Research Article

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INCIDENCE AND PREVALENCE OF VARIOUS PSYCHIATRIC DISORDERS IN PSYCHIATRIC DEPARTMENT OF TEACHING BASED HOSPITAL, ONGOLE: A PROSPECTIVE OBSERVATIONAL STUDY

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Abstract

Background: Psychiatric disorders are known to vary across time within the same population and also vary across populations. Most of the community-based Indian epidemiological studies are on point prevalence. **Aim & objective:** we are aimed at to conduct of this study was to know the overall incidence and prevalence rate of various Psychiatric disorders in the Psychiatric department of teaching based hospitals and the objective of the study is to find out the incidence and prevalence of the predominant psychiatric disorder. To find the role of key factors like age, Education, Gender, environmental analysis, Marital status, and sleep pattern on the mental health status of Patients. **Material & Methods:** This study was conducted on 500 patients, both male and female were included in the study. ICD- 10 and DSM IV criteria tools were used. Statistical Analysis was done using appropriate tests like the "t" test and Chi-Square test. **Results:** A total of 500 Patients we are included in our study, males are 293(59%) and Females are 207 (41%). Depression shows the highest incidence of 7.0%. Schizophrenia shows the highest prevalence (17.6%) Chi-Square analysis indicated no significant difference in prevalence between the number of males and females. There were no significant differences among the prevalence rates among the participants who belonged to middle-class urban and rural areas. **Conclusion:** Psychology is the science of behavior and mind, it intends to surmise clinical individuals and groups via placing general principles and researching specific cases. As a responsible clinical pharmacist, we have played a major role in the effective counseling of patients by using counseling aids. In this research, have a leading prevalence plus incidence of psychiatric disorders are detected.

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INTRODUCTION

Psychiatric epidemiology is the study of the distribution and determinants of mental illness frequency in humans, with the aim of understanding and controlling the occurrence of mental illness [1]. According to world health report (2000), 20% of children and adolescents suffer from a disabling mental illness worldwide. The adult epidemiological finding that mental disorders have early ages of onset has created interest in theThe adult epidemiological finding that mental disorders have early ages of onset has created interest in the minds of psychiatrist [2,3]. Children and adolescents are at high risk of developing mental disorders. The majority of available Indian psychiatric epidemiological studies have not utilized specific tools for addressing the disorders in children and adolescents. Most of the researchers formulatedtheir own screening instruments in which they have missed out mental apathy in children and adolescents [4]. A mental disorder, also referred to as a mental illness or psychiatric disorder, is a behavioral or mental pattern that causes significant personal functioning distress or impairment.Mental status examination which include Attitude, appearance and behavior, Mood and effect, Perception, Thinking, Judgement, Insight, Sensorium and cognition [5]. The causes of mental disorders are regarded as complex and varying depending on the particular disorder and the individual. Although the causes of most mental disorders are not fully understood, researchers have identified a variety of biological, psychological, and environmental factors that can contribute to the development or progression of mental disorders [6,7]. Most mental disorders are a result of a combination of several different factors rather than just a single factor. There are a number of theories or models seeking to explain the causes of mental disorders some of them include

I. Genetic theories
II. Biochemical theories
III. Psychological theories
IV. Behavioral and cognitive theories
V. Personality theories
VI. Social theories

The most widely established systems of psychiatric classification are diagnostic statistic manual of mental disorders (DSM) and the international classification of diseases (ICD) in this study we follow the ICD-10 and DSM-IV criteria. Since 1994, The ICD-10 has been in use WHO attribute the greater detail relating to behavioral syndromes and mental disorders associated psychological dysfunction and hormonal changes to the increasing use of liaison psychiatry. [8,9]Mental and behavioral disorders relating to substance use are rearranged, now detailing both the substance used with characteristics the coexisting syndrome. Schizophrenia, schizotypal, and delusional disorders.[10]DSM is published by the American psychiatric association Americas main professional organization of psychiatrists. It is the world's largest psychiatric organization. DSM first edition was released in 1952. [11] In 1994 the DSM- IV built upon the clinical research generated to the predecessor, it was revised in 2000 in this having five separate axes (I) Clinical disorders such as psychotic disorders, mood disorders or anxiety disorders (II) Personality disorders and developmental delays (III) Physiological medical disorders in terms of affecting functioning or mood, or impacting medication choices (IV) Psychological stressors in the Patients environment (V) Assessment of patients general ability to function. Hence this article attempts to critically evaluate the Incidence and Prevalence rate of psychiatric disorders.

AIMS AND OBJECTIVES

The main aim of the study is to assess the incidence and prevalence of various psychiatric disorders in psychiatric department of teaching based hospital.

- The main objective of the study is to find out the incidence and prevalence of the predominant psychiatric disorder.
- To find the role of key factors like age, education, gender, environmental analysis, marital status and sleep pattern on mental health status of patients.

MATERIAL AND METHODS

STUDY SITE

Government General Hospital, Ongole, Prakasam District, Andhra Pradesh.

STUDY DESIGN

A Prospective observational study.

STUDY POPULATION

A total of 500 patients, both male and female were included in the study.

STUDY PERIOD

6 months [August 2019 – January 2020]

DEPARTMENT

Inpatient and outpatient Department of Psychiatry in Government General Hospital.

STUDY CRITERIA

The study will be carried out by considering following criteria

INCLUSION CRITERIA

- Patients of age above 7 years.
- Patients who are Positively diagnosed with Psychiatric disorders.
- Includes both Outpatients and Inpatients of Psychiatry Department
- Patients who are willing to Participate in the study.

EXCLUSION CRITERIA

- Patients of age group < 7 years.
- Patients who are suffering with other than the Psychiatric disorders
- Patients who are having >70years
- Patients not willing to Participate in the study were taken under exclusion criteria.
- Patients who are not willing to give consent for the study

SOURCE FOR DATA

Data will be collected from the case sheets of the patients enrolled in Psychiatry department.

- Case sheets of Patient.
- Modified Data Collection form.

QUESTIONNAIRE DESIGN

A modified questionnaire for collecting patients demographic profile and Socio profile was designed which Include all the data of the Patient [name, age, gender, Education, locality, occupational, Marital Status etc.], the questionnaire also included the diagnosis of presenting disease condition. Along with these details few other questions were also included to assess the status of the Patients with Past medical and Medication history, social history, Family history taken.

DATA COLLECTION

All the patients were directly interviewed by the researchers Initially the Patients and Patient representatives was explained about the type and need of study and the details were collected as per the patients will. The demographic details were collected by asking open ended questions in local Language.

DATA ANALYSIS

The data obtained from the Questionnaire was analyzed in Microsoft excel 2013 [Microsoft corporation] and after data collection and summarization analysis on the data was performed using STATA software SPSS. Chi- Square t-test were used for statistical analysis comparing diseases with age group, Gender, marital status, environmental analysis.

RESULTS

GENDER ANALYSIS

A total 500 patients we are included in our study, Males are 293(59%) and Females are 207 (41%). When Compared to Males and Females, Males (59%) were more prone to Psychiatric Disorders.

Table 01: Gender Analysis

GENDER	FREQUENCY	PERCENTAGE
Males	293	59%
Females	207	41%

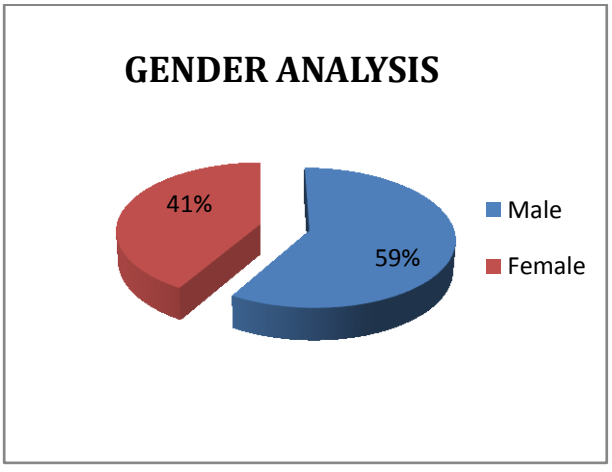


Figure 01: Gender Analysis in study population

ENVIRONMENTAL ANALYSIS

Based on environmental status Most of the People Affected by Psychiatric disorders are in rural areas than the people attended from Urban region. The people attended from rural area 338 (68%) and the people attended from the urban area were 162 (32%).

Table no:2 Environmental Analysis

LOCATION	FREQUENCY	PERCENTAGE
Urban	162	68%
Rural	338	32%

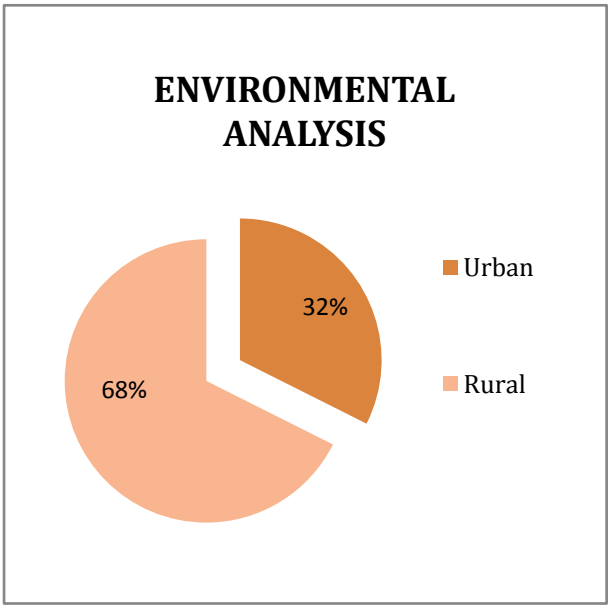


Figure 02: Environmental Analysis in study Population

OCCUPATIONAL COMPARISON

According to the occupational comparison of psychiatric disorders, were classified as Daily wages 230 (46%) and Unemployed 114(23%), House wife 115 (23%), Student 30 (6%) andEmployed people 11 (2%). based on our study we find Daily wages are more prone to psychiatric disorders compared to rest of others.

Table 03: Occupational Comparison

OCCUPATION	FREQUENCY	PERCENTAGE
Daily wages	230	46%
Unemployee	115	23%
House wife	114	23%
Student	30	6%
Employee	11	2%

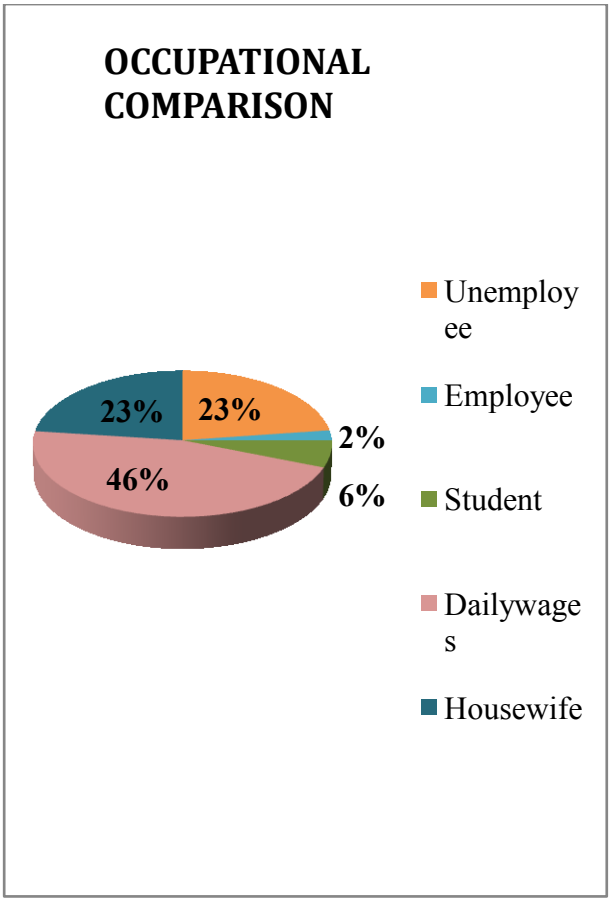


Figure 03: Occupational Comparison in study population

MARITAL STATUS ANALYSIS

According to the marital status analysis the percentage distribution of psychiatric disorders among marital status were married 350(70%) Unmarried 127 (25%), Widow 13 (3%), Divorce10(2%). When compared to the mentioned variables married Patients are having greater frequency compared to rest of others.

Table 04: Marital Status Analysis

MARITAL STATUS	FREQUENCY	PERCENTAGE
Married	350	70%
Unmarried	127	25%
Widow	13	3%
Divorce	10	2%

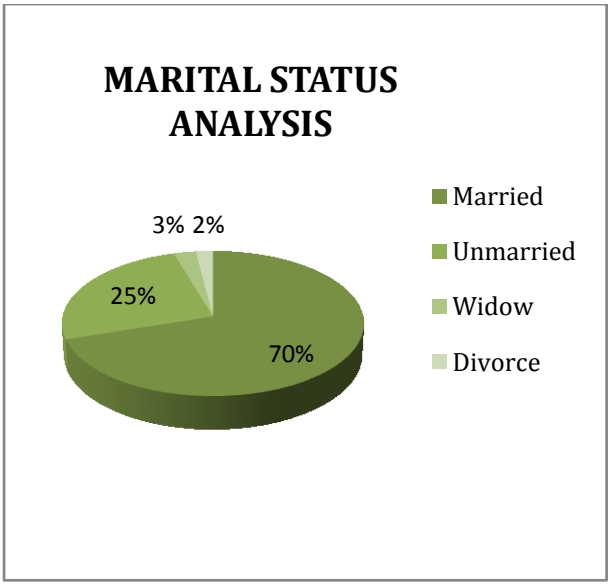


Figure 04: Marital status Analysis in study population

SOCIAL HABITS ANALYSIS

The percentage distribution of social habits in psychiatric disorders is as follows Alcohol 133 (27%), Smokers 133 (27%), Drug Abuse 25 (5%)

ALCOHOLIC ANALYSIS

The Percentage Distribution of Alcoholic Patients 133 (27%) and Non Alcoholic Patients 367 (23%).

Table 05: Alcoholic Analysis

ALCOHOL	FREQUENCY	PERCENTAGE
Alcoholic	133	27%
Non Alcoholic	367	73%

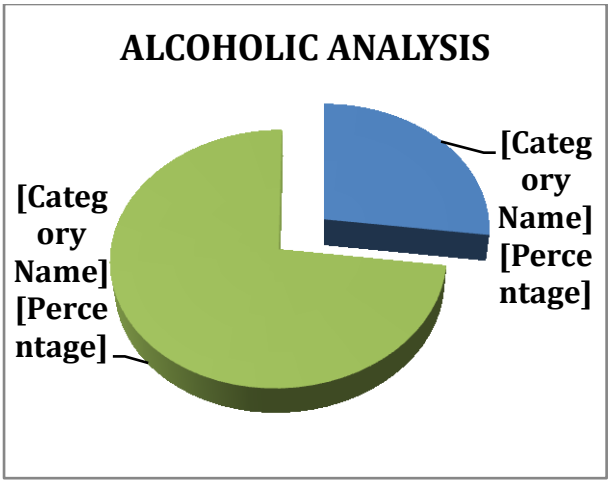


Figure 05: Alcoholic Analysis in study Population

SMOKING ANALYSIS

The Percentage Distribution of smokers is 133 (27%) and nonsmokers is 367(33%) the nonsmokers have higher frequency when compared to smokers.

Table 06: Smoking Analysis

SMOKING	FREQUENCY	PERCENTAGE
Smokers	133	27%
Non smokers	367	33%

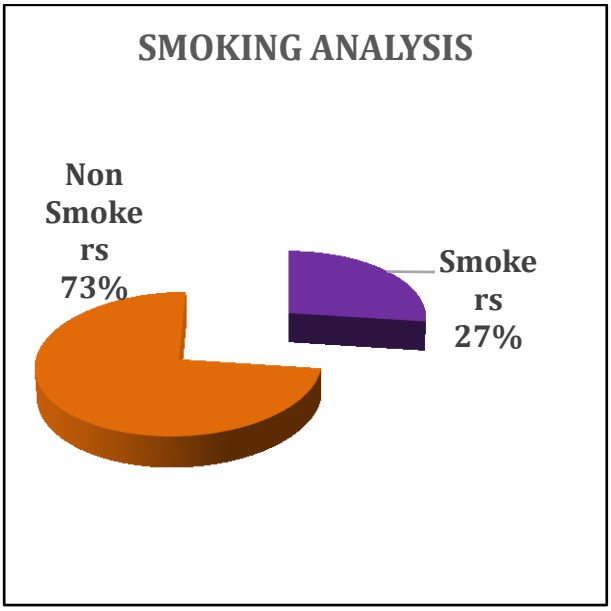


Figure 06: Smoking Analysis in study population

SUBSTANCE ABUSE ANALYSIS

In our study the substance abuse cases were Include Cannabis 25 (5%) and no Drug abuse cases were 475 (95%)

Table 07: Substance Abuse Analysis

SUBSTANCE ABUSE	FREQUENCY	PERCENTAGE
Cannabis	25	5%
No Drug abuse	475	95%

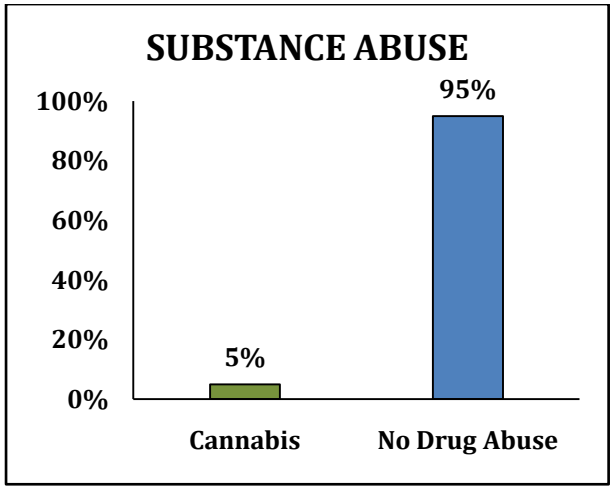


Figure 07: Substance abuse Analysis in study population

AGE DISTRIBUTION

According to Our study, the percentage distribution of age at 7-17 is 26 (5.20%), 18-27is 94 (18.80%), 28-37 is 128 (25.50%), 38-47 is153(30.50%), 48-57 is 73(14.60%), 58-67is 24(4.80%), 68-70 is (0.60%). he 38-47 age patients are more affected when compared to all age groups.

Table 08: Age Distribution

AGE	FREQUENCY	PERCENTAGE
7-17	26	5.20%
18-27	94	18.80%
28-37	128	25.50%
38-47	153	30.50%
48-57	73	14.60%
58-67	24	4.80%
68-70	3	0.60%

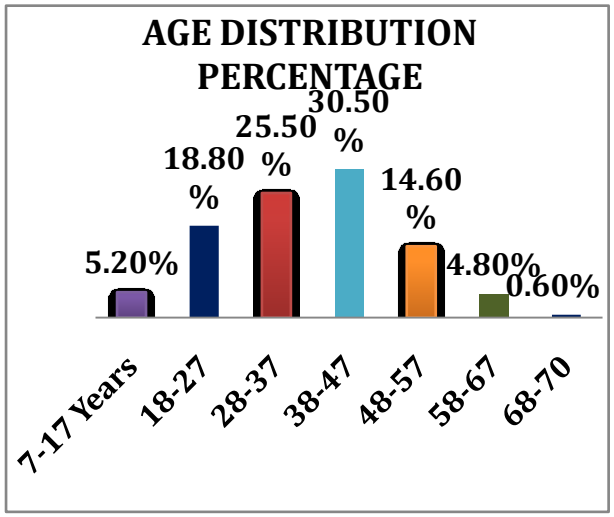


Figure 08: Age Distribution in study Population

SLEEP ANALYSIS

Based on the Sleep Analysis Patients were distributed with Psychiatric disorders is follows as Normal. Sleep pattern was disturbed in Psychiatric patients. The Sleep disturbed 420 (92%) patients, Normal 80 (8%) patients.

Table 09: Sleep Analysis

SLEEP PATTERN	FREQUENCY	PERCENTAGE
Disturbed	420	92%
Normal	80	8%

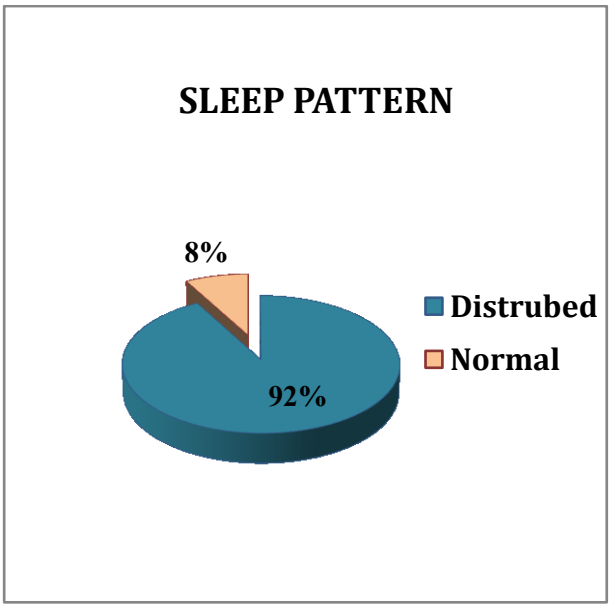


Figure 09: Sleep Analysis in Study Population

LITERATURE ANALYSIS

Based on the Literature Analysis, The percentage distribution of the illiterates 275 (55%), and then literates 225 (45%). Illiterates are more prone when compared to literates

Table 10: Literature Analysis

EDUCATION	FREQUENCY	PERCENTAGE
Literate	225	45%
Illiterate	275	55%

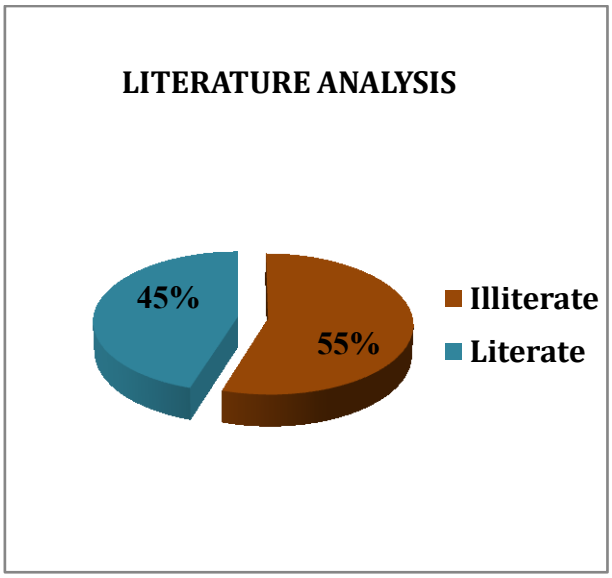


Figure 10: Literature Analysis in study Population

FAMILY HISTORY ANALYSIS

Based on the study Population the percentage distribution of family history analysis which include Mother 31 (47%), Father 17 (44%) and Wife 5 (4%) Grandfather 4(3%) Mother in Law 3(2%) in our study data were concluded Patient's mother having greater percentage 31(47%) Compared to others.

Table 11: Family History Analysis

FAMILY HISTORY	FREQUENCY	PERCENTAGE
Father	17	44%
Mother	31	47%
Mother in Law	3	2%
Wife	5	4%
Grand Father	4	3%

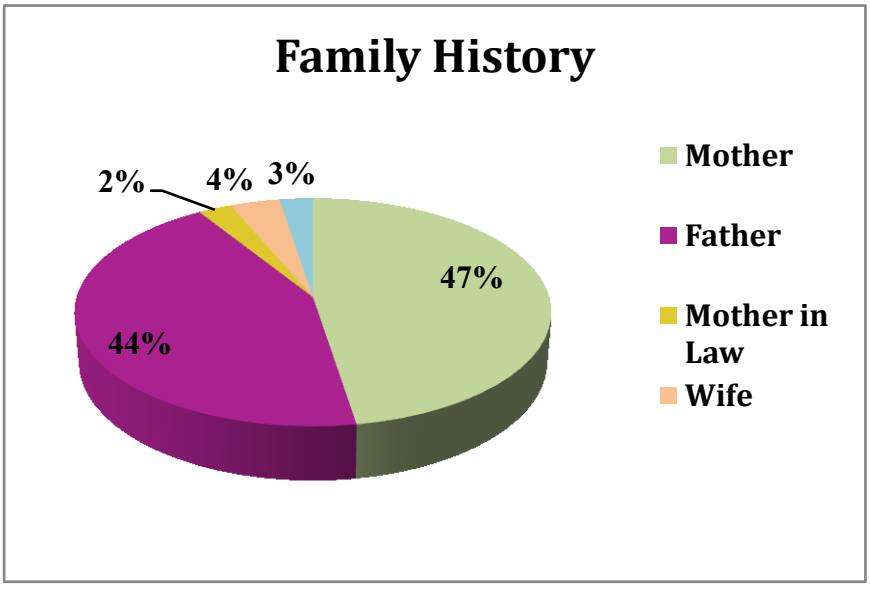


Figure 11: Family History Analysis in study Population

DISEASES DISTRIBUTION

Among all the Psychiatric disorders, Schizophrenia shows the highest prevalence (17.6%) of the total population. And psychosis and depression was found in 15.2% of the patients.

Table 12: Total Number of Diagnosed Cases

DISEASE INVOLVED	FREQUENCY	PERCENTAGE
Schizophrenia	**88**	**17.6%**
Psychosis	76	15.2%
Depression	76	15.2%
Paranoid Schizophrenia	46	9.0%
Mental Retardation	35	7.0%
Bipolar affective Disorder	30	6.0%
Alcohol related disorders	20	4.0%
Anxiety disorders	17	3.4%
Substance abuse disorders	15	3.0%
Obsessive compulsive disorder	13	2.6%
Personality disorder	12	2.4%.
Insomnia	12	2.4%
Anorexia nervosa	8	1.6%
Delusional disorder	7	1.4%
Dementia	6	1.2%
Gender Identity Disorder	5	1.0%
Somatoform Disorder	5	1.0%
Hypochondriasis	4	0.8%
Adjustment Disorder	4	0.8%
Borderline Psychosis	3	0.6%
Mixed anxiety with depression	3	0.6%
Binge Eating disorders	3	0.6%
Postpartum psychosis	2	0.4%
Stress disorder	2	0.4%
Schizoaffective disorder	2	0.4%
Hyper somnolence	2	0.4%
Acute Transient Psychotic disorder	2	0.4%
Panic Anxiety	2	0.4%

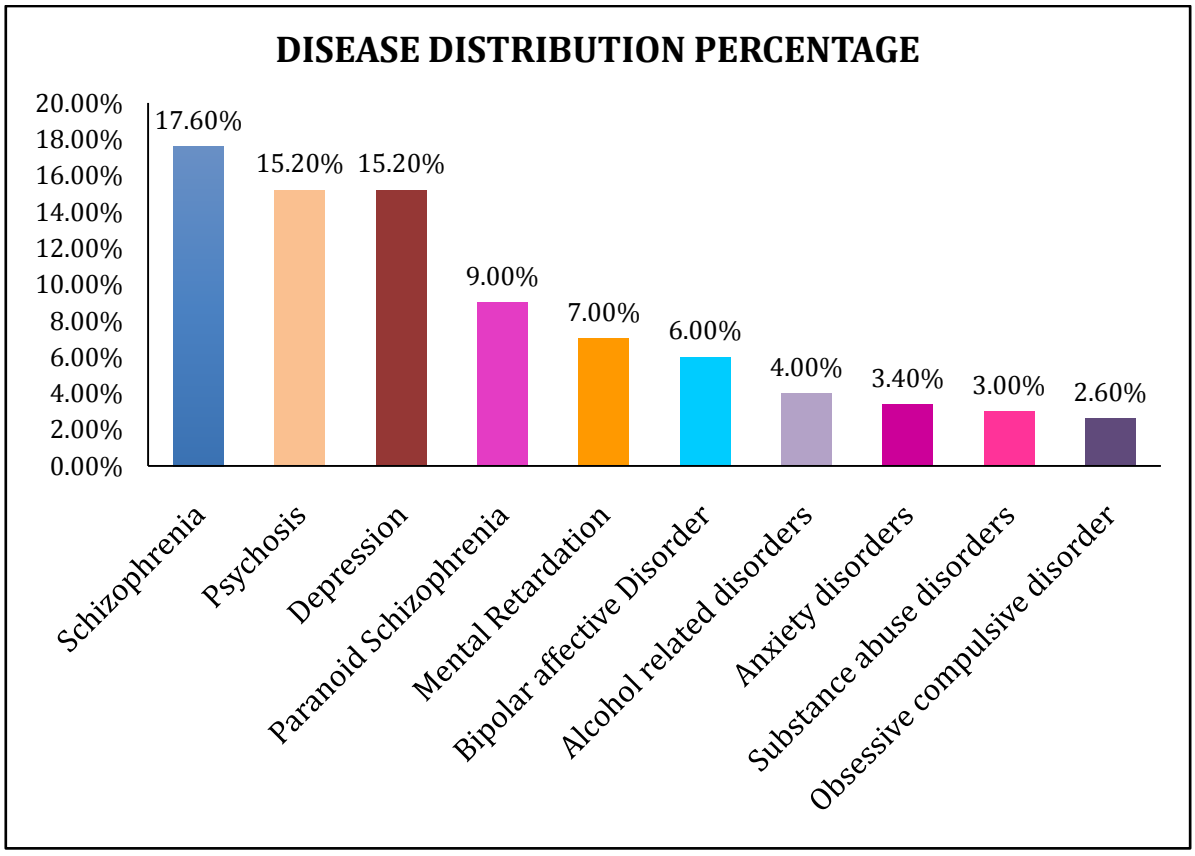


Figure 12: Disease Distribution Percentage in Study Population

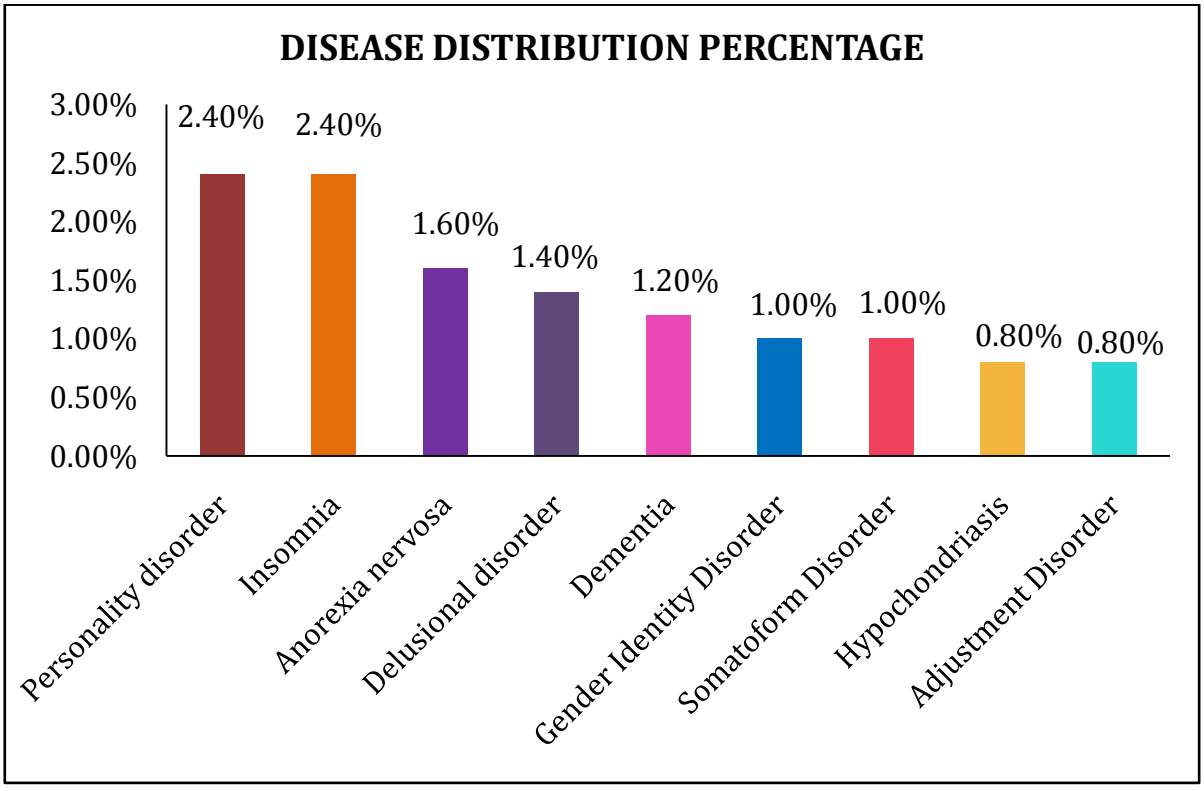
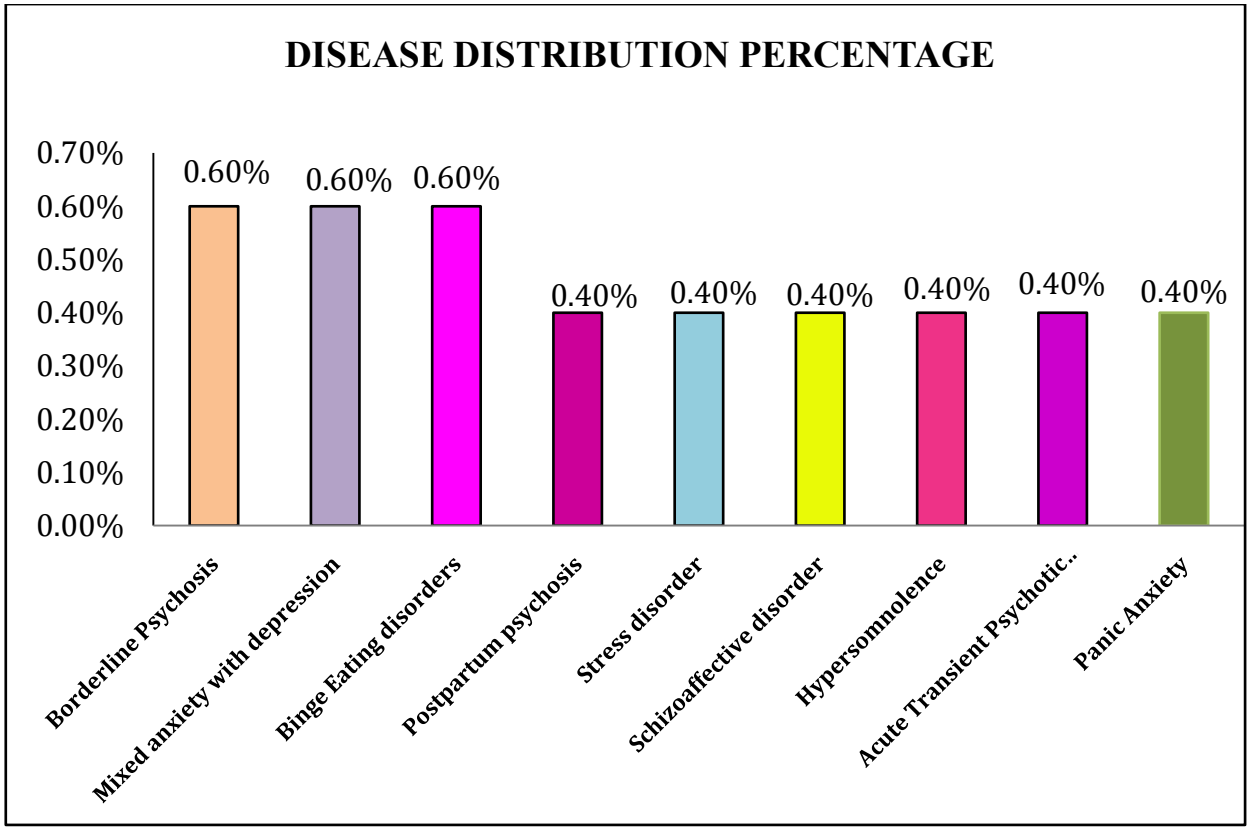


Figure 12.1: Disease Distribution Percentage in Study Population



INCIDENCE

The Incidence of depression is ranged from 7.0% followed by psychosis 6.8% and schizophrenia 4%

Table 14: Incidence

NEWLY DIAGNOSED CASES	FREQUENCY	PERCENTAGE
Depression	**36**	**7.0%**
Psychosis	34	6.8%
Schizophrenia	20	4.0%
Paranoid Schizophrenia	18	3.6%
Alcohol related disorders	10	2.0%
Substance Abuse related disorder	9	1.8%
Generalized Anxiety Disorder	9	1.8%
Personality disorder	8	1.6%
Insomnia	7	1.4%
Obsessive Compulsive Disorder	5	1.0%
Mental Retardation	5	1.0%
Gender Identity Disorder	5	1.0%
Adjustment Disorder	4	0.8%
Dementia	4	0.8%

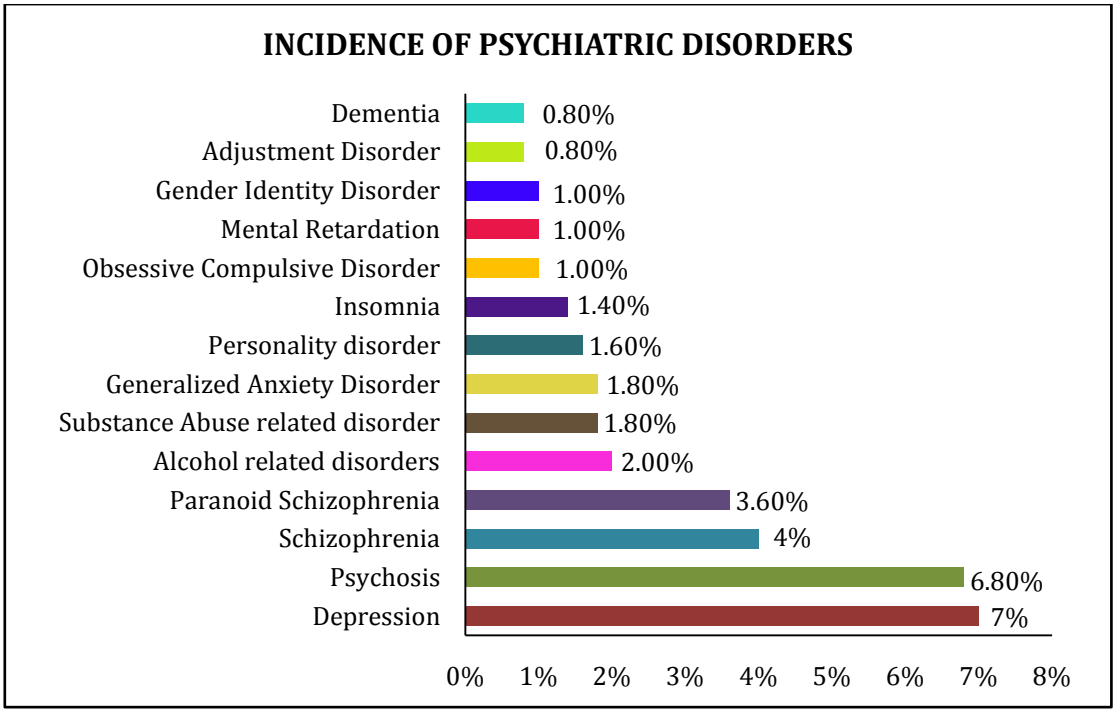


Figure 14: Incidence of Psychiatric disorders in study Population

INCIDENCE AND PREVALENCE

Table 15: Incidence And Prevalence

	DIAGNOSED CASES	FREQUENCY	PERCENTAGE
Incidence	Depression	36	7%
Prevalence	Schizophrenia	88	18%

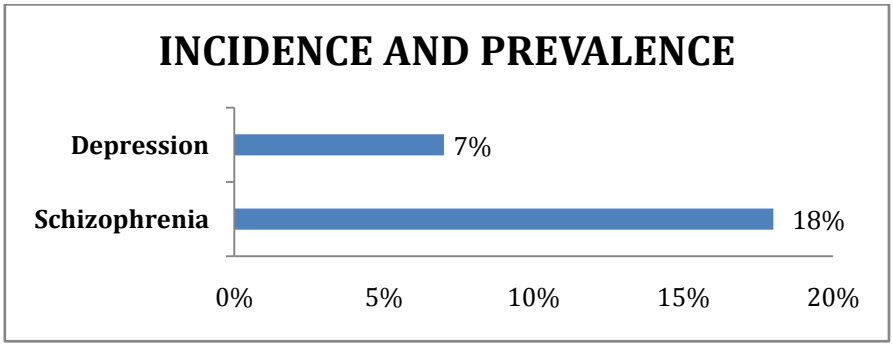


Figure 15: Incidence and Prevalence of Psychiatric Disorders

STATISTICAL ANALYSIS USING IBM SPSS VERSION23

1. AGE VS DISEASE

Chi square test was done to find out whether there is a significant relationship between age and disease. Since the P value is less than 0.05, there is a significant difference between age and disease involved.

2. GENDER VS DISEASE

Chi square test was done here to find out whether there is significant relationship between gender and

disease. Since the P value is greater than 0.05, there is no relation between gender and disease involved

3. LOCATION VS DISEASE

Chi square test was done to find out whether there is significant relationship between location and diseases. Since its P value is greater than 0.05. there is no significant relationship between location and diseases involved.

4. EDUCATION VS DISEASE

Chi square test was done to find out whether there is significant relationship between education and disease. Since its p value is greater than 0.05, there is no significant relationship between education and disease involved

5. MARITAL STATUS VS DISEASE

Chi square test was done whether there is a significant relationship between marital status and disease. Since its P value is greater than 0.05, there is no significant relationship between marital status and disease involved

DISCUSSION

The current study includes a total of 500 patients visiting the psychiatric department during 6 months, among them 460 are outpatients and the remaining 40 are inpatients. According to Manasa T J et al., and PavanKumar K et al., the males are more prone to the psychiatric illness as similar to our study 293(59%) are males and 267(41%) are females. As per the study of author Ab Majid Gania et al., most of the people affected with the psychiatric disorders are from the rural areas comparing our results 338(68%) are from the rural areas and other 162(32%) patients are from the urban areas.

As per the study of the author Gurvinder Pal Singh in the year 2001 ,36 patients are housewife, 25 are retired, 7 are agriculturist, 5 are business, 13 are in other occupations comparing our results with this study we found that 230(46%) daily wages are more affected with the psychiatric disorders because most of the people are from the rural areas, 114(23%) are unemployees, 11(2%) are employees, 30(6%) are students and 115(23%) are housewife .

As per the study of author Shri Gopal Goyal et al., 108 are married, 42 are unmarried and 9 are widow or separated on comparing our results with his study we too found that our results are most similar i.e.,350(70%) are married, 127(25%) are unmarried and 23 (5%) are widow/separated.According to the study conducted by Gopal Chandra Gosh et al., revealed that non-smokers 15(11.63%) are more affected when compared to the smokers 114(88.37%) and non-alcoholics 121(93.80%)are more affected with the psychiatric disorders than the alcoholics 8(6.20%) on comparison of this study results with our study revealed the similar results that133(27%) are smokers and 367(73%) are non-smokers.Among all the patients most of them are in adult age group, where 153(30.30%) patients are between 38-47 years, 26(5.20%) patients are between 7-17,94(18.80%) are between 18-27 years, 128(25.50%) patients are between 28-37 years,73(14.60%) are between 48-57 years,24(4.80%) patients are between 58-67 years and 3-(0.60%) are between the age of 67-70 years. The results are mostly similar to the illustration given by the author Yousef Veisani et al., and Shri Gopal Goyal et al., as per their study stating that most of the patients affected with the psychiatric disorders are in between the ages of 31-45 years which closely resembles our study.Shri Gopal Goyal et al., illustrated in their study that illiterates are more likely proned to the psychiatric disorders than literates which is similar to our study that 275(55%) are illiterates and the remaining 225(45%) are literates.

The results are similar to the illustrations given by the author Rajat Sanker Roy Biswas et al., the prevalence of schizophrenia is 360(24.4) which is predominant and the incidence is more in the condition of Depression 36(33%) in our study.

In our study the relevant socio-demographic details of the patient are collected using structured profroma. The prevalence of psychiatric disorders was considered as primary outcome. Descriptive analysis of all socio-demographic variables is done by frequencies and percentages for categorical variables, mean and standard deviation for quantitative variables. Association between various socio demographic variables, type of psychiatric disorders the primary outcome was assessed by cross tabulation and comparing the proportions. The age factor and marital status are influencing the psychiatric disorders. Since the calculated value of P is less than 0.005, so we can conclude saying that there is significance between the age, maritalstaus and the disease involved. Chi square test was used for assessing statistical significance. IBM SPSS version 23 was used for statistical analysis. The statistical data was performed was similar as stated in the study conducted by Maanasa T J et al., and the study is significant.

CONCLUSION

Psychology is the science of behavior and mind, it intends to surmise clinical individuals and groups via placing general principles and researching specific cases. There is a requirement for greater assessment of psychological issues attending the psychiatry department. In this research, have a leading prevalence plus incidence of psychiatric disorders is detected. we are concluded that males are larger predisposed to psychiatric disorders, psychiatric disorders are common among young people in the thirties and forties age group in between (37-48 years), patients were easily affected due to their Personal, Professional and Sleep disturbances and rural patients were mainly affected from psychiatric disorders due to their lack of awareness. according to our study depression having more incidence and schizophrenia is a more prevalence psychiatric disorder. According to all over diseases, schizophrenia is the commonest psychiatric disorder that following depression and psychosis. As a responsible clinical pharmacist, we have played a major role in effective counseling of patients by using counseling aids, to increase awareness of psychiatric disorders, it enhances the decreasing of psychiatric disorders and also decreases the burden of Psychiatrists. General awareness is to be brought to eradicate the stigma of psychological burden. Cognitive-behavioral therapy, Meditation, exercise progressive relaxation, and other stress-reducing methods can enhance the overall health. As a clinical pharmacist we are play major role for the educating patients or patient representatives about psychiatric drugs to improve adherence recognizing mental illness through observation and Patients with mental health conditions typically have low adherence rates of their psychiatric medications and educate the patients on the typical side effects or adverse effects that they may experience initial counseling sessions are of great value in improving adherence, and we follow up the patients monthly to monitor their progress, including resolution of symptoms and incidence of unwanted effects.

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CONFLICT OF INTREST

The authors Decleres no Conflict of Intrest.

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