

RELATED TO ANXIETY AMONG ELECTIVE PREOPERATIVE PATIENTS UNDER GENERAL ANESTHESIA

Maharani^{1*}, Endang Budiati², Dian Utama Pratiwi Putri²

¹Pringsewu Regency Health Office, Komplek Perkantoran Pemda, Jogjakarta, Gading Rejo, Kabupaten Pringsewu, Lampung 35373, Indonesia

²Faculty Of Health Public Health Study Program, Universitas Mitra Indonesia, Jl. ZA. Pagar Alam No.7, Gedong Meneng, Rajabasa, Bandar Lampung, Lampung 40115, Indonesia

*ranimanefo@yahoo.com

ABSTRACT

The prevalence of preoperative anxiety in Indonesia ranges from 9% to 12%. Preoperative anxiety can negatively affect surgical outcomes and postoperative recovery. Therefore, understanding factors associated with anxiety before surgery is essential to improve patient preparation and perioperative care. This study aimed to identify factors associated with anxiety among elective preoperative patients undergoing general anaesthesia at RS US in 2025. This study used an analytical correlational design with a cross-sectional approach. The research was conducted from October to December 2025. The population consisted of elective preoperative patients undergoing general anaesthesia. A total of 124 respondents were selected using purposive sampling. Data were collected using questionnaires on therapeutic communication, hospital environment, family support, and the Amsterdam Preoperative Anxiety and Information Scale (APAIS). Data analysis included univariate and bivariate analysis using the Chi-square test. Among 124 respondents, 69 (55.6%) experienced poor therapeutic communication, 74 (49.7%) perceived the hospital environment as good, 68 (54.8%) reported inadequate family support, and 68 (54.8%) had a moderate level of anxiety. There was a significant association between therapeutic communication and patient anxiety ($p = 0.001$; OR = 21.491). The hospital environment was also significantly associated with patient anxiety ($p = 0.001$; OR = 9.852). In addition, family support showed a significant relationship with patient anxiety ($p = 0.001$; OR = 23.148). Therapeutic communication, family support, and the hospital environment were significantly associated with anxiety levels among elective preoperative patients undergoing general anaesthesia.

Keywords: family support; general anaesthesia; hospital environment; preoperative anxiety; therapeutic communication

INTRODUCTION

Surgery is a common medical intervention; however, it is frequently perceived by patients as a stressful and anxiety-provoking experience. Fear related to general anaesthesia, possible complications, physical changes, and uncertainty regarding surgical outcomes often contribute to psychological distress during the preoperative period. Preoperative anxiety is a natural response, yet excessive anxiety may negatively affect physiological stability, pain perception, recovery time, and overall patient satisfaction. General anaesthesia is defined as an altered physiological state characterised by reversible loss of consciousness, complete analgesia, amnesia, and varying degrees of muscle relaxation (Morgan, 2013). The primary goals of general anaesthesia include the elimination of pain perception, loss of awareness of the surrounding environment, and prevention of memory recall during surgery (Karch, 2011). Despite its clinical benefits, the prospect of undergoing general anaesthesia remains a significant source of anxiety for many patients. Preoperative anxiety is a global concern. Approximately 28% of patients in the United States experience anxiety before surgery, with a higher prevalence among women. In Indonesia, the prevalence of preoperative anxiety ranges from 9% to 12%. These findings indicate the importance of identifying factors associated with anxiety in order to implement effective preventive and supportive interventions before surgery.

Factors Associated with Preoperative Anxiety

According to Kaplan and Sadock, factors influencing anxiety can be classified into intrinsic and extrinsic factors.

1. Intrinsic Factors

a) Age

Anxiety disorders may occur at any age but are more commonly found in adults, particularly between the ages of 21 and 45, and are more prevalent in women. Psychological maturity generally increases with age, enabling individuals to develop better coping mechanisms when facing stressful situations. Feist (cited in Anita, 2018) suggests that increased psychological maturity allows individuals to adapt more effectively to anxiety-inducing experiences.

b) Previous Experience with Medical Treatment or Surgery

Past experiences related to medical treatment or surgical procedures play an important role in shaping an individual's emotional response to future interventions. Negative or limited prior experiences with anaesthesia or surgery may increase anxiety levels when patients are faced with similar procedures again. Conversely, positive experiences may reduce fear and enhance psychological readiness.

c) Self-Concept and Role Perception

Self-concept refers to an individual's beliefs, thoughts, and perceptions about themselves, which influence their interactions with others. Patients with a positive self-concept tend to cope better with stress, whereas those with a negative self-concept may experience heightened anxiety when confronted with surgical procedures.

2. Extrinsic Factors

a) Medical Condition or Diagnosis

A surgical diagnosis often acts as a significant stressor for patients. The perceived severity of the disease and uncertainty regarding surgical outcomes can increase anxiety levels. Patients with more serious or unclear diagnoses tend to experience higher levels of preoperative anxiety compared to those with less severe conditions.

b) Educational Level

Educational level influences an individual's ability to understand health information and identify stressors. Patients with higher levels of education are generally better able to process information related to surgery and anaesthesia, which may reduce uncertainty and anxiety.

c) Access to Information

Access to accurate and comprehensive information regarding anaesthesia procedures, risks, possible complications, alternative options, and administrative processes is essential in reducing preoperative anxiety. Insufficient or unclear information may increase fear and misconceptions among patients.

d) Adaptation Process

Adaptation is influenced by internal and external stimuli that require continuous behavioural responses. During hospitalisation, patients often rely on available environmental resources to adapt to new and stressful situations. Nurses play a crucial role in assisting patients to regain psychological balance through supportive care and guidance.

e) Socio-Economic Status

Socio-economic status is associated with mental health patterns and may influence anxiety levels. Financial concerns, access to healthcare resources, and social support systems can contribute to psychological distress in preoperative patients.

f) Type of Anaesthetic Procedure

Anaesthetic procedures are often perceived as a threat to physical and psychological integrity. Greater awareness or misunderstanding of anaesthetic techniques may increase anxiety, particularly when patients fear loss of consciousness or adverse outcomes.

g) Therapeutic Communication

Therapeutic communication between healthcare providers and patients is essential in the preoperative period. Effective communication helps clarify procedures, address patient concerns, and build trust. Poor communication may exacerbate anxiety and negatively affect patient cooperation during anaesthetic procedures.

Importance of Managing Preoperative Anxiety

Several strategies have been identified to reduce preoperative anxiety, including family and social support, psychological resilience, preoperative education, and relaxation techniques such as deep breathing and positive imagery. Effective anxiety management has been associated with reduced analgesic use, faster recovery, improved postoperative quality of life, and shorter hospital stays. Surgical procedures represent a potential threat to an individual's physical and psychological integrity, making psychological preparation an essential component of preoperative care. Fear of pain, disability, anaesthetic complications, or failure to regain consciousness are common concerns among preoperative patients (Inayati & Ayubbana, 2017). Carpenito (2004), as cited in Yesti et al. (2013), reported that up to 90% of preoperative patients are at risk of experiencing anxiety. Therefore, identifying factors associated with preoperative anxiety is crucial in improving the quality of perioperative nursing care.

METHOD

This study employed a quantitative research design with an analytical correlational approach using a cross-sectional method. This design was selected to identify the relationship between independent variables and the level of anxiety in preoperative patients at a single point in time. The study was conducted at RS US. Data collection took place from 1 October to 30 December 2025. The population of this study consisted of all preoperative patients who met the inclusion criteria and were scheduled to undergo surgical procedures with general anaesthesia in December 2025. The total population was 209 patients. The sample size was determined using the Slovin formula. Based on the calculation, a total of 68 respondents were included in the study. Sampling was conducted using a non-probability sampling technique with a consecutive sampling method, in which all eligible patients meeting the inclusion criteria during the study period were recruited until the required sample size was achieved. The inclusion criteria for this study were as follows: a) Patients who agreed to participate as respondents; b) Patients aged between 16 and 60 years; c) Patients undergoing any type of surgery with general anaesthesia; d) Patients who were fully conscious at the time of data collection. Data were collected using both primary and secondary sources. Primary data were obtained using questionnaires. The independent variables included therapeutic communication, hospital environment, and family support. The dependent variable, anxiety level, was measured using The Amsterdam Preoperative Anxiety and Information Scale (APAIS). Secondary data were obtained from hospital documents and related records to support the research process. Univariate analysis to describe the characteristics of respondents and each research variable. Bivariate analysis to examine the relationship between independent variables and anxiety levels among preoperative patients.

RESULT AND DISCUSSION

Table 1.

presents the frequency distribution of therapeutic communication, hospital environment, family support, and anxiety levels among elective preoperative patients undergoing general anaesthesia (n = 124).

Variable	f	%
Therapeutic Communication		
Poor	69	55,6
Good	55	44,4
Hospital Environment		
Poor	50	40,3
Good	74	49,7
Family Support		
Inadequate	68	54,8
Adequate	56	45,2
Anxiety Level		
Severe	56	45,2
Moderate	68	54,8

Table 1, out of 124 respondents, 69 patients (55.6%) experienced poor therapeutic communication, 74 respondents (49.7%) perceived the hospital environment as good, 68 respondents (54.8%) reported inadequate family support, and 68 respondents (54.8%) had a moderate level of anxiety.

Table 2.

Association between Therapeutic Communication, Hospital Environment, Family Support, and Anxiety Level among Elective Preoperative Patients Undergoing General Anaesthesia (n = 124)

	f	%	f	%	f	%		
Therapeutic Communication								
Poor	50	72,5	19	27,5	69	100	0,001	21,491
Good	6	10,9	49	89,1	55	100		
Hospital Environment								
Poor	38	76,0	12	24,0	50	100		
Good	18	24,30	56	75,7	74	100	0,001	9,852
Family Support								
Inadequate	50	73,5	18	26,5	68	100		
Adequate	6	10,7	50	89,3	56	100	0,001	23,148

Table 2 shows that among 69 respondents who experienced poor therapeutic communication, 50 respondents (72.5%) experienced severe anxiety. Statistical analysis revealed a p-value of 0.001 at a significance level of $\alpha = 0.05$, indicating a significant association between therapeutic communication and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US. The odds ratio (OR = 21.491) indicates that respondents who experienced poor therapeutic communication were 21 times more likely to experience severe anxiety during the elective preoperative period under general anaesthesia at RS US.

Among 50 respondents who perceived the hospital environment as poor, 38 respondents (76.0%) experienced severe anxiety. The statistical test yielded a p-value of 0.001 at $\alpha = 0.05$, indicating a significant relationship between the hospital environment and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US. The odds ratio (OR = 9.852) suggests that respondents who perceived a poor hospital environment were nearly 10 times more likely to experience severe anxiety during the preoperative period. Furthermore, among 68 respondents who reported inadequate family support, 50 respondents (73.5%) experienced severe anxiety. Statistical analysis showed a p-value of 0.001 at $\alpha = 0.05$, indicating a significant

association between family support and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US. The odds ratio (OR = 23.148) indicates that respondents who perceived inadequate family support were 23 times more likely to experience severe anxiety during the elective preoperative period.

Therapeutic Communication Factor

The results of this study showed a statistically significant relationship between therapeutic communication and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US ($p = 0.001$; $\alpha = 0.05$). This finding indicates that therapeutic communication plays a crucial role in influencing patients' psychological responses prior to surgery. Effective communication between healthcare providers, particularly doctors and nurses, and patients is essential during the preoperative period. Patients require clear and comprehensive explanations regarding anaesthetic procedures to reduce uncertainty and fear. Poor communication may lead to misunderstandings, increased anxiety, and potentially unpleasant or harmful physiological responses during anaesthesia induction. Anxiety experienced prior to anaesthesia may negatively affect patient cooperation and increase the risk of adverse outcomes. This finding is consistent with the study conducted by Palla et al. (2018), which reported a significant association between nurses' therapeutic communication and preoperative anxiety levels, with a chi-square test result of $p = 0.035$. These results suggest that effective therapeutic communication can significantly reduce anxiety and improve patient readiness for surgery.

Hospital Environment Factor

The statistical analysis also demonstrated a significant relationship between the hospital environment and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US ($p = 0.001$; $\alpha = 0.05$). A poor hospital environment was associated with higher levels of anxiety among patients. The hospital environment encompasses physical, psychological, and social aspects that may influence patient comfort. Although hospital facilities may meet established standards, patients often perceive hospitals as unfamiliar and intimidating environments compared to their homes. Factors such as noise, lighting, cleanliness, room layout, and limited privacy may contribute to feelings of discomfort and heightened anxiety prior to surgery. These findings indicate that creating a comfortable, safe, and supportive hospital environment is essential in reducing preoperative anxiety. A well-managed hospital environment can help patients feel more relaxed and psychologically prepared for surgical procedures.

Family Support Factor

This study found a significant relationship between family support and anxiety levels among elective preoperative patients undergoing general anaesthesia at RS US ($p = 0.001$; $\alpha = 0.05$). Patients who perceived inadequate family support were more likely to experience higher levels of anxiety. Family plays a vital role in providing emotional, psychological, and motivational support to patients before surgery. Support in the form of encouragement, attention, affection, and understanding can help patients feel calmer and more secure when facing surgical procedures. When family members actively provide motivation and reassurance, patients are better able to cope with fear and stress associated with surgery and anaesthesia. These findings are consistent with the study by Palla et al. (2018), which reported a significant association between family support and preoperative anxiety levels ($p = 0.030$). Similarly, a study conducted by Soalihin (2020) found a significant relationship between social support and anxiety levels among preoperative patients,

with a chi-square test result of $p = 0.002$. These results reinforce the importance of involving family members as part of holistic preoperative care to help reduce patient anxiety.

CONCLUSION

The conclusion of this study indicates that there are three factors associated with anxiety levels among preoperative patients, namely therapeutic communication between healthcare providers and patients, the hospital environment, and family support. Effective therapeutic communication, a comfortable hospital environment, and adequate family support play an important role in reducing anxiety among elective preoperative patients undergoing general anaesthesia. To reduce anxiety levels among elective preoperative patients undergoing general anaesthesia, it is recommended that hospitals implement several measures. These include providing optimal preoperative education to patients in accordance with established procedures, optimising the hospital environment to ensure comfort and safety, and delivering appropriate education to patients' families so that family support can be enhanced and aligned with existing hospital protocols.

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