

## Evaluation of psychiatric morbidity in adolescents in Patiala District, Punjab

Tanvir Kaur Sidhu<sup>1</sup>

<sup>1</sup>Assistant Professor, Adesh Institute of Medical Sciences & Research, Bathinda

### Abstract

**Background:** What is the morbidity pattern of the adolescent patients coming to seek treatment in Psychiatry Deptt.?

**Objectives:** To evaluate the pattern of mental disorders in adolescents.

**Methods:** The study was a hospital based cross-sectional study conducted in the Deptt. of Psychiatry, Rajindra Hospital, Patiala. 500 adolescents aged 10-19 were interviewed.

**Results:** More of the morbid patients were from nuclear families, 6.4% were married among whom, 2.4% were either divorced or separated. 13.2% patients had positive history of any family member having psychiatric problem. Only 21.2% had contacted a psychiatrist at first instance while 50.8% had been to traditional healers. The most common diagnosis was Mood (affective) disorders followed by neurotic, stress-related and somatoform disorders. Next was mental retardation followed by schizophrenia and delusional disorders. The most common diagnosis among males was neurotic, stress related and among females was mood disorders. The difference of distribution of diagnosis among urban and rural, nuclear and joint families was statistically significant.

**Conclusion:** Patients reporting to the hospital with psychiatric disorders were urban males. Most of the patients were eldest in birth order and belonged to nuclear families. Most of the patients had been to traditional healers. The most common diagnosis was mood disorders followed by neurotic stress related illness.

**Key words:** Adolescents, Mental Disorders, Morbidity

### Introduction

World Health Organization defines adolescents as young people aged 10-19 years. Presently, there are 1.2 billion adolescents, a fifth of world population; with four out of five living in developing countries. Twenty-one percent of India's population is in age group of 10-19 years<sup>1</sup> In U.S. today, one in ten children suffer from mental disorders severe enough to cause some level of impairment. Psychiatric morbidity among adolescents in other countries has been reported in range of from 10-40%<sup>2</sup>. Not much literature is available regarding the burden in Indian adolescents.

There are several challenges to meeting the mental health needs of children and adolescents. One major challenge is that children and adolescent mental health needs often go undetected. Mental health problems during childhood and adolescence are often difficult to recognize and diagnose because normal child development includes periods of rapid physical, mental and emotional change. Another challenge is changing perceptions around mental health and mental health services-especially combating pervasive stigma attached to mental illness<sup>3</sup>. There is a natural reluctance to diagnose mental disorder in adolescents from fears of

adverse effects of labeling, and of stigmatizing young people by identifying them as psychiatric patients. Nevertheless, a transition point has to be recognized at which what might be regarded as 'normal' mental health problems become mental 'disorders', despite the fact that this is difficult to operationalize. Adolescent health problems are usually the result of their behavioural disorders. If the children entering the adolescent age are properly carried for and groomed physically and emotionally at home and school, they enjoy good mental health<sup>4</sup>.

This clinic based study attempts to explore the morbidity load of categorized mental disorders in the region. This evaluation would help us to assess the need of public health agencies that contribute to the provision of primary prevention of mental health problems through an array of public health promotion and education activities.

### Materials and methods:

This study was conducted in Department of Community Medicine and Department of Psychiatry in Rajindra Hospital, Patiala which is attached to Government Medical College, Patiala.

### Address for Correspondence:

Dr Tanvir Kaur Sidhu d/o S. Inderjit Singh Sidhu, House No.-19809, St No. 20, Ajit Road, Bathinda-151001  
Email ID: [sidhutanvir@yahoo.co.in](mailto:sidhutanvir@yahoo.co.in)

The period of study was from August 2005 to July 2006. All the adolescent patients in the age group of 10-19 years who attended the psychiatric OPD and/or admitted in the psychiatric ward were included. A total of 500 patients were included. The study was conducted with the help of a pre-structured and pre-tested proforma comprising of three parts: socio-demographic questionnaire, psychiatric case history and psychological and socio-cultural factors. Then ICD-10 was used for categorizing the diagnosis by the psychiatrist.

Before filling the proforma written consent was obtained from the study subjects after explaining the purpose of study in vernacular language. In case of minors appropriate consent was obtained from the guardians.

**Results:**

Out of 500 patients, 308 (61.6%) were males and 192 (38.4%) were females. The age distribution ranged from 10-19 years with the frequency of morbidity increasing with increase in age. The maximum frequency of 152 (30.4%) was seen in the 19 years of age, while the mean age calculated for the distribution was 16.5 years and median age was 17 years.

Out of the total 500, 278 (i.e. 55.6%) were urban residents while remaining 222 (i.e. 44.4%) were from rural background. The maximum number of patients were eldest in their families i.e. 60% (300 out of 500). 124 (i.e.24.8%) were youngest while 76(i.e. 15.2%) were of some other birth order or alone. Of the total, 38% had already been school dropouts (including the illiterates) while 62% were still continuing their schooling. The most common reason for school dropout was the psychiatric morbidity itself in 63.2% cases. In 17.9% the cause was family circumstances, while in 10.5% it was poverty. 2.1% dropouts were due to friend circle while 6.3% had other miscellaneous causes. 54.8% of patients were from nuclear families while 45.2% were from joint families. 13.2% patients had positive history of any family member having psychiatric problem. 91.2% of adolescents were unmarried, while 6.4% were married. However, there were 2.4% who were either divorced or separated. While 28.0% had contacted any other doctor before. Only 21.2% had contacted a psychiatrist at first instance while 50.8% had been to traditional healers.

**Table 1: Distribution of various psychiatric diagnosis according to ICD-10 in relation to sex**

Diagnosis according to ICD-10	Males	Females	Total
Organic disorders F00-F09	-	-	-
Psychoactive substance use F10-F19	26(5.2%)	4(0.8%)	30(6.0%)
Schizophrenia & delusions F20-F29	48(9.6%)	14(2.8%)	62(12.4%)
Mood (affective) disorders F30-F39	62(12.4%)	62(12.4%)	124(24.8%)
Neurotic, stress related F40-F48	72(14.4%)	46(9.2%)	118(23.6%)
Behavioural syndromes F50-F59	4(0.8%)	6(1.2%)	10(2.0%)
Adult personality & behaviour disorders F60-F69	12(2.4%)	4(0.8%)	16(3.2%)
Mental retardation F70-F79	42(8.4%)	26(5.2%)	68(13.6%)
Disorders of psychological development F80-F89	2(0.4%)	2(0.4%)	4(0.8%)
Behaviour and emotional disorders (onset in childhood and adolescence) F90-F98	8(1.6%)	2(0.4%)	10(2.0%)
Unspecified mental disorders F99	-	-	-
Epilepsy G40	32(6.4%)	26(5.2%)	58(11.6%)
<b>Total</b>	<b>308 (61.6%)</b>	<b>192 (38.4%)</b>	<b>500</b>

{ $\chi^2$  (27.46) df 9 p value <0.001 Sig. HS }

**Table 2: Pattern of Psychiatric diagnosis according to Residence**

Diagnosis	Urban	Rural	Total
Psychoactive substance use	16	14	30
Schizophrenia & delusions	30	32	62
Mood (affective) disorders	60	64	124
Neurotic, stress related	80	38	118
Behavioural syndromes	8	2	10
Adult personality & behaviour disorders	8	8	16
Mental retardation	34	34	68
Disorders of psychological development	4	0	4
Behaviour and emotional disorders (onset in childhood and adolescence)	6	4	10
Epilepsy	32	26	58
Total	278	222	500

{ $\chi^2$  (17.85) df 9 p value <0.05 Sig. S}

**Table 3: Psychiatric diagnosis according to Family type**

Diagnosis	Nuclear	Joint	Total
Psychoactive substance use	24	6	30
Schizophrenia & delusions	32	30	62
Mood (affective) disorders	54	70	124
Neurotic, stress related	64	54	118
Behavioural syndromes	6	4	10
Adult personality & behaviour disorders	14	2	16
Mental retardation	34	34	68
Disorders of psychological development	2	2	4
Behaviour and emotional disorders (onset in childhood and adolescence)	8	2	10
Epilepsy	36	22	58
Total	274	226	500

{ $\chi^2$  (25.79) df 9 p value <0.01 Sig. S}

## Discussion

Male preponderance is consistent with Anita et al<sup>2</sup>. Also more male patients were attending psychiatric clinics as indicated by Chowdhary<sup>5</sup>. This is unexpected as most studies worldwide showed female predominance in psychiatric clinics (higher female vulnerability due to biological factors, stress and social pressure). Perhaps lack of proper information about mental illness and clinics, apathy of family members to get females treated, stigma about mental illness prevented many females from attending the clinics. Malhotra and Chaturvedi<sup>6</sup> reported 3:2 ratio between males and females which reflects more attention and care given to male children as also the concern for the well being of a male child.

The urban population has better information regarding the health services available and also the most of tertiary hospitals are located in urban areas. Thus the access is better for urban population. Another reason could be that the mental problems are actually more in urban areas may be due to industrialization, modernization and small family structures. This may lead to coping difficulties in urban adolescents

Like Anita et al<sup>2</sup> study the most commonly affected were the eldest. This could be due to the fact that the eldest child is more vulnerable to parental coerciveness, over protection and strictness.

Like Singhal et al<sup>7</sup> majority of the children belonged to unitary/nuclear family. This could be due to projection of tension and anxiety experienced by parents in a unitary set up into their own children.

Although the legal age of marriage is 18 years for females and 21 years for males. Our study shows that few of the adolescents had been married before the marriageable age. There were 8.8% of the patients who were married or divorced. This might contribute as a burden for adolescents to cope up with early responsibilities and thus contribute to as a risk factor in development or aggravation of the mental disorders.

Sourander<sup>8</sup> stated that adverse effects of parental psychiatric problems may be mediated by shared genes, shared environment, direct modeling, or children's exposure to parental hostility and marital discord.

The utilization of mental health services at the first instance was very less. People generally prefer to go to the traditional healers in whom they confide faith. It is only after worsening of the situation or after advice from some relatives or doctors that people take their children psychiatric department. It was seen that most of the patients reported to psychiatry department after being suggested by doctors and relatives.

The most common diagnosis is Mood disorders in 24.8% of patients followed by neurotic disorders in 23.6% patients. Next is mental retardation in 13.6%, followed by schizophrenia in 12.4% patients. Then comes epilepsy in 11.6% patients and mental and behavioural disorders due to psychoactive substance use in 6.0% patients. 3.2% patients had disorders of adult personality and behaviour. The proportion of behavioural syndromes associated with physiological disturbance and physical factors and behaviour and emotional disorders with onset usually occurring in childhood and adolescence was equal i.e. 2.0% in each. The remaining 0.8% was contributed by disorders of psychological development. The most common diagnosis among males was neurotic, stress related (14.4%) and among females was mood disorders (12.4%). While the least common diagnosis was disorders of psychological development and behaviour and emotional disorders (onset in childhood and adolescence) (both 0.4%) among females while disorders of psychological development (0.4%) among males. The difference was statistically significant in males and females with  $p < 0.001$  and was highly significant.

The total psychoactive substance users 53.33% were in urban area and 46.66% were from rural area. In case of schizophrenia, 48.38% were urban and 51.61% were rural. For mood disorders, again, 48.38% were urban and 51.61% were rural. For neurotic, stress related disorders, 67.79% were urban while 32.2% were rural. In behavioural syndromes 80% were urban while, 20% were rural. For adult personality and behavioural disorders there was equal distribution i.e. 50% urban and 50% rural. For mental retardation again there was equal distribution i.e. 50% each for urban and rural. Disorders of psychological development were exclusively i.e. 100% found in urban areas. Behaviour and emotional disorders (onset in childhood and adolescence) was 60% in urban and 40% in rural areas. Epilepsy was 55.17% in urban and 44.82% in rural areas. These differences were seen to be statistically significant with  $p < 0.05$ .

In case of psychoactive substance use there were 80% who belonged to nuclear families and 20% belonged to joint families. In schizophrenia 51.61% were from nuclear and 48.38% were from joint families. In mood disorders 43.5% were from nuclear and 56.4% belonged to joint families. For neurotic and stress related, 54.23% were nuclear and 45.76% were from joint families. For behavioural syndromes 60% were from nuclear and 40% from joint families. For adult personality and behaviour disorders. 87.5% were from nuclear and 12.5% were from joint families. For mental retardation the distribution was equal among nuclear and joint families i.e. 50% each. For disorders of psychological development again there was equal distribution. For behaviour and emotional disorders

(onset in childhood and adolescence) 80% belonged to nuclear families and 20% belonged to joint families. In case of epilepsy the distribution was 62% from nuclear and 38% from joint families. The table above shows that in nuclear families the most common diagnosis was neurotic, stress related and somatoform disorders, while in joint families it was mood disorders. The difference of distribution of diagnosis among nuclear and joint families were statistically significant.

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