

## A QUASI EXPERIMENTAL STUDY TO ASSESS THE ANXIETY IN PREOPERATIVE PATIENTS UNDERGOING SURGERY IN SELECTED HOSPITALS OF LUDHIANA IN PUNJAB

Swapna Melchisedec\* | Paramjit Kaur\*\*

\*Professor & Vice Principal, INE GTBS (C) Hospital, Ludhiana, Punjab, India.

\*\*Principal, National Institute of Nursing, Sangrur, Punjab, India.

DOI: <http://doi.org/10.47211/idcij.2018.v05i01.002>

### ABSTRACT

Anxiety is an individual experience and it is a concept that is difficult to describe with words. No matter how major or minor an operation is, it tends to raise a certain level of anxiety in every patient. Hospitalisation for surgical procedure can be experienced as a threat or stressor and may produce anxiety in patients. Anxiety occurs in the preoperative phase as the patients anticipate an unknown event with potential pain and changes in body image, as well as increased dependency on family and other life changes. The present study is aimed to assess the anxiety in Preoperative patients undergoing Surgery in selected hospitals of Ludhiana in Punjab. The main objectives were to assess the level of anxiety in preoperative patients waiting to undergo surgery, to identify the relationship of level of anxiety with selected variables i.e, age, sex, education, occupation and type of surgery, to prepare guidelines for preoperative patients for relieving anxiety. A Quasi experimental research approach and a single group pre-test and post-test design was used for the present study by taking thirty (30) patients who are admitted in the selected hospitals of Ludhiana in Punjab. Purposive sampling technique was used in this study. The data were analysed by using the descriptive and inferential statistics i.e. mean, mean percentage, standard deviation, t-test, ANOVA, degree of freedom etc. On the basis of mean percentage score it can be concluded that 70% of the patients had severe anxiety, 30% of them had moderate anxiety and none of them had mild anxiety. According to Age, sex, education, and occupation, the patients were found to have statistically significant anxiety and according to the type of surgery, the patients did not have statistically significant anxiety. These findings have shown that there is a significant anxiety in the patients, in the preoperative period.

**Key words:** Preoperative anxiety, Patients Undergoing Surgery.

### ABOUT THE AUTHORS:



Ms. Swapna Melchisedec is the Professor & Vice Principal of INE GTBS (C) Hospital of Ludhiana in Punjab. Her area of specialisation is psychiatric nursing. She has attended many workshops and seminars on this.



Dr. Paramjit kaur is serving as the Principal at National Institute of Nursing at Sangrur in Punjab. She is in the panel of external examiners of BD Sharma University, Rohtak in Haryana. Her area of specialisation is Mother and Child Health Care Nursing (MCH). She has been awarded and honoured by Indian Red Cross Society, Nehru Yuva Kendra Sangathan, and the Government of India for her tireless work in her area.

**INTRODUCTION**

Anxiety refers to an unpleasant emotional state of condition characterised by subjective feeling of tension, apprehension and worry and by activation or arousal of the automatic nervous system.

BT Basavanthappa (2010) said Anxiety has both healthy and harmful aspects depending on its degree and duration as well as on how well the person copes with it. Anxiety has four levels: mild, moderate, severe and panic. Each level causes both physiological and emotional changes in the person. The unknown pre-operative anxiety and stress are common in patients requiring higher doses of anaesthetic induction agent and post-operative analgesic drugs.

Edelman (1995) stated that it is quite unpleasant for anyone undergoing surgery because the medical procedure may provoke anxiety for many reasons. The patient may be concerned about the pain or discomfort they may experience or about the diagnosis and prognosis. For this reason there are many techniques designed to overcome this situation and to prepare the patient for surgery. Techniques such as hypnotic procedures, psychotherapy, counselling and informative techniques are designed to reduce the anxiety prior to and at post-surgery.

The patient who is educated have ability to cope easily with the situation that they know and understand things quickly that is related to his/ her operation, including “what is done “, “how it is done” and “where it is done” and “what the outcome of the surgery will be.” On the other hand the uneducated patient is very anxious and stressful about the surgery and its outcome.

Payne S. Walker (2013) stated that through pre-operative education the capability of the patients to take care of themselves improves through meeting their post-operative self-care needs at home. For example, information about appropriate behaviour after discharge like mobility, exercises, relaxation, appropriate diet or adequate pain control, will facilitate full recovery. Imparting knowledge to patients should be accomplished in a programme consisting of what they need to know and what they can practice until it becomes beneficial for their self-improvement. Giving the knowledge step by step and with the distinct guidelines can bring about extremely effective results.

**WHO’s World Malaria Report (2014):** In 2014, 97 countries and territories had on-going incidence of malaria transmission. An estimated 3.3 billion people were at risk of malaria, of which 1.2 billion were at high risk. In high-risk areas, more than one malaria case occurs per 1000 population. There are 2 million deaths per year from gastroenteritis in children. Infants and those with immunological compromise are more likely to have more severe disease requiring admission to hospital for rehydration. Childhood Tuberculosis is an important indication of public health success in interrupting and preventing Tuberculosis transmission. Infection can be reduced with improvement of environmental hygiene, medicine, highly nutritious diet and health education. Fever remains endemic in many developing countries. Population based studies from South Asia indicate that the age specific incidence of typhoid may be highest in children. Food and water borne diseases are one of the major causes of childhood mortality and morbidity in developing countries. Dental caries and scabies are the most prevalent and chronic oral diseases particularly in childhood ages.

**STATEMENT OF PROBLEM**

A Quasi experimental Study to Assess the Anxiety in Preoperative Patients Undergoing Surgery in selected hospitals, Ludhiana, Punjab

**OBJECTIVE OF THE STUDY**

1. To assess the level of anxiety in preoperative patients undergoing surgery.
2. To identify the relationship of level of anxiety with selected variables i.e, age, sex, education, occupation and type of surgery.
3. To prepare guidelines for preoperative patient for relieving anxiety.

**PURPOSE**

The purpose of this study is to assess the pre-operative anxiety of patients undergoing surgery.

**OPERATIONAL DEFINITIONS**

1. **Anxiety:** It refers to any factor, mental or physical the pressure of which can adversely affect the normal functioning of the subject.
2. **Surgery:** It refers to any surgical operation which involves opening the abdomen, surgery on the heart or blood vessels, and surgery for the broken bones of the body.
3. **Effectiveness:** It refers to measurable changes in anxiety in the patients undergoing surgery.

**DELIMITATION OF THE STUDY**

The study is limited to –

1. Surgery in selected hospitals in Ludhiana.
2. Specific age group from 18 years and above.
3. Patients who are admitted in the hospitals (indoor patients).

**REVIEW OF LITERATURE****Review related to anxiety –**

Kelly E & Maria S (2013), conducting a cross sectional descriptive study on patients who had undergone open abdominal surgery found that 78.8% of the patients had experienced anxiety whereas 47.5% of patients experienced high state of anxiety prior to surgery. Nurses working in the surgical wards were proactively addressing the details of surgery, details of nursing care to surgery and information on anaesthesia to those patients in order to meet their psychological concerns towards surgery and provided pre-operative information based on patients' needs to allay anxiety.

Nigussie et al (2014) concluded in his study that the most common factors that make patients to suffer from anxiety were fear of death, fear of unknown origin, financial loss and results of operation.

Seifu Nigussie (2014) found Preoperative anxiety is associated with problems such as difficult venous access, delayed jaw relaxation and coughing during induction of anaesthesia, autonomic fluctuations, and increased anaesthetic requirement. It has also been correlated with increased pain, nausea and vomiting in the post-operative period, prolonged recovery and increased risk for infection. Many patients experience substantial anxiety before operation, and this is reported to affect 60–80% of surgical patients. Increased anxiety before surgery is associated with path physiological responses such as hypertension and dysrhythmias and may cause patients to refuse planned surgery. The measurement of preoperative anxiety in modern elective surgery is becoming very difficult to administer, mainly due to the imposed time restrictions.

Mitchell M (2011) concluded that a total of 82.4% of patients experienced anxiety on the day of surgery with the wait, anaesthesia and possible pain being common anxiety-provoking aspects. The majority preferred to receive information between 1–4 weeks in advance and participants experiencing general anaesthesia required information at a statistically significant earlier stage. General anaesthesia patients were statistically significantly more anxious than local anaesthesia patients and desired more information. Female patients were statistically significantly more anxious with anxiety commencing earlier and they preferred to wait with a relative/ friend or talk to other patients.

Fitzpatrick E, Hyde A. (2006) observed that Pre-operative Patient Education pertains to various types of educational interventions that occur before surgery to prepare patients for the increasing physical and psychological demands during and after the operation. These provisions include health information, skill training for patients on the use of pain pumps, and provision of psychosocial support to address patients' anxieties, needs, and concerns.

Tung, et al (2007) examined the relationship between anxiety, coping and quality of life of patients who had undergone CABG. Quality of life has been indicated as an important indicator of success following cardiac surgery. About 100 patients who had undergone CABG were recruited for the study. The mean post CABG duration was 27.1 month for male and 16.4 months for female. The mean S-Anxiety as measured using the Spielberger's STAI was 42.7 and 44.6 for men and women respectively. The mean quality of life score measured using SF 36 scale was 45.3 for men and 41.8 for women. Anxiety was negatively correlated to physical dimension ( $r = -.29, p < .01$ ) and mental dimension of quality of life ( $r = -.70, P < .01$ ). It can be noted there was a stronger association between the anxiety and 23 mental dimensions of quality of life. Multiple regression analysis revealed that 37% of variability in quality of life was accounted for by anxiety.

**MATERIAL AND METHODS:****Research approach**

A Quasi experimental research approach was adopted to accomplish the objectives of the study.

**Research design****Group 1 o1x02**

A single group pre-test and post-test design was employed to carry out the study.

**Independent variables**

The independent variables were age, sex, education, occupation and type of surgery.

**Dependent variable**

The dependent variable was anxiety of the pre-operative patients.

**Demographic variables**

The demographic variables were age, sex, education, occupation and type of surgery.

**Selection and description of the field of the study**

The Study was conducted in selected hospitals of Ludhiana in Punjab.

**Population**

The target population of this study included all the pre-operative patients who are admitted in the hospitals of Ludhiana in Punjab.

**Sample and sampling technique**

Sample consists of a total of 30 (thirty) patients who are admitted in the selected hospitals of Ludhiana in Punjab. Purposive sampling technique was used in this study.

**Development of tool**

The Spielberger's anxiety scale would be used to assess the level of anxiety of pre-operative patients. Tool consisted of two sections, A and B.

**Section A:** Consists of demographic variables i.e. age, sex, education, occupation and type of surgery.

**Section B:** The Standardised Spielberger's anxiety scale was used. It consists of 20 items in which 10 would be negative statements and 10 positive statements, wherein negative statements have reverse score of 1 to 4 and positive statements have score of 4 to 1.

It is divided into (**Criterion Measures**):-

Anxiety Level	Score	Percentage (%)
Mild anxiety	20-40	(25% - 50%)
Moderate anxiety	41-60	(50% - 75%)
Severe anxiety	61-80	(75% - 100%)

Maximum Score = 80

Minimum Score = 0

**Content validity of the tool**

Content validity of the tool was determined by Experts of different fields - the psychologist, psychiatrist, anaesthetist, surgeon and nurses. As per their guidance amendments were made. Modifications and corrections were made in statements of self-structured coping check list. Content validity of the tool was confirmed by experts' opinion.

**Reliability of Tool:**

Reliability of the tool was calculated by Split Half method of reliability. The reliability of the tool was calculated by using Karl Pearson's co-efficient of correlation and Spearman - Brown Prophecy formula and reliability of tool was found to be 0.84 and hence the tool was reliable.

**Ethical Consideration:**

Confidentiality of the information was maintained. As they were assured that their (patients') responses would be kept confidential and information would be used only for the purpose of research.

**Plan of data analysis:**

The data analysis would be done by using the descriptive and inferential statistics i.e. mean, mean percentage, standard deviation, t-test, ANOVA, degree of freedom etc.

**ANALYSIS AND INTERPRETATION OF DATA**

Organisation of the data is required for analysis for interpretation and analysis of the data is organised according to objectives related to selected variables like age, sex, education, occupation and type of surgery.

**Section – I:**

**Sample characteristics:** Before proceeding with the actual analysis, percentage of sample characteristics were calculated on selected variables: age, sex, education, occupation and type of surgery.

**Table .1****Sample characteristics**

Sl. Nos.	Variables	n	Percentage (%)	
1.	Age (in years)	18-30	07	23.33
		31-40	13	43.33
		41-50	07	23.33
		<50	03	10.00
2.	Sex	Male	13	43.33
		Female	17	56.67
3.	Education	Illiterate	12	40.00
		Graduate	16	53.33
		Post Graduate	02	06.67
4.	Occupation	Unemployed	03	10.00
		Labourer	03	10.00
		Service	08	26.67
		Business	04	13.33
		Housewife	12	40.00
5.	Type of Surgery	General surgery	09	30.00
		Gynaecological/ Obstetrical	11	36.67
		Chest	03	10.00
		Orthopaedic	07	23.33

Table 4.1 depicts that the pre-operative patients were distributed into various categories.

The maximum percentage distribution according to the age group was of 31-40 years (43.33%), followed by the age group of 18-30 years & 41-50 years (23.33% each) and the least ( 10%) in the age group of 'above 50 years.'

According to the sex distribution, majority group showed maximum of (56.67%) among female patients and least (43.33%) among males.

According to the education, 53.33 % of the patients were graduates, followed by 40% who were illiterates and the least 6.67% were post graduates.

According to the occupation, 40% of the patients were housewives, followed by 26.67% in service, 13.33% were businessmen and the least 10% were labourers and unemployed.

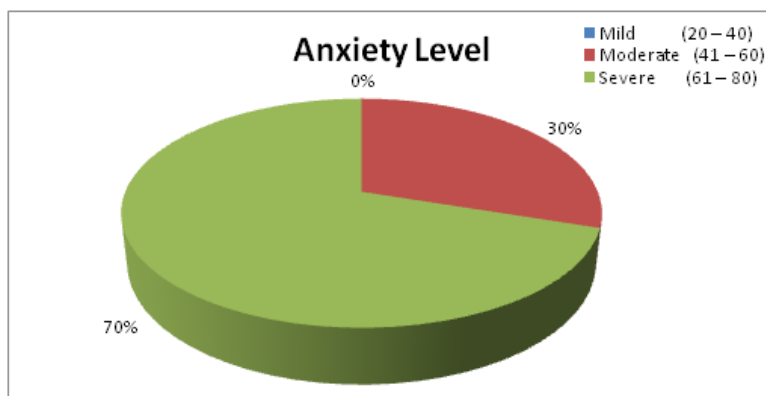
According to the type of surgery, majority (36.67%) came for obstetrics and gynaecological surgery, followed by 30% for general surgery, 23.33% for orthopaedic surgery and the least were 10% for chest surgery.

**Table .2****Percentage distribution of pre-operative anxiety level N=30**

Anxiety Level	n	Percentage (%)
Mild (20 – 40)	00	00
Moderate (41 – 60)	09	30
Severe (61 – 80)	21	70

Maximum Score = 80

Minimum Score = 0



**Figure. 1: Percentage distribution of pre-operative anxiety level**

### CONCLUSION

On the basis of mean percentage score it can be concluded that 70% of patients had severe anxiety, 30% of them had moderate anxiety and none of the patients had mild anxiety. According to Age, sex, education, occupation, the patients were found to have statistically significant anxiety and according to the type of surgery the patients did not have statistically significant anxiety. These findings have shown that there is a significant anxiety in the patients, in the pre-operative period. Hence, the researcher had prepared the guidelines for relieving anxiety of pre-operative patients.

### REFERENCES

1. Basvanthappa BT, Psychiatric nursing; 2<sup>nd</sup> edition: Jaypee Publishers, (2010), 165- 170.
2. Edelmann, R.J., (1995). Preoperative anxiety and preparation for surgery. *Anxiety Theory, Research and Intervention in clinical and health psychology*. Eden O.B., (1990). Consenting patients [letter]. *BMJ*. 301:1334.
3. Payne S, Walker, et.al. Psychological effect of exercise in women with breast cancer is the optimal dose needed? *Ann Oncol*.2013; 24(2): 291-300.
4. Kelly Ee Lu Ting, Maria Sau Sim Ng, Wei Fern Siew. Patient perception about preoperative information to allay anxiety towards major surgery *International e-Journal of Science, Medicine & Education*. 7( 1); 2013: 29 -32.
5. Nigussie et al. *BMC Surgery* 2014;14:67, URL: <http://www.biomedcentral.com/1471-2482/14/67>.
6. Seifu Nigussie, Tefera Belachew, and Wadu Wolancho. Predictors of preoperative anxiety among surgical patients in Jimma University Specialized Teaching Hospital, South Western Ethiopia. *Elsevier B.V.BMC Surg*. 2014; 14: 67.
7. Mitchell M: Influence of gender and anaesthesia type on day surgery anxiety. *J Adv Nurs* 2011, 68(5):1014–1025
8. Fitzpatrick E , Hyde A . Nurse-related factors in the delivery of preoperative patient education. *J Clin Nurs* . 2006; 15:671–677
9. Tung, et al. *Personality and Coping* 2010. *Annual review of Psychology*, 62