article/view/45

Handriani, L. (2023). *Pengaruh bimbingan rohani terhadap kecemasan keluarga pasien yang mendapat perawatan intensif di ruang ICU RSUD Sultan Imanuddin Pangkalan Bun Kalimantan Tengah* [Doctoral dissertation, Sekolah Tinggi Ilmu Kesehatan Borneo Cendekia Medika Pangkalan Bun].

Kusumawaty, I., Rahmy, H. A., Jalal, N. M., & Budi, Y. S. (2022). *Kesehatan mental*. Jakarta: PT Global Eksekutif Teknologi.

Latifah, H. (2022). Efektivitas teknik relaksasi slow deep breathing (SDB) dan relaksasi Benson terhadap nyeri pada pasien post operasi modifikasi radikal mastektomi (MRM). *Jurnal Universitas Islam Sultan Agung*.

Morton, P. G., Fontaine, D., Hudak, C., & Gallo, B. (Eds.). (2022). *Keperawatan kritis* (8th ed.). Jakarta: EGC.

Nipa, N. (2017). Pengaruh latihan relaksasi napas dalam terhadap perubahan skor kecemasan pasien penyakit ginjal kronik yang menjalani hemodialisis di Rumah Sakit Pendidikan Universitas Hasanuddin. *Journal of Personality and Social Psychology, 1*(1), 1188–1197. https://doi.org/10.1037/0000165-000

Ovari, I., & Anggreini, S. N. (2022). *Monograf: Dampak progressive relaxation terhadap perubahan tekanan darah lanjut usia dengan hipertensi*. Surabaya: CV Global Aksara Press.

Pangastuti, H. S. (2018). *Pengaruh terapi dzikir terhadap tingkat kecemasan keluarga pasien yang kritis di unit perawatan intensif* [Master's thesis, Universitas Gadjah Mada].

Pardede, J. A., Hasibuan, E. K., & Hondro, H. S. (2020). Perilaku caring perawat dengan koping dan kecemasan keluarga. *Indonesian Journal of Nursing Sciences and Practice, 3*(1), 15–23. https://doi.org/10.24853/ijnsp.v3i1.

Poku, S. R. B., & Azizah, A. N. (2024). Length of critical patient care is related to family anxiety level in the intensive care unit of PKU Muhammadiyah Bantul Hospital. *Journal Keperawatan, 3*(2), 104–111.

Pomalango, Z. B. (2019). *Pengaruh kombinasi slow deep breathing dan pendidikan kesehatan terhadap penurunan kecemasan keluarga pasien sindrom koroner akut di Rumah Sakit Aloei Saboe Kota Gorontalo* [Master's thesis, Universitas Brawijaya].

Septianawati, P., Pratama, T. S., Kusumo, M. H. B., & Maulana, A. M. (2023). Uji reliabilitas dan validitas HARS dan NDI versi Indonesia untuk mengukur kecemasan dan dispepsia pada mahasiswa kedokteran tahun pertama. *Psikologi Konseling, 15*(2), 347–357.

Setyorogo, S. K., & Trisnawati, K. (2013). Faktor risiko kejadian diabetes melitus tipe II di Puskesmas Kecamatan Cengkareng Jakarta Barat tahun 2012. Retrieved April 5, 2025, from https://www.academia.edu/download/40771315/jurnal_kesehatan_DM_epid_non.PDF

Yang, P., Di, D., ICU, R., & Soemarno, R. S. D. H. (2023). Hubungan lama rawat dengan tingkat kecemasan keluarga. *Politeknik Kesehatan Kalimantan Timur, 2*(2), 225–233.