

The prevalence of psychiatric morbidity among school children

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ABSTRACT

Background: Children need special care as they undergo a complex process of emotional, physical and social changes. Prevalence of mental disorders among children has been reported to be 14-20% in various studies.

Objectives: To study the prevalence of psychiatric morbidity and factors influencing its prevalence among school children studying in 6th to 12th standard.

Material and Methods: The study was conducted on a sample of 500 children studying in 6th to 12th standard of three schools of Faridkot city. Students suffering from any progressive neurological disease and suffering from any medical illness were excluded from study. Three schools of the city were included in study.

Results: Our study revealed that 16.8% were having psychiatric morbidity. The order in which psychiatric morbidity was found was Specific isolated (17.8%), Non organic sleep disorders (13.1%), Tension headache (11.9%), Hyperkinetic Disorder and sleep terror was found in 7.1% while Generalized Anxiety Disorder was present in 4.8% students and Depression was found in 4.8% students.

Conclusion: The results of the study have implications for clinical training, practice and policy initiatives. Integrating

mental health into general health care, effective mass media coverage, networking between mental health-professionals and other health professionals, community-based health services and involvement of professionals from the education sector would be essential.

Key Words: Psychiatric morbidity, childhood psychopathology, measurement schedule, specific phobia, sleep disorder

Introduction

Mental health is not exclusively a matter of relation between persons, it is also a matter of relation of the individual towards community he lives in, towards society of which the community is a part and towards the social institution which for a large part guides his life, determines his way of living, working, leisure and the way he earns and spends his money, the way he sees happiness, stability and security.^[1] Mental disorders are among the most burdensome of all classes of diseases because of their high prevalence, chronicity, early age of onset & resulting

serious impairment and disability.^[2] Five out of the 10 leading causes of disability worldwide are mental health disorders.^[3] Children are the most important asset and wealth of a nation. Healthy children make a healthy nation. Children under 15 years of age constitute nearly 40% of the country's population and school aged children i.e. 6 to 14 years age constitute 22% of children population.^[4] Children need special care as they undergo a complex process of emotional, physical and social changes. At times, failure to adjust with these changes leads to mental health problems.

The issue of childhood psychiatric morbidity is more serious in developing countries because these countries have a much larger proportion of children population, much lower levels of health indices, poorer infrastructure and resources to deal with the problems.^[5] Most childhood psychiatric problems have typical ages for development and presentation, these tend to continue in adulthood and several adult mental disorders have their antecedents in childhood.^[6] Therefore it has become extremely important to detect and treat the disease at an early stage.

Prevalence of mental disorders among children has been reported to be 14-20% in various studies.^[7] According to World Health Report (2000), 20% of children and adolescents suffer from a disabling mental illness worldwide.^[7] Studies done in both developed and developing countries have shown similar prevalence rates of psychiatric problems among children emphasizing the universality of the problem.^[2]

Various factors like socio-economic status, type of family (nuclear family or joint family), birth order, birth weight, body mass index, literacy of mother, alcohol or substance abuse in father affect mental health of a child. Many environmental factors and life events such as adverse family circumstances, maternal separation or deprivation, birth of sibling, parental divorce, bereavement, physical handicap, urbanism, and maternal depression also play role in psychopathology in childhood. Life stress contributes to psychiatric disorders more at younger age than at older age.^[8]

In order to plan for mental health care, an accurate assessment of magnitude of problem is required. Going through review of literature it was found that very few school based studies have been conducted. So keeping this in view, the present study was planned to be conducted in local schools of Faridkot city to estimate the prevalence of psychiatric morbidity among school going children.

Material and methods

The present study was conducted on a sample of 500 children studying in 6th to 12th standard of schools of Faridkot city. The sample was obtained by random sampling. Students studying in 6th to 12th standard of both male and female gender were included in the study. The students suffering from any progressive neurological disease or any medical illness were excluded from study. A list of total schools (10) in Faridkot city was obtained. Three schools were selected by random sampling (lottery method). Informed written consent was taken from the Principals of selected schools. The nature and purpose of the study was explained to the students and they were assured of confidentiality of information given. The consent of parents/ guardians was obtained in case of students ageing less than 12years. Students selected for study were screened by Childhood Psychopathology Measurement Schedule (C.P.M.S). The students were asked to take Questionnaire to their homes and get it filled by their parents, which was collected back after 2 days. Scoring was done on the basis of information received from the respective parents. Students scoring less than 10 were

considered normal and students scoring 10 or more than 10 were considered as having positive psychopathology. The students found to have positive psychopathology were further interviewed individually and with parents if needed and final diagnosis is made on the basis of DSM-IV-TR criteria.

To represent the data, tables and bar diagram / pie charts were used. Descriptive statistics, in terms of percentage was used to describe the categorical variables. The Chi square test was administered for comparative data.

Results

The maximum number of the students 242(48.4%) were of the age group 13-16 years, followed by 151(30.2%) of the age group 16-19 years and 107(21.4%) were found in the age group 10-13 years. Of 500 sample size, 39%(n=195) were females and 61%(n=305) were

males. 328(65.6%) of the students were living in a nuclear family while 172(34.4%) were living in a joint family structure. Sikh students constituted 64.4% (n=322) of the sample and 35.6% (n=178) students of Hindu community. 374(74.8%) of the students were living in urban region while 126(25.2%) were living in rural region. The students first in birth order constituted 45% (n=225) of sample, followed by 196(39.2%) of the birth order II and 79(15.8%) were of birth order III. As regard to the family income, 183(36.6%) were having family income less than 10000 per month, 141(28.2%) were having family income between 20000-30000, 120(24.0%) were having family income between 10000-20000 per month and only 56(11.2%) students were having income 30000 or more per month. (Table 1)

Table: 1 Socio Demographic profile of the subjects

<i>Age (years)</i>		<i>N (%)</i>
	10-13	107 (21.4%)
	13-16	242 (48.4%)
	16-19	151 (30.2%)
Sex	Female	195 (39%)
	Male	305 (61%)
Family	Joint	172 (34.4%)
	Nuclear	328 (65.6%)
Religion	Hindu	178 (35.6%)
	Sikh	322 (64.4%)
Region	Urban	374 (74.8%)
	Rural	126 (25.2%)
Birth Order		
	I	225 (45.0%)
	II	196 (39.2%)
	III	79 (15.8%)
Income of family (Rs./month)		
	<10000	183 (36.6%)
	10000-20000	120 (24.0%)
	20000-30000	141 (28.2%)
	≥ 30000	56 (11.2%)

Distribution of sample according to the scores of CPMS and psychiatric illness

On the basis of CPMS score, it was found that 22.6% of students (133) were having CPMS Scores 10 or more while 73.4 of students (376) were having

CPMS Scores less than 10. Further, 16.8% of students (84) were suffering from a diagnosable psychiatric illness, and 83.2% of students (416) were not suffering from any diagnosable psychiatric illness. (Table: 2)

Table: 2 Showing the distribution of sample according to CPMS Score-wise and presence of psychiatric illness

Distribution of sample according to CPMS Score	
CPMS Score	N (%)
<10	367 (73.4%)
≥10	133 (26.6%)
Distribution of sample according to presence of psychiatric illness	
Absent	416 (83.2%)
Present	84 (16.8%)

Table: 3 Diagnosis wise distribution of Students having Psychiatric illness (n=84)

Diagnosis	No. of Students	%age
Hyperkinetic Disorder	6	7.1
Conduct disorders	1	1.2
Oppositional defiant disorder	0	0
Non organic Enuresis	4	4.8
Non organic Encopresis	0	0
Pica	5	5.9
Behaviour disorder NOS	1	1.2
Depressive episode	4	4.8
Mental retardation	0	0
Sleep walking	2	2.4
Sleep Terror	6	7.1
Nightmare	1	1.2
Other NOSD	11	13.1
Social Phobia	3	3.6
Specific isolated Phobia	15	17.8
Generalised anxiety disorder	4	4.8
Panic disorder	2	2.4
Epilepsy	3	3.6
Migraine	4	4.8
Tension headache	10	11.9
Learning disorders	1	1.2
Communication disorders	1	1.2

Diagnosis wise distribution of Students having Psychiatric illness

Out of total of 84 students having psychiatric illness, 15 (17.8%) were suffering from specific phobias followed by 11(13.1%) having Non Organic sleep disorders and 10 (11.9%) were suffering from Tension Headache. Hyperkinetic Disorder was found in 6 (7.1%) of students and same number of students were found to be having a diagnosis of Sleep Terror. Five students (5.9%) had a diagnosis of Pica while four were suffering from Migraine. Four of the students (4.8%) were found to be suffering from Generalized Anxiety Disorder while Social. Phobia and epilepsy was diagnosed in three students each. Sleep Walking and Panic Disorder was diagnosed in 2 students each and Conduct Disorder, Learning Disorder, Communication Disorder and Behavior Disorder Not Otherwise Specified was found to be present in one student (1.2%) each.

Relationship of presence of psychiatric illness with other variables

Looking at age-wise distribution of students with Psychiatric illness

revealed that children between 13-16 years had maximum number (n=53) (63.1%) children, followed by children of 16-19 years age group (n=21) (25%) and children of age 10-13 years were found to be having minimum number of children with psychiatric illness (n=10) (11.90%) and the difference was found to be highly significant among age groups of students with Psychiatric illness. More number of male students (n=62) (73.81%) were having psychiatric illness as compared to female students (n=22) (26.19%) and the difference was statistically significant. There was a statistically significant difference in students having psychiatric illness in students living in nuclear families (n=64) (76.19%) as compared to the ones living in joint family set up. More number of students of first birth order were found to be having psychiatric illness (n=51) (60.71%) than the students who were 2nd or 3rd in birth order. No significant difference was observed in students having psychiatric illness as regard to religion, family income and place of residence i.e rural or urban.

Table: 4 Relationship of presence of psychiatric illness with other variables

Students with psychiatric illness N=84		
		N(%)
Age	10-13yrs	10(11.90)
	13-16yrs	53(63.10)
	16-19yrs	21(25)
Sex	Male	62(73.81)
	Female	22(26.19)
Family Type	Joint	20(23.81)
	Nuclear	64(76.19)
Birth Order	I	51(60.71)
	II	23(27.38)
	III	10(11.90)

Discussion

The present study, prevalence of psychiatric disorders was found to be 16.8% which corroborates with the earlier findings of Vohra et al in 2003 which reported prevalence rate of 16.5% in children 6-14 years of age,^[1] Rahi et al in 2005 which found a prevalence of 16.5%^[2] for psychopathological disorders and Hussain SA in 2007 which found prevalence rate of 17%.^[7] Bansal PD et al in 2011 performed a study to see the psychopathology of school going children in the age group of 10-15 yrs using CPMS and found 311 (31.7%) students scored 10 or more on CPMS^[22] while in the present study, 133(26.6%) students scored 10 or more on CPMS which is near to earlier findings

Bansal PD et al did a study in 2011 to see the psychopathology of school going children in the age group of 10-15 yrs and found that students of age group 13-14 yrs and 14-15yrs were having more psychiatric morbidity as compare to younger age groups.^[22] Our study observed that the students belonging to age group 13-16 yrs followed by age group 16-19 yrs were having more prevalence of psychiatric problems as compared to younger age group.

Our study found that the male students were suffering of more psychiatric problems as compare to female students. The result is similar to results observed in earlier studies of Vohra et al,^[1] Banerjee et al^[13] and Shenoy et al.^[23]

Vohra et al found significant difference in prevalence rate in the students residing in nuclear and joint families with higher prevalence as in the

students residing in nuclear families.^[1] Verghese and Beig et al in 1974 observed prevalence rate was significantly more in children living in nuclear families.^[24] We also found that prevalence rate was more in those students who were living in nuclear family. The result is consistent with result of above mentioned studies.

In our study it has been reported that the prevalence rate was more in students of 1st Birth order. Result of our study is similar to observation seen in study by Vohra et al in 2003 which they also found that that the eldest born child was suffering from more psychiatric problems as compare to other birth orders.^[1] No significant correlation was found in prevalence rate of psychiatric disorders and the income of the family in our study which is consistent with findings of earlier study by Mishra et al in 2001 in which also authors did not find any association between prevalence rate of psychiatric morbidity and the income of the family.^[15] In our study, Specific isolated Phobia (17.8%), Non organic sleep disorders 13.1%, Tension headache 11.9% were found more prevalent among the students. These were followed by Hyperkinetic Disorders 7.1%, sleep terror 7.1%, Generalized Anxiety Disorders 4.8% and Depression 4.8%. It is somewhat similar to the result of earlier studies of observed in earlier study of Bansal PD et al which also found that Specific phobia; other non organic sleep disorders like sleep talking, bruxism; tension headache were more prevalent disorders followed by sleep terror, hyperkinetic disorder, pica, and enuresis.^[22] It can be concluded from the present study that significant

proportion of psychiatric morbidity exists among school children and also go unrecognized. Hence the study emphasizes upon importance and need for early diagnosis and treatment of psychiatric disorders. There is also a need to conduct a large scale survey of childhood psychiatric disorders.

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