

# Factors that are Related to the Level of Anxiety in the Pre-Operating Patients at the General Hospital

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## Abstract

Surgery is a treatment procedure that uses invasive methods by opening and displaying the part of the body to be treated. Anxiety in preoperative patients can be due to fear of pain or death, fear of ignorance or fear of deformity or other threats to body image. The purpose of this study was to determine the factors associated with anxiety levels in preoperative patients in Sheikh Yusuf Hospital Gowa Regency. This type of research is correlation with cross sectional design. This research was conducted at Sheikh Yusuf Hospital Gowa Regency on June 21 to August 21, 2019. Samples who are met the inclusion criteria of 45 people. Bivariate analysis results found that all factors studied were age, level of knowledge and economic status that there was a relationship with anxiety levels in preoperative patients by  $p < \alpha = 0.05$ . Thus it can be concluded that there is a significant relationship between age, level of knowledge and economic status with the level of anxiety in preoperative patients and is expected to improve communication in providing information about surgery and preoperational and further researchers can have about other factors that affect anxiety levels.

**Keywords:** Anxiety; Surgery; Pre surgery; Treatment; Invasive

## Introduction

In human life, individuals can feel healthy or sick. Healthy is a dynamic state in which individuals adjust to changes in the internal environment (psychological, intellectual, spiritual and disease) and external (physical, social, and economic environment). While pain is a process where the individual experiences a decrease in external and internal function compared to the previous condition (Mohammad, 2009). When an individual is getting sick and has an indication of surgery, there is a need for strong emotional preparedness for all forms of surgical procedures. Surgery is a complex event that is stressful and causes stress both physically and psychologically. One psychological response is anxiety. Preoperative anxiety is an anticipatory response to an experience that can be considered a patient as a threat to his role in life, bodily integrity or even life itself (Brunner & Suddarth, 2002). Anxiety itself is characterized by physical changes such as increased pulse and breathing frequencies, uncontrolled hand movements, moist palms, restlessness, asking the same questions over and over again, difficulty sleeping and urinating frequently. Anxiety experienced by patients has a variety of reasons including: anxiety facing the operating room and operating equipment, anxiety facing body image in the form of limb disabilities, anxiety and fear of death when anesthetized, anxious when surgery fails, anxious about the cost of the swell. Some patients who experience severe anxiety are forced to postpone the operating schedule because they feel they are not mentally ready for surgery. So we need a mechanism that can help patients deal with these problems of fear and anxiety, such as prayer, the presence of the closest people, the level of patient development, and supporting factors such as adult age, good education related to knowledge about the disease, and economic status (Rini, 2012). Based on the results of research conducted by Mulyani, et al (2008) found 52.5% of patients experienced mild anxiety levels and 47.5% moderate anxiety level. Moreover, the results of research conducted by Uskenat, et al. (2011) found the results of 40% of patients had moderate anxiety levels

and 3.3% of patients had severe anxiety. This matter shows that the majority of preoperative patients experience anxiety. The process of surgery or surgery is a process related to the treatment and implementation of various diseases by means of surgery or surgery on a part of the body. Surgery (preoperative) which includes preoperative, intraoperative and postoperative phases is generally a complex and tense event that can cause anxiety for the individual concerned (Brunner & Suddarth, 2002). The preoperative phase in surgery is the initial phase in the surgical process. This initial phase begins when a decision is made for surgical intervention and ends when the patient is brought to the operating table. In this phase physiological readiness is needed from the patient concerned. Physiological reactions are directly related to the surgical procedure but greatly affect the success of the surgery because it can trigger a more responsive response large.

Data of pre-operative patients according to the World Health Organization (WHO) in all corners of the world reached a very significant increase from year to year, in 2011 the figure reached 140 million patients in all hospitals in the world had become pre-operative patients, while in 2012 the data had increased as many as 148 million people, whereas for the Asian region pre-operative patients reached 77 million in 2012. In Indonesia, pre-operative patients reached 1.2 million in 2012, whereas for pre-operative patient cells there were 198,000. Provincial government of South Sulawesi), this data includes preoperative patients in Makassar City Hospital of 16,768 people in 2011. Based on preliminary data obtained in the surgical care room of Sheikh Yusuf Gowa Regional Hospital the number of major preoperative patients in 2014 totaled 2839 patients, and the number of preoperative major patients in 2015 amounted to 2507 patients, as well as the number of major preoperative patients in 2016 in the month of 2016 January to March totaled 686 patients. And the results of observation in preoperative patients in the surgical care room of Sheikh Yusuf Gowa Regency Hospital found that almost all preoperative patients experienced anxiety. When researching the survey/observation, it was found that the patient was experiencing anxiety due to the nurse's lack of therapeutic communication regarding the administrative costs of the data, how did the patient know about the surgery to be faced. Based on the description from the background above where there are so many anxiety factors caused by surgical problems, one of which is preoperative patient anxiety is influenced by several factors including extrinsic factors namely age, patient experience undergoing surgery, self-concept and role, education level, socioeconomic level, medical condition, access to information, adaptation process, type of medical action and therapeutic communication, the researcher is interested in conducting research on "how the factors are related to anxiety levels in preoperative patients".

### Purpose of Study

This study conducted is to determine the factors associated with anxiety levels in preoperative patients and the relationship between ages, level of knowledge, socioeconomic with anxiety levels in preoperative patients.

### Concept Theory

Anxiety is an emotional reaction to an individual's judgment that is influenced by the subconscious and is not specifically known. Anxiety is a feeling of fear, worry or anxiety that often occurs without any apparent cause. Anxiety is distinguished from actual fear, fear arises due to obvious causes and the existence of facts or circumstances that are truly dangerous, while anxiety arises because of responses to situations that do not seem daunting, or can also be said to be the result of fiction, the fabrication of one's own mind (subjective presumption), and also a personal bias that causes a person to experience anxiety. (Alim Baitul Muhamad, 2011) Anxiety is common to disease and treatment, anticipation or examination, and diagnosis (Asmadi 2008, quoted in [1]. Anxiety is a natural disorder that is characterized by feelings of fear and anxiety that are deep and ongoing, do not experience interference in assessing reality, personality, behavior can still be disturbed but still within normal limits (Putri Ardyanti Syntia 2012).

### Factors related to anxiety

a. Age or age is the age of an individual that is calculated from birth to birthday, According to Sulaiman (2009) the most optimal age for making decisions is that age over 20 years tends to encourage the occurrence of doubts in making decisions or choosing, and lack of experience.

b. The level of knowledge, Ignorance (unknown) is Anxious about things that are not previously known is a common thing that happens. This is due to lack of information about surgery. Knowledge is the result of what someone knows and this happens after that person senses a certain object. Knowledge or cognitive is dominant which is very important for the formation of one's actions, some human knowledge is obtained through the eyes and ears (Notoatmodjo, 2010).

### Defense mechanisms against anxiety

Anxiety is function marking a sign of the danger that will happen, a threat to the ego that should be avoided or resisted. In this case the ego must reduce the conflict between the will and Superego. This conflict will always exist in human life because according to Freud, instinct will always look for gratification while the social and moral environment limits the gratification. So according to Freud, a defense will always operate broadly in terms of human life. All behaviors are motivated by instincts, so all behaviors have natural defenses, in terms of fighting anxiety. Freud made a postulate on several defense mechanisms but noted that rarely individuals use only one defense. Usually individuals will use several defense mechanisms at the same time. There are two important characteristics of defense mechanisms. Firstly, that they constitute a form of negation or disturbance reality. Second are those defense mechanisms going unnoticed? We have been divided by images of desire, power, ownership and all sorts of other things. Some defense mechanisms that are used to fight anxiety include:

a. Repression, in Freud's terminology, repression is the involuntary release of something from consciousness.

Basically, it is an unconscious attempt to reject something that is uncomfortable or painful.

- b. Formation reaction, formation reaction is how to change an impulse that is threatening, and inappropriate and unacceptable social norms are changed into something more acceptable form.
- c. Projection is the defense mechanism of the individual who considers an impulse that is not good, aggressive and cannot be accepted as not his property but the property of others.
- d. Regression is a defense mechanism when the individual returns to the early period of his life which is more pleasant and free from the frustration and anxiety currently faced.
- e. Rationalization, a defense mechanism that involves re-understanding our behavior to make it more rational and acceptable to us. We try to forgive or consider a thought or action that threatens us by convincing ourselves that there are rational reasons behind those thoughts and actions.
- f. Displacement, a defense mechanism by way of transfer of impulses to other objects as objects that can satisfy Id is not available.
- g. Sublimation, in contrast to displacement which replaces objects to satisfy the idea of sublimation involves changes or replacements of the idea's own impulses.
- h. Isolation is our way of avoiding unacceptable feelings by releasing them from the event they are supposed to be bound to, repressing it and reacting to the event without emotion.
- i. Undoing, individuals will perform ritual behavior or thoughts in an effort to prevent unacceptable impulses.
- j. Intellectualization, often together with isolation; individuals get more distance from their emotions and cover it with abstract intellectual analysis of the individual itself.

## Methods of Study

This type of design examines the relationship between variables. Correlation research aims to reveal the correlative relationship between variables. While the research design used was cross sectional. Cross sectional is a research design that measurements or observations are carried out simultaneously at one time (once in a time) to determine the factors associated with the level of anxiety in preoperative patients. [2]. The sample is part of the population to be studied or part of the characteristics possessed by the population [3]. The sampling technique in this study uses accidental sampling technique, accidental sampling that matches the criteria of the researcher, so that 45 samples are obtained. The sampling technique that will be used in this study uses non-probability sampling with accidental sampling, namely the method of sampling conducted by chance meeting i.e., anyone who incidentally/accidentally meets the researcher can be used as a sample, if it is deemed that the person who happens to meet is suitable as a data source.

## Result of Study

### Characteristics of respondents

**Gender:** The distribution of respondents according to the sex of preoperative patients in care room of Sheikh Yusuf Hospital Gowa Regency can be seen in the following (Table 1). Based on Table 1 above shows that the number of samples by sex the most are women as many as 25 respondents (55.6%) and at least 20 respondents (44.4%).

**Table 1:** Distribution of respondents by gender of preoperative patients in nursing room.

Gender	Frequency	Percent
Male	20	44.4
Girl	25	55.6
Total	45	100

**Profession:** Distribution of respondents according to the work of patients operating preoperatively in care room hospital of Sheikh Yusuf Gowa Regency can be seen in the following (Table 2). Based on Table 2 above shows that the highest number of samples according to work is Other as many as 17 respondents (37.8%) and the least is Army, Police, Government worker and entrepreneur 3 respondents (6.7%).

**Table 2:** Distribution of respondents based on the work of preoperative patients in nursing room.

Profession	Frequency	Percent
Does not work	6	13.3
Farm workers	16	35.6
Army, Police, Government worker and Entrepreneur	3	6.7
Other	17	37.8
Total	45	100

**Marital status:** The distribution of respondents according to the marital status of pre-operative patients in care room Hospital of Sheikh Yusuf Gowa Regency can be seen in the following (Table 3). Based on Table 3 above shows that the number of samples according to marital status the most is married as many as 35 respondents (77.8%) and the least is widows/widowers as much as 2 respondents (4.4%).

**Table 3:** Distribution of respondents based on the marriage status of preoperative patients in nursing room.

Marital Status	Frequency	Percent
Not Married	8	17.8
Married	35	77.8
Widow	2	4.4
Total	45	100

## Univariate analysis

**Age:** Distribution of respondents based on the age of preoperative patients in care room hospital of Sheikh Yusuf Gowa Regency can be seen in the following (Table 4). Based on the distribution of Table 4 the age characteristics show that of 45 respondents the most age is 30 respondents (66.7%) and at least 15 respondents (33.3%).

**Table 4:** Distribution of respondents based on the age of preoperative patients in nursing room.

Age	Frequency	Percent
Young Adults 20-35 Years	30	66.7
Adult 36-50 Years Old	15	33.3
Total	45	100

**Worry:** The distribution of respondents according to preoperative patient anxiety in care room hospital of Sheikh Yusuf Gowa Regency can be seen in the following (Table 5). Based on Table 5 above shows that the highest number of samples according to anxiety is moderate anxiety >8 as many as 25 respondents (55.6%) and the least is mild anxiety <8 as many as 20 respondents (44.4%).

**Table 5:** Distribution of respondents based on preoperative patient's anxiety in nursing room.

Worry	Frequency	Percent
Moderate anxiety >8	25	55.6
Mild Anxiety <8	20	44.4
Total	45	100

**Knowledge level:** The distribution of respondents according to the level of preoperative patient knowledge in treatment room hospital

## Bivariate analysis

**Table 8:** The Frequency distribution of the relationship of age with anxiety levels in preoperative patients in care room.

Age	Anxiety Level				Total		P
	Moderate anxiety >8		Mild Anxiety <8		n	%	
	n	%	n	%			
Young Adult 20-35 years old	21	70.00%	9	30.00%	30	100.00%	0.006
Older adults 36-50 years	4	26.70%	11	73.30%	15	100.00%	
Total	25	55.60%	20	44.40%	45	100.00%	

**Table 9:** The Frequency distribution of the relationship between the level of knowledge and the level of anxiety in preoperative room.

Knowledge Level	Anxiety Level				Total		P
	Moderate anxiety >8		Mild Anxiety <8		n	%	
	n	%	n	%			
Good >5	7	31.80%	15	68.20%	22	100.00%	0.002
<5	18	78.30%	5	21.70%	23	100.00%	
Total	25	55.60%	20	44.40%	45	100.00%	

of Sheikh Yusuf Gowa Regency can be seen in the following (Table 6). Based on Table 6 above shows that the number of samples according to the level of knowledge most is less <5 as many as 23 respondents (51.1%) and the least is good > 8 as many as 22 respondents (48.9%).

**Table 6:** Distribution of respondents based on the level of knowledge of preoperative patients in nursing room.

Knowledge Level	Frequency	Percent
Good >5	22	48.9
<5	23	51.1
Total	45	100

**Socio economic status:** The distribution of respondents according to the socioeconomic status of preoperative patients in care room hospital of Sheikh Yusuf Gowa Regency can be seen in the following. Based on Table 7 above shows that the number of samples according to the socioeconomic status of the most is medium down <Rp. 3,000,000 as many as 23 respondents (51.1%) and at least namely middle and above >Rp. 3,000,000 as many as 22 respondents (48.9%).

**Table 7:** Distribution of respondents based on socio-economic status preoperative patients in treatment room.

Socio Economic Status	Frequency	Percent
Middle and above >Rp. 3,000,000	22	48.9
Middle Down <Rp. 3,000,000	23	51.1
Total	45	100



Finding out factors-factors related to anxiety levels in preoperative patients in treatment room Hospital of Sheikh Yusuf Gowa Regency. Based on Table 8 above shows that the results of the study found that of the 45 respondents examined there were respondents aged 20-35 years old with moderate anxiety as many as 21 people (70.0%) and respondents aged 36-50 years old adult category with mild anxiety of 11 people (73, 3%). then found also respondents aged young adults 20-35 years with mild anxiety as many as 9 people (30.0%). And found also respondents aged 36-50 years old category with moderate anxiety as many as 4 people (26, 7%). From the statistical test using Pearson Chi-Square, the value of  $p=0.006$  is smaller than the value of  $\alpha=0.05$ . These results give the meaning that the alternative hypothesis is accepted, or the null hypothesis is rejected which means that there is a relationship of age with the level of anxiety in preoperative patients in the Hospital of Sheikh Yusuf Gowa Regency. Based on Table 9 above, it can be seen that from the results of the study it was found that of the 45 respondents examined there were respondents with less knowledge level <5 and moderate anxiety levels of 18 people (78.3%) and respondents with good knowledge level >5 with mild anxiety of 15 people (68, 2%). then also found respondents with a good level of knowledge >5 with moderate anxiety as many as 7 people (31.8%). And also found respondents with less knowledge level <5 and mild

anxiety of 5 people (21, 7%). From the statistical test using Pearson Chi-Square the value of  $p=0.002$  is smaller than the value of  $\alpha=0.05$ . These results give the meaning that the alternative hypothesis is accepted, or the null hypothesis is rejected which means that there is a relationship between the level of knowledge and the level of anxiety in preoperative patients in the Sheikh Yusuf Regional Hospital, Gowa Regency Table 10.

Based on (Table 10) above shows that the results of the study found that of 45 respondents examined there were respondents with middle to lower economic status <Rp. 3,000,000 who experienced moderate anxiety as many as 17 people (73.9%) and respondents with middle and upper economic status > Rp.3, 000,000 with mild anxiety of 14 people (63.6%). then also found respondents with middle and upper economic status >Rp. 3,000,000 who experienced moderate anxiety as many as 8 people (36.4%). And also found respondents with middle to lower economic status <Rp. 3,000,000 who experienced mild anxiety as many as 6 people (26, 1%). From the statistical test using Pearson Chi-Square the value of  $p=0.011$  is smaller than the value of  $\alpha=0.05$ . These results give the meaning that the alternative hypothesis is accepted or the null hypothesis is rejected which means that there is a relationship between economic status and anxiety level in preoperative patients in Syekh Yusuf Hospital Gowa Regency.

**Table 10:** Frequency distribution of the relationship of economic status with anxiety levels in preoperative patient's room.

Economic Status	Anxiety Level				Total		P
	Moderate Anxiety >8		Mild Anxiety <8				
	n	%	n	%	n	%	
Middle and above > Rp. 3,000,000	8	36.40%	14	63.60%	22	100.00%	0.011
Middle Down <Rp. 3,000,000	17	73.90%	6	26.10%	23	100.00%	
Total	25	55.60%	20	44.40%	45	100.00%	

### Multivariate analysis

**Table 11:** Summary of bivariate selection results factors related to anxiety levels in patients pre operation room.

Variable	OR	95% CL	P value
Age	21,980	2.242-215,466	0.008
Knowledge level	0.045	0.005-0.402	0.005
Socioeconomic status	0.428	0.0-0.857	0.334
Constant	9,826		0.393

Multivariate analysis was used to see which factors were most associated with anxiety levels in preoperative patients in the care room Hospital of Sheikh Yusuf Gowa Regency. From the bivariate analysis of the three independent variables obtained variables that have a value of  $p<0.05$ , namely the variable Age, level of knowledge and economic status. After a logistic regression analysis of the

independent variables, the results obtained are related to age, level of knowledge and economic status. Based on (Table 11) of the results of the bivariate analysis above the variables that can be maintained for the multivariate test are age, level of knowledge because the p value <0.25. However, the socioeconomic status variable was excluded from the multivariate test because the value of p was >0.25 so that the socioeconomic status variable was substantially unrelated to anxiety in preoperative patients. Based on (Table 12) above, it can be seen that from the stage 1 model there is 1 variable whose value is  $p<0.05$ , that is the knowledge level variable and the largest is the age variable ( $p=0.008$ ) so that the next model of age variable is removed from the model. Variable is in socio economic status with anxiety in preoperative patients. Based on (Table 13) above it can be concluded that the factors associated with anxiety levels in the most dominant patients are the level of knowledge OR Exp (B)=0.130 with CL 95% means that the level of knowledge has a chance associated with anxiety in preoperative patients by 0.130 times greater with 95% confidence after being corrected by socioeconomic status and age.

**Table 12:** Modeling phase 1 factor related to the level of anxiety in preoperative room of hospital sheikh yusuf gowa regency.

Variable	B	SE	Wald	df	P value	OR
Age	3,077	1,153	7126	1	0.008	21, 701
Knowledge	-3,152	1,152	8,079	1	0.004	0.043
Constant	0.276	1,257	0.048	1	0.826	1,318

**Table 13:** Modeling phase 2 factors related to anxiety levels in preoperative patients in room hospital of sheikh yusuf district of gowa.

Variable	B	SE	Wald	Df	P value	OR
Knowledge	-2,043	0.682	8,975	1	0.003	0.13
Constant	2,805	1,046	7,195	1	0.007	16,531

## Discussion of Study

### Relationship between age and anxiety level in preoperative patients

Based on the results of the study using the Chi-Square test was obtained  $p$  value=0.006 ( $P < \alpha = 0.05$ ). These results give the meaning that the alternative hypothesis is accepted or the null hypothesis is rejected which means that there is a relationship of age with the level of anxiety in preoperative patients in care room hospital of Sheikh Yusuf Gowa Regency. From the results of the study it was found that of the 45 respondents examined there were the most respondents were respondents aged 20-35 years old adulthood and experienced moderate anxiety as many as 21 people (70.0%) in treatment room hospital of Sheikh Yusuf Gowa Regency. Baradero 2008 stated that the operation resulted in anxiety with different causes, namely fear of not being able to bear pain, confused about the treatment of wounds, worry of wounds not healed, afraid of how later in the operating room. This statement is in accordance with the theory which states that surgery will cause anxiety due to the fear of something unknown, pain, changes in body image, changes in bodily functions, loss of control, and death. From the results of this study in line with Wardiman's theory, 2000 there is a tendency that patients with a relatively younger age, more difficult to adapt to the hospital environment, because they have to gather with sick people separated from family, friends, and people close related person. Emotions are still rather difficult to control which causes acceptance of the hospital environment and the illness is still lacking so that it is easy to worry/worry and emotions. Based on the results of this study are also in line with the theory of Barbara C. Long. 2001 which stated that is anxiety experienced by patients before surgery more experienced by patients who are young adults than old adults.

From the results of this study are also in line with the theory of Soewadi (2006) which says that age is easier to experience anxiety than old age, because old age is easier to know and understand about the operations performed. This also relates to the level of

readiness of patients in the face of surgery. In line with the theory of Long (2001) that is the older a person the more mature he is in thinking and working. In terms of self-confidence, that patient who will be operated on or someone who is more mature will be more confident than people who have not been of high maturity; the older a person is more concentrated in using coping in the problems faced In line with the results of the study of Yesti Gangka et al. (2013) about the factors related to the anxiety level of patients undergoing major surgery pre surgery at Wahidin Sudirohusodo Makassar Hospital 2013, it was stated that based on the results of the study obtained values ( $p$  value=0.01 $<$  $\alpha$ =0, 05) which means that there is a significant relationship between age and the level of anxiety of patients undergoing major surgery pre surgery at Dr. Wahidin Sudirohusodo Hospital Makassar, also found from 30 respondents in the study found respondents aged 14-40 years who experienced moderate anxiety (20%). According to the researcher's assumptions, it was found that the adult respondents were easy to experience moderate anxiety because patients with a relatively younger age were more difficult to adapt to the hospital environment, because they had to gather with people who were separated from the closest people so that emotions were still rather difficult to controlled which causes acceptance of the hospital environment and illness is still lacking so that the adult age is easier to experience a sense of anxiety and anxiety compared to the age of old adulthood where it is seen that old adulthood is easier to know and understand about the operations performed due to old age his soul and mind are more mature than young adults.

### Relationship of knowledge level with anxiety level in preoperative patients

Based on the results of research using the Chi-Square test obtained  $p$  value=0.002 ( $P < \alpha = 0.05$ ). These results give the meaning that the alternative hypothesis is accepted or the null hypothesis is rejected which means that there is a relationship between the level of knowledge and the level of anxiety in preoperative patients in care room Hospital of Sheikh Yusuf Gowa Regency. From the results of the study it was found that of the 45 respondents examined there were the most respondents were respondents who had less knowledge category  $< 5$  and experienced moderate anxiety as many as 18 people (78.3%) in treatment room Hospital of Sheikh Yusuf Gowa Regency. From the results of this study are in line with the theory of Stuart and Sudeen (1999) that anxiety is a product of frustration that is everything that interferes with one's ability to achieve the desired goals. Other experts consider anxiety as an impulse to learn based on an inner desire to avoid pain so as to create new knowledge that a particular subject or in other words anxiety can be avoided by learning from experience. Experience is a way or an effort to gain knowledge in solving problems. In line with Nursalam and Pariani (2001) that anxiety is influenced by knowledge or information, information is an important function in reducing anxiety [4]. From the results of this study are in line with the theory of Notoadmojo (2003) that Knowledge is the result of knowing and this happens after people sensing a certain object. Knowledge is a very important domain for the formation of one's

actions. A person's knowledge is influenced by several intrinsic and extrinsic factors including the intrinsic factor are the age factor, age is the age of the individual which is the level of maturity and strength of a person in thinking and working, the older a person's age the level of maturity and strength will be more mature than a younger age. In line with Hidayat's theory (2008) that a person's knowledge is usually obtained from experience that comes from various sources such as poster media, close relatives, mass media, electronic media, manuals, health workers, and so on. Knowledge is a process using the senses that a person does on a particular object to produce knowledge and skills.

And also, in line with Notoatmodjo's theory (2007) that Knowledge is the result of what someone knows and this happens after the person senses a certain object. Knowledge or cognitive is dominant which is very important for the formation of one's actions, some human knowledge is obtained through the eyes and ears. In line with the results of research by Rondonuwu R (2014) about the relationship of knowledge with anxiety levels in cataract pre-operative patients in Manado's Public Eye Health Center (BKMM) stated that based on the results of the study obtained a value ( $p$  value= $0.001 < \alpha = 0.05$ ) which means that there is a significant relationship between the level of knowledge with anxiety levels of patients pre cataract surgery in the community eye health center (BKMM) Manado which was found also from 42 respondents in the study found respondents with less knowledge who experienced moderate anxiety as much (14.3%) [5]. According to the researchers' assumptions, it was found that knowledge respondents lacked moderate anxiety. There was a relationship between knowledge and anxiety levels in preoperative patients. As anxiety could be influenced by knowledge, because the higher the knowledge, the lower the anxiety experienced by preoperative patients and vice versa if the lower knowledge, the higher anxiety experienced by patients preoperatively. It is therefore expected for the patient pre operation in order to increase knowledge by way of reading a book about the operation of the health or by seeking information to the health officer/doctor about pre operation.

### **Relationship of socioeconomic status with anxiety levels in preoperative patients**

Based on the results of research using the Chi-Square test obtained  $p$  value= $0.011$  ( $P < \alpha = 0.05$ ). These results give the meaning that the alternative hypothesis is accepted or the null hypothesis is rejected which means that there is a relationship between socioeconomic status and the level of anxiety in preoperative patients in care room Hospital of Sheikh Yusuf Gowa Regency. From the results of the study it was found that of the 45 respondents surveyed there were the most respondents who were middle category respondents who brought in <Rp. 3,000,000 and experienced moderate anxiety as many as 17 people (73.9%) in treatment room Hospital of Sheikh Yusuf Gowa Regency. From the results of this study in line with the theory of Supriadi (2005) says that income in the form of money that affects a person's purchasing power to buy something. Income is the factor that most determines

the quantity and quality of health so that there is a close relationship between income and one's health condition where a good person's income does not guarantee a condition that can always support all the needs for one's health condition to be adequate or sufficient [6-8].

The level of one is income to meet the needs of life, where a good socioeconomic status of the family will affect the existing health status. The level of income will affect the pattern of habits in maintaining health and handling which in turn plays a role in prioritizing health utilization based on economic capacity or income of a family. For those who have a very low income, they can only fulfill the needs in the form of health utilization as it is, according to their abilities. If the income level is good, then their health utilization will be better (Supriadi 2005). In line with the results of the study of Yesti Gangka et al (2013) about the factors related to the anxiety level of patients undergoing major surgery pre surgery at Dr. Wahidin Sudirohusodo Makassar Hospital in 2013, it was stated that based on the results of the study obtained values ( $p$  value= $0.00 < \alpha = 0, 05$ ) which means that there is a relationship between economic status and the level of anxiety of patients undergoing major surgery pre surgery at Hospital of Dr. Wahidin Sudirohusodo Makassar, also found from 30 respondents in the study, found respondents with lower middle income <Rp. 1,625,000 who experienced moderate anxiety (60%). According to the researchers' assumptions, it was found that respondents of middle and lower economic status experienced moderate anxiety, namely the existence of a relationship between the economic status of preoperative patients with anxiety levels, due to the fact that although the level of income was good, the lack of preparation of costs that was not insignificant was a factor of the problem affecting the sense of concern of family or preoperative patients themselves, if this continues it can cause prolonged anxiety in preoperative patients and if income is lower the economic status of a person then the contribution to anxiety is even greater because there are usually unexpected expenses such as financial expenses Surgery is suddenly performed and requires medical expenses and treatment in the hospital so this can be a source of anxiety in preoperative patients [9-12].

### **Factors that are most related to anxiety levels in preoperative patients**

Based on the multivariate logistic regression test results, it is clearly seen that the variable level of patient knowledge is the independent variable that is most related to being able to influence the dependent variable compared to the age variable. This can be seen from the following results for the age variable found wald value 7,126  $p$  value (sig) 0,008 < 0, 05 and OR value (Exp B)=21,701 (very strong), then the knowledge level variable found with value 8,975  $p$  value (sig) 0.003 < 0.05 and OR (Exp B)=0.130 (very strong). From the whole description above based on (Table 13), it can be concluded that, of the four variables, the most related is the level of patient knowledge in addition to the age of the patient, namely OR (Exp B)=0.130 with a very strong relationship strength or it can be

said that with a lack of knowledge, it has the possibility 14 times greater risk of experiencing anxiety in preoperative patients than preoperative patients who are well-informed. From the results of this study are in line with the theory of Stuart and Sudeen, (1999) that anxiety is a product of frustration that is everything that interferes with one's ability to achieve the desired goals. Other experts consider anxiety as an impulse to learn based on an inner desire to avoid pain so as to create new knowledge that a particular subject or in other words anxiety can be avoided by learning from experience. Experience is a way or an effort to gain knowledge in solving problems.

From this study is in line with the theory of Nursalam and Pariani (2013) [3]. Anxiety is influenced by knowledge or information, information is an important function in reducing anxiety. In line with the theory of Nursalam and Pariani (2013) information is a function to help reduce feelings of anxiety [3]. In other words, anxiety is not only influenced by knowledge, family anxiety is influenced by several factors that affect anxiety, one of which is age and education. According to Hidayat's theory (2008) that a person's knowledge is usually obtained from experience that comes from various sources such as, poster media, close relatives, mass media, electronic media, manuals, health workers, and so on. Knowledge is a process using the senses that a person does on a particular object to produce knowledge and skills. In line with the theory of Notoadmojo (2003) that Knowledge is the result of knowing and this happens after people sensing a certain object. Knowledge is dominant which is very important for the formation of one's actions and one's knowledge is influenced by several intrinsic and extrinsic factors including the intrinsic factor is the age factor, age is the age of the individual which is the level of maturity and strength of a person in thinking and working, the older the person's age the level of maturity and strength will be more mature than a younger age [13-16]. In line with the results of research Cristianto Nugroho (2012) about the relationship of family knowledge about preoperational with anxiety levels in preoperative clients, suggests that based on the results of the study obtained values ( $p$  value=0.009< $\alpha$ =0.05) which means that there is a relationship that Significantly between knowledge and preoperative patient anxiety levels found also from 22 respondents in the study found respondents with sufficient knowledge with moderate anxiety as much (4.5%), and sufficient knowledge experienced severe anxiety as much (18.2%).

From the results of the above research in line with the theory of Notoatmodjo, (2007) that Knowledge is the result of what someone knows and this happens after the person senses a certain object [17-20]. Knowledge or cognitive is dominant which is very important for the formation of one's actions, some human knowledge is obtained through the eyes and ears. According to the researchers' assumptions among the most related factors is the level of knowledge that the value of OR (Exp B)=0.130 can be seen that knowledge is more related than age and socioeconomic status as that less knowledge will be able to increase anxiety in preoperative patients because the higher the knowledge, the lower

the anxiety experienced by preoperative patients. Therefore, it is expected for preoperative patients to be able to increase their knowledge by reading books about surgery about health.

## Conclusion

- The relationship between age and anxiety level in preoperative patients found that the most respondents were respondents who were young adults with moderate anxiety 21(70.0%) with  $p=0.006$ .
- The relationship between the level of knowledge with the level of anxiety in preoperative patients found that most respondents were respondents who have less knowledge level <5 with moderate anxiety 18(78.3%) with  $p=0.002$ .
- The relationship between socioeconomic status with anxiety levels in preoperative patients was found the most respondents namely respondents who have a lower middle economic <Rp. 3000,000 with moderate anxiety 17(73.9%) with  $p=0.011$ .

The factors most related to anxiety levels in preoperative patients are the level of knowledge is less likely 14 times more likely to experience anxiety in preoperative patients than preoperative patients with good knowledge with an OR (Exp B) value=0.130.

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