

PREOPERATIVE ANXIETY AMONG ADULT PATIENTS UNDERGOING ELECTIVE SURGERYAleena Binu^{1*}, T. R. Manjula², Aleena Thomas¹, Berjin B. J.¹ and Dhivagar M.¹¹BSc Nursing IVth year students, Chettinad College of Nursing, Chettinad Hospital and Research Institute Chettinad Academy of Research and Education, Kelambakkam-603103, Tamil Nadu, India.²Associate Professor, Department of Mental Health Nursing, Chettinad College of Nursing, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Kelambakkam-603103, Tamil Nadu, India.***Corresponding Author: Aleena Binu**BSc Nursing IVth year students, Chettinad College of Nursing, Chettinad Hospital and Research Institute Chettinad Academy of Research and Education, Kelambakkam-603103, Tamil Nadu, India.

Article Received on 01/09/2023

Article Revised on 22/09/2023

Article Accepted on 12/10/2023

ABSTRACT

Background/Aim: Major life changes are among factors that cause anxiety, and one of these changes is surgery. Hospitalization, regardless of disease, is known to provoke anxiety in the patient admitted for surgery. Preoperative anxiety refers to the feelings of fear, worry, and stress experienced by patients before undergoing surgery. This anxiety is considered to be an important factor that needs to be addressed for several reasons. Preoperative anxiety can have a negative impact on patient outcomes. Studies have shown that high levels of anxiety before surgery are associated with increased pain perception, longer postoperative recovery, higher rates of complications, and prolonged hospital stays. Addressing and reducing preoperative anxiety can potentially improve patient outcomes. The objective of this study was to investigate the prevalence of preoperative anxiety and its predictors among adult patients scheduled for elective surgery. **Materials and Methods:** A quantitative cross sectional survey research design was used. 100 adult patients were selected using convenient sampling technique. A validated study questionnaire was used to collect data on socio-demographic variables and level of anxiety. The collected data was analyzed and interpreted. The data was analyzed using statistical instruments. **Results:** The results highlight out of 100 participants 45% of patients is having moderate of anxiety. 35% of adult having severe level of anxiety and 20% having mild level of anxiety. There is no significant association between anxiety and demographic variables like age, sex, marital status, religion, area of residence, educational status, surgery, h/o of previous surgery and year of previous surgery. **Conclusion:** Patients need to be assessed regularly for anxiety during the preoperative visit and appropriate anxiety reduction methods should be introduced. Nurses should provide proper explanation to patients whenever they need information during their hospital stay.

KEYWORDS: Pre operative anxiety, Elective surgery, Adult patients.**Acronym:** STAI– State Trait Anxiety Inventory**INTRODUCTION**

Anxiety is a typical, emotional, rational, and expected reaction to danger whether be actual or imagined. However, anxiety symptoms are referred to as anxiety disorders if they are persistent, illogical, excessive, or severe; occur without the presence of stressful situations or stimuli. All of the causes cognitive impairment, which is characterized by diminished reasoning, judgment, perception, and focus.^[1] Preoperative anxiety refers to the psychological distress experienced by adult patients before undergoing elective surgery. It is a common phenomenon that affects a significant number of individuals with potential negative impacts on their overall surgical experience and recovery. Symptoms and signs of anxiety are irritability, isolation nervousness, insecurity, headache, sweating, vomiting, diarrhea, tingling chills, hot-flush, tachypnea, tachycardia and

hypertension. All of this results cognitive impairment characterized by impaired thinking, decision making, perception and concentration. Although patients undergoing elective surgery are assumed to have a lower level of preoperative anxiety, studies reported a high level of anxiety among those patients. This study aimed at assessing the level of preoperative anxiety and its predictors in adult patients undergoing elective surgery. Preoperative anxiety refers to the psychological distress experienced by adult patients before undergoing elective surgery. It is a common phenomenon that affects a significant number of individuals, with potential negative impacts on their overall surgical experience and recovery. Elective surgery is a planned surgical procedure that is not an emergency, usually scheduled in advance. While surgery itself can be a source of stress and worry, preoperative anxiety specifically refers to the anxious feelings and thoughts that patients experience in the period leading up to the surgery, often starting

days or weeks before procedure. Life time prevalence rate for anxiety disorder were found to be 10.6% and 16.6%. Social functioning when compared among anxiety disorders were found to be unambiguous. A study showed that among anxiety disorders Generalized Anxiety Disorders and Panic disorders were found to be more significantly associated with Social dysfunction than Social phobia and other Phobic disorders There is strong relationship between our physical and mental health which provides overall wellbeing. Among the preoperative patients, 10(19.2%) subjects had mild anxiety level, 23(44.2%) had mild to moderate level of anxiety, 15(15.4%) had moderate to severe level and 11(21.2%) had severe level of anxiety rating scale. once assessed with Hamilton anxiety. Foremost, all clinical decisions in terms of medicine prescription, surgical decision, and psychological treatment should be based on scientific evidence. The surgical treatment involves three major phases such as preoperative management, operative and post-operative management.

MATERIALS AND METHODS

Institutional based cross-sectional study was conducted using interviewer administered structured questionnaire 100 patients scheduled for elective surgery. The study included all patients with age greater than 18 years who were undergoing surgery. Patients with known anxiety disorder and unable to communicate were excluded from the study. State and trait anxiety inventory (STAI) measurement scale was used to assess preoperative anxiety. The study had three phases; planning for data collection procedure, conducting pilot study and collecting data according to the plan. In planning phase, prior permission and consent was obtained from the participants before conducting the study. In this present study the researcher planned to collect demographic data by using semi structured questionnaire and assess the level of anxiety of the adult Patients by state trait anxiety inventory (STAI). The researcher planned to collect data until sample size reaches. Samples were selected using convenient sampling. In the next phase the data collection was done in in-patient department of Chettinad Hospital and Research Institute, Chengalpattu district. The data was collected for a period of 1 week from 100 samples. The instrument consists of two parts, Part A: It consists of demographic data which includes age, sex, marital status, religion, area of residence, educational status, name of the surgery, h/o of previous surgery and year of previous surgery for assessing the preoperative anxiety among adult patients undergoing elective surgery Part B: The State-Trait Anxiety Inventory (STAI) is a psychological inventory developed by psychologist Charles Spieberger, R.L. Gorsuch, and R.E. Lushene in 1970. It is based on a 4-point Likert scale and consists of 40 questions on a self-report basis. The STAI measures two types of anxiety - state anxiety, or anxiety about an event, and trait anxiety, or anxiety level as a personal characteristic. The 4-point scale for S-anxiety is as follows: 1.) not at all, 2.) somewhat, 3.) moderately so, 4.) very much so. The 4-point scale for T-anxiety is as

follows: 1.) almost never, 2.) sometimes, 3.) often, 4.) almost always. The total attainable score is 80.

Data Collection

Prior formal permission was obtained from the head of the department of Mental Health Nursing, Institutional Human Ethics Committee Clearance was obtained from Chettinad Academic of Research and Education for conducting the study. convenient sampling was used to select the samples. Rapport was established with the self-introduction to the participant and written consent was obtained from the participants to participate in the study. Instructions were given to the participants to answer the questionnaire frankly. Then the questionnaire was administered and responses of the participants were noted, for those who cannot read and write the investigator filled the questionnaire according to the response of the participant. The data collection was done in in-patient department of Chettinad Hospital and Research Institute, Chengalpattu district. The data was collected for a period of 1 week from 100 samples. Prior permission and consent was obtained from the participants before conducting the study. In this present study, the researcher plan to collect demographic data by using semi structured questionnaires and assess the pre-operative anxiety by using State-Trait Anxiety Inventory (STAI) by conducting interview prior to the day of surgery for 20 minutes in the respective wards. The collected data was analyzed and interpreted. The data was analyzed using statistical instruments.

Analysis

It deals with the analysis and interpretation of data collected to assess the preoperative anxiety among adult patients undergoing elective surgery. Statistical analysis was done by using descriptive and inferential statistics. Data were entered into Microsoft Excel and all entries were cross-checked against the questionnaire. The categorical data was expressed as percentage, whereas the continuous data were expressed as mean \pm standard deviation. Chi-square test was used to test the association of different variables with socio demographic data of the participants. A probability value of < 0.05 was considered as statistically significant. The data was presented under the following headings, Diagram 1: Percentage distribution of adult patients undergoing elective surgery based on their age diagram 2: Percentage distribution of adult patients based on their preoperative anxiety level according to their demographic variables, Table 1 Frequency and percentage distribution of the demographic variables of adult patients undergoing elective surgery. Table 2: Level of preoperative anxiety of the adult patients undergoing elective surgery, table 3: Association between the level of preoperative anxiety and demographic variables of adult patients undergoing elective surgery.

FINDINGS

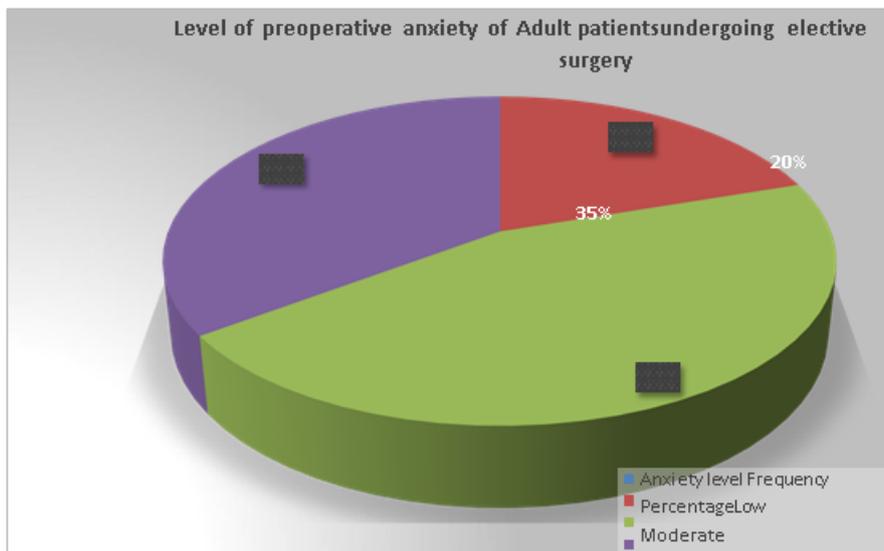


Diagram 1 Percentage distribution of adult patients based on their preoperative anxiety level.

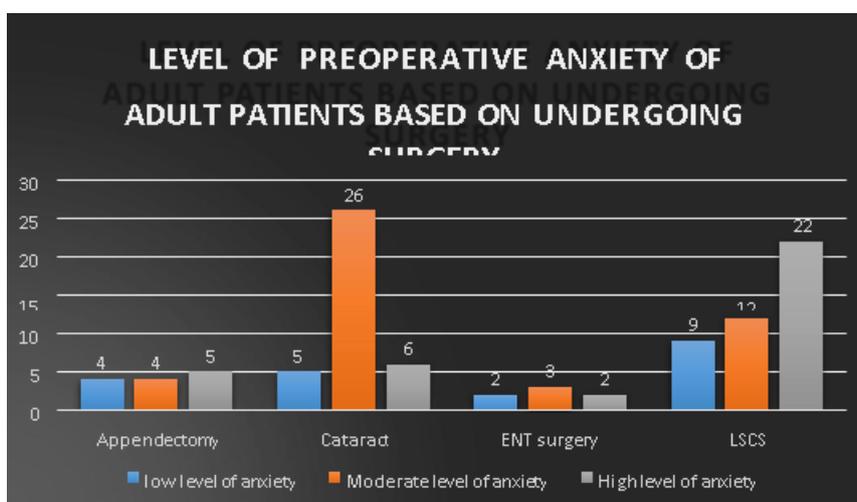


Diagram 2: Frequency distribution based on the level of preoperative anxiety of the adult patients undergoing surgery.

Table 1: Frequency and percentage distribution of the demographic variables of adult patients undergoing elective surgery. N=100.

S No	Demographic variables	Frequency	Percentage
1.	Age of respondent in years		
	a) 18-30	29	29%
	b) 31-45	17	17%
	c) 46-59	34	34%
	d) >60	20	20%
2.	Sex of the respondent		
	a) Male	44	44%
	b) Female	56	56%
	c) Trans gender	0	0%
3.	Marital status of the respondent		
	a) Married	82	82%
	b) Single	15	15%
	c) Divorced	3	3%
	d) Widowed	0	0%

4.	Religion of the respondent		
	a) Muslim	15	15%
	b) Hindu	65	65%
	c) Christian	20	20%
5.	d) Others	0	0%
	Residence		
a) Urban	65	65%	
b) Rural	35	35%	
6.	Educational status		
	a) Illiterate	22	22%
	b) Primary education	30	30%
	c) Secondary education	15	15%
7.	d) Higher education	33	33%
	Undergoing surgery		
	a) Appendectomy	13	13%
	b) Cataract surgery	37	37%
	c) ENT surgery	7	7%
d) Cesarean section	43	43%	
e) Other	0	0%	

Table 2: Level of preoperative anxiety of the adult patients undergoing elective surgery

Sl.no	Level of pre operative anxiety	Score range	Frequency	Total mean	Standard deviation	Level of percentage of individual	Total
1	Mild	0-37	20			20%	100
2	Moderate	38-45	45	11.96	2.99	45%	
3	Severe	46-80	35			35%	

Table 3: Association between the level of preoperative anxiety and demographic variables of adult patients undergoing elective surgery.

SL.No	Demographic variables	Category	No of samples	Level of anxiety			X ²	P Value
				low	moderate	high		
1	Age	18-30	29	7	10	12	8.092	0.231
		31-45	17	6	6	5		
		46-59	34	6	16	12		
		>60	20	1	13	6		
2	Gender	Male	44	8	18	18	1.206	0.547
		Female	56	12	27	17		
		Transgender	0	0	0	0		
3	Marital status	Married	82	16	36	30	1.646	0.800
		Single	15	4	7	4		
		Divorced	3	0	2	1		
		Widow	0	0	0	0		
4	Religion	Muslim	15	3	9	3	3.710	0.447
		Hindu	65	14	25	26		
		Christian	20	3	11	6		
		Others	0	0	0	0		
5	Resident	Urban	65	14	29	22	0.297	0.862
		Rural	35	6	16	13		
6	Educational status	Illiterate	22	5	10	7	3.032	0.805
		Primary Education	30	4	14	12		
		Secondary Education	15	3	5	7		
		Graduation	33	8	16	9		

		and above						
7	Undergoing Surgery	Appendectomy	13	4	4	5	17.509	0.005*
		Cataract	37	5	26	6		
		ENT surgery	7	2	3	2		
		LSCS	43	9	12	22		

*p value statistically significant less than 0.05 level of significant

DISCUSSION

Overview of the study is keeping up the healthy life in sedentary life style is more difficult in the modern days. Health consciousness is more stress full event in current life. Surgery is closely related to stress and anxiety which would increases the fear for most of the patients. Mohammed Saleh Almalki 2017 Assessment of Preoperative Anxiety among Patients Undergoing Elective Surgery. The overall preoperative anxiety score had a mean \pm SD of 18.2 ± 5.8 and the questions regarding knowledge component reported higher scores than those about anxiety component. The components of anxiety about surgery reported higher scores than those of anxiety about anesthesia. Age, gender, availability of family support and type of surgery were found as significant predictors for preoperative anxiety prior to elective surgery. Preoperative Anxiety among Adult Patients Undergoing Elective Surgeries at a Tertiary Teaching Hospital: A Cross- Sectional Study during the Era of COVID-19 Vaccination. Anxiety in the perioperative period has significant impact on both the flow of surgery and the post-operative recovery process. The aim of this cross-sectional study is to determine the prevalence of preoperative anxiety among adult patients undergoing elective surgical procedures at a tertiary teaching hospital and the effect of COVID-19 and COVID-19 vaccines on preoperative anxiety. We used the Amsterdam Preoperative Anxiety and Information Scale (APAIS) to assess patients' anxiety toward surgery and need for more information. This study demonstrated that 30.1% of patients had high preoperative anxiety, with fear of pain after surgery being the most common factor related to anxiety on the day of surgery. Controlling the spread of COVID-19 can play a crucial role in decreasing preoperative anxiety during this pandemic. In this study about 22 LSCS patients had high level of anxiety. Anxiety is a natural response to stress or danger, but sometimes it can interfere with your daily life. There are many strategies to manage anxiety, such as: Questioning your thoughts and challenging your fears, Practicing focused, deep breathing to calm your nervous system, Using aromatherapy to soothe your senses with natural scents like lavender or chamomile, Exercising to release endorphins and distract yourself from worries, Grounding yourself in the present moment by using your senses or writing down your feelings. Seeking professional help from a therapist or a doctor if your anxiety is severe or affecting your functioning. Adopting a healthy lifestyle that includes regular sleep, meals, social support, and leisure activities. Preoperative anxiety is a common and distressing problem that can affect patients well- being and recovery. There are

different ways to manage preoperative anxiety, such as: Pharmacological interventions, which involve using medications such as sedatives or anti-anxiety drugs to reduce anxiety and facilitate induction of anesthesia, Parental presence at induction of anesthesia (PPIA), which allows parents or caregivers to accompany children during the administration of anesthesia to provide emotional support and reassurance Behavioral interventions, which include various techniques such as education, relaxation, distraction, hypnosis, music therapy, aromatherapy, and cognitive- behavioral therapy to help patients cope with anxiety and enhance their sense of control and coping skills, Communication and support, which involve providing clear and accurate information, answering questions, listening to concerns, reporting signs of anxiety and depression, and providing nonverbal comfort such as eye contact, touch, and empathy Identify and learn to manage your triggers. Common anxiety triggers include: work, relationship, and other life stresses, withdrawal from drugs or certain medications, side effects of certain medications, exacerbation of past trauma, chronic, pain, caffeine, smoking. Everyone has different triggers, and identifying them is one of the most important steps to coping with and managing anxiety attacks. Try therapy; Different psychotherapies can help you better understand your anxious feelings and develop coping strategies. Ask your doctor about medications, Do a daily or routine meditation: While this takes some practice to do successfully, mindful meditation, when done regularly, may eventually help train your brain to manage anxious thoughts Trusted Source when they arise. If sitting still and concentrating is difficult, try starting with yoga or walking meditation. Many free guided meditation apps can help you get started, Socialize; Although everyone is different, and some people experience social anxiety, spending time with friends and family regularly may help you manage anxiety. Socialization can help relieve stress, encourage the feelings of laughter and togetherness, and decrease loneliness, Staying active Exercising regularly, getting enough sleep, and staying connected to people who care about you are great ways to stave off anxiety symptoms, Diet and supplements; Changing your diet or taking supplements is a long-term strategy. Practice focused, deep breathing Measured breathing practices may help you manage immediate feelings of anxiety. Try breathing in for 4 counts and breathing out for 4 counts for 5 minutes total. Use aroma therapy; Limited research suggests that aromatherapy can help reduce feelings of anxiety in some settings. Sometimes, the best way to stop anxious thoughts is to leave a situation and get moving. Focusing on your body

and not your mind may help relieve your anxiety. Grounding technique; Grounding techniques such as journaling and the 333 rule can often help to calm immediate feelings of anxiety. The study demonstrates a comprehensive overview of the importance of specific fears typically associated with anesthesia related anxiety in patients from a high income nation. Given the high degree of variance concerning mean scores of all specific fears, the similarity of importance assigned to specific fears by patients with high versus low anxiety, and the low difference in percentages of patients assigning any degree of concern to the different specific fears, we conclude that there is not a single specific fear that is considered important by all or even most patients. Accordingly, patient education materials that aim to cover aspects of patients' highest concerns should not be constrained to just a few specific fears but should address a wide spectrum of concerns. Results of this study also suggest that a conversation with the patient allowing for an individualized approach compared to generic patient education materials is likely to be far more targeted, and therefore more successful in alleviating patient specific fears. In the current study the prevalence of preoperative anxiety was high. Having strong social support, unexpected result of operation, fear of harm from doctor or nurse mistake, need of blood transfusion, and fear of unable to recover were found to be statistically significant for preoperative anxiety. Patients need to be assessed regularly for anxiety during the preoperative visit and appropriate anxiety reduction methods should be introduced.

CONCLUSION

The aim of the study was to assess the preoperative anxiety among adult patients undergoing elective surgery. The objective of the study was to assess the demographic variables of the adult patients undergoing elective surgery, to assess the level of preoperative anxiety among adult patients undergoing elective surgery and to find the association between the demographic variable and the level of preoperative anxiety among adult patient undergoing elective surgery. Quantitative cross sectional survey research design was used. 100 samples would be collected. The data would be collected from Adult Patients (above 18 years) undergoing Elective Surgery. It was conducted in all in-patient department of Chettinad Hospital and Research Institute. The tool selected for the present study included questions for demographic data and questionnaire tool of preoperative anxiety among adult patients undergoing elective surgery. The data collection was done for a period of 1 week. The data collected for the study was compiled and analyzed as per the objectives of the study. From the finding of the study it was concluded that there is a significant association between the undergoing surgery and level of preoperative anxiety. And no significant association between the demographic variables like age, gender, marital status, education, resident, and religion.

The projected outcome of the study is to create a statistical data on preoperative anxiety experienced by patients undergoing elective surgeries. Information will be provided about the surgery, pre-operative preparation, post-operative care in ICU, duration of hospital stay, pain management, wound care and ambulation and tentative discharge date will help in reducing the preoperative anxiety of the patients.

CONFLICT OF INTEREST: Nil.

SOURCE OF FUNDING: Self.

ETHICAL CLEARANCE

The UG Committee clearance and Institutional Ethical Committee clearance was obtained from CARE. Permission was from the HOD of Mental Health Nursing Department, Chettinad College of Nursing as well as from the HOD of Community Health CHRI. The purpose of the study was explained to the participants and their written consent was obtained before the beginning of the study. The participants were informed that they were free to withdraw from the study during any stage of the study period and the confidentiality of the data collected for the research purpose will be maintained and will be utilized only for the study purpose.

REFERENCES

1. Bedaso Asres and Ayalew Mohammed Preoperative anxiety among adult patients undergoing elective surgery: a prospective survey at a general hospital in Ethiopia [Internet]. In Ethiopia, 2019; [cited 22 Jul 2023]. 1-2 P.
2. Yu Jiawen, Zhang Yuelun, Yu Tian, Mi Weidong, Yao Shang long, Wang Zhen, Preoperative Anxiety in Chinese Adult Patients Undergoing Elective Surgeries: A Multicenter Cross-Sectional Study [Internet]. In China; 17 Sept 2022 [Cited 22 Jul 2023]. 893-903 p.
3. Asres Bedaso, Nibretie Mekonnen Bereket Duko Prevalence and factors associated with preoperative anxiety among patients undergoing surgery in low-income and middle-income countries: a systematic review and meta-analysis [Internet]. In Asia; 11 Mar 2022 [cited 22 Jul 2023]. 4-6.
4. P Joy Melvin, Suresh Rao Anbu, Martin Rajesh, Level of Anxiety and Factors Influencing Anxiety among Orthopedic Surgical Patients in a Secondary Care Center in India [Internet]. In India; 01 Mar 2021 [cited 22 Jul 2023]. 2-3 P.
5. Sri Harsha Soma, Kirubamani Hephzibah Preoperative anxiety assessment among women undergoing surgery in department of OBG of Saveetha medical college and hospital [Internet]. In Tamil Nadu; 21 Oct 2019 [cited 22 Jul 2023]. 22-25 P.
6. Akinsulore A, Owojuyigbe AM, Faponle AF, Fatoye FO. Assessment of preoperative and postoperative anxiety among elective major surgery patients in a tertiary hospital Nigeria. Middle East J

Anaesthesiol, 2015 Jun; 23(2): 235-40. PMID: 26442401.

7. Sathyaraj kanagaraj (2019), the effect of directive eye contact on preoperative surgical patients and counseling intervention on postoperative anxiety, depression and posttraumatic stress disorder, vol 8.
8. Pradhip sankar KSR (2021), a cross sectional study on perceived social functioning in patient with Anxietydisorders vol 8, 61-62 p.