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**Original Research Article** 

# Pattern of Mental Health Profile among Adolescent at Tertiary Care Hospital

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#### **Abstract**

Background: Mental health disorders are the leading cause of morbidity among young people all around the world, which accounts for 12% of the global psychiatric morbidity and 40% of DALY due to mental health disorders. Adolescence stage is considered to be the most productive duration of life, hence psychiatric morbidity at this age group affect the quality of life of not only the individual itself but also the family and community. Material & Methods: A total of 100 study participants aged between 10 to 19 years were included in study by simple random sampling. Clearance from Institutional Ethics Committee was taken before start of study. Proper written informed consent from participants, parents or guardians was taken before start of study. Results: mental retardation was present among 22% of the study participants and attention-deficit hyperactivity disorder present among 14% of the study participants. 10% of the adolescents had pervasive developmental disorder and 8% of the adolescents had borderline intellectual functioning. Major depressive disorder was found in 7% adolescents, anxiety disorders were found in 6% adolescents and disruptive behavior disorders were found in 4% adolescents. Bipolar affective disorder was found in 2% adolescents and schizophrenia was found in 1% adolescents. Comorbid mental health disorders were found in 20% of the study participants. Conclusion: The mental health disorders were found higher 10-14 years of age group among adolescents with male preponderance. Majority of the adolescents were from a rural area and living in nuclear families. Mental retardation and attention-deficit hyperactivity disorder were the most common psychiatric disorders reported

**Keywords:** Adolescent, mental health disorder, Psychiatric Morbidity.

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#### Introduction

According to the WHO reports there is a considerable burden of psychiatric morbidity among adolescents [1]. Mental

health disorders are the leading cause of morbidity among young people all around the world, which accounts for 12% of the global psychiatric morbidity and 40% of

DALY due to mental health disorders. Adolescence stage is considered to be the most productive duration of life, hence psychiatric morbidity at this age group affect the quality of life of not only the individual itself but also the family and community [2]. The incidence of mental health disorders among adolescents were generally begin before the age of fourteen years and similar pattern of mental health disorders were observed among various geographical regions. Various studies reported that most mental health disorders of adulthood were begin in childhood and adolescent stage [3].

Commonly reported mental health disorders in adolescent stage include depression, anxiety, attention-deficit and hyperactive disorder, psychosis, conduct disorder, bipolar disorder, eating disorders, schizophrenia and suicide [4]. Various researches reported that around twenty percent of adolescents were found to meet the lifetime criteria for a Diagnostic and Statistical Manual of Mental Disorders (DSM mental disorder) [5]. The long duration based cohort studies conducted and it was reported that pattern and outcomes of mental health and behavioral disorders among adolescents were substance abuse, adult psychiatric disorders criminality and suicide [6].

All these mental health and behavioral disorders among adolescents have been associated with an increased risk of school dropout and interruption of education. This was result in poor educational status which indirectly leads to poor employment opportunities which will indirectly affect their health status [7]. Hence, we conducted present study to find out the pattern of mental health profile among adolescent at tertiary care hospital.

### **Materials & Methods**

The present cross-sectional observational study was conducted at department of psychiatry of our tertiary care hospital. Study duration was one year. Sample size of 100 was calculated from the epi info software version 7.0 at maximum allowable error of 10% and confidence interval of 95%. The calculated sample size did not include loss to follow up cases. A total of 100 study participants aged between 10 to 19 years were included in study by simple random sampling. Clearance from Institutional Committee was taken before start of study. Proper written informed consent from participants, parents or guardians was taken before start of study.

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A pretested questionnaire was used to evaluate and record the sociodemographic data of the study participants. The general physical and clinical examination was followed by mental health and psychiatric morbidity evaluation on the basis of DSM 4th Edition, Text Revision (DSM-IV TR) criteria. Those who refuse to give a consent and did not receive a DSM-IV TR criteria were excluded from the study. Data analysis was carried out using SPSS v22. All tests were done at alpha (level significance) of 5%; means a significant association present if p value was less than 0.05.

#### **Results**

In the present study, we enrolled a total of 100 study participants from the outpatient department of psychiatry on the basis of DSM-IV TR criteria for diagnosis. Majority of the study participants were belonged to the age group of 10-14 years (54%) and 46% were belong to the age group of 15-19 years. Out of the total study participants 63% were boys and 37% were females. Majority of the study participants were from rural background (61%) and 39% were belong to the urban areas. Majority of the study participants were from nuclear families (58%) and 42% were belong to the joint families. Majority of the study participants were students (72%) and 28% were not enrolled in schools. (Table 1)

Table 1: Distribution of adolescents on the basis of sociodemographic data.

Sociodemographic variables		Number of cases
Age (years)	10-14	54%
	15-19	46%
Sex	Male	63%
	Female	37%
Family type	Nuclear	58%
	Joint	42%
Residence	Rural	61%
	Urban	39%
Vocation	Student	72%
	Nil	28%

In the present study, on the basis of clinical profile of mental health morbidity among study participants it was found that mental retardation was the most common morbidity and present among 22% of the study participants which was followed by attention-deficit hyperactivity disorder (ADHD) present among 14% of the study participants. 10% of the adolescents had pervasive developmental disorder (PDD) and 8% of the adolescents had borderline intellectual functioning. Out of the total

study participants major depressive disorder were found in 7% adolescents, anxiety disorders were found in 6% adolescents and disruptive disorders were found in 4% adolescents. Out of the total study participants bipolar affective disorder were found in 2% adolescents and schizophrenia was found in 1% adolescents. In the present study, out of total comorbid mental health disorders were found in 20% of the study participants. (Table 2)

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Table 2: Distribution of adolescents on the basis of psychiatric disease profile.

Clinical profile of psychiatric morbidity	Number of cases
Mental retardation	22%
Attention-deficit/hyperactivity disorder	14%
Pervasive developmental disorder	10%
Borderline Intellectual Functioning	8%
Major depressive disorder	7%
Anxiety disorders	6%
Disruptive behavior disorders	4%
Bipolar affective disorder	2%
Schizophrenia	1%

# **Discussion**

In the present study, we enrolled a total of 100 study participants from the outpatient department of psychiatry on the basis of DSM-IV TR criteria for diagnosis. Majority of the study participants were belonged to the age group of 10–14 years (54%) and 46% were belong to the age group of 15-19 years. Out of the total study participants 63% were boys and 37% were females. Majority of the study participants were from rural background

(61%) and 39% were belong to the urban areas. Majority of the study participants were from nuclear families (58%) and 42% were belong to the joint families. Majority of the study participants were students (72%) and 28% were not enrolled in schools. Similar results were obtained in a study conducted by Chadda R et al reported among young population visiting outpatient department and analyzed on the basis of sociodemographic data result were comparable to present study [8]. Similar results were obtained in a study conducted

by Costello E et al reported among young population visiting outpatient department for assessing psychiatric disorders and found that males were more affected than females in their study [9].

Similar results were obtained in a study conducted by Sidana A et al reported population among young visiting department outpatient for assessing psychiatric disorders and found more mental health morbidity among males than females in their study [10]. Similar results were obtained in a study conducted by Haub C et al reported among young population visiting outpatient department for assessing mental health morbidity and found that males were more affected than females in their study due to gender bases biased health seeking behavior and given more importance to male children [11]. Similar results were obtained in a study conducted by Sidana A et al reported among voung population visiting outpatient department for assessing psychiatric disorders and found more mental health morbidity among males than females in their study due to comparatively higher rates of externalization more easily recognized disruptiveness [12]. Similar results were obtained in a study conducted by Rahim D et al reported among young population visiting outpatient department for assessing psychiatric disorders and found majority of patients belong to rural areas [13]. On the other hand a study conducted by Maan et al observed that the majority of young population visiting outpatient department were from urban areas [14].

In the present study, on the basis of clinical profile of mental health morbidity among study participants it was found that mental retardation was the most common morbidity and present among 22% of the study participants which was followed by attention-deficit hyperactivity disorder (ADHD) present among 14% of the study participants. 10% of the adolescents had pervasive developmental disorder (PDD) and 8% of the adolescents had borderline

intellectual functioning. Out of the total participants maior depressive disorder were found in 7% adolescents, anxiety disorders were found in 6% adolescents disruptive and behavior disorders were found in 4% adolescents. Out of the total study participants bipolar affective disorder were found in 2% adolescents and schizophrenia was found in 1% adolescents. In the present study, out of total comorbid mental health disorders were found in 20% of the study participants. Similar results were obtained in a study conducted by Jayaprakash R et al reported among young population visiting outpatient department assessing mental health morbidity and found that the most common psychiatric developmental illness was disorders, externalizing followed by disorders, internalizing disorders and somatoform disorders [15]. Similar results were obtained in a study conducted Nawarathna S et al reported among young population visiting outpatient department for assessing mental health morbidity and found that the most common psychiatric pervasive and illness was specific developmental disorders [16].

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## Conclusion

We concluded from the present study that the mental health disorders were found higher 10-14 years of age group among adolescents with male preponderance. Majority of the adolescents were from a rural area and living in nuclear families. Mental retardation and attention-deficit hyperactivity disorder were the most common psychiatric disorders reported. Since present study is hospital based, hence the results cannot be generalized to the general population.

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