FREQUENCY OF ANXIETY IN PATIENTS REPORTING FOR PRE-ANAESTHESIA ASSESSMENT

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ABSTRACT

Objective: To study the frequeny of anxiety in patients who reported for pre-anaesthesia assessment pre-operatively in Combined Military Hospital (CMH) Malir Cantt and to establish any association of anxiety with demographic characteristics.

Study Design: A cross-sectional study

Place and Duration of the Study: The study was performed in the Deptts of Psychiatry and Anaesthesiology, CMH, Malir Cantt, from October 2007 to March 2008.

Patients and Method: One hundred consecutive patients who reported for pre-anaesthesia prior to planned surgeries were included in the study. Inclusion and exclusion criteria were setup. A questionnaire in Urdu language based on Beck Anxiety Inventory was filled up by each patient. Results were summed and statistically analyzed using SPSS 11.0.

Result: A total of 100 patients took part in the study ranging from 18 years to 60 years of age. Twenty nine (29%) were males and 71 (71%) were females. Fifty five (55%) were up to 30 years of age and forty five (45%) above 30 years of age. Forty two percent had no anxiety while 58% had varying grades of anxiety; 35% had mild, 17% moderate and 6% had severe anxiety. The frequency of anxiety in males was 48% as compared to 62% in females (P>0.118). Moreover 40% of patients up to 30 years of age had anxiety as compared to 80% in patients above 30 years of age (P<0.001).

Conclusion: Anxiety was a common problem in patients who were assessed pre-operatively during pre-anaesthesia. Association of anxiety with gender was insignificant while there was a significant association of anxiety with different age groups.

Keywords: Anxiety, Beck Anxiety Inventory, Pre-operative.

INTRODUCTION

Anxiety is described as a state of apprehension, uncertainty and fear resulting from anticipation of a realistic or fantasized threatening event or situation, often impairing physical or psychological function. Anxiety disorders may be classified as Generalized Anxiety Disorder (GAD) in which patients have high level of anxiety without evident provoking event or these may be specific which include Phobias in which high anxiety is induced by circumstances which for most people would not be considered anxiogenic (open space, spider, height); Panic attacks in which anxiety occurs in sudden waves; Post-traumatic Stress Disorder is a particular form of anxiety attack provoked by involuntary recall of a previous life threatening episode. Anxiety also occurs as part of a medical condition or medication. Diagnostic and Statistical Manual of Mental Disorders, 4th Ed (Text Revision) (DMS-IV-TR) takes persistent worry over 6 months along with 3 of the following six symptoms to diagnose anxiety: restlessness, fatigability, difficulty concentrating, irritability, muscle tension and sleep disturbance [1].

Tests of anxiety are based on self report and these may be divided into features that characterize the person's temperament or that describe a current emotional state. Anxiety disorders can be rated on different scales which include Hamilton Anxiety Scale (HAS) [2], Clinical Anxiety Scale (CAS) [3], The State – Trait Anxiety Inventory (STAI) [4] etc. However, we have used Beck Anxiety Inventory (BAI) [5] which is considered one of the best in reliability and validity.

The objective of this study was to estimate the frequency of anxiety in people reporting for pre- anaesthesia assessment pre-operatively in Combined Military Hospital, Malir Cantt. Second objective of the study was to find out

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the relationship of anxiety with demographic variables.

PATIENTS AND METHODS

It was a prospective observational study, conducted in the Departments of Psychiatry and Anaesthesiology, Combined Military Hospital, Malir Cantt from October 2007 to March 2008. This hospital is a referral hospital for the other Armed Forces Hospitals in Sindh Province. The study was performed in compliance with the "Ethical Principles for Medical research involving human subjects" section of the Helsinki Declaration. The questionnaires were given to the patients after their verbal consent. One hundred patients who reported for pre-anaesthesia assessment in the department of Anaesthesiology were included in the study. Patients between 18 years to 60 years of age, both males and females were included in the study that had to undergo elective surgeries. The operations included General Surgical (24), Orthopaedic (11), Gynaecological and Obstetrics operations (56) and ENT surgeries (9). After taking proper history patients with known psychiatric disorders and those patients who were already on anti-psychotic drugs were excluded. Patients who underwent emergency operations were also excluded from the study. A questionnaire in Urdu language based on Beck Anxiety Inventory (Anx 'A') was given to the patients and they were required to select the appropriate answers on a 4-point rating scale ranging from 0 (not present) to 3 (unbearable). The patients who were unable to read Urdu were interviewed by the Anaesthesiologist and questionnaires were filled up on their behalf. The items were summed to obtain a total score that could range from 0-63. Data was entered and analyzed in Statistical Package for Social Sciences (SPSS) version 11.0. Descriptive statistics were used to describe the data i.e mean and standard deviation (SD) for numeric variables while frequency and percentage for categorical variables. Chi square test was used to study the association and anxiety with age and gender. P-value <0.05 was considered as significant.

RESULTS

Out of one hundred patients 29 (29%) were males and 71 (71%) were females. Fifty five (55%) patients were below 30 years of age while 45 (45%) were above 30 years of age. Mean age of the patients was 31.6 (± 9.8) (Table-1). Out of 100 patients 42% had no anxiety while 58% had various grades of anxiety. Based on BAI they were further divided into mild (35%), moderate (17%) and severe anxiety (6%). Mean BAI score was 13.4 (±9.5). Figure shows frequency of anxiety. Table 2 and 3 give frequency of anxiety in relation to age and sex. The frequency of anxiety was 62% in females as compared to 48% in males (p=0.118). Moreover 40% of patients below 30 years of age had anxiety as compared to 80% in age Group above 30 years (p=0.001).

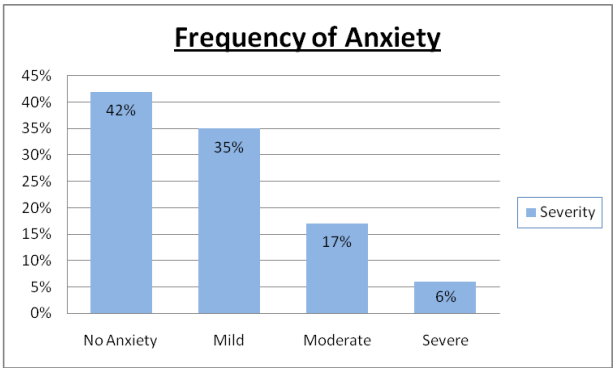

Figure: Frequency of Anxiety

Table-1: Demographic Characteristics of the sample population

Sex	Age Group		Total
	Group 1(up to 30 yrs)	Group 2 (above 30 yrs)	
Female	43	28	71
Male	12	17	29
Total	55	45	100

DISCUSSION

Anxiety disorders are common among the general population around the world. Cross-cultural studies by WHO have shown that the prevalence of psychiatric disorders is almost the same in developing and developed countries and the most common disorders are Depression and Anxiety [6, 7]. Unfortunately there are no exact figures for the prevalence of anxiety in Pakistan. The mean overall prevalence of anxiety and depression is 33.62% with a point prevalence of 45.5% in females and 21.7% in males [8]. According to a country profile report

by WHO Emro region, 10-16% of general population in Pakistan suffers from mild to moderate psychiatric illnesses; out of them 66% were women and 25% men [9]. In neighboring India two meta-analyses of 13 and 15 epidemiological studies have found 58.2 and 73 per 1000 population prevalence of mental disorders respectively [10, 11].

Table-2: Relationship of anxiety with gender

Gender	Severity				P value
	No Anxiety	Mild	Moderate	Severe	
Female	27	30	10	4	0.118
Male	15	5	7	2	
Total	42	35	17	6	

Table-3: Relationship of anxiety with age groups

Age Group	Severity				P value
	No Anxiety	Mild	Moderate	Severe	
Upto 30 yrs	33	13	6	3	<0.001
Above 30 yrs	9	22	11	3	
	42	35	17	6	

In our study we have used Beck Anxiety Inventory to rate different grades of anxiety. BAI is a 21-item questionnaire, which was developed using a variety of samples totaling 1086 psychological outpatients. BAI is a good indicator of reliability and validity of measures of anxiety and is considered among the best to produce reliable results. Reliability scores ranged from r=0.85 to r=0.93 and Internal consistency reliability ranged from 0.94 to 0.92 [5]. The questionnaire has a 4-point scale of symptoms ranging from 0 (not present) to 3 (unbearable). The items are summed to obtain a total score (0-63). The cut off points for BAI are 0-9=no anxiety, 10-18= mild, 19-29= moderate and 30-63= severe anxiety. Our study has shown that percentage of anxiety was 58% in patients who reported for pre-anaesthesia assessment in CMH, Malir Cantt. The results of our study are in concordance with most of the other national and international studies. Khan et al [12] has used the validated Urdu version of Hospital Anxiety and Depression Scale (HADS). He has reported overall 28.2% point prevalence of anxiety, out of which 39.9 % were females. Ehsanulhaq [13] has used Visual Analogue Scale of Anxiety (VAS). Different studies have verified that females suffer from anxiety more than males [14, 15], and women are referred for consultation twice as often as men [16]. In our study patients above 30 years of age had higher frequency of anxiety while Uddin et al [17] reported younger age group having higher frequency. Different studies have reported prevalence of anxiety as 55%, 31%, 34.5% and 50% [17-20]. Studies conducted in the urban and rural populations also reported higher female prevalence for anxiety [21, 22].

Our study was based on the data from a single Armed Forces Hospital and the sample population consisted of people who had to undergo some surgical procedure and they may be more apprehensive as compared to the geneal population, therefore this is not a representative study for the general poplation

CONCLUSION

A considerable number of patients reporting for pre-anaesthesia were suffering from different grades of anxiety. There was a statistically significant association of anxiety with different age groups while gender association of anxiety was statistically insignificant.

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