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Communication, Information and Education (CIE) using Five Finger Labels to Reduce Anxiety of the Patient's Family

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ABSTRACT

During the treatment process, anxiety could've been felt by the family that had their member treated in the hospital. This research is purposed for knowing the effect of Communication, Information, and Education (CIE) using five-finger labels on the level of anxiety of the patient's family in the emergency department. This research used quasi-experimental with pre-post test with a control group design. The sample in the research is the patient's family which is in the yellow zone of the emergency department counted 60 respondents, selected with purposive sampling. Instruments that were selected are the Anxiety questionnaire State Anxiety Inventory (S-AI) form Y. The results showed that in the experimental group, there was an increase in the number of mild anxiety levels from 53.3% to 80%, a decrease in the number of moderate anxiety levels from 43.3% to 20%, a decrease in the level of severe anxiety from 3.3% to 0%. In the control group, there was an increase in the number of mild anxiety levels from 53.3% to 60% and a decrease in moderate anxiety levels from 46.7% to 40%. The results of the Mann-Whitney statistical test obtained a significance value (p) of 0.010, which means that there was an effect of CIE using five-finger labels on the anxiety level of the patient's family in the emergency room. The results of this study are expected to be applied as an intervention in reducing the anxiety of the patient's family in the emergency room.
Keywords: Anxiety, Emergency room, CIE, Five Finger Labels

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1. INTRODUCTION

Anxiety is a feeling that arises when a person is faced with a life-threatening situation (Deane et al., 2021). Excessive worry will cause anxiety disorders Anxiety makes individuals feel uncomfortable and feel afraid of the surrounding environment.

In certain situations, anxiety can be interpreted as a signal that helps individuals prepare to take action in the face of a threat (Sutejo, 2017). The problem of anxiety experienced by the family is seen as a threat that disturbs feelings and creates a psychological burden. Anxiety is

caused by a crisis, unfulfilled needs, feelings of helplessness, and lack of control over situations in life. So that what the family needs is information, support, and comfort. Meanwhile, the phenomenon that occurs in emergency departments is that families are often neglected because nurses have limited time for family members, do not know the traumatic conditions/ experiences experienced by families, and the density of patient visits in emergency departments. This is a stressor that will make the family anxious (Hayaturrahmi and Halimuddin, 2018). The condition of patients treated in the emergency room can cause anxiety to their families. Family anxiety is characterized by frequent questions, anxiety, pacing, and thinking that bad feelings will occur (Kozier, 2018).

The results of research conducted by Nugroho at the Emergency Room (IGD) at Hardjono Hospital, Ponorogo, showed that almost half of the patient's family (46%) experienced moderate anxiety and the rest experienced mild anxiety (22%). And the results of the study state that moderate family anxiety can increase to very severe anxiety or panic (Nugroho, 2019). Meanwhile, the results of the research conducted by Nurhayati and Juniarti at Palembang Hospital showed that most of the patient's families (73%) experienced severe anxiety and the rest experienced

moderate anxiety (Nurhayati and Juniarti, 2020). The results of Madianingsih's research titled Overview of the Anxiety of the Patient's Family at the Emergency Room (IGD) Wates Kulon Progo Hospital which was measured using the Trait Anxiety scale found that of the patient families studied as many as 71 people experienced mild anxiety 18.3%, moderate anxiety 67.6% and severe anxiety 14.1% (Madianingsih, 2017).

Based on the results of a preliminary study conducted in early December 2022 in the yellow zone emergency room at the Sidoarjo Hospital, from 8 respondents, 3 (37.5%) experienced mild anxiety, 4 (50%) moderate anxiety and 1 (12.5%) experienced severe anxiety. To facilitate communication or provide information from officers to patients or patient families in the Sidoarjo Hospital Emergency Room, in 2019 a communication media in the form of a 5-finger label was created which was used as a label for patients. The label consists of labels waiting for laboratory or radiology, waiting for rooms, waiting for doctor's examination, observation, and waiting for culture. However, the implementation is still not effective.

Families experience high anxiety when the patient is at risk of dying. High anxiety arises due to the burden that must be taken in making decisions and the best

treatment for patients. Risk factors associated with the anxiety of family members in critical and emergencies are the type of kinship with the client, level of education, type of client care, the client's medical condition, family meetings with the nursing team, coping methods, and family needs (McAdam and Puntilo, 2017).

A nurse holds enormous responsibility in the conduct of professional nursing practice, where nurses are required to carry out their roles for 24 hours beside patients and their families. Patients and their families who are admitted to the hospital will experience feelings of anxiety or what is commonly called anxiety. This feeling of anxiety or anxiety will be more clearly found in patients and families who are admitted to the hospital in the Critical Care Unit or the Hospital Critical Care Unit. (Desridius and Nurlaela Puspita Ningrum, 2018).

Health workers have a very important role in efforts to increase patient knowledge and understanding of certain actions to reduce worry or anxiety in patients. The patient's family wants the best care for their family members. This of course encourages the treatment team to be able to convince the family that the patient is being given the best and maximum care, by providing information about the necessary treatment measures, information

about the patient's condition, treatment plan, and prognosis. Maximum support to meet family needs provides positive changes for the patient's family (Nugroho, 2019).

One of the factors that can reduce feelings of anxiety in the family is the support of clear and accurate information from medical personnel regarding the presence of a patient's illness along with actions that can be taken for patient safety. Providing the right information is expected to reduce negative influences in the form of anxiety and fear (Ahmed et al., 2019). Information support provided to families can be provided in the form of Communication, Information, and Education (CIE). CIE aims to increase knowledge and understanding and encourage behavior change in a positive direction. According to Youssef et al. (2025), CIE with flipchart media can reduce the patient's anxiety level. In this study, CIE was carried out using a five-finger label containing information on the actions performed on the patient, so that it is hoped that the patient's family will receive accurate information. Based on the above phenomenon, the researchers wanted to find out "The Effect of Communication, Information, and Education (CIE) using Five Finger Labels

on the Anxiety Level of the Patient's Family in the Emergency Room".

2. METHODS

This study uses a design quasi-experimental with an approach pre-post test with a control group design which aims to determine whether there is an effect of CIE and five-finger labeling on the anxiety level of the patient's family in the Emergency Room of Sidoarjo Hospital. The independent variables in this study were CIE and five-finger labeling while the dependent variable was the level of anxiety. The target population in this study was all families of patients who visited the yellow zone in the emergency room at Sidoarjo Hospital. In this study, the sample was taken using a simple random sampling technique. The inclusion criteria in this study were the nuclear family accompanying the patient (father, mother, child, sister, brother, husband, wife) while the exclusion criteria in this study were that the patient had not been treated for 3 hours but had received confirmation of a place of inpatient care or had been allowed to leave the hospital. The size of the research sample according to Gay, LR, and Diehl, PL, the size of the research sample must be as large as possible. This assumption was conveyed by Gay and Diehl based on the larger the sample, the more it represents the shape and character of the population. The sample in this study amounted to 60 respondents.

Family anxiety data in this study were collected through interview techniques and filling out the State Trait Anxiety Inventory (STAI) form-Y questionnaire which was conducted when the patient entered the yellow zone and was re-measured 2 hours after the intervention was given. STAI was compiled by Spielberger, Gorsuch, and Luschene in 1964, which consists of two dimensions, namely state anxiety and basic/trait anxiety (Ugalde, Krishnasamy, and Schofield, 2014; Greene et al., 2017). However, researchers only used a state anxiety measure or State Anxiety Inventory (S-AI) form-Y because the anxiety studied was anxiety in certain situations, namely when waiting for a sick family emergency.

Data processing went through the stages of editing, coding, processing, tabulating, and data analysis which consisted of univariate and bivariate analysis using the Wil Coxon test for each group and the Man-Whitney test for both groups. This research proposal underwent ethical testing at the Research Ethics Commission of the Regional General Hospital R.T. Notopuro Sidoarjo with the number: 893.3/ 026/ 438.5.2.1.1/2023.

3. RESULTS

This study was conducted at the Emergency Room of Reksa Waluya Hospital in Mojokerto. Data were presented in univariate and bivariate analyses. Univariate analysis was used to analyze the variables descriptively. Bivariate analysis was used to determine the effectiveness of health education about triage on the satisfaction level of families visiting the Emergency Room.

Table 1. Respondent Characteristics

Characteristics		Frequency (F)	Percentage (%)
Age	17-25	18	30,0
	26-35	19	31,7
	36-45	15	25,0
	46-55	8	13,3
Gender	Man	31	51,7
	Woman	29	48,3
Education	Junior High School	4	6,7
	Senior High School	23	38,3
	D1/D3	21	35,0
	S1	12	20,0
Financing	General	11	18,3
	BPJS Mandiri	35	58,3
	Government BPJS	10	16,7
	Other Insurance	4	6,7
Connection	Dad	11	18,3
Kinship	Mother	8	13,3
	Husband	12	20,0
	Wife	14	23,3
	Child	8	13,3
	Sister	3	5,0
	Brother	4	6,7
Experience visiting	1 time	23	38,3
Emergency Unit	› 1 time	37	61,7

Table 1 shows that based on age characteristics, almost half of the respondents are in the early adult age range (age 26-35 years), as many as 19 respondents (31.7%). Meanwhile, based on gender, the majority of respondents were male, as many as 31 respondents (51.7%). Based on the level of education, it was found that almost half of the respondents had a high school education, as many as 23 respondents (38.3%). Based on financing, most of the respondents were independent BPJS sources of financing, as many as 35 respondents (58.3%). Based on kinship, almost half of them were the wife of the patient, namely 14 respondents (23.3%). Based on the experience of visiting the emergency room, most of the respondents had experienced visiting the emergency room more than once, as many as 37 respondents (61.7%).

Table 2. Anxiety Level of the Patient's Family (Intervention group) before and after being given CIE and Five Finger Labels

Anxiety level	Pre-test		Post-test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Mild Anxiety	16	53,3	24	80,0
Moderate Anxiety	13	43,3	6	20,0
Heavy Anxiety	1	3,3	0	0
Total	30	100	30	100

Table 2 shows that before the intervention was given, most of the respondents had a mild level of anxiety, as many as 16 respondents (53.3%). Meanwhile, after the intervention was given, there was an increase in the number of mild anxiety levels, where almost all respondents, as many as 24 respondents (80%) experienced mild anxiety.

Table 3. Anxiety Levels of the Patient's Family (Control Group) before and after being given CIE and Five Finger Labels

Anxiety level	Pre-test		Post-test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Mild Anxiety	16	53,3	18	60,0
Moderate Anxiety	14	46,7	12	40,0
Heavy Anxiety	0	0	0	0
Total	16	53,3	18	60,0

Table 3 shows that at the time of measurement before the intervention, most of the control group had a mild level of anxiety, as many as 16 respondents (53.3%). Whereas during the measurement after the intervention, there was a slight increase in the number of mild anxiety levels, where the majority of respondents, as many as 18 respondents (60%) experienced mild anxiety.

Table 4. The Effect of CIE and Five Finger Labels on the Anxiety Level of the Patient's Family in the Emergency Room

Anxiety level	Intervention Group				Control Group			
	Pre-test		Post-test		Pre-test		Post-test	
	f	%	f	%	F	%	f	%
Mild Anxiety	16	53,3	24	80,0	16	53.3	18	60.0
Moderate Anxiety	13	43,3	6	20,0	14	46.7	12	40.0
Heavy Anxiety	1	3,3	0	0	0	0	0	0
Total	30	100	30	100	30	100	30	100
Wilcoxon Test Results	p= 0,001				p=0,148			
Mann Whitney Test Results p=0.010								

Table 4 shows that at the time of measurement after the intervention, in the intervention group, there was a change in the level of anxiety from severe anxiety by 1

respondent to moderate anxiety, while respondents who initially had a moderate level of anxiety changed to mild anxiety by 8 respondents. Whereas in the control group, there was only a change in the level of anxiety of 2 respondents, those who were initially anxious became mildly anxious, the others remained the same.

The results of the Wilcoxon test in the intervention group obtained a significance value (p) = 0.001, where p ‹α, which means that there was a difference in the level of anxiety before and after being given the IEC intervention and the five-finger label. Where there is a change in the status of the level of anxiety from severe to moderate and from moderate to mild anxiety. While the results of the Wilcoxon test in the control group obtained a significance value (p) = 0.148 where p › α, which means there was no difference in anxiety levels during the before and after measurements in the control group which was not given CIE intervention and five-finger labels.

The Mann-Whitney test results obtained a significance value (p) = 0.010 where p ‹α, which means that there is a difference in the level of anxiety when measuring after the intervention between the intervention group and the control group, which means that there is an effect of giving CIE and five-finger labels on the anxiety level of the patient's family in the emergency room.

4. DISCUSSION

Patient's Family Anxiety Level (Intervention group) before and after being given CIE using Five Finger Labels

Table 2 shows that before the intervention was given, most of the respondents had a mild level of anxiety, namely 16 respondents (53.3%). Meanwhile, after the intervention was given, there was an increase in the level of mild anxiety, where almost all respondents, namely 24 respondents (80%) experienced mild anxiety.

Many factors can cause anxiety in the patient's family in the Emergency Room. The phenomenon that occurs in the emergency department is that the family is often neglected because nurses have limited time for family members, do not know the traumatic conditions/ experiences experienced by the family, and the density of patient visits in the emergency department. This is a stressor that will make the family anxious (Hayaturrahmi and Halimuddin, 2018). The condition of patients treated in the emergency room can cause anxiety to their families. Family anxiety is characterized by frequent questions, anxiety, pacing, and

thinking that bad feelings will occur (Kozier, 2018). Families experience high anxiety when the patient is at risk of dying. High anxiety arises due to the burden that must be taken in making decisions and the best treatment for patients. Risk factors associated with the anxiety of family members in critical and emergencies are the type of kinship with the client, level of education, type of client care, the client's medical condition, family meetings with the nursing team, coping methods, and family needs (McAdam and Puntilo, 2017).

The facts obtained based on the results of the study are that the patient's family with severe anxiety is 1 respondent, the patient's child is a female who is still a teenager, namely 19 years old, and the respondent is the first time she has brought her parents to the Emergency Room and the source of funding is general. The factor of young age and the first experience of bringing a family to the emergency room is a factor that causes respondents to have difficulty in making decisions. Whereas of the 13 respondents who experienced moderate anxiety, 100% were female and aged between 26-35 years. 4 respondents had junior high school education and the remaining 9 people had high school education. Of the 16 respondents with a mild level of anxiety, 10 of them had an undergraduate degree and the remaining 9

had a high school education. 100% of respondents with mild anxiety had experienced bringing their family to the emergency room more than once because of their chronic illness. 12 respondents with mild anxiety were male and the remaining 4 respondents were female.

Long said, the problem of anxiety will affect a person's self-concept, especially at a younger age. Someone who is objectively older has maturity as seen from experience, knowledge, skills, and independence. This can help the individual in solving anxiety problems (Badra and Susantie, 2018; Amiman, Katuuk, and Malara, 2019). In this study, most of the respondents with moderate and severe anxiety were young. Gender factor also affects a person's anxiety. In this study, it was found that the majority of respondents with moderate and severe anxiety were female. Generally, men have a stronger mentality or think about something that is considered to be a threat to them compared to women. Men have more experience than women, this is evidenced that men have more interactions with the outside environment than women (Furwanti, 2014). Suyani in her research stated that a person's level of education is related to the knowledge he has about specific problems which is also high. So, the higher the level

of one's knowledge, the lower the level of anxiety (Suyani, 2020).

Anxiety in the intervention group when after being given the intervention there was an increase in the level of mild anxiety, where almost all respondents, namely as many as 24 respondents (80%) experienced a mild level of anxiety. This is because the intervention group was given CIE and five-finger labels. This is to the research results Ahmed et al. (2019) that CIE can reduce the level of anxiety and fear. One of the factors that can reduce feelings of anxiety in the family is the support of clear and accurate information from medical personnel regarding the presence of a patient's illness along with actions that can be taken for patient safety. Providing the right information is expected to reduce negative influences in the form of anxiety and fear (Ahmed et al., 2019). Information support provided to families can be provided in the form of Communication, Information, and Education (CIE). CIE aims to increase knowledge and understanding and encourage behavior change in a positive direction. According to Youssef et al. (2025), CIE with flipchart media can reduce the patient's anxiety level . In this study, CIE was carried out using a five-finger label containing information on the actions performed on the patient, so

that it is hoped that the patient's family will receive accurate information.

Patient's Family Anxiety Level (Control group) before and after being given CIE using Five Finger Labels

Table 3 shows that at the time of measurement before the intervention, most of the control group had a mild level of anxiety, namely 16 respondents (53.3%). Meanwhile, during the measurement after the intervention, there was a slight increase in the level of mild anxiety, where the majority of respondents, namely 18 respondents (60%), experienced mild anxiety.

Anxiety is a feeling that arises when a person is faced with a life-threatening situation. Excessive worry will cause anxiety disorders (Deane, 2021). Anxiety makes individuals feel uncomfortable and feel afraid of the surrounding environment. In certain situations, anxiety can be interpreted as a signal that helps individuals prepare to take action in the face of a threat (Sutejo, 2017).

The problem of anxiety experienced by the family is seen as a threat that disturbs feelings and creates a psychological burden. Anxiety is caused by a crisis, unfulfilled needs, feelings of helplessness, and lack of control over situations in life. So that what the family

needs is information, support, and comfort. Meanwhile, the phenomenon that occurs in emergency departments is that families are often neglected because nurses have limited time for family members, do not know the traumatic conditions/experiences experienced by families, and the density of patient visits in emergency departments. This is a stressor that will make the family anxious (Hayaturrahmi and Halimuddin, 2018). The condition of patients treated in the emergency room can cause anxiety to their families. Family anxiety is characterized by frequent questions, anxiety, pacing, and thinking that bad feelings will occur (Barbara, 2015). Risk factors associated with the anxiety of family members in critical and emergencies are the type of kinship with the client, level of education, type of client care, the client's medical condition, family meetings with the nursing team, coping methods, and family needs (McAdam and Puntilo, 2017).

Based on the research results, it was found that 16 respondents in the control group had mild anxiety, of which 12 were male and the remaining 4 respondents had experience of bringing their families to the emergency room more than once due to their chronic illness. Gender factor also affects a person's anxiety. In this study, it was found that the majority of respondents

with moderate and severe anxiety were female. Generally, men have a stronger mentality or think about something that is considered to be a threat to them compared to women. Men have more experience than women, this is evidenced that men have more interactions with the outside environment than women (Furwanti, 2014).

Moderate anxiety for 14 respondents showed that all respondents were aged between 17-25 years and most of them were female. Long said, the problem of anxiety will affect a person's self-concept, especially at a younger age. Someone who is objectively older has maturity as seen from experience, knowledge, skills, and independence. This can help the individual in solving anxiety problems (Badra and Susantie, 2018; Amiman, Katuuk, and Malara, 2019). In this study, most of the respondents with moderate and severe anxiety were young. Gender factor also affects a person's anxiety. In this study, it was found that the majority of respondents with moderate and severe anxiety were female. Generally, men have a stronger mentality or think about something that is considered to be a threat to them compared to women. Men have more experience than women, this is evidenced that men have more interactions with the outside

environment than women (Furwanti, 2014).

Anxiety in the control group when after being given the intervention there was an increase in the number of mild anxiety levels, only 2 respondents. This is because the control group was not given CIE and five-finger labels. The control group received intervention according to the routine carried out by the room nurse, conveying sober information and without using five-finger labels.

The effect of CIE and using five-finger labels on the anxiety level of the patient's family in the Emergency Room

Table 4 shows that at the time of measurement after the intervention, in the intervention group, there was a change in the level of anxiety from severe anxiety by 1 respondent to moderate anxiety, while respondents who initially had a moderate level of anxiety changed to mild anxiety by 8 respondents. Whereas in the control group, there was only a change in the level of anxiety of 2 respondents, those who were initially anxious became mildly anxious, the others remained the same.

The results of the Wilcoxon test in the intervention group obtained a significance value (p) = 0.001, where p <α, which means that there was a difference in the level of anxiety before and after being given the CIE intervention and the five-finger label. Where there is a change in the status of the level of anxiety from severe to moderate and from moderate to mild anxiety. While the results of the Wilcoxon test in the control group obtained a significance value (p) = 0.148 where p > α, which means there was no difference in anxiety levels during the before and after measurements in the control group which was not given CIE intervention and five-finger labels. Meanwhile, the results of the Mann-Whitney test obtained a significance value of p = 0.010 where p <α which means that there is a difference in the level of anxiety during measurement after the intervention between the intervention group and the control group, which means that there is an effect of giving CIE and five-finger labels on the anxiety level of the patient's family in the emergency room.

The results of this study are the results of Ahmed et al. research that CIE can reduce the level of anxiety and fear. One of the factors that can reduce feelings of anxiety in the family is the support of clear and accurate information from medical personnel regarding the presence of a patient's illness along with actions that can be taken for patient safety. Providing the right information is expected to reduce negative influences in the form of anxiety

and fear (Ahmed et al., 2019). Information support provided to families can be provided in the form of Communication, Information, and Education (CIE). CIE aims to increase knowledge and understanding and encourage behavior change in a positive direction. In line with Youssef et al. (2025) with the title Effect of Implementing Childbirth Preparation Classes on Women's Self-efficacy and Pregnancy Outcomes, this research found that CIE with flipchart media could reduce the patient's anxiety level.

This study applied CIE with five-finger label media to the patient's family as the intervention group. The five-finger label consists of labels waiting for laboratory or radiology, waiting for the room, waiting for a doctor's examination, observation, and waiting for culture. Procedurally, after the patient has been triaged, then enters the yellow zone room, the nurse then communicates, provides information and education regarding the patient's condition and every action performed on the patient will be given information using a five-finger label. Whereas in the control group, an intervention was carried out according to the room procedure, where respondents received information without the media of five finger labels. However, in the control group, there was a decrease in the amount

of moderate anxiety turning into mild anxiety in 2 respondents. This is because the patient's condition began to improve during the observation so the family's anxiety level decreased.

5. CONCLUSION

Based on the results of this study it can be concluded that most of the intervention group before being given the intervention had a mild level of anxiety as many as 16 respondents (53.3%). Meanwhile, after the intervention was given, there was an increase in the level of mild anxiety, where almost all respondents, namely 24 respondents (80%) experienced mild anxiety. Most of the control group before being given the intervention had a mild level of anxiety as many as 16 respondents (53.3%). Meanwhile, during the measurement after the intervention, there was a slight increase in the level of mild anxiety, where the majority of respondents, namely 18 respondents (60%), experienced mild anxiety. There is an effect of giving CIE and five-finger labels on the anxiety level of the patient's family in the Emergency Room.

Based on the results of this study, it is expected that service providers in the Emergency Room can apply Communication, Information, and Education (CIE) with five-finger label

media so that they can help reduce anxiety in patient families while waiting in the Emergency Room.

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AUTHOR CONTRIBUTIONS

Fitria Wahyu Ariyanti was responsible for conceptualization, methodology, formal analysis, original draft writing. Fitria Wahyu Ariyanti, and Atikah Fatmawati contributed to data curation, article screening, data extraction, manuscript review and editing, and visualization. Tri Haryadi worked on manuscript editing, and visualization.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

REFERENCES

Ahmed, K. J., Pilling, J. D., Ahmed, K., & Buchan, J. (2019). Effect of a patient-information video on the preoperative anxiety levels of cataract surgery patients. Journal of cataract and refractive surgery, 45(4), 475–479. https://doi.org/10.1016/j.jcrs.2018.11.011

Amiman, S. P., Katuuk, M. and Malara, R. (2019) 'Description of the Anxiety Level of Patients in the Emergency Room', Nursing Journal, 7(2). https://10.35790/jkp.v7i2.24472.

Badra, I. W. & Susantie, N. L. G. (2018) Analysis of Factors Influencing the Anxiety Level of the Patient's Family on Nursing Services in Patients Treated in the Intensive Care Unit (ICU) of Sele Be Solu Hospital, Sorong City in 2017', Nursing Arts, 11(1), pp. 11–22. doi: 10.36741/jna.v11i1.15.

Deane, K. H. O., Jimoh, O. F., Biswas, P., O'Brien, A., Hanson, S., Abdelhamid, A. S., ... Hooper, L. (2021). Omega-3 and polyunsaturated fat for prevention of depression and anxiety symptoms: systematic review and

meta-analysis of randomised trials. The British Journal of Psychiatry, 218(3), 135–142. https://doi.org/10.1192/bjp.2019.234

Desridius. & Ningrum, N. P. (2018). Relationship of Therapeutic Communication to the Anxiety Level of the Patient's Family. Journal Between Nursing. 1(2), pp. 86–91. https://doi.org/10.37063/antaraperawat.vli2.63.

Furwanti, E. (2014). Description of the Anxiety Level of Patients in the Emergency Room (IGD) Panembahan Senopati Hospital, Bantul. Yogyakarta Muhammadiyah University.

Greene, J., Cohen, D., Siskowski, C., & Toyinbo, P. (2017). The Relationship Between Family Caregiving and the Mental Health of Emerging Young Adult Caregivers. The journal of behavioral health services & research, 44(4), 551–563. https://doi.org/10.1007/s11414-016-9526-7

Hayaturrahmi, & Halimuddin. (2018). Factors Affecting the Anxiety Level of the Patient's Family in the Emergency Room. Student Scientific

Journal of the Faculty of Nursing. 3(2), pp. 231–240.

Kozier, B. (2008). Fundamentals of nursing: concepts, process and practice. pearson education.

Madianingsih, A. (2017). Description of Anxiety of the Patient's Family in the Emergency Room (IGD) of RSUD Wates Kulon Progo. STIKES Achmad Yani.

McAdam, J. & Puntilo, K. (2017). Symptoms experienced by family members of patients in intensive care unit'. American Journal of critical care. 18(3), p. 200b–210.

Nugroho, F. A. (2019). The Anxiety Level of the Patient's Family in the Emergency Room (IGD) Dr. Hardjono Ponorogo. Muhammadiyah University of Ponorogo.

Nurhayati & Juniarti, A. (2020). Factors Associated with the Level of Family Anxiety in Patients in the Emergency Room. Scientific Journal of Health Multi-Science, 12(2).

Sutejo. (2017). Mental Nursing Concepts and Practices of Mental Health Nursing Care: Mental and

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Psychosocial Disorders. Yogyakarta: New Press Library.

Suyani, S. (2020). Hubungan Tingkat Pendidikan Dan Status Pekerjaan Dengan Kecemasan Pada Ibu Hamil Trimester III. JKM (Jurnal Kesehatan Masyarakat) Cendekia Utama, 8(1), 19-28. https://doi.org/10.31596/jkm.v8i1.563

Ugalde, A., Krishnasamy, M., & Schofield, P. (2014). The relationship between self-efficacy and anxiety and general distress in caregivers of people with advanced cancer. Journal of palliative medicine, 17(8), 939–941. https://doi.org/10.1089/jpm.2013.0338

Youssef, N. K., Mostafa, M. F., & Ibrahim, W. H. (2025). Effect of Implementing Childbirth Preparation Classes on Women's Self-efficacy and Pregnancy Outcomes. The Malaysian Journal of Nursing (MJN), 16(3), 98-108. https://doi.org/10.31674/mjn.2025.v16i03.010