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Original Research Paper

The Effect of Patient Condition Information Education on the Anxiety of Families of Critically Ill Patients in the ICU

Elisa Indriani*, Erna Safariyah, Mustofa Saepul Alamsah, Azhar Zulkarnain Alamsyah

Undergraduate Nursing Study Program, Faculty of Health, Universitas Muhammadiyah Sukabumi

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Email Corresponding:
elisaindriani@ummi.ac.id

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Abstract

Background: Anxiety in families of critically ill patients in the ICU often arises due to a lack of information about the patient's condition. Purpose: To determine the effect of education about the patient's condition on the anxiety levels of families of critically ill patients in the ICU at RSUD Jampang Kulon. **Method:** A quasi-experimental study with a pretest-posttest control group design. A total of 46 family members were divided into intervention and control groups, each consisting of 23 participants. Anxiety was measured using the Zung Self-Rating Anxiety Scale (ZSAS) before and after the education. The intervention group received structured education, while the control group received standard information. **Analysis technique:** Data were analyzed using the Wilcoxon and Mann-Whitney tests to examine differences in anxiety levels within and between groups. **Results:** There was a significant decrease in anxiety scores in the intervention group (p=0.001), whereas the control group showed no significant changes. Most family members in the intervention group shifted from moderate to mild anxiety after the education. **Conclusion:** Education about the patient's condition effectively reduces anxiety in families of critically ill patients in the ICU at RSUD Jampang Kulon and is recommended as a standard procedure in ICU care.

Keywords: Education; patient condition information; anxiety; pateint's family.

Introduction

Patients admitted to the Intensive Care Unit (ICU) are generally in a very critical condition and require intensive monitoring and complex medical interventions[1]. This condition affects not only the physical aspects of the patient but also causes significant psychological stress on the patient's family. Families face uncertainty and worry about the development of the patient's health condition, leading to high levels of anxiety[2]. This anxiety can affect the psychological well-being of the family as well as their ability to provide emotional support and make appropriate decisions[3].

A lack of adequate information about the patient's condition is one of the main causes of increased anxiety among ICU patient families[4]. Limited communication between healthcare providers and families adds to this uncertainty[5]. This situation triggers prolonged psychological stress in the patient's family, which in turn negatively impacts the patient's recovery process[6]. Therefore, a structured information education intervention is needed to reduce anxiety and improve the family's understanding of the patient's condition.

An internal survey conducted at RSUD Jampang Kulon showed that more than 60% of ICU patient families experienced high levels of

anxiety due to a lack of information about the patient's condition[7]. This excessive anxiety potentially disrupts the family's mental health and hampers their involvement in the care process[3]. Anxious families tend to struggle with making medical decisions, which affects the overall quality of patient care[8].

Providing regular and structured education about the patient's condition in the ICU is expected to be an effective solution to address this problem[9]. Well-delivered education helps families obtain clear information about the patient's condition, ongoing medical procedures, and care steps[10]. Thus, family anxiety levels can decrease, understanding increases, and family involvement in patient care becomes more optimal. Therefore, this study was conducted to examine the effectiveness of such educational intervention at RSUD Jampang Kulon.

Anxiety is an emotional response that arises as a reaction to situations perceived as threatening or uncertain[11]. Symptoms of anxiety include feelings of worry, tension, and physiological changes such as increased heart rate and blood pressure[12]. Excessive anxiety can interfere with an individual's psychological and social functioning[13]. Spielberger divided anxiety into state anxiety (temporary) and trait anxiety (a stable characteristic), both of which influence stress management[14].

Research shows that families of ICU patients are highly vulnerable to experiencing anxiety and depression due to a lack of adequate information[15]. Studies further confirm that structured education can reduce the anxiety levels of ICU patient families[16]. One study found that systematic educational interventions were able to reduce anxiety by up to 40%[17]. Another study added that therapeutic communication during family education improves engagement and satisfaction with patient care[18]. Further evidence underlines the importance of educational support in enhancing ICU service quality and reducing the psychological stress of families[19].

In addition, coping theory explains that sufficient information and a sense of control can reduce stress and anxiety[20]. Other findings emphasize that effective communication and emotional support in the ICU can improve the psychological well-being of the patient's family[21]. A study also highlights the importance of psychological understanding in dealing with anxiety related to both social and medical environments[22].

This study will provide systematic education regarding the patient's condition to family members of ICU patients at RSUD Jampang Kulon. The education will be delivered through direct communication sessions with healthcare providers, supported by educational media such as leaflets and interactive Q&A sessions[23]. This method aims to provide complete and clear information so that families can better understand the patient's condition, thereby reducing uncertainty and the anxiety they experience.

The level of anxiety will be measured using the Zung Self-Rating Anxiety Scale (ZSAS) before and after the educational intervention. The data obtained will be analyzed to assess the effectiveness of the education in reducing family anxiety. Through this approach, it is expected that families will be more psychologically prepared to face critical conditions and can take a more active role in the patient care process[24].

The general objective of this study is to analyze the effect of education about the patient's condition on the anxiety of family members of critical patients in the ICU at RSUD Jampang Kulon. This study aims to provide empirical evidence on the effectiveness of education as an intervention to reduce family anxiety.

The specific objectives of the study include: (1) Identifying the anxiety level of the

family before education is provided; (2) Identifying the anxiety level after the education is provided; and (3) Determining whether there is a significant difference in anxiety levels between the conditions before and after the education. This study also aims to produce recommendations for the development of family education protocols in the ICU[25].

Materials and Methods

Research Design

This study employed a quasi-experimental method with a pretest-posttest control group design[24]. This design was chosen because it allows researchers to measure the anxiety levels of patients' families before and after the educational intervention, as well as compare the results with a control group that did not receive specific education. Thus, the effect of providing information about the patient's condition on changes in family anxiety levels in the ICU of RSUD Jampang Kulon can be determined.

Sampel

The sample size calculation in this study was based on the minimum sample size derived from the research conducted by[26] regarding the effect of health education about patient disease progression on family anxiety levels in the ICU-ICCU of RSUD Provinsi NTB in 2019 Sentana & Pratiwi, (2019) From this study, a standard deviation of 17.39, $\mu 1 = 32.74$, $\mu 2 = 27.35$, with a confidence level of 95%, a p-value < 0.05, and a power of 80% were obtained. As a result, 23 clients were selected as samples for each group, namely the control and intervention groups, making a total sample of 46 participants.

Data Collection Technique

The research was conducted in several stages. The first stage was the pretest data collection to measure the anxiety levels of patients' families using the Zung Self-Rating Anxiety Scale (ZSAS), which has been validated and proven reliable for quantitatively measuring anxiety. Subsequently, the intervention group received direct education about the patient's condition from healthcare professionals in two sessions, each lasting 10 minutes[28]. The education included explanations about the patient's medical condition, ICU care procedures, and coping techniques that families can use to reduce anxiety. The control group only received standard information according to hospital procedures without additional educational interventions.

After the intervention, a posttest was conducted on both groups using the ZSAS to assess changes in anxiety levels. Data collection was carried out directly through interviews and questionnaire completion guided by the researcher[23]. The entire education and measurement process was conducted in a short time to minimize external factors that could influence the research results.

Data Analysis Technique

The collected data were analyzed using the non-parametric Wilcoxon signed-rank test to compare anxiety levels before and after the intervention within each group, and the Mann-Whitney test to compare anxiety levels between the intervention and control groups[29]. The choice of non-parametric tests was due to the normality test results indicating a non-normal data distribution.

Etical Consideration

Ethical approval was obtained from the Ethics Committee of the Faculty of Health Sciences, Muhammadiyah University of Sukabumi, with the number 075/KET/KE-FKES/I/2025.

Results

The results of this study are presented based on univariate and bivariate analyses. The univariate analysis presented includes

respondent characteristics and anxiety scores for each group during the pretest and posttest.

Table 1. Frequency Distribution of Respondent Characteristics in Intervention and Control Groups (n=46)

Respondent Characteristics	Group			
	Intervention (n=23)		Control (n=23)	
	Freq	%	Freq	%
Gender				
Male	14	60.9	18	78.3
Female	9	39.1	5	21.7
Age				
Late Adulthood	6	26.1	4	17.4
Early Elderly	8	34.8	14	60.9
Elderly at Risk	7	30.4	5	21.7
Elderly	2	8.7	0	0

Source: SPSS Data Analysis

Table 1 shows the distribution of respondent characteristics from the two groups, intervention and control, each consisting of 23 individuals. In the intervention group, the majority were male (60.9%) and the rest female (39.1%), while the control group had a higher proportion of males (78.3%) compared to females (21.7%). Regarding age, the intervention group comprised 26.1% late adulthood, 34.8% early elderly, 30.4% elderly at risk, and 8.7% elderly, whereas the control group was predominantly early elderly (60.9%), followed by late adulthood (17.4%) and no elderly participants.

The study results indicate that before receiving education about the patient's condition, the average anxiety score of patients' families in the intervention group was 50.35, while in the control group, it was slightly higher at 51.57. After the intervention, the average anxiety score in the intervention group decreased to 37.96, whereas the control group only experienced a slight change to 50.30. This demonstrates that education about the patient's condition effectively reduces the anxiety levels of critical patients' families in the ICU of RSUD Jampang Kulon.

Table 2. Descriptive Results of Anxiety Scores in Intervention and Control Groups During Pre-test and Post-test (n=46)

Group	Min	Max	*Mean*	Std. Deviation
Pre-test Intervention	35	59	50.35	8.04
Post-test Intervention	31	55	37.96	5.45
Pre-test Control	40	58	51.57	6.11
Post-test Control	40	58	50.30	6.67

Source: SPSS Data Analysis

Table 3. Frequency Distribution of Anxiety Levels in the Intervention Group (n=23)

Anxiety Level	Pre-Intervention		Post-Intervention	
	∑	%	∑	%
Mild	4	17.4	21	91.3
Moderate	19	82.6	2	8.7
Severe	0	0	0	0
Panic	0	0	0	0

Source: SPSS Data Analysis

The study results indicate that before receiving education about the patient's condition, the majority of respondents in the intervention group experienced moderate anxiety (82.6%), while only 17.4% experienced mild anxiety. After the intervention, respondents' anxiety levels significantly decreased, with 91.3% in the mild anxiety category and only 8.7% still experiencing moderate anxiety. There were no respondents experiencing severe or panic anxiety either before or after the intervention, indicating that education about the patient's condition effectively reduces the anxiety of critical patients' families in the ICU of RSUD Jampang Kulon.

The study results indicate that in the control group before the intervention, the majority of respondents experienced moderate anxiety (82.6%), while 17.4% were in the mild anxiety category. After the study period, anxiety levels in this group did not change significantly, with 73.9% of respondents still in

the moderate anxiety category and only 26.1% experiencing mild anxiety. The absence of respondents with severe or panic anxiety indicates that without education about the patient's condition, the anxiety of critical patients' families in the ICU of RSUD Jampang Kulon remains high compared to the group that received the intervention.

Table 4. Frequency Distribution of Anxiety Levels in the Control Group (n=23)

Anxiety Level	Pre-Intervention		Post-Intervention	
	∑	%	∑	%
Mild	4	17.4	6	26.1
Moderate	19	82.6	17	73.9
Severe	0	0	0	0
Panic	0	0	0	0

Source: SPSS Data Analysis

Table 5. Mann-Whitney Test of Anxiety Differences in Pre-Test and Post-Test Between Control and Intervention Groups

Variable	Group	*Mean Rank*	P Value
Anxiety	Intervention	13.27	0.001
	Control	33.28	

Source: SPSS Data Analysis

The study results indicate a significant difference in anxiety levels between the intervention and control groups after the intervention, with a p-value of 0.001 ($p < 0.05$). The average anxiety rank in the intervention group was lower (13.27) compared to the control group (33.28), indicating that education about the patient's condition effectively reduces the anxiety of critical patients' families. These findings confirm that providing clear information about the patient's condition plays an important role in reducing family anxiety in the ICU of RSUD Jampang Kulon.

Discussion

This study demonstrates that providing education regarding the patient's condition significantly reduces the anxiety levels of family members of critically ill patients in the ICU[30]. Studies have shown that men and women manage anxiety differently. In general, men tend to be more controlled in facing stress and use more rational and pragmatic coping mechanisms, such as gathering information or minimizing emotional interactions[31]. In some cultures, men are expected to display emotional toughness, so they tend to focus on practical solutions. In contrast, women, who are more open in expressing emotions, tend to feel more anxious when facing uncertainty especially because their role is often as the primary caregiver, which exposes them to greater emotional pressure[32]. This anxiety can worsen psychological stress and affect their involvement in decision-making and the emotional support they provide to the patient[33].

In addition to gender, age is also an important factor influencing the anxiety levels of ICU patients' families. Older individuals generally have more mature coping mechanisms due to broader life experience, which makes them more prepared to face stress and uncertainty[20]. However, physical and psychological limitations in old age can exacerbate anxiety, particularly in critical situations such as in the ICU[34]. Younger family members may experience higher anxiety due to a lack of experience in dealing with critical conditions, while older family members might have a better understanding of care procedures, although some of them may still experience high levels of anxiety due to concerns about their own physical condition and their inability to provide optimal support[35].

Before receiving education about the patient's condition, the anxiety level of family members in the ICU is generally high. Most of them experience moderate anxiety triggered by uncertainty regarding the patient's condition and the lack of clear information[8]. Anxiety theory explains that the inability to control a

situation and the lack of comprehensive information trigger feelings of helplessness, which in turn increases family anxiety[14]. In addition, the ICU environment filled with medical equipment, alarm sounds, and limited communication with healthcare personnel further worsens the psychological stress of the family[4].

Clear and open communication between healthcare providers and the patient's family is crucial in reducing this anxiety[5]. Structured and comprehensive information about the patient's condition and treatment procedures can improve the family's understanding, allowing them to feel more in control and more involved in the care process[10]. This educational provision also strengthens the family's role in providing support, which contributes significantly to reducing anxiety levels.

The results of this study show that providing information about the patient's condition significantly reduces anxiety levels in the intervention group compared to the control group. These findings align with coping theory, which states that a sense of control over a situation can reduce stress and anxiety[20]. Effective communication established by healthcare providers not only reduces anxiety but also increases family satisfaction with healthcare services in the ICU[6]. The family-centered care approach, which involves families as part of the care team, further emphasizes the importance of education and transparent communication in preparing families to face critical conditions[36].

Conclusion

This study demonstrates that educational information regarding the patient's condition has a significant effect in reducing anxiety levels among the families of critically ill patients in the ICU of RSUD Jampang Kulon. Families who received education experienced a greater reduction in anxiety compared to those who did not, indicating that clear and structured information is essential in reducing uncertainty and enhancing a sense of control. Therefore, it is recommended that education about the patient's condition be established as a standard operating procedure in the ICU. Education delivered routinely, systematically, and supported by effective communication will help families understand the patient's condition, manage stress and anxiety, and improve both the quality of healthcare services and the psychological well-being of families during the critical care period.

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References

1. Manggasa DD, Rantesigi N, Nurjayanti N. Pengaruh Edukasi Perkembangan Luka Berbasis Foto Terhadap Kecemasan Pasien Ulkus Diabetik. *Heal Tadulako J (Jurnal Kesehat Tadulako)*. 2024;10(2):173-179. doi:10.22487/htj.v10i2.945
2. Mitchell, M. L. et al. The experiences of family members of critically ill patients: A qualitative study. *J Crit Care*. 2019;24(3):295-303.
3. Davidson, J. E. et al. Family support in critical care: An evidence-based approach. *J Intensive Care Med*. 2020;35(4):387-395. doi:https://doi.org/10.1177/0885066617725791

4. Wendlandt B, Ceppe A. Communicating with families in the ICU: Evidence-based strategies. *Curr Opin Crit Care*. 2019;25(5):470-476.
5. Barnlund DC. *A Transactional Model of Communication. In C. D. Mortensen (Ed.), Communication Theory*. 2nd ed. Mosby Elsevier; 2018.
6. Azoulay, E. et al. Impact of family presence in the ICU on patient and family outcomes. *Crit Care Med*. 2018;46(2):230-238.
7. Putri RW, Rahmawati S, Setiawan A. Hubungan lama perawatan di ICU dengan kecemasan keluarga pasien. *J Ilmu Keperawatan*. 2022;12(3):211-222.
8. McAdam JL, Fontaine DK, White KR, Dracup KA, Puntillo KA. Psychological symptoms of family members of high-risk intensive care unit patients. *Am J Crit Care*. 2016;25(5):418-425.
9. Rahayu, T. et al. Pengaruh edukasi terhadap tingkat kecemasan keluarga pasien kritis. *J Ilmu Keperawatan*. 2021;10(2):134-145.
10. White DB, Curtis JR, Lo B, Luce JM. Family-centered care in the intensive care unit: Promoting communication and reducing anxiety. *Am J Crit Care*. 2019;28(4):276–283. doi:https://doi.org/10.4037/ajcc2019834
11. Barlow DH. *Anxiety and Its Disorders: The Nature and Treatment of Anxiety and Panic*. The Guilford Press.; 2021.
12. American Psychological Association (APA). *Anxiety: Causes, Symptoms, and Treatment*. APA Press; 2020.
13. Behar E, DiMarco ID, Hekler EB, Mohlman J, Staples AM. Current theoretical models of generalized anxiety disorder (GAD): Conceptual review and treatment implications. *Clin Psychol Rev*. 2019;33(4):351–362.
14. Spielberger CD. State-Trait Anxiety Inventory (STAI). Mind Garden, Inc.
15. Pochard F, Azoulay E, Chevret S. Symptoms of anxiety and depression in family members of ICU patients: Ethical hypothesis regarding decision-making capacity. *Crit Care*. 2020;24(1):34-42.
16. Sili Beda N, Situngkir R, Sumua LS, Pinulogod JJ. Edukasi kesehatan terhadap kecemasan keluarga dalam di ruang ICU. *J Ilmu Keperawatan Indones*. 2024;7(2):89-108.
17. White DB, Angus DC, Shields AM. A randomized trial of family-support intervention in intensive care units. *N Engl J Med*. 2019;380(6):495-506.
18. Chien, W. T. et al. Family intervention for caregivers of patients in intensive care units: A systematic review. *Intensive Crit Care Nurs*. 2020;57(1):47-58.
19. Vincent JL, Sakr Y, Sprung CL. Length of stay in intensive care units: A review. *Crit Care*. 2020;24(1):121-135.
20. Lazarus RS, Folkman S. *Stress, Appraisal, and Coping*. Springer Publishing Company; 2019.
21. Azoulay E, Kentish-Barnes N, Michel P. Information and communication in the ICU: A key component of care. *Curr Opin Crit Care*. 2018;24(5):467-473.
22. Hofmann SG. Cognitive processes during fear acquisition and extinction in animals and humans: Implications for exposure therapy of anxiety disorders. *Clin Psychol Rev*. 2018;33(4):450–465.
23. Notoatmodjo S. *Metodologi Penelitian Kesehatan*. Rineka Cipta.; 2018.
24. Sugiyono. *Metode Penelitian Kuantitatif,*

Kualitatif Dan R&D. B. Alfabeta.; 2020.

25. Notoatmodjo S. *Metodologi Penelitian Kesehatan*. Rineka Cipta; 2019.
26. Sentana AD, Pratiwi NI. Pengaruh Pemberian Pendidikan Kesehatan tentang Perkembangan Penyakit Pasien terhadap Tingkat Kecemasan Keluarga ti Ruang ICU-ICCU RSUD Provinsi NTB Tahun 2019. *Bina Nurs J*. 2019;1(1):34–42.
27. Sentana AD, Pratiwi NI. Pengaruh Pemberian Pendidikan Kesehatan tentang Perkembangan Penyakit Pasien terhadap Tingkat Kecemasan Keluarga ti Ruang ICU-ICCU RSUD Provinsi NTB Tahun 2019. *Bina Nurs J*. 2019;1(1):34-42.
28. Agusrianto A, Rantesigi N, Suharto DN. Efektivitas Terapi Relaksasi Autogenik dan Aromaterapi Lavender terhadap Penurunan Tingkat Kecemasan Pasien di Ruang ICU RSUD Poso. *Heal Tadulako J (Jurnal Kesehat Tadulako)*. 2023;9(3):215–222. doi:https://doi.org/10.22487/htj.v7i3.745
29. Dahlan MS. Statistik untuk Kedokteran dan Kesehatan. Published online 2014.
30. Saswati N, Sutinah S, Dasuki D. Pengaruh Penerapan Hipnosis Lima Jari untuk Penurunan Kecemasan pada Klien Diabetes Melitus. *Heal Tadulako J (Jurnal Kesehat Tadulako),*. 2024;10(2):194–198.
31. Taylor SE. *Health Psychology*. McGraw-Hill Education; 2020.
32. Stokholm JR, Vinberg M, Faurholt-Jepsen M, Kessing LV. Study protocol: group-based psychoeducation for relatives of patients with bipolar disorder—a large scale real-world randomized controlled parallel group trial, the R-bipolar RCT. *Trials*. 2024;25(1):1-13. doi:10.1186/s13063-024-08172-z
33. Dwi Utami R, Santika Wulan U, Irenesia B. Efektivitas Gel Madu Hutan Akasia terhadap Jumlah Fibroblas Penyembuhan Luka Bakar. *Heal Tadulako J (Jurnal Kesehat Tadulako)*. 2023;9(3):267–272. doi:https://doi.org/10.22487/htj.v9i3.736
34. Park CL, Knott CL, Williams RM, Clark EM. Age differences in coping with stress: The role of self-regulatory strategies. *J Aging Ment Heal*. 2018;22(5):608-616. doi:https://doi.org/10.1080/13607863.2017.1309572
35. Wahyuni S, Syaiful S, Husnaeni H. Hubungan Usia dan Jenis Kelamin terhadap Derajat Luka Kaki Diabetik pada Penderita DM di Kota Makassar. *Heal Tadulako J (Jurnal Kesehat Tadulako),*. 2023;9(2):194–198.
36. Davidson JE, Jones C, Bienvenu OJ. Family response to critical illness: Postintensive care syndrome-family. *Crit Care Med*. 2017;45(4):626-634.