A SURVEY BASED RESEARCH ON PREVALENCE OF ANXIETY RELATED DISORDERS IN URBAN ADULTS

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ABSTRACT

BACKGROUND AND AIM:

This prospective survey based research aims to find the prevalence of anxiety related disorders in the urban population and its association with age, gender , and marital status to aid us in screening the population with sub-stages of disorder.

METHODOLOGY:

A combination of four validated questionnaires was merged and sent to the sample population of 384 individuals fulfilling the inclusion and exclusion criteria as a Google form and their responses were electronically recorded. The obtained data was analyzed and the Chi-square test and Pearson's coefficient test were performed to arrange the data in tabular form using SPSS version 20.

RESULT:

Out of 384 individuals, 48% were male and 52% were female, 74% or maximum were from the 18-27 years and 3% or minimum were from 48-57 years, 50% were of normal weight, 38% were overweight, 28% were underweight and 20% were obese. 30% were married and 70% were unmarried. The P-value for the association of anxiety disorder with age, gender and marital status was found and a statistically significant relationship was observed between the disorder and matrimony.

CONCLUSION:

Statistically, a significant relationship was found between marital status and OCD with the P-value of 0.0355.

KEYWORDS: Prevalence, PTSD, OCD, INSOMNIA, ANXIETY, DEPRESSION, STRESS.

INTRODUCTION

Anxiety is the intrinsic disposition of the mind to a probable threat that it may come across [1], which in surplus disrupts the individual, resulting in a disordered condition. Anxious behavior may be considered disordered if it is:
Unsuitable to the situation or age, reduces energy and causes social, psychological, occupational and other depreciation and as a result incapability to sustain a normal life.
A study conducted by Kar.N in indianpsychiatry.org reported the prevalence rate of PTSD as 30.6% and an additional 13.6% had subsyndromal PTSD in 2010 after a natural disaster [2].
According to a study by NMHS India, the overall weighted prevalence of lifetime DD was 52.5%, higher in the age group 40-49 (7.47%) and marginally more in females (5.72%) when compared to males (4.75%). It was also higher among the residents of cities with more than a million population (8.23%) [3].
In INDIA the reported case of insomnia is 18.6% for the general population and 28% for the urban population of north India [4].
According to Reddy, Rao and Khanna, a lifetime prevalence of OCD was 0.6%, considerably lower than 2-3% reported in European and North American studies [5].

MATERIALS AND METHODS

An observational, prospective survey based study was conducted using Google forms for the population of Delhi. The study was approved by the institutional research and ethics committee. The sample size was calculated using Rao software and was found to be 384 with a margin error of 5%, a confidence interval of 95% for a population size of 81 lakhs with a response distribution of 50%. The study was conducted over a period of four months (March 2021- June 2021). The study population was sent the Google form electronically and the responses were recorded.

All males and females from the age of 18-50 years were included irrespective of their educational background. People below 18 and above 51 were excluded, pregnant women and individuals with comorbidities were also excluded.

Validated questionnaires used were PSS-SR5 for DSM-5, Yale-Brown Obsessive Compulsive Scale, DASS-21, and Insomnia Severity Index. Chi-square test and Pearson's Correlation coefficient were used as statistical parameters to analyze the obtained data.

RESULT and DISCUSSION

The observational, prospective study was conducted with a population of 384. Statistical tests like Chi-square and Pearson's correlation coefficient were used and the following results were obtained. P-values less than 0.05 were considered statistically significant at a 5% level of significance with a 95% confidence interval.

The socio-demographic details of the study population are shown (Table 1).

Table 1: General Characteristics of the Study Population

Variables	Frequency	Percentage
Age (years)		
18-27	286	74
28-37	52	14
38-47	34	9S
48-57	12	3
Mean± SD of age was 26.59±7.50 years		
Gender		
Male	186	48
Female	198	52
BMI		
Underweight	28	7
Normal	192	50
Overweight	144	38
Obese	20	5
Marital status		
Married	114	30
Single	270	70

The data is described through frequencies and percentages.

AGE;

Maximum or 74% of the sample was from the age group of 18-27 years and minimum or 3% population from age group 48-57 years. The sample from age group 28 - 37 is 14% and from age group 38-47 is 9 % and the mean age was of 26.59 years.

GENDER;

Male participants were 186 or 48% whereas female participants were 192 or 52%

BMI;

Based on BMI, 192 or 50% population was under the normal category, 144 or 38% overweight, 7 or 28% underweight and 5 or 20% obese.

MARITAL STATUS;

Marital status was found to be such that 144 or 30% population was married whereas 270 or 70% were unmarried.

The prevalence of Anxiety, Depression, OCD, PTSD and Insomnia is shown (Table 2).

Table 2: Prevalence of Anxiety Related Disorders

Disorder	Frequency	Percentage
Anxiety and Depression		
Normal	147	38
Mild	35	9
Moderate	103	27
Severe	44	12
Extremely severe	55	14
OCD		
Subclinical	282	74
Mild	93	24
Moderate	8	2
Severe	1	0
PTSD		
Low	264	69
Moderate	105	27
High perceived	15	4
Insomnia		
No clinically significant	310	81
Sub threshold	40	10
Moderate	19	5
Severe	15	4

This table shows the categorical variables in the prevalence of anxiety related disorders.

The prevalence of anxiety+ depression was classified into- Normal (38%), Mild (9%), Moderate (27%), Severe (12%) and Extremely Severe (14%).

The prevalence of OCD was further classified as Subclinical (74%), Mild (24%), Moderate (2%) and severe (0%). The prevalence of PTSD was then classified as Low (69%), Moderate (27%) and High Perceived (4%). At last the prevalence of Insomnia was classified as No Clinically Significant (81%), Sub- threshold (10%), Moderate (5%) and Severe (4%).

The association of Age with Anxiety, Depression, OCD, PTSD and Insomnia is shown (Table 3).

Table 3: Association of age with anxiety disorders.

Disorders	Age Interval (years)				P-Value
	18-27	*28-37*	*38-47*	*48-57*	
Anxiety and Depression					
Normal	98	29	16	4	
Mild	28	3	3	1	0.1941
Moderate	75	14	10	4	
Severe	40	1	2	1	
Extremely severe	45	5	3	2	
OCD					
Subclinical	200	44	27	11	
Mild	77	8	7	1	0.4253
Moderate	8	0	0	0	
Severe	1	0	0	0	
PTSD					
Low	196	35	25	8	
Moderate	79	15	7	4	0.9431
High perceived	11	2	2	0	
Insomnia					
No clinically significant	232	42	27	9	
Sub threshold	31	5	1	3	0.4000
Moderate	12	3	4	0	
Severe	11	2	2	0	

This table gives the association of age with anxiety disorders for both male and female subjects involved in the study.

In anxiety and depression, the maximum number of the study population were found normal in 18-27 years of age group and also the same age group predominates the extremely severe category also respectively. In OCD, the subclinical category predominates in the population with the age group of 18-27. Only a few are placed under the highly perceived category while 200 out of 286 people have low perceived PTSD under 18-27 years of age. 232 people of the study population were found with no clinically significant insomnia.

Calculations for finding the association of age with anxiety disorders was done and the P-value for each disorder was found to be as follows-

• Anxiety+ Depression= 0.1941

• OCD= 0.4253

• PTSD= 0.9431

• Insomnia= 0.400 shows that there is no statistically significant relationship was not found among the study population.

The association of gender with Anxiety, Depression, OCD, PTSD and Insomnia is shown (Table 4)

Table 4: Association of gender with anxiety disorder

Disorders	Gender		P-Value
	Male	*Female*	
Anxiety and Depression			
Normal	78	69	
Mild	19	16	
Moderate	49	54	0.3626
Severe	18	26	
Extremely severe	22	33	
OCD			
Sub clinical	140	142	
Mild	44	49	0.4056
Moderate	2	6	
Severe	0	1	
PTSD			
Low	131	133	
Moderate	50	55	0.4615
High perceived	5	10	
Insomnia			
No clinically significant	156	154	
Sub threshold	16	24	0.3978
Moderate	9	10	
Severe	5	10	

In this table, gender association with anxiety disorders was mentioned. 48% of males and 52% of females participated in the study.

In anxiety and depression, Out of 186 males, 78 of them were found normal and 22 were presented with extremely severe condition. Out of 198 females, 69 were found to be normal, 33 females were found with extremely severe anxiety and depression. Females were comparatively lower than males under the normal category.

In OCD, out of 186 males, 140 were placed under the sub clinical category and out of 198 females, 142 were seen in sub clinical category.

In PTSD, females were slightly higher than the males with low perceive and high perceived PTSD.

156 males and 154 females were categorized under no clinically significant insomnia.

The P-value for the association of gender with anxiety disorders was found to be as follows:

• Anxiety+ Depression= 0.3626

• OCD= 0.4056

• PTSD=0.4615

• Insomnia= 0.3978.

Although females were slightly higher than males in other categories like mild, moderate, and severe in OCD, PTSD and insomnia, no statistically significant relationship was found with the association of gender with anxiety disorder.

The association of marital status with Anxiety, Depression, OCD, PTSD and Insomnia is shown (Table 5)

Table 5: The statistically significant association of marital status with OCD*.

Disorders	Marital Status		P-Value
	Married	Single	
Anxiety and Depression			
Normal	53	94	
Mild	11	24	
Moderate	31	72	0.0846
Severe	9	35	
Extremely severe	10	45	
OCD			
Subclinical	94	188	
Mild	20	73	0.0355*
Moderate	0	8	
Severe	0	1	
PTSD			
Low	77	187	
Moderate	33	72	0.8815
High perceived	4	11	
Insomnia			
No clinically significant	92	218	
Sub threshold	11	29	0.8911
Moderate	7	12	
Severe	4	11	

The marital status of the study population in association with anxiety disorders is mentioned in table 5.

70% (i.e., 270 people) of the population who participated in the study were single and the rest 30% (i.e., 114 people) were married.

Compared with the married population, the single population was found to be higher in the normal and extremely severe category in anxiety and depression.

In OCD, 188 females were categorized under the subclinical category which is higher than the males (i.e., 94).

In PTSD, 77 people of the study group were married and 187 people were single with a low perceived level of PTSD.

In insomnia, the single population (218 people) were predominant than married (92 people) under no clinically significant category. Comparatively higher populations in sub threshold (29), moderate (12), severe (11) categories were found in single people.

(OCD= obsessive compulsive disorder; PTSD= post-traumatic stress disorder)

For the association of marital status with anxiety disorder, the P-values were as follows:

- Anxiety+ Depression= 0.0846

- **OCD= 0.0355**

- PTSD= 0.8815

- Insomnia= 0.8911.

DISCUSSION

The survey-based research aims to find the prevalence of anxiety-related disorders in urban adults and its impact on quality of life and productivity. Previously validated questionnaires were used to ensure uniformity of responses.

The participants were from both male and female genders and fell into the age group of 18- 50 years. A disclaimer regarding the study was given and only then did the willing subjects complete the study.

The rest of the inclusion and exclusion criteria were also diligently followed before sending the Google form to the participant. The Google form was sent online and their responses were recorded electronically. The obtained data was analyzed using the Chi-square test and Pearson's correlation coefficient. Confidentiality of data was maintained throughout the project.

The prevalence of the anxiety-related disorder followed a different route than what was observed in the previous studies, such as a study conducted by NMHS, India [3] which showed a higher prevalence of DD in the age group of 40-59 years, whereas our study showed the higher prevalence of severe and extremely severe anxiety and depression disorder among the age group of 18-27 years.

The prevalence of depression was higher in widowed or divorced individuals as compared to married individuals according to a study by Subramani Poongothai et al. in PLOS ONE [6]. A similar trend is observed in our research with 35 unmarried individuals in the severe category v/s 9 married. Also, 45 individuals with a very severe categorization of symptoms were unmarried as compared to 10 who were married.

The prevalence of OCD, according to a study published on NHP India, shows a similar pattern as to what was observed in our study, i.e., equal distribution of OCD among males and females.

Another study by Sujan Reddy et al [7], found that OCD was more prevalent in the age group of 21-30 years similar to the trend observed in our research with 8 individuals between the age of 18-27 showing moderate categorization and 1 individual with severe. The study by Sujan Reddy et al [7] also shows a significant relationship between married individuals and sub-threshold OCD symptoms, which is also proven by our research.

High perceived PTSD was observed majorly in the age group of 18-27 years, it was also double in the female gender as compared to males. Lastly, it was high in the unmarried population.

In our research, moderate and severe categories of Insomnia were higher in females as compared to males, which was also observed in a study by Suman Kumar Roy et al but a similar trend was not observed in association with age and marital status. Our research found that more unmarried individuals belonged to the moderate and severe insomnia category as compared to married. In the study by Suman Kumar Roy et al [8] insomnia symptoms increased with an increase in age, but our research observed that younger people, between the age group of 18-27 had the highest individuals with moderate and severe insomnia symptoms [8]

CONCLUSION

The survey-based research that aimed to find the prevalence of the anxiety-related disorder in the urban population and its impact on work productivity and quality of life concluded that DD prevalence was higher in the age group 18-27 years and unmarried individuals.

The prevalence of OCD was almost equal in both males and females, with the highest occurrence in the age group of 18-27 years and a statistically significant relationship between married individuals and OCD symptoms.

PTSD was higher in the female gender, 18-27 age group, and unmarried individuals.

Insomnia symptoms were higher in females, 18-27 years age group, and unmarried individuals.

ABBREVIATIONS:

1. PTSD: Post Traumatic Stress Disorder
2. OCD: Obsessive-Compulsive Disorder
3. DASS: Depression Anxiety Stress Scale

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