



## FACTORS AFFECTING THE ANXIETY LEVEL OF PRE-SURGICAL PATIENTS IN HOSPITAL

Maulidia Khairani<sup>a\*</sup> ; Siska Mayang Sari<sup>b</sup> ; Rani Lisa Indra<sup>c</sup>

<sup>a,b,c</sup> *Fakultas Kesehatan, Universitas Hang Tuah Pekanbaru; Mustafa Sari Street No. 5 ; Pekanbaru 28281 ; Indonesia*

### Abstract

A surgical procedure may induce psychological reactions in patients, including pre-surgical anxiety. Pre-surgical anxiety can influence the surgical process and patients' health status after the surgery. Mild, moderate, and severe anxiety are some of the psychological responses to surgical procedures. Patients' anxiety before surgery is affected by internal and external factors. 30 respondents had the most anxiety levels of moderate preoperative patients, with 12 respondents (40%) and 18 respondents (60%) having surgical with mild preoperative anxiety levels. There were 25 respondents with less knowledge. There were 16 respondents (64%) with mild anxiety levels and 9 (36%) with moderate anxiety levels. 55 respondents with high family support, there were 48 respondents (87.3%) with moderate anxiety levels, there were 5 respondents (7.4%) with severe anxiety levels and 2 respondents (3.6%) with mild anxiety levels. The exact cause of anxiety is unknown, but it is thought to factor in experience, knowledge, and family support or RSUD Arifin Achmad, Riau Province. The study aims to describe factors that influence anxiety in patients' pre-operation. The research instrument was a questionnaire through validity and reliability tests. Univariate and bivariate analyses were applied. The research instrument was a questionnaire through validity and reliability tests. The research showed no significant correlations between experiences, knowledge, and family support with the patients' anxiety ( $p$ -value>0.05). It was suggested that the hospital should concern with factors correlated with pre-surgical patients' anxiety and increase the quality of nursing care.

**Keywords:** *Anxiety; Patients before surgical; surgical*

### 1. Introduction

Surgical involves an invasive procedure that exposes the body part to be treated. Operations can generally be divided into major and minor (Sjamsuhidajat, 2016). The operation consists of three phases: preoperative, intraoperative, and postoperative (Hidayat & Uliyah, 2014). Surgical is performed to diagnose or treat diseases, disorders, injuries, and incurable conditions through simple drugs (Perry et al., 2013). According to the World Health Organization

(WHO), the number of patients operated on is increasing every year. Up to 140 million patients were operated on in 2011, but in 2012 there was an increase of 148 million (Alfarisi, 2021). The number of operations in 2014 was 609; in 2015, it was 983; and in 2016 was 1,281 (Ministry of Health of the Republic of Indonesia, 2017).

All patients may not accept all inpatient treatment measures with any action. Any situation or event that causes a change in one's life requires the individual to adapt to face it, so adaptation is necessary. Still, one's adaptability

\*) Corresponding Author (Maulidia Khairani)  
E-mail: aulianandau02@gmail.com

differs, so stressful or anxious situations can appear (Hawari, 2013).

Anxiety is a condition that represents a condition that threatens the integrity and existence of the self and manifests itself in the form of behaviors such as helplessness, incompetence, fear, and some phobias (Nursalam, 2014). Stress is the reaction of any person to negative things and situations in everyday life. Anxiety stems from threats to identity that are the basis of a person's life (Suliswati et al., 2012). One thing that affects stress is unsanitary conditions or reduced ability to work days due to the operations to be performed (Jaya, 2015).

The surgical experience also affects the patient before surgery. Patients who have undergone surgery are generally less anxious than those who have never had surgery. Often, patients who have undergone surgery are more willing to undergo surgery again (Paradise, 2014). A study (Sari et al., 2020) found that preoperative patients were more likely to experience severe anxiety than patients who did not have surgical (64.2%) compared to those who had undergone surgical (37%).

Factors affecting stress are often divided into internal factors and external factors. Age, experience, gender, and schooling are all internal factors. The support of the family and the environment are examples of external factors. (Stuart, 2013). Age is one of the factors that can affect stress. Age is associated with experience, knowledge, intuition, and understanding of a disease or event so that it can shape thinking and behavior (Saam & Wahyuni, 2014). Another factor is the patient's knowledge of the operation to be performed. Poor knowledge makes people easily anxious, and the physical condition affected by the disease is also one of the factors that can cause anxiety (Hawari, 2016).

Gender is also a factor that causes anxiety in preoperative patients. The patient's level of education affects the anxiety of the preoperative patient facing the surgery to be performed. A person's with a low education level will take it easy to experience anxiety than those with higher education level. They will be more rational in dealing with problems (Hawari, 2013). Family support is a source of support for sick families. Family support to ease the patient's anxiety is informational support, where the family provides advice and physical and psychological support. The family also provides emotional support. It includes support in attitude, trust, attention, listening, etc. Other

supports are evaluation and effective support (human resources, financial, and time support) (Friedman & M., 2014).

Based on the interviews conducted in the class III surgical inpatient room of Arifin Achmad Hospital, Riau Province, 6 patients were afraid and anxious because they did not know the surgical procedure. There were 3 patients aged 20 years and over, two patients aged 35 years, and one patient aged 40 years, 3 men and 3 women: the last 4 high school education patients and 2 elementary education patients. There were four patients during the first surgical experience. Hence, the patient felt anxious about the operation. 2 patients have had surgery but said they still felt anxious but not severely anxious when they first underwent surgery. These patients are referrals from several regions. When asked what information was obtained from doctors and nurses, 6 patients said it was obtained from the surgical schedule. The patient was satisfied for 6-8 hours before surgery. Patients also say they do not understand the explanations given by doctors.

## 2. Method

This study is a quantitative descriptive design of correlation using a cross-sectional method. This research was conducted in the class III surgical inpatient room of Arifin Achmad Hospital, Riau Province. The reason for choosing the place was because it was found that patients would undergo surgery, and it was easy to get respondents to be researched, as well as referral hospitals in the province, teaching hospitals, and government hospitals.

The population in this study is patients who will undergo surgery in a class III surgical inpatient room at Arifin Achmad Hospital, Riau Province. The number of people who had surgery in November 2021 was 128. The study used the consecutive sampling sample technique. In this non-random sampling method, sample members are recruited sequentially based on the subject's arrival at the research site until the number of sample members reaches the specified study period (Harlan & Johan, 2018).

The independent variables are experience, knowledge, and shamans. Knowledge questionnaire to measure the level of knowledge of respondents regarding the operation they will undergo. The questionnaire consists of 8 questions with know and do not know answers. Each correct answer gets a score of 1, and 0 is given for every answer that says "I do not know."

The questionnaire ended with predetermined answers, and respondents could not give any other answers. This questionnaire consists of 16 items; low if the score is < 20, medium if the score is between 21-39, and high if the score is > 40. Each statement scored 1 if the answer was not felt, 2 if it felt a little, 3 if it felt a lot, and 4 if it was very felt. The interpretation of anxiety is divided into three categories, namely mild anxiety with a score of 20-40, moderate anxiety with a score of 41-60, severe anxiety with a score of 61-80.

### 3. Result and Discussion

**Table 1.** Distribution of the age frequency of respondents in the class III Surgikal inpatient room of Arifin Achmad Hospital, Riau Province

Age	Frequency	Percentage (%)
17-25 years (Late adolescence)	10	18
26-35 years (Early adult)	15	27
36-45 years (Late adult)	8	14.4
46-55 years (Early elderly)	16	28.7
56-65 years (Late elderly)	7	11.9
Total	56	100

Based on Table 1, it is known that most respondents' ages in the class III Surgical inpatient room at Arifin Achmad Hospital are in the age range of 46-55 years or the early elderly period, which is 16 people (28.7%).

**Table 2.** Distribution of respondents' gender frequency in class III Surgical inpatient room of Arifin Achmad Hospital, Riau Province

Gender	Frequency	Percentage (%)
Man	29	51.8
Woman	27	48.2
Total	56	100

Table 2 shows that most respondents in the class III Surgical inpatient room at Arifin Achmad Hospital are male, with as many as 29 respondents (51.8%).

**Table 3.** Distribution of the frequency of education of respondents in the class III Surgical inpatient room of Arifin Achmad Hospital, Riau Province

Education	Frequency	Percentage (%)
No School	1	1.8
Elementary school	18	32.1
Junior high school	16	28.6
Senior High School	21	37.5
Total	56	100

Table 3 shows that most respondents in the surgical inpatient room at Arifin Achmad Hospital have a high school education of 21 respondents (37.5%).

**Table 4.** Factors of Surgical Experience with Preoperative Patient Anxiety

Surgical Experience	Anxiety				Total		p-value
	Mild		Moderate		Severe		
	N	%	N	%	N		
Ever	18	60	12	40	30	100	1.000
Never	16	61.5	10	38.5	26	100	
Total	34	60.7	22	39.3	56	100	

Table 4 shows that the 30 respondents with the most surgeries with moderate preoperative patient anxiety levels were 12 (40%), and 18 (60%) had had surgical with mild preoperative anxiety levels. Based on the results of statistical tests using Chi-Square, a p-value of 1,000 was found, which is greater than 0.05. It means there is no link between the operating experience factor and the level of anxiety of patients who will have surgery at Arifin Achmad Hospital, Riau Province.

**Table 5.** Factors of Knowledge with Preoperative Patient Anxiety

Knowledge	Anxiety				Total		p-value
	Mild		Moderate		Severe		
	N	%	N	%	N		
Enough	18	58.1	13	41.9	31	100	0.860
Less	16	64	9	36	25	100	
Total	34	60.7	22	39.3	56	100	

Table 5 shows that 25 respondents with less knowledge were 16 respondents (64%) with mild anxiety levels, and 9 respondents (36.0%) with moderate anxiety levels. Based on the statistical tests using Chi-Square, a p-value of 0.552 was found, more significant than 0.05. It means there is no link between the knowledge factor and the level of anxiety of patients who will have surgery at Arifin Achmad Hospital, Riau Province.

Based on Table 6, it is known that the 55 respondents with family support are high. There are 48 respondents (87.3%) with moderate anxiety levels, 5 respondents (7.4%) with severe anxiety levels, and 2 respondents (3.6%) with

mild anxiety levels. Based on the statistical tests using Chi-Square, a p-value of 0.930 was found, more significant than 0.05. It means there is no link between family support factors and the anxiety level of patients undergoing surgery at Arifin Achmad Hospital, Riau Province.

**Table 6.** Family Support Factors with Preoperative Patient Anxiety

Family Support	Anxiety				Total		p-value
	Mild		Moderate		Severe		
	N	%	N	%	N	%	
Keep	14	66.7	7	33.3	21	100	0.672
Tall	20	57.1	15	42.9	35	100	
Total	34	60.7	22	39.3	56	100	

*Characteristics of Respondents By Age*

Based on the results of a study in the class III surgical inpatient room at Arifin Achmad Hospital, it is known that 16 people (28.7%) are between the ages of 46 and 55. Age influences a person in attitude and actions. The more mature and mature the age, the more prepared a person is in the face of a problem. A person will have difficulty adapting to environmental circumstances when young and even a child. The older, the more likely a person is to have experience dealing with anxiety problems. In general, parents cope with anxiety problems better. Suitable coping mechanisms make it easier to deal with anxiety problems (Musliha, 2010).

Since age measures an individual's developmental time, younger people are more likely to experience anxiety disorders than older people. Age is associated with an experience. Experience is associated with knowledge, experience, and cognition of diseases and phenomena, and the maturity of adult thought processes is more likely to use superior cognitive and behavioral, and coping mechanisms compared to age groups. children (Romadoni, 2016).

According to researchers, the older a person is, the more experience he has. This experience can teach a person how to deal with an event related to himself, his family, and his environment to have peace of mind, which affects the level of anxiety that a person experiences. It means that a person can answer something better with age than teenagers or children.

*Characteristics of Respondents By Gender*

Based on the study results, it is known that most respondents in the surgical class III inpatient room at Arifin Achmad Hospital were male, with as many as 29 respondents. Gender is also a contributing factor to the anxiety of preoperative patients. (Wahab, 2010) found that men experience a more severe fear of surgery than women. Most men indicate that they experience fear of women. They are afraid because men play an essential role in the family. It is the greatest responsibility of men, so they always think about the fate of their family because there is no longer a source of livelihood or sustenance. It is what causes the phenomenon of male anxiety.

Research conducted (Prima, 2019) showed that men were more numerous (61.3%) than women (38.7%). Regarding male and female anxiety, women worry more about incompetence than men. Men are more active in exploration, while women are more sensitive. In general, women suffer more from anxiety than men. Women are estimated to suffer from acute and chronic anxiety disorders in 5% of the total population, with the ratio of women to men being two to one. Older men are generally more sensitive to perceived threats than women (Prima, 2019).

*Characteristics of Respondents By Education*

Based on the study results, it is known that most respondents in the surgical class III inpatient room at Arifin Achmad Hospital had a high school education of 21 respondents (37.5%). A person's level of education will affect the response to something that comes from within or outside. People with higher education respond more logically than those with lower education.

Anxiety is a typical response, so poor education is a common cause of anxiety about surgical (Oktarini, 2021). The higher the level of education, the easier it is to obtain information about the disease. On the other hand, low education affects the character development of a job. The higher the level of education, the more information can be accessed and the more experienced. The lack of education hinders the development of new values. (Maryam, 2012).

The level of education is also significant from the point of view of problem-solving. The more educated a person is, the more life experience he has, and he is ready to face more significant problems (Tamar, 2011). With such a low level of education, people quickly become anxious. The level of education of a person

affects his thinking ability. The more educated, the easier it is to design and record new information (Stuart & Sundeen, 2007).

According to researchers, education influences how humans think and behave in the face of existing problems. With a good education, it is possible to obtain information about healthy and sick more efficiently, which can increase their awareness and attitude in the face of situations and reduce their level of anxiety.

#### *Experience Factors with Preoperative Patient Anxiety*

Based on the study results, 30 of the people who answered had experience with surgeries where patients had mild anxiety, namely 18 respondents (60%). According to Alimul's theory (2009), individual experiences greatly influence anxiety responses because experiences can be used as learning in the face of a stressor or problem. The experience here is related to age and education, where a person with an increasing age and better education will make it easier to absorb the information he gets and be wiser because he has gone through the previous operation process.

Following Sari's research (2020), that experience is learning that can be used as a person's ability to develop coping with facing a stressor or problem. Previous surgical experience can affect a person's anxiety level to prepare for primary surgical operations because they have passed the surgical process and have better knowledge to act calmer than before.

Researcher Haniba (2018) said experience gives a person a picture of an event that has been experienced. So that if it happens again, someone will be better able to handle it. Researcher Haryati (2021) said the surgery experience affects the anxiety level experienced by preoperative patients. Suppose the patient does not have surgical experience, of course. In that case, the patient will feel anxious about the operation's process and the impact after the operation, unlike patients who have undergone surgery before, where the patient will be better prepared to face him if this happens again. This experience makes a person more physically and mentally, thus reducing the existing anxiety.

Based on this description, it can be concluded that patients who have had surgery previously have a milder anxiety level. So it is proven from the research results that researchers have carried out that respondents with previous surgical experience have a mild level of anxiety. It is because respondents' previous surgical experiences know what actions can be performed

before and how surgical procedures can affect anxiety levels before surgery.

#### *Knowledge Factors with Preoperative Patient Anxiety*

The results showed that the highest level of patient knowledge in the group of respondents with sufficient knowledge levels was 31, with mild anxiety levels of 18 respondents (58.1%). According to Hatimah's research (2022), the patient's preoperative knowledge significantly affects his anxiety. It is because patients who already understand surgery in the preparation, stages, procedures, and benefits of surgery make them confident about it. In addition, providing information from medical personnel is also very useful for patients who will undergo surgery to increase patient knowledge.

Notoatmojo (2013) says that knowledge comes from "knowing," which happens after a person has felt something. Sensing objects occurs through the five senses of man, namely sight, hearing, smell, taste, and taste by themselves. Following Seniwati's research (2018), patient knowledge affects anxiety in the face of surgery due to the patient's lack of sense regarding the operation he will face. The lower the patient's knowledge of surgery, the higher the patient's level of anxiety in the face of surgery and vice versa.

Researcher Beata (2010) mentioned that anxiety often arises due to a wrong understanding of the surgical procedure or limited information about the events that the patient will experience during, before, during, and even after the surgical procedure. Families and patients who do not know the surgical procedure well can experience anxiety. Based on Tiurma (2018) study, preoperative information must always be shared with patients or their families. It is because knowing preoperative information is a meaningful way to help patients or their families feel less anxious. Information can also be socialized and conveyed when patients and families sign a letter of consent for informed consent. The impact of lack of preoperative information on patients will give rise to various misconceptions about surgery, which will trigger increased anxiety.

Based on this description, it can be concluded that the better the knowledge, the milder the level of anxiety that the patient feels. So it is proven from the research results that researchers have carried out that respondents with sufficient knowledge have a mild level of anxiety. It is because the patient has been told

about the steps, preparations, risks, and what will happen after the operation.

#### *Family Support Factors with Preoperative Patient Anxiety*

The results showed the highest level of family support, namely with a high level of family support, namely 35 respondents with a mild anxiety level of 20 respondents (57.1%). Friedman's theory (2014) states that patients will feel calmer and more comfortable undergoing treatment with high family support.

The results of this study are under the results of Mangera's research (2019), which showed that the higher or more support from the family, the lower the level of anxiety in patients. On the contrary, if there is low or a lack of support from the family, a patient will experience the most severe level of anxiety. The support of the family is very influential on the mentality of the preoperative patients. The more supportive, the lighter the burden and mental stress the patients suffer.

The results of researchers Katimenta (2022) found that family support has a relationship with anxiety levels. It is evidenced by the dominant respondents in this study having strong family support and moderate anxiety levels. It is characterized by the family always waiting and being with the patient in the hospital. The family will always pay attention to the patient's condition during the illness, always try to listen when the patient complains about the disease or his condition, and always be friendly when helping the patient. The presence of emotional support from the family encourages feelings of comfort. It leads the individual to believe others are willing to give special attention to the patient about to undergo surgery. With the help of the family, it can make the patient feel less stressed.

Based on this description, it can be concluded that the support of the family in the face of surgery is vital. If someone has family support, it can increase one's motivation to solve problems. So individuals who have the support of the family can reduce anxiety. In this study, many people had a lot of help from their families and only felt mild worry.

Researchers carried out the research process and preliminary studies at Arifin Achmad Hospital, Riau Province. During the study, there were no obstacles that were so meaningful. The research sample was achieved at a specified time range of one month of conducting research,

using consecutive sampling techniques. The data source is questionnaires through direct distribution of patients who will carry out surgical. In this study, researchers did not have assistants.

#### **4. Conclusion and Suggestion**

It is known that most of the respondents in the class III surgical inpatient room of Arifin Achmad Hospital are between the ages of 46 and 55, making them early seniors. It is also known that most of the respondents are men and that most of them have at least a high school education. The results showed no relationship between surgical experience and anxiety, neither between knowledge and anxiety nor between family support and the level of anxiety of patients who would undergo surgery at Arifin Achmad Hospital, Riau Province.

Researchers at the Educational Institute (Hang Tuah University, Pekanbaru) hope to be a source or source of information, particularly about factors that affect patients' anxiety about surgical procedures. For the Research Place Institution (RSUD Arifin Achmad), researchers hope doctors and nurses in each preoperative care room will provide an optimal explanation regarding anesthesia and anesthesia that patients undergo before and after surgery. For Nursing Science, researchers hope that it can be used as a reference in contributing to developing particular science for nursing students in operative courses. Other researchers can use qualitative research methods to investigate various variables that are helpful for nursing progress and relevant factors that influence the patient's anxiety level before surgery.

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