Prevalence of Psychiatric Morbidity in Visually Impaired Children

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This study was done to measure psychiatric morbidity and associated sociodemographic variables among visually impaired children. 92 students of age range 6-20 years from four schools for the blind, in Ranchi, were screened with verbal Hindi translation of General Health Questionnaire-60. Diagnostic Interview Schedule – Parent version was applied to establish psychiatric diagnosis on primary caretakers of those who scored above cutoff. Fourteen scored above cut-off and psychiatric diagnoses of 8 children were established. The prevalence of psychiatric morbidity among visually impaired children was found to be 8.69%. No socio-demographic variable was associated with the occurrence of psychiatric illness.

Key words: *Child, India, Prevalence, Psychiatric morbidity, Visual impairment.*

In India, there are 8.9 million visually impaired persons. Among visually impaired, high prevalence of psychiatric morbidity has been reported previously [3,4]. This study was conducted to know the prevalence of psychiatric morbidity among visually impaired students in India and to find out factors associated with psychiatric morbidity.

METHODS

Students of both sexes aged 6 to 20 years and having vision below 3/60 were included. Those with comorbid deafness/dumbness or other physical disability were excluded. Tools were Socio-demographic data sheet, General Health Questionnaire (GHQ)-60 [5] Hindi translation and Diagnostic Interview Schedule for Children (DISC-P) Parent version [6]. Ethical approval was obtained from the Institute's ethical committee and informed consent was taken from the concerned authorities of all four schools as well as the respective guardians.

Each student was interviewed individually, and personal data sheet and socio-demographic information were filled up. Questions from GHQ-60 were asked along with options and answer sheet was marked accordingly. The scoring was done by Binary code method and children who scored 7 or above were included for diagnostic assessment. DISC-P was applied to the guardians of the children; diagnosis was made using Diagnostic and Statistical Manual of Mental Disorders–IV (DSM-IV) criteria [7].

Chi square and Z test were applied to compare socio-demographic and clinical variables between students with and without psychiatric diagnosis for categorical and continuous variables, respectively. Pearson's correlation was used to detect any association between socio-demographic and clinical variables and psychiatric diagnosis.

RESULTS

Ninety-two students with visual impairment were

included for the study. *Table* I shows socio-demographic and clinical variables of the sample. Only one child had a family history of mental illness.

After screening with GHQ-60, 14 students (9 males and 5 females) scored above the cut-off marks on whom DISC-P was applied by interviewing the primary care taker. Eight children fulfilled the DSM-IV criteria for psychiatric diagnosis. Remaining 6 students had sub-threshold anxiety and depressive symptoms. The overall prevalence of psychiatric morbidity was found to be 8.69%; 8.47% and 9.09% for males and females, respectively.

The specific psychiatric diagnoses included 4 cases of generalized anxiety disorder, one case of dysthymia, two cases of dysthymia with elimination disorder (nocturnal enuresis) and 1 case of conduct disorder.

No significant difference was noted in terms of socio-demographic and clinical variables between those with and without psychiatric diagnosis. There was no significant correlation between socio-demographic and clinical variables and psychiatric diagnosis.

TABLE I SOCIODEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF THE VISUALLY IMPAIRED STUDENTS (*N*=92)

Characteristic	*n* (%)
Age (y), mean (SD)	12.71 (3.53)
*Onset (y), mean (SD)	3.34 (2.16)
Duration (y), mean (SD)	10.34 (3.73)
Male sex	59 (64.1)
Hindu religion	53 (57.6)
Nuclear family	76 (82.6)
Rural domicile	82 (89.1)
Lower Socioeconomic status	66 (71.7)
Visual impairment onset	
Congenital	63 (68.5)
Acquired	29 (31.5)
Visual impairment disability	
Complete	60 (65.2)
Partial	32 (34.8)
Staying in residential school	84 (91.3)

* of visual impairment;

DISCUSSION

We used GHQ-60 as screening instrument, avoiding shorter versions for intensive examination. We screened the entire population of visually impaired students of Ranchi city, which is the major strength of our study.

The reported prevalence of psychiatric disorders in normal children and adolescents in community is 12.8% [8] whereas our study found 8.69%. This difference could be the fallout of our school-based approach since children with severe problems either fail to start schooling or drop out early. In India, only 0.5 to 1% of visually impaired children are able to attend any school [2]. Visually impaired children in community, who are lacking opportunities for schooling, might be suffering from greater psychiatric morbidity. We also excluded any additional impairment which could explain slightly lower prevalence. Among psychiatric diagnoses, GAD and/or dysthymia totalled 7 out of 8 (87.5%), showing a predominance of internalizing over externalizing disorders [9].

A previous Ethiopian study [10] also found 4.7% psychiatric morbidity among visually impaired people with majority having internalizing disorders. Likewise, an Indian study [11] reported that 7% of blind subjects had psychiatric morbidity with pre-eminence of internalizing disorders.

High anxiety at early age may be an outcome of psychological effect of visual impairment. The high prevalence of anxiety can be attributed to various environmental risks to which a visually impaired child is exposed to. This may be associated with cognitive biases like negative interpretation, memory bias, information processing bias, lower threshold for threat perception and higher rates of negative emotion, which are prevalent in childhood anxiety [12]. Visually impaired children are exposed to adverse environmental situations, but association between impairment and cognitive biases has not yet been studied.

The results of our study can not be generalized to all visually impaired children, as subjects of this study were getting education in a special school having a better support system. This highlights the need to include samples from general population in

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WHAT THIS STUDY ADDS?

• Prevalence of psychiatric morbidity among visually impaired students of Ranchi was found to be 8.69%, with predominance of anxiety and depressive disorders.

• The prevalence of psychiatric morbidity in visually impaired students is similar to those without such impairment.

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future, along with a matched control group, a larger sample size, quality of life, disability and burden of various mental disorders, and follow-up studies to know the longitudinal course of the disorders.

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