

## Pre-Operative Anxiety in Patients at Tertiary Care Hospital, Peshawar, Pakistan

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### ABSTRACT

**Objective:** The objective of the study is to assess the anxiety level among preoperative patients.

**Methodology:** The research design used for this study is a quantitative descriptive cross-sectional study. Hamilton anxiety rating scale was used to identify the anxiety level of patients, data was collected through convenience sampling technique and analysis was done by SPSS version 22.

**Results:** Out of all 70 participants 2.9% has no anxiety, 30.0% have mild anxiety, 42.9% have moderate anxiety 12.9% have severe anxiety and 11.4% have very severe anxiety.

**Conclusion:** The anxiety level of patients varies from mild to moderate, severe and very severe. Different factors like gender, level of education of the participants and type of surgery affect the level of anxiety. Worried about pain and operation theater environment also effect anxiety level. The study also addresses some recommendation to reduce anxiety in preoperative patients.

**Keywords:** Anxiety, Preoperative anxiety, Hospital induced anxiety, Anxiety related to surgical procedure

### INTRODUCTION

Anxiety is uncomfortable feeling of apprehension or dreads that occurs in response to internal or external stimuli and can result in physical, emotional, cognitive and behavioral symptom (Mary Ann Boyd 5<sup>th</sup> Edn).

A normal emotional response to anxiety consists of three parts physiological arousal, cognitive process and coping strategies. Physiologic arousal or the fight-or-flight response is the signal that an individual is facing a threat.

Cognitive processes decipher the situation and decide whether the perceived threat should be approached or avoided. Coping strategies are used to resolve the threat.

#### Preoperative anxiety

Preoperative anxiety is a challenging problem in the preoperative patients all over the world. A number of patients experience anxiety when they go for elective surgery [3]. Anxiety being an unpleasant state of uneasiness may lead to abnormal hemodynamics status that is the result of sympathetic, parasympathetic and endocrine stimulation.

Patients may be thought the day of surgery is the biggest and the most threatening day in their lives. The degree of preoperative anxiety in the patients depends upon on many factors, i.e., age, gender, type and extent of proposed

surgery, previous surgical experience and personal susceptibility to stressful situation [3]. Some degree of anxiety is a natural response to the unpredictable and potentially threatening conditions typical of preoperative period, especially for the patient who has no or very few surgical experiences. Studies have shown that high preoperative anxiety level can lead to increased postoperative analgesic requirement and prolonged hospital stay [3]. There are certain factors that aggravate the preoperative anxiety including surgical failure, anesthesia, strange environment, pain, unsuccessful recovery and death. The anxiety is usually identified by using The Hamilton anxiety scale. It is composed of fourteen items on the scale each item is presented and specific format, each item itself listed with a brief description of the criteria. Adjacent to each item is a five point scale, displaying the numerical 0-4 outlined. The combination of each of these independently

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rated criteria is meant to evaluate patient anxiety level. Below are the criteria and their brief description is presented in the Hamilton anxiety rating scale. It is shown in the figure along with self-adopted questionnaire.

Preoperative anxiety is a challenging concept in the preoperative care of a patient. Most of the patients waiting for elective surgery experience anxiety and it is an expected response; they experience anxiety at the day of surgery because they think it as the biggest and the most threatening day in their lives. The degree of preoperative anxiety in the patients depends upon many factors, i.e., age, gender, type and extent of proposed surgery, previous surgical experience and personal susceptibility to stressful situation.

In Portugal by Batista dos Santos [1], the levels of anxiety, depression and stress in preoperative surgical patients and analysis; their correlation with some socio-demographic and surgical process show low level of anxiety, stress and depression among surgical patients in the preoperative procedure. The results also show statistically significant relations between anxiety and academic qualifications and also between anxiety and length of hospital stay.

Study conducted in Turkey by Yilmaz et al. [5] suggests that women, illiterate patients, and patients that receive only limited family support, or that live alone may need additional support and care for moderate levels of surgery. Therefore, nurses should identify patients that have high anxiety levels and facilitate them and their family members to reduce their anxiety.

In addition, nurses should evaluate preoperative anxiety and fear and encourage patients to talk about their feelings while providing time to listen it.

Matthias et al. [4] in Sari Lanka, studied and found that females were more anxious; and also those who had never undergone surgery were more anxious as compared to those who had experienced of surgical procedure. It has highlighted that information regarding surgery and anesthesia might help in reducing the preoperative anxiety levels.

Study on the same topic conducted by Jawaid et al. [3] at Karachi to find out the prevalence of preoperative anxiety among patients undergoing through surgery in Pakistani context. Factors associated with anxiety level among surgical patients are concerning family fear of complications and postoperative pain in surgery. The respondents thought that their anxiety would be reduced by a detailed explanation regarding surgery and anesthesia.

Anxiety can be easily measured in the preoperative period. Certain tools are available for measuring it, using a standard tool will help to measure the detection of patients with high anxiety and taking appropriate step to reduce anxiety.

As it is clear from the above published literature that patient that goes through surgical procedure are anxious and in

stress condition. To find the prevalence and extent of anxiety among patient from KPK, the study is planned; it will also highlight the factors associated with anxiety level among preoperative patient in local context. As very limited work on preoperative anxiety in Peshawar is available so the study will also help the management of both public and private sector hospitals to make policies for reducing anxiety among preoperative patients. It will also highlight the need of establishment of preoperative counseling clinics and properly informed consent taken before surgery for reducing preoperative anxiety.

## METHODOLOGY

### Study design

The research design used is a quantitative descriptive cross-sectional design. This type of study design might be best use when the researcher is interested to gather the information at one point in time. It provides a snapshot of the population.

### Population and setting

The two hospitals, one from public sector and second from private sector of Peshawar were selected for the study. The study population included patients of different surgical process.

### Sampling technique

A convenient sampling technique is used for sampling collection.

### Sample size

Sample size of this study was 70. As calculated by Rao soft software with 95% confidence level, 5% margin of error and 5% non-responsive rate.

### Inclusion criteria

Adult patient undergoing through surgery.

### Exclusion criteria

The patient with a neurological problem (mentally retarded) and unconscious patients. Patients with language barriers are excluded.

### Data collection tool

Self-Adopted questionnaire consisting Hamilton anxiety rating scale was used for data collection. The questionnaire was consisting of six questions about the predictors which increases and decreases the anxious level of the patients.

## ETHICAL CONSIDERATION

Approval for the data collection was taken from the chief nursing supervisor of the hospitals. An informed consent was presented and explained to each participant for his or her agreement as a participant. Anonymity was guaranteed to all the participants. Data were kept locked under password. Only primary data collectors and supervisor had

access. Confidentiality was maintained through-out the study.

**DATA ANALYSIS**

Social package for social sciences (SPSS) version 22 was used for data analysis. For nominal and ordinal data Frequencies, percentage, were calculated while for continuous data mean and standard deviations were calculated. Chi square was used for identifying whether there is any association between anxiety level and other categorical variables.

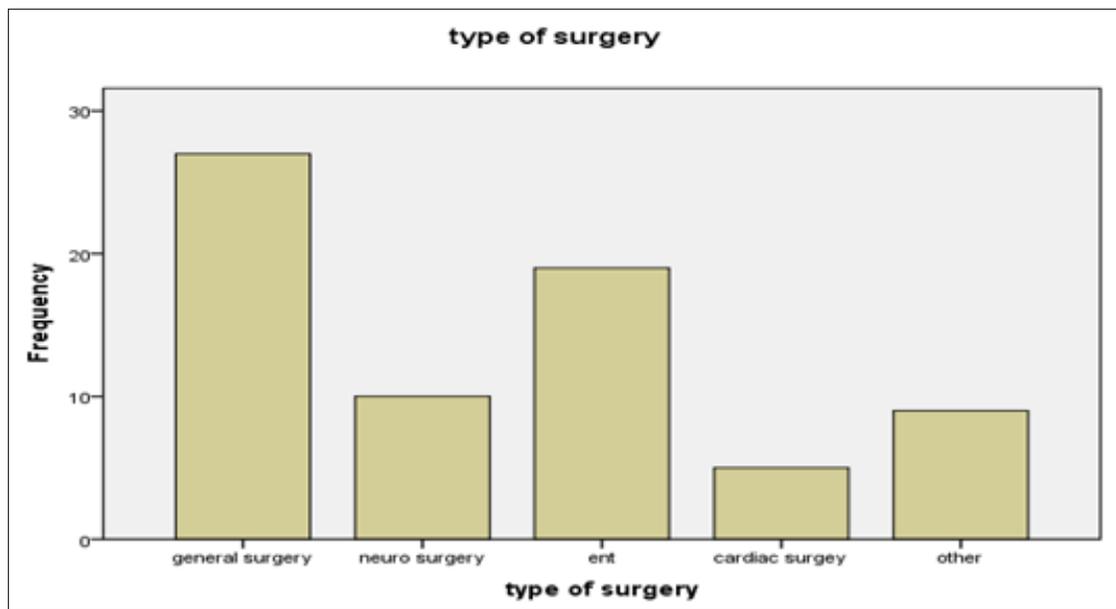
**RESULTS**

The results of the study comprises of different outcomes in narrative forms, some of the outcomes are also presented in

tabular while other are also presented in charts and graphs. Current study consists of 70 participant including 39 (20.6%) male and 31 (16.4%) female. Age of participants was ranged between 18 to 75 years with a mean 39.43 + 16.266. As for as the education level of the participants is concern 23 (32.9%) were uneducated, 10 (14.3%) had primary level of education, 27 (38.6%) were matric level, 6 (8.6%) were graduate and the remaining 4 (5.7%) have master level of education (**Table 1**). The patients were selected from general surgical, neurological wards, cardiac wards, ENT wards and other surgical wards (**Figure 1**). 78.6%, of the participants stated that they are afraid of surgical procedure, 74.3% also accepted that they are afraid of operation theater environment. While the participants worried about post operation pain were 70%.

**Table 1.** Education level of the participants.

	Frequency	Percent
Uneducated	23	32.9
Primary	10	14.3
Matric	27	38.6
Graduation	6	8.6
Master	4	5.7
Total	70	100.0



**Figure 1.** Graph shows types of surgery.

Percentages of Patients' anxiety levels were calculated where 2.9 % has no anxiety, 30.0% have mild anxiety,

42.9% have moderate anxiety 12.9% have severe anxiety and 11.4% have very severe anxiety (**Figure 2**).

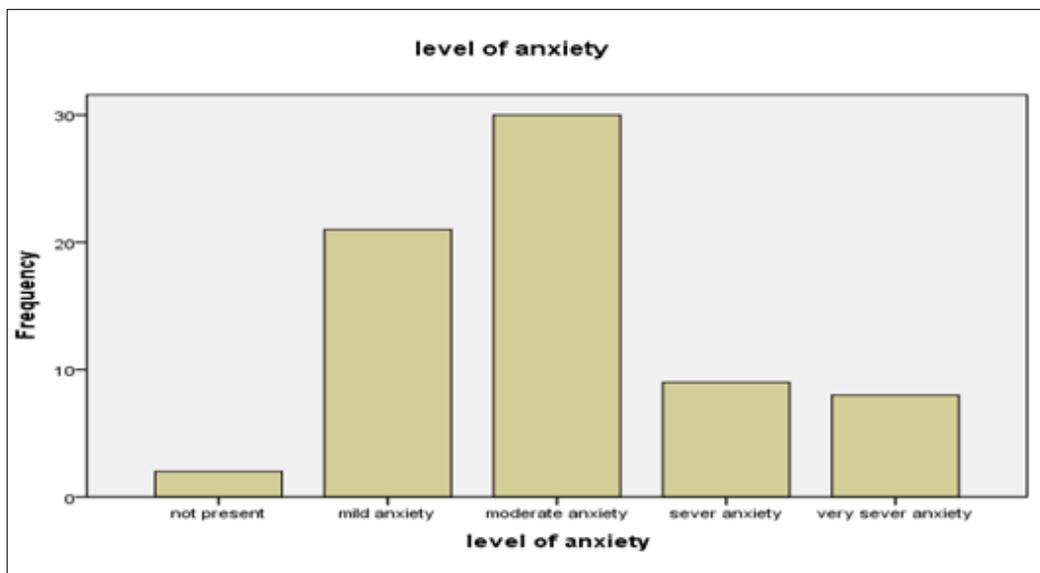


Figure 2. Graph shows level of anxiety.

Chi square was applied to identify any association between different categorical variables with the level of anxiety, that also a categorical variable. The significant association was observed between education level of the participant and their anxiety level with a p-value of 0.001.

**DISCUSSION**

Study conducted in Portugal identified low level of anxiety, stress and depression among surgical patients in the preoperative procedure [1]. Current study shows that 2.9% participants have no anxiety, 30.0% have mild anxiety, 42.9% have moderate anxiety 12.9% have severe anxiety and 11.4% have very severe anxiety.

Another study by Yelmaz et al. [5] showed the mean anxiety score of the patients was 31.91 + 6.30. In current study the percentages of patients’ anxiety levels were calculated where 2.9% has no anxiety, 30.0% have mild anxiety, 42.9% have moderate anxiety 12.9% have severe anxiety and 11.4% have very severe anxiety.

A study conducted by Javeed et al. [3] highlights the common factors contributing to anxiety are concerning family, fear of complications and postoperative pain in surgery. Mean anxiety score for surgery was 57.65 ± 25.1 and for anesthesia was 38.14 ± 26.05. There was a statistically significant high level of pre-operative anxiety in females as compared to males (p<0.01). The most common factors contributing to anxiety were concern about family in 173 (89.6%) patients, fear of Complications in 168 (87%), results of operation in 159 (82.4%) and postoperative pain in 152 (78.8%). Fifty six percent of patients thought that their anxiety would be lessened by a detailed explanation regarding the operation and anesthesia [3].

While our current study consists of 70 participants including 39 (20.6%) male and 31 (16.4%) female. Age of participants was ranged between 19 to 75 years with a mean 39.43 and SD deviation is +16.266. As for as the education level of the participants is concern 23 (32.9%) were uneducated, 10 (14.3%) had primary level of education, 27 (38.6%) were matric level, 6 (8.6%) were graduate and the remaining 4 (5.7%) have master level of education. The patients were selected from general surgical, neurological wards, cardiac wards, ENT wards and other surgical wards 78.6%, of the participants stated that they are afraid of surgical procedure, 74.3% also accepted that they are afraid of operation theater environment. While the participants worried about post operation pain were 70%.

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A study by Matthias et al. [4] comprised of 100 participants (male 36 and female 64) the age varied from 25 to 75 years (mean 48.7 years, SD 13.6). The score of APAIS show that anesthesia related anxiety (mean 4.63, SD 2.65) surgery related anxiety (mean 4.17, ST 2.53) information desire component mean 7.49, SD 3.19) total anxiety score (mean 15.60, SD 7.08). Female were more anxious than male (p=0.20) and those who had never sustained surgery were more anxious than those who had previously had surgery (p=0.05). The anesthetist’s visit could reduce anxiety [4].

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It is clear from the above published literature that patient that goes through surgical procedure are anxious and in stress condition. Current study highlighted the factors associated with anxiety level among preoperative patient in local context. As very limited work on preoperative anxiety in Peshawar is available so the current study will also help the management of both public and private sector hospitals to make policies for reducing anxiety among preoperative patients. It will also highlight the need of establishment of preoperative counseling clinics and properly informed consent taken before surgery for reducing preoperative anxiety.

## CONCLUSION

The study was conducted to assess the anxiety level of patients before surgery in Tertiary Care Hospital, Peshawar KP. In this study the anxiety level of patients vary from mild to moderate, severe and very severe. There are different factors which effect level of anxiety i.e. gender, level of education and types of surgery. Worried about pain and operation theater environment also effect anxiety level. Furthermore current study addressed some recommendation which will provide some guidelines to assess anxiety level.

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