

The Relationship Between Family Support and Anxiety Levels in Preoperative Patients with Reponible Hernia

Dede Andri Apriansyah^{1*}, Hadi Abdillah², Ernawati Hamidah³, Hendri Hadiyanto⁴

^{1,2,3,4}Program Studi S1 Keperawatan, Fakultas Kesehatan, Universitas Muhammadiyah Sukabumi

Email: dedeandry89@ummi.ac.id

ABSTRACT

Patients undergoing surgery often experience anxiety due to concerns about surgical outcomes, pain, and potential complications. Family support plays a vital role in helping patients cope with anxiety before surgery. This study aimed to determine the relationship between family support and anxiety levels among preoperative hernia reponibel patients in Nyi Ageng Serang Room 1 at RSUD Sekarwangi. A quantitative cross-sectional design was employed. The sample consisted of 32 preoperative patients with reducible hernia, representing the total population treated in the study setting during the data collection period. Patients selected using a total sampling technique. The research instruments used were the Multidimensional Scale of Perceived Social Support (MSPSS) to assess family support and the Hamilton Anxiety Rating Scale (HARS) to measure anxiety levels. Data were analyzed using the Chi-Square test with a significance level of $p < 0.05$. The results revealed a significant relationship between family support and patients' anxiety levels ($p = 0.000$). Patients who received strong family support predominantly experienced mild anxiety (87.5%), while those with low family support tended to experience moderate to severe anxiety. These findings indicate that greater family support is associated with lower anxiety levels among preoperative patients. This study contributes evidence that family support is a significant determinant of preoperative anxiety among patients with reducible hernia in a regional hospital setting. The findings enrich nursing science by highlighting the importance of family-centered care as a contextual psychological support strategy in preoperative management, particularly in non-tertiary hospitals.

Keywords: family support, anxiety, preoperative patients, hernia reponibel, MSPSS, HARS

INTRODUCTION

Hernia is one of the most common surgical conditions worldwide, affecting approximately 10-15% of the general population, with more than 20 million hernia surgeries performed annually (Sandi et al., 2023). Inguinal hernia is the most frequently encountered type and often requires surgical intervention as the primary treatment (Rahmatillah et al., 2024). Hernia occurs due to weakness in the abdominal wall or supporting tissues, allowing internal organs to protrude and cause clinical symptoms (Muladi & Setia, 2020). If not properly managed, this condition may lead to complications such as incarceration or strangulation that require immediate medical intervention (Lelasari et al., 2025). Reducible hernia is commonly treated through elective surgery to prevent further complications and improve patient outcomes.

Patients awaiting surgery frequently experience preoperative anxiety, which is a psychological response to anticipated surgical procedures (Hidayat et al., 2025). Preoperative anxiety has been associated with physiological responses such as increased blood pressure, heart rate, and sleep disturbances (Lumbantoruan et al., 2023). These conditions indicate that psychological readiness is an essential component of comprehensive preoperative care in addition to physical preparation (Cing & Annisa, 2022).

In Indonesia, hernia remains one of the most common surgical cases, with a prevalence of approximately 1.7-2% of the population (Alfarisi, 2021). National health policies emphasize the importance of quality surgical services and patient safety, including adequate preparation for perioperative conditions that are often accompanied by anxiety (Muladi & Setia, 2020). At the provincial level, surgical cases including hernia remain high and require healthcare services that address both physical and psychological aspects of patient care (Nuraini & Ari W, 2023). Comprehensive nursing care that integrates psychological support is therefore essential in surgical settings (Sudira et al., 2023).

Family support has been widely recognised as an important factor influencing patients' psychological responses before surgery (Wahyuningsih et al., 2021). Emotional, informational, and instrumental support provided by family members can help reduce fear and uncertainty related to surgical procedures (Lubis et al., 2024). Several studies in Indonesia have reported an association between family support and anxiety levels among preoperative patients undergoing various types of surgery (Hulu & Amidos, 2016). Patients who receive adequate family support tend to experience lower anxiety compared to those with insufficient support (Ulfa, 2017). Family support has therefore been considered an effective strategy in reducing preoperative anxiety in clinical practice (Cahyanti et al., 2020).

However, most previous studies were conducted in large urban or tertiary hospitals and involved heterogeneous surgical populations (Pandiangan & Wulandari, 2020). Evidence focusing specifically on preoperative patients with reducible hernia in regional hospital settings remains limited. Patients with reducible hernia typically undergo elective procedures and experience a waiting period before surgery, which may influence their psychological condition differently compared to patients undergoing emergency or major surgical procedures.

This study addresses this gap by examining the relationship between family support and anxiety levels among preoperative patients with reducible hernia in a regional hospital setting. By focusing on a specific surgical condition and clinical context, this research provides contextual

evidence that may contribute to the development of family-centered nursing care strategies aimed at improving psychological readiness before surgery.

METHODS

This study employed a quantitative correlational design with a cross-sectional approach to examine the relationship between family support and anxiety levels among preoperative patients with reducible hernia. The study population consisted of all patients diagnosed with reducible hernia who were scheduled for elective surgery and admitted to the study hospital during the data collection period from September 2025 to January 2026. A total of 32 patients met the inclusion criteria and were included as study participants. The inclusion criteria were patients diagnosed with reducible hernia, scheduled for elective surgery, aged ≥ 18 years, able to communicate effectively, and willing to participate by providing informed consent. Patients who were discharged before data collection was completed, had cognitive impairments, or were unable to complete the questionnaires were excluded from the study.

A total sampling technique was applied, involving all eligible preoperative reducible hernia patients during the study period. The unit of analysis was individual patients. Data on respondent characteristics included age, gender, type of hernia, and length of hospitalization prior to surgery. Family support was measured using the family subscale of the Multidimensional Scale of Perceived Social Support (MSPSS), which consists of four items rated on a Likert scale. The Indonesian version of the MSPSS has demonstrated good validity and reliability, with a Cronbach's alpha value above 0.80. Family support scores were categorised into low and moderate levels based on the total score distribution, following previous Indonesian studies using the MSPSS.

Anxiety levels were assessed using the Hamilton Anxiety Rating Scale (HARS), which evaluates both psychological and somatic symptoms of anxiety. The Indonesian version of the HARS has been reported to have good validity and reliability, with Cronbach's alpha values exceeding 0.85. Anxiety levels were categorised into mild, moderate, and severe anxiety according to standard HARS score classifications.

Data analysis was conducted using descriptive and inferential statistical methods. Descriptive statistics were used to summarise respondent characteristics, family support levels, and anxiety categories. The relationship between family support and anxiety levels was analysed using the Chi-square test, with a significance level set at $p < 0.05$.

This research received ethical clearance from the Health Research Ethics Committee of the Faculty of Health Sciences, Universitas Muhammadiyah Sukabumi, with approval number: 105/KET/KE-FKES/I/2025. All participants gave informed consent, and data confidentiality was strictly maintained.

RESULTS

The research results can be seen in the table below:

Table 1 Distribution of Respondents' Characteristics (n=32)

Characteristic	Frequency (f)	Percentage (%)
Gender		
Male	12	37.5
Female	20	62.5
Family Support		
Low	8	25
Moderate	24	75
Anxiety Level		
Mild	7	21.9
Moderate	20	62.5
Severe	5	15.6

Based on Table 1, it is shown that of the 32 preoperative reducible hernia patients, the majority were female (20 respondents, 62.5%), while 12 respondents (37.5%) were male. Most respondents received a moderate level of family support (24 respondents, 75%), while 8 respondents (25%) received low family support, and none received high support. Regarding anxiety levels, most respondents experienced moderate anxiety (20 respondents, 62.5%), followed by mild anxiety (7 respondents, 21.9%), and severe anxiety (5 respondents, 15.6%).

These findings indicate that although patients generally received a moderate level of family support, most still experienced moderate anxiety before undergoing surgery. This suggests that although family support plays an important role in reducing anxiety, other factors such as previous surgical experience, knowledge about the procedure, and the patient's physical condition may also influence preoperative anxiety.

Table 2. Relationship Between Family Support and Anxiety Levels in Preoperative Reducible Hernia Patients (n = 32)

Prospective Readable Normal Patients (n = 32)									
Family Support	Anxiety Level						Total	P-Value	
	Mild		Moderate		Severe				
	f	%	f	%	f	%	N		%
Low	7	87.5	0	0	1	12.5	8	54.1	0.000
Moderate	0	0	20	83.3	4	16.7	24	45.9	
Total	7	21.9	20	62.5	5	15.6	32	100	

The results show a significant relationship between family support and anxiety levels among preoperative reducible hernia patients, with a $p\text{-value} = 0.000$ ($p < 0.05$). As shown in Table 2, patients with low family support mostly experienced mild anxiety (7 respondents, 87.5%), while 1 respondent (12.5%) experienced severe anxiety and none experienced moderate anxiety. Meanwhile, in the moderate family support group, the majority experienced moderate anxiety (20 respondents, 83.3%), followed by severe anxiety (4 respondents, 16.7%), with no respondents experiencing mild anxiety.

DISCUSSION

Respondent Characteristics Overview

Based on gender characteristics, this study found that female patients constituted a larger proportion of preoperative reducible hernia cases compared to male patients. This finding differs from epidemiological reports indicating that hernia is generally more prevalent among men (Rahmatillah et al., 2024). However, hospital-based studies have shown that treatment-seeking behaviour and healthcare utilisation may influence the distribution of surgical patients admitted for elective procedures (Alfarisi, 2021).

Differences in anxiety levels and perceived family support may also be associated with demographic and psychosocial factors such as age and social roles. Previous studies have reported that older patients tend to experience higher levels of preoperative anxiety due to concerns related to surgical risks and recovery processes (Ekarynansya et al., 2025). Younger patients, on the other hand, are often described as having better adaptability to medical situations and greater responsiveness to information provided by healthcare professionals (Ariawan et al., 2025). Although these factors were not analysed in detail in the present study, they may contribute to variations in anxiety levels among preoperative patients and should be considered in future research.

Overview of Family Support and Anxiety Levels

Family support has been widely recognised as an important factor influencing preoperative anxiety in surgical patients (Muladi & Setia, 2020). The present study extends existing evidence by demonstrating this relationship specifically among patients with reducible hernia undergoing elective surgery in a regional hospital setting. This contextual focus is important

because patients awaiting elective hernia surgery often experience prolonged periods of uncertainty, which may intensify psychological responses prior to surgery.

Unlike many previous studies conducted in urban or tertiary hospitals, this research highlights the relevance of family support within a regional healthcare context, where psychological support resources may be limited and family involvement becomes a key source of emotional reassurance. In this setting, family support may function not only as emotional comfort but also as a primary coping resource that helps patients manage anticipatory stress related to surgical procedures (Lubis et al., 2024).

The findings of this study suggest that family support should be viewed as an integral component of preoperative nursing care rather than a complementary factor. By focusing on a specific surgical condition and clinical context, this study contributes contextual evidence that may inform the development of family-centered nursing approaches for patients undergoing elective hernia surgery. Such approaches may enhance psychological preparedness and improve the overall quality of preoperative care (Nuraini & Ari W, 2023).

Relationship Between Family Support and Anxiety Levels

Family support plays an important role in shaping the psychological responses of patients undergoing surgical procedures, including those preparing for reducible hernia surgery (Abdillah et al., 2025). The findings of this study highlight that variations in perceived family support are associated with differences in patients' psychological readiness before surgery. In this context, family support functions as a source of emotional reassurance that helps patients cope with uncertainty and anticipatory stress related to surgical procedures.

Previous studies have shown that emotional and motivational support from family members can reduce anxiety by enhancing patients' sense of safety and self-confidence before medical interventions (Emaliyawati et al., 2025). This study supports and extends these findings by demonstrating the relevance of family support specifically among patients with reducible hernia undergoing elective surgery. The elective nature of hernia surgery may involve a waiting period that intensifies psychological stress, making family involvement particularly important in maintaining emotional stability.

The results of this study further suggest that family support should be considered an integral component of preoperative nursing care rather than a supplementary factor. Family presence, calming communication, and clear information sharing may contribute to better psychological preparedness before surgery (Sugiharto et al., 2024). In situations where family support is

limited, family-centered nursing interventions may help bridge this gap by guiding families to provide appropriate emotional, informational, and motivational support. Such approaches may enhance patients' mental readiness and improve the overall quality of preoperative care.

CONCLUSION

Based on the results of the study conducted in Nyi Ageng Serang Room, 1st Floor of Sekarwangi Regional General Hospital, it can be concluded that there is a significant relationship between family support and anxiety levels among preoperative patients with reducible hernia. Patients who received moderate to good family support tended to have lower levels of anxiety, whereas those with low family support were more likely to experience severe anxiety prior to surgery. Family support plays an essential role in providing a sense of security, motivation, and emotional comfort for patients undergoing surgical procedures.

In addition, the findings also indicate that factors such as gender and age may influence preoperative anxiety levels. Female patients and younger patients generally demonstrated better adaptability in managing anxiety compared to male or older patients. Therefore, it can be concluded that the better the family support received by the patient, the lower the level of anxiety experienced before undergoing reducible hernia surgery.

LIMITATION

This study has several limitations that should be considered. First, the use of a cross-sectional design prevents the establishment of a causal relationship between family support and anxiety levels among preoperative reducible hernia patients. Additionally, the data were collected using questionnaires, meaning the results rely heavily on the respondents' honesty and understanding of each question, which may introduce response bias.

The study was also conducted exclusively in Nyi Ageng Serang Room, 1st Floor of Sekarwangi Regional General Hospital, limiting the generalizability of the findings to other hospitals with different social and cultural characteristics. Furthermore, other factors that may influence patient anxiety such as previous surgical experience, support from healthcare providers, physical condition, and spiritual or social aspects were not examined in depth.

Therefore, future research using longitudinal designs, larger samples, and multidimensional approaches is needed to obtain a more comprehensive understanding of the factors influencing preoperative anxiety.

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