Prevalence of psychiatric morbidity among parents of children with intellectual disability

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Background: Intellectual disability is a permanent disabling condition, and caregivers are more vulnerable to develop mental illness. There is little data in developing countries, such as India, concerning about psychological issues in caregivers of intellectually disabled children. Objective: The objective of this study was to find the prevalence of psychiatric morbidity and correlation between sociodemographic factors and psychiatric morbidity in parents of children with intellectual disability. Materials and Methods: This study was carried out among 60 parents of children with intellectual disability at the outpatient Department of Psychiatry, Tertiary Care Centre, India. Parents, who fulfill the inclusion and exclusion criteria of the study, were interviewed by using semi-structured pro forma, International Disease Classification-10 criteria for mental illness, Beck Depression Inventory and Hamilton Anxiety Rating Scale, Brief Psychiatric Rating Scale, and Alcohol Use Disorder Identification Test. Results: The prevalence of depressive disorder was 28.33%, anxiety disorder was 18.33%, and other psychiatric disorders was 8.33% (psychotic disorder 3.33%, insomnia 1.66%, and alcohol use disorder 3.33%) and total psychiatric morbidity was about 55% in parents of children with intellectual disability. Conclusion: The study shows high psychiatric morbidity in parents of children with intellectual disability, and psychiatric screening should be considered among parents of children with intellectual disability. Keywords: Anxiety, depression, intellectually disability, parents, psychiatric morbidity

The diagnosis of intellectual disability is made if an individual has an intellectual functioning (reasoning, learning, and problem-solving) level below average and significant limitations in two or more adaptive skill (conceptual, social, and practical skills) areas that emerge before the 18 years of age.¹ The term intellectual disability is new in Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, formerly known as mental retardation. Worldwide prevalence of intellectual disability is reported to be as high as 1%–3%,²,³ and in India, it is reported to be around 2% for mild mental retardation and 0.5% for severe mental retardation.⁴ Intellectual disability is the most common in the age of school-going children that are in the age group of 10–14 years in which 36.66% were going to normal school, 46.66% were not going to school while only 16.66% were going to special school.⁵

Birth of a child with intellectual disability induces complex feeling in family members, and parenting a child with intellectual disability affects feelings of parents and other family members.⁶,⁷ Families of children with intellectual disability experience many challenges such as physical and emotional crisis, interactive family issues, financial burden, and emotional distress.⁸ Parents reported more psychiatric symptomatology when the child showed a high level of dysfunction⁹ and more frequently reported symptoms of anxiety and depression.⁸,¹⁰,¹¹ In such parents, social support is inversely related to anxiety and depression, whereas problem behaviors of children are positively associated with these symptoms.¹² Mothers of children with intellectual disability experience more stress than fathers¹³ and have lower family functioning, higher caregiver burden, and a low sense of

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coherence as compared with mothers of children with normal development.\textsuperscript{[14]} The aim of this study was to identify the prevalence of psychiatric morbidity and find the correlation between sociodemographic factors and psychiatric morbidity in parents of children with intellectual disability.

**MATERIALS AND METHODS**

**Study setting**
The study was conducted at the outpatient Department of Psychiatry, Tertiary Care Centre of India from March 2013 to 2014.

**Sample size**
Parents of 60 children diagnosed with an intellectual disability according to the International Disease Classification-10 (ICD-10) criteria and confirmed by clinical psychologist by intelligence quotient (IQ) testing were included in the study. An informed consent was obtained from the parents of the children with intellectual disability to participate in the study after explaining them the purpose of the study and ensuring them that confidentiality would be maintained. The study was approved by the Ethical Committee of Medical College and Attached Group of Hospitals.

We included children with intellectual disability below the age of 18 years and at the same time excluded children with multiple disabilities and unwilling and uncooperative parents. Sixty parents fulfilling selection criterion were selected for the study and interviewed by using a pro forma specially designed for the purpose of the study, which included personal identification data of the subjects, details of birth history, milestone, neurotic traits, age of schooling and details of family (e.g., education, occupation of parents, age of mother at the time of birth of this child, birth order of the child, and family income), Beck Depression Inventory, Hamilton Anxiety Rating Scale, Brief Psychiatric Rating Scale, and Alcohol Use Disorder Identification Test.

For the purpose of the study, the selected intellectually disabled children were divided into two groups – Group A included children with IQ ≥50 and Group B included children with IQ <50. Among the selected children, 36 had IQ ≥50 and rest of the children had IQ <50.

**Statistical analysis**
In the study, data analysis was done by using SPSS 17.0 version (SPSS Inc., Chicago, IL). Descriptive analysis was used to describe sociodemographic details of the study sample. Results of the study were represented as the mean and standard deviation (SD) for normal distribution. For categorical data, results were represented as percentage (%). Chi-square test was applied to test the statistical significance of variables.

**RESULTS**

**Sociodemographic variables of the study population**
The study sample included 60 intellectually disabled patients, of which 60% (36) were male and 40% (24) were female. The mean age of the children was 9.6 years (SD = 1.24). Most of the patients in the study belong to 4–8 years’ age group (approximately 72%). About 26.66% (16) had first birth order, 13.33% (8) had second, and 60% (36) had third or fourth birth order. Twenty-two patients (36.66%) were going to normal school and 10 (16.66%) were going to special school. More than half 60% (36) of patients had IQ >50, while 40% (24) had IQ <50, and the mean IQ was 45.73 (SD = 5.90).

The mean age of the parents was 26.34 years (SD = 3.4). Most of the parents belong to 20–30 years’ age group 55% (33), rural background 57% (34), Hindu religion 60% (36), and poorer section with total family income <5000 Rs./month. Among 60 parents, 18 (30%) were illiterate, 22 (36.67%) were educated up to secondary/higher secondary, and 20 (33.33%) were graduate/postgraduate.

**Psychiatric morbidity in parents**
According to the ICD-10 criterion, depressive disorder was found in 28.33% of subjects, generalized anxiety disorder (GAD) was found in 18.33%, and other psychiatric disorders were found in 8.33% of parents (psychotic disorder 3.33%, insomnia 1.66%, and alcohol dependents 3.33%). Total psychiatric morbidity was found in 55% of parents [Table 1].

**Correlation between sociodemographic factors and psychiatric morbidity**
Psychiatric morbidity in parents of children with intellectual disability according to the IQ level is shown in Table 2. In Group B (IQ <50), depressive disorder was present in 41.66% (10) of parents, GAD and other psychiatric morbidity in 25% (6) and 12.5% (3), respectively, while in Group A (IQ >50) depressive disorder, GAD, and other psychiatric morbidity in parents were 19.4% (7), 13.88% (5), and 5.55% (2), respectively. The difference in the two groups was statistically not significant (P = 0.9684).

In parents of male children with intellectual disability, depressive disorder was present in 30.55% (11), GAD

| Type of psychiatric morbidity in parents of children with intellectual disability | Total (%) |
|--------------------------------|---------|
| Depressive disorder           | 17 (28.33) |
| Generalized anxiety disorder  | 11 (18.33) |
| Others disorder               |          |
| Psychotic disorder            | 2 (3.33)  |
| Insomnia                      | 1 (1.66)  |
| Alcohol dependence            | 2 (3.33)  |
| Total                         | 33 (55)   |

Table 1: Type of psychiatric morbidity in parents of children with intellectual disability
was in 19.44% (7), and other psychiatric disorders were in 8.33% (3). The respective figures for parents of female children were 6 (25%), 4 (16.66%), and 2 (8.33%), respectively. The difference in the two groups was statistically not significant \([P = 0.9817; \text{Table 3}]\).

According to the type of family, parents of children living in joint family were 58.33% (35). In joint families, depressive disorder, GAD, and other psychiatric disorder were 6 (17.14%), 4 (11.42%), and 2 (5.71%), respectively. Whereas the respective figure in parents living in nuclear family was 11 (44%), 7 (28%), and 3 (12%). The difference in the two groups was statistically not significant \([P = 0.9817; \text{Table 4}]\).

Parents of children with problem behavior were 63.33% (38), in which depressive disorder was observed in 31.57% (12), GAD in 21.05% (8), and other psychiatric disorder in 10.52% (4) parents. While psychiatric morbidity in parents of children without behavior problem was 22.72% (5), 13.63% (3), and 4.54% (1), respectively, and the difference in the two group was not statistically significant \([P = 0.9173]\) \([\text{Table 5}]\).

**DISCUSSION**

The study was conducted in the outpatient Department of Psychiatry at Tertiary Care Centre. Parents, who come for certification purpose or treatment of problematic behavior of children, were recruited for the study. The purpose of the study was to find the prevalence of psychiatric morbidity and correlation between sociodemographic factors and psychiatric morbidity in parents of children with intellectual disability.

Almost half (55%) of the parents of children with intellectual disability in the current study met the criterion for possible psychiatric disorder, in which depressive disorder was found in 28.33% of subjects, significant anxiety disorder in 18.33%, and other psychiatric disorders were found in 8.33% of subjects. A similar high level of psychiatric morbidity was reported in older study.\[^{10,11,18}\] Earlier study reported that parents of mentally retarded children had a higher prevalence of psychological morbidity than the parents of normal children.\[^{16,17}\] In the Indian scenario, parents expect that their children take care of them in older age but in case of intellectually disabled children parents have to be the caregiver for lifelong, which may give rise to negative attitude, distress, and guilt in parents.

In this study, psychiatric morbidity was more prevalent among parents of children with moderate-to-severe intellectual disability (IQ <50). The severity of disability increases dependency on parents; children may be dependent for daily activities such as bathing, clothing, toilet, and eating. We did not found any significant difference in psychiatric morbidity according to the gender of child with intellectual disability. The findings were supported by the previous study.\[^{18}\]

Parents residing in nuclear family have high prevalence of psychiatric morbidity (84%) compared to joint family (24.28%). This may be due to the fact that other family members in a joint family take care of child with intellectual disability. In Indian tradition, the culture of living in joint family is very protective, and caregivers of nuclear family have high psychiatric morbidities.\[^{19}\] Caregivers
who had low social support were significantly having more psychological distress.\textsuperscript{[20,21]} In this study, psychiatric morbidity was more common in the parent of intellectually disabled children with problem behavior (63\%) compared to those without problem behavior (40.9\%). This may be due to the fact that management of problem behavior in children is difficult for parents. Earlier studies conclude that the parents of children with behavioral problems have a high rate of psychiatric morbidity.\textsuperscript{[22-24]}

The presence of intellectual disability in child is a major cause for psychiatric morbidity in parents. Having a child with disability causes great stress in family, which generate feeling of guilt, self-blaming, depression, anxiety, and other psychiatric morbidity. The negative attitude and stigma of parents and community about intellectual disability should be changed by psychological intervention and community-based approaches, which will reduce the prevalence of psychiatric morbidity and enhance the psychological well-being of the parents.

**Limitation of the study**

This study has several limitations. First, the sample size was small, and the majority of the subjects in the study were from single institutions which might not truly represent the characteristics of intellectually disabled children and their family members in general population. Second, this is a hospital-based study; hence, bias may occur in the selection of the study population, which limits the extent to which the findings are generalizable. Third and Fourth, we did not assess the premorbid personality of the parents of intellectually disabled children which may affect the results of the study.

**CONCLUSION**

There was a high rate of psychiatric morbidity among parents of children with intellectual disability. Regular screening of the parents should be included in the protocol for management of intellectual disability, and mental health providers should be aware for these issues; hence, appropriate mental health facilities and support can be provided to caregivers to manage their child.

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**Conflicts of interest**

There are no conflicts of interest.

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