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REDUCING PATIENT ANXIETY UNDERGOING SURGERY THROUGH PROVIDING ANESTHESIA EDUCATION COUNSELING IN KEDIRI DISTRICT GENERAL HOSPITAL

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ABSTRACT

Introduction: Surgery is a medical procedure that can increase anxiety, making preoperative anxiety a common mental health issue experienced by many patients. This study aims to analyze changes of anesthesia education counseling intervention with leaflet in the premedication room on reducing anxiety in patients about to undergo surgery.

Methods: This activity was carried out by providing anesthesia education counseling interventions carried out by anesthesiologists using leaflet media to patients before undergoing surgery. This activity began by measuring patient anxiety using the Hamilton Anxiety Rating Scale (HAM-A) questionnaire in 36 patients, then anesthesia education counseling interventions were given and patient anxiety was re-evaluated. Data were analyzed using the Stuart-Maxwell Test, with a significance level of ≤ 0.05 .

Results: Most respondents had anxiety levels above the mild category (mild to moderate-severe category) totaling 32 patients (94.4%). The majority of these patients fell into the mild to moderate category (16 patients, 44.4%), followed by moderate to severe (10 patients, 27.8%) and severe anxiety (8 patients, 22.2%). Only 2 patients (5.6%) experienced mild anxiety. After the anesthesia education counseling interventions, all respondents exhibited mild anxiety, totaling 36 patients (100%). The results of the Stuart-Maxwell test showed a p-value of 0.000, indicating a significant difference in the level of patient anxiety before and after the anesthesia education counseling intervention.

Conclusion: Providing anesthesia education counseling intervention with leaflet in the premedication room has a significant effect on reducing anxiety in patients who will undergo surgery.

KEYWORDS

health education; leaflet; perioperative anxiety.

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1. INTRODUCTION

Surgery is one of the standard medical procedures that can increase anxiety, regardless of the type of surgery (Tadesse et al., 2022). Patients scheduled for surgery may experience fear and anxiety such as nervousness, fear of postoperative pain, length of hospital stay, and frequent readmissions (Kassahun et al., 2022). Thus, preoperative anxiety becomes a

significant mental health problem for many patients who are about to undergo surgery (Nigussie, Belachew and Wolancho, 2014). Anxiety is defined as a subjective state of emotional restlessness, distress, fear or worry associated with autonomic activity and somatic features and causing impaired function or activity. Anxiety can also be a normal human emotional reaction to a dangerous situation

accompanied by physiological and psychological elements (Bedaso, Mekonnen and Duko, 2022).

A global systematic review and meta-analysis reported that approximately 48% of patients experience preoperative anxiety among patients undergoing surgery (Abate, Chekol and Basu, 2020). Patients undergoing surgery have a fear of anesthesia and surgical procedures that result in anxiety. The incidence of preoperative anxiety globally is estimated to be 60–92% (Adhikari et al., 2023). Factors that contribute to patient anxiety include: age, gender, education, marital status, type of anesthesia, type of surgery, previous surgical history, personal susceptibility and tolerance to stress, social security, and existing psychiatric disorders. High levels of anxiety during the preoperative period negatively impact surgical outcomes (Vadhanan, Tripaty and Balakrishnan, 2017; Dhungana, Limbu and Shrestha, 2019).

Anxiety causes a variety of responses in patients scheduled for surgery. These responses include tachycardia, hypertension, sweating, increased body temperature, fear, mental tension and increased aggression (Asiri et al., 2024). Preoperative anxiety has an adverse effect on the induction and maintenance of anesthesia. Anxious patients require larger doses of anesthetic drugs and may also experience autonomic fluctuations. Anxiety worsens pain perception and increases the need for postoperative analgesia. Anxiety delays recovery and prolongs hospital stay. It has been found that such patients experience increased nausea and vomiting, and a higher risk of infection during the postoperative period (Bedaso, Mekonnen and Duko, 2022).

One of the roles of medical personnel in hospitals is as an educator or educator. Educator is the role of medical personnel in helping patients improve their health by providing knowledge about the care and medical actions received so that patients or families get better knowledge (Nursalam, 2020). The impact felt by patients from not providing health education

to patients before carrying out pre-operative actions is anxiety (Feninets et al., 2022).

Health education using leaflet media can be applied as an alternative to delivering information before surgery to reduce anxiety in patients, the results of research from Rizki et al., (2019) on 30 patients who were about to undergo surgery showed that there was an effect of health education using leaflet media on reducing anxiety levels in patients who were about to undergo surgery. The results of our study show that preoperative information regarding anesthesia can be well received by patients and caregivers when presented in the form of an easy-to-understand leaflet (Carneiro et al., 2024). Based on the description above, researchers are interested in conducting research on the analyze changes of anesthesia education counseling intervention with leaflet in the premedication room on reducing anxiety in patients about to undergo surgery.

2. MATERIAL AND METHODS

This study uses a pre-experimental method with a one group pre and post-test design. The population in this study were all patients who underwent surgery at Kediri District General Hospital. The sample size in this study was 36 patients taken using a purposive sampling technique. The study was conducted at the Kediri Regency General Hospital on March 5-15 March, 2025. The method used in this activity was Anesthesia Education Counseling Intervention using leaflet media (figure1-4).

The counseling materials given to patients include: (1) Understanding anesthesia (2) Preparation of patient anesthesia before undergoing surgery (3) The role of anesthesiologists during surgery (4) Side effects felt by patients after surgery (5) Monitoring the patient's condition after surgery. Interventions were conducted randomly during the study period. Conducted by researchers accompanied by premedication room nurses and observed and given input by peer group anesthesiologists. Every



Figure 1. Discussion with peer anesthesiologist



Figure 2. Providing Anesthesia Education Counseling Intervention



Figure 3. Researchers together with the head of central surgery at Kediri District General Hospital discuss interventions



Figure 4. Discussion between researchers and officials of Kediri District General Hospital to overcome patient anxiety.

patient who enters the central surgical premedication room of Kediri District General Hospital will be given a pre-test in the form of personal data and the Hamilton Anxiety Rating Scale (HAM-A) questionnaire. This pre-test is conducted immediately after the patient enters the premedication room without changing the flow of surgical patients. Then after the pre-test, the patient was counseled with a leaflet by the researcher for about 15 minutes. In this session, the researcher counseled, provided knowledge and discussed with the hope that the patient would be calmer and know that the correct perioperative procedure would ensure patient safety. The patient was also given the opportunity to ask questions if there were things that were not clear. After counseling with the help of a leaflet, the patient was given a post-test.

This community service activity uses Hamilton Anxiety Rating Scale (HAM-A) questionnaire (Maier et al., 1988). The Hamilton Anxiety Rating Scale (HAM-A) is an assessment tool used by healthcare professionals to measure the severity of anxiety symptoms. The scale was developed by Dr. Max Hamilton in 1959 and consists of 14 items that cover various aspects of anxiety, such as: Psychological anxiety: such as anxious mood, tension, and fear. Somatic anxiety: such as physical symptoms, including insomnia, muscle pain, and cardiovascular symptoms. Each item is rated on a scale of 0 (none) to 4 (very severe), with a total score ranging from 0 to 56. This score helps determine the severity of anxiety, ranging from mild to very severe. Interpretation of Hamilton Anxiety Rating Scale (HAM-A) scores is divided into 4 categories, including: 0-17: Mild

anxiety, 18-24: Mild to moderate anxiety, 25-30: Moderate to severe anxiety, above 30: Very severe anxiety (Maier et al., 1988). The data were analyzed using statistical data processing software, namely SPSS (Statistical Package for the Social Sciences) version 23.0 using the Stuart Maxwell test, with a significance level of ≤ 0.05 used to assess the level of patient anxiety before and after the intervention was given.

3. RESULTS

Table 1 above shows that most respondents in this study were aged between 26-35 years, totaling 12 patients (33.3%), with the majority of female gender totaling 31 patients (86.1%). Most respondents had a high school education of 21 patients (58.4%), some respondents were unemployed of 13 patients

(36.1%), almost all respondents had health insurance of 33 patients (91.7%). Most respondents had never had surgery before, namely 21 patients (58.3%).

Table 2 Most respondents had anxiety above the mild category (mild to moderate-severe category) totaling 32 patients (94.4%). Where the majority fell into the mild to moderate category totaling 16 patients (44.4%), followed by moderate to severe totaling 10 patients (27.8%), and severe totaling 8 patients (22.2%). Only 2 patients experienced mild anxiety (5.6%) before the anesthesia education counseling intervention. After the anesthesia education counseling intervention, all respondents had mild anxiety totaling 36 patients (100%). After the Stuart Maxwell test was conducted, a p value of 0.000 was obtained at ($p < 0.005$), meaning that there was a significant difference in the level of patient

Table 1 Characteristics of Respondents

Variables measured	Frequency (f)	Percentage (%)
Age		
16-25	10	27,8
26-35	12	33,3
36-45	5	13,9
46-55	5	13,9
55-65	2	5,55
66-75	-	-
76-85	2	5,55
Gender		
Man	5	13,9
Women	31	86,1
Education		
No school	3	8,30
Elementary School	3	8,30
Junior High School	6	16,7
Senior High School	21	58,4
Bachelor	3	8,30
Work		
Unemployment	13	36,1
Private employees	10	27,7
Self-employed	5	13,9
Trader	4	11,1
Farmer	2	5,55
Government Employees	1	2,78
Teacher	1	2,78
Health Insurance		
Have Insurance	33	91,7
Do not have Insurance	3	8,30
Operation History		
Had previous surgery	15	41,7
Never had surgery before	21	58,3

Table 2 Patient anxiety variables before and after receiving anesthesia education counseling intervention.

Patient Anxiety	Pre Intervention		Post Intervention	
	f	%	f	%
<i>Mild</i>	2	5,60	36	100
<i>Mild to moderate</i>	16	44,4	0	0
<i>Moderate to severe</i>	10	27,8	0	0
<i>Severe</i>	8	22,2	0	0
Total	36	100%	36	100%
Stuart-Maxwell				0,000

anxiety before and after the anesthesia education counseling intervention with leaflet media before undergoing surgery.

4. DISCUSSION

Patient Anxiety Level Before Receiving Anesthesia Education Counseling Intervention with Leaflet Media Before Undergoing Surgery.

Most patients who will undergo surgery before undergoing anesthesia education counseling intervention experience quite high anxiety. This is a problem that must be addressed and resolved. Preoperative anxiety, defined as an unpleasant state of restlessness or tension in which patients worry about illness, hospitalization, anesthesia, and surgery or the unknown, this condition is an important problem faced by patients, because it can cause emotional, mental, and physical problems post-surgery (Gu et al., 2023). Anxiety experienced by patients before undergoing surgery is common (Shawahna et al., 2023). However, preoperative anxiety has an adverse effect on induction and maintenance of anesthesia. Anxious patients require larger doses of anesthetic drugs and may also experience autonomic fluctuations. Anxiety worsens pain perception and increases the need for postoperative analgesia. Anxiety delays recovery and prolongs hospital stay. It has been found that such patients experience increased nausea and vomiting, and a higher risk of infection during the postoperative period (Bedaso, Mekonnen and Duko, 2022).

The results of a study by Kassahun et al., (2022) found that as many as 60.5% (241 out of 400) experienced anxiety before undergoing surgery,

supported by the results of a study by Lakhe et al., (2022), of 385 patients before undergoing elective surgery, as many as 88 (22.85%) experienced anxiety. The results of a systematic review and meta-analysis showed that the global prevalence of preoperative anxiety among surgical patients was 48% of the total patients (14652 patients), preoperative anxiety was about 4 times more likely to occur in patients who had a fear of complications (Abate, Chekol and Basu, 2020). Researchers argue that anxiety in patients before undergoing surgery often occurs, this is due to several factors including lack of information about surgery and anesthesia and fear of undergoing surgery.

The results of this study also revealed that anxiety in patients before undergoing surgery was mostly experienced by female patients, namely 16 patients (51.6%), this is in accordance with research from Shawahna et al., (2023), anxiety that occurs in patients mostly occurs in those who are female, under 42 years old, and scheduled for surgery within 24 hours supported by research from Oh et al., (2024), female gender is a factor that significantly influences anxiety scores before surgery. Researchers argue that because women are more able to admit and express their feelings easily than men related to the feelings of anxiety they experience. The results of research from Li et al., (2025), explain that from a total of 655 patients who will undergo elective surgery, it was found that gender, age, type of surgery, sleep quality before surgery, surgical experience, and anesthesia experience were identified as factors that cause preoperative anxiety.

Patient Anxiety Level After Receiving Anesthesia Education Counseling Intervention with Leaflet Media Before Undergoing Surgery.

The mild anxiety level itself is the lowest level in the anxiety category according to the Hamilton Anxiety Rating Score (HAM-A). This shows the maximum influence of anesthesia education counseling intervention. Patients who receive inadequate or untimely information during pre-anesthesia consultation are more likely to experience preoperative anxiety (Abate, Chekol and Basu, 2020). Therefore, researchers argue that providing anesthesia education counseling intervention is very necessary for patients, especially those who will undergo surgery. This is supported by research from Ain, (2021), which found that there was a decrease in patient anxiety levels after health education interventions were carried out, this was because patients were finally more ready to undergo surgery, reinforced by the results of research from Oswari et al., (2019), which stated that of 34 patients who underwent preoperative health education interventions based on the health belief model, it was found that preoperative health education could reduce anxiety levels in patients with post cruris fractures.

Health education using leaflet media can be applied as an alternative to delivering information before surgery to reduce anxiety in patients, the results of research from Rizki et al., (2019) on 30 patients who were about to undergo surgery showed that there was an effect of health education using leaflet media on reducing the level of anxiety in patients who were about to undergo surgery. Providing adequate education and information has been proven effective in reducing patient anxiety before undergoing surgery (Hartanti and Handayani, 2021).

Differences in Patient Anxiety Levels Before and After Receiving Anesthesia Education Counseling Intervention with Leaflet Media in the Premedication Room Before Undergoing Surgery.

The Stuart Maxwell test, a p value of 0.000 ($p < 0.005$) was obtained, meaning that there was a significant difference in patient anxiety levels before and after the anesthesia education counseling intervention with leaflet media in the premedication room before undergoing surgery. Providing education before surgery can reduce the level of anxiety of patients who will undergo surgery. In several previous studies, providing information about surgical procedures can reduce patient preoperative anxiety. Therefore, nurses or medical staff are advised to have sufficient experience and knowledge in providing preoperative education to patients to reduce anxiety (Samadi, 2024). This is evidenced by research from Wongkietkachorn et al., (2018) found that there was a significant decrease in anxiety in 450 patients measured before education, after education, and after surgery, needs-based patient education was shown to be more effective in reducing anxiety and increasing patient satisfaction compared to education carried out traditionally. Around 84% of the total 422 patients surveyed reported being satisfied with preoperative education and services, education carried out by medical personnel can also reduce patient anxiety before undergoing surgery (Deressa et al., 2022).

In this study, the media used to conduct health education was leaflet, and it has been proven effective in reducing patient anxiety before undergoing surgery. Researchers argue that providing preoperative education is one of the most beneficial interventions for patients besides being able to add to patient health information, this health education can also reduce patient anxiety about the surgical process. In this study, it was found that the group that had undergone surgery and the group that had never undergone surgery were found to have the same anxiety about surgery. The anxiety experienced by patients before undergoing surgery is influenced by many factors, not only having had previous surgery. Other factors, fear of death, and fear of postoperative

complications are factors that cause preoperative anxiety, therefore interventions such as providing preoperative health education, family-centered surgical preparation, and providing psychological care are very much needed by patients in preventing high preoperative anxiety (Wondmieneh, 2020).

5. CONCLUSION

There is a difference in the level of patient anxiety before and after the provision of anesthesia education counseling intervention with leaflet in the premedication room before the patient undergoes surgery. The results of the study showed that the level of patient anxiety decreased significantly after the intervention. Providing anesthesia education counseling intervention is very important to reduce patient anxiety before undergoing surgery. One of the roles of medical personnel in the hospital is as an educator, so that it can reduce patient anxiety, because excessive anxiety before undergoing surgery can worsen the patient's perception of pain, increasing the need for post-operative analgesia which will have an impact on the slow recovery process, thus prolonging the length of stay in the hospital.

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