

A Study on Psychiatric Morbidity and Its Correlates Among Mothers of Children with Intellectual Disability Disorder in Northern Karnataka

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ABSTRACT

BACKGROUND: Worldwide, the prevalence of intellectual disability disorder (IDD) is as high as 2.3%. IDD produces psychological, social and financial distress to the whole family, particularly parents, as they are usually the constant caretakers. Mothers of these children, being the primary caregivers undergo more psychological distress than other members in their families. **OBJECTIVES:** To study the prevalence of psychiatric morbidity and its correlates among mothers of children with IDD. **MATERIALS AND METHOD:** A cross-sectional study was conducted among 133 mothers of children with IDD consulting tertiary care psychiatry unit in northern Karnataka. Mothers, who fulfilled the inclusion and exclusion criteria of the study were interviewed. Socio-demographic data was collected using semi structured pro forma and psychiatric morbidity was assessed using M.I.N.I. Plus 5.0.0 scale. **RESULTS:** Mean age of mothers is found to be 33.48 years and majority of them have completed their primary education (45.11%), (71.4%) hail from rural background (67.67%). Majority of children were diagnosed with mild mental retardation (46.62%). Study results showed that 52 (39.1%) of them had psychiatric morbidity. The most common morbidity being somatization disorder 22(16.54%) followed by Dysthymia 10.53% (14), MDD 11(8.27%), GAD 5(3.76%). Majority of psychiatric morbidity was seen among mothers of children with mild IDD. **INTERPRETATION AND CONCLUSION:** The study shows high psychiatric morbidity in mothers of children with intellectual disability, and psychiatric screening should be considered among mothers of children with intellectual disability and

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help them to develop effective coping strategies to handle the burden of care giving and improve their quality of life.

Keywords: Mothers, Children with MR, Psychiatric morbidity, Intellectual disability disorder, Caregiver

Mental retardation is a condition of arrested or incomplete development of the brain, which is characterized by reduction of skills and adaptation which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities¹⁴. According to National Mental Health Survey- 2015, prevalence of this condition was 0.6% in the surveyed population, resulting in nearly 4 million persons requiring care¹⁵.

Caregivers of children with intellectual disability (ID) experience many challenges such as repeated emotional crises, family issues, disturbed work schedules, and additional expenses which can create financial burden and emotional distress for a family^{21,22}. The high level of stress or mental health problems experienced by parents of children with ID could be related to subjective factors such as feeling social isolation and life dissatisfaction²³. Parents reported more psychiatric symptoms when the child showed a high level of dysfunction²⁴. Mothers of children with intellectual disability experience more stress than fathers and have lower family functioning, higher caregiver burden, and a low sense of coherence as compared with mothers of children with normal development.^[13] The aim of this study was to identify the prevalence of psychiatric morbidity and to find its correlates among mothers of children with intellectual disability.

METHODOLOGY

It was a cross sectional, time bound study conducted at a tertiary care centre after obtaining institutional ethical committee approval. Study was conducted from Jan-Dec 2019. Mothers of 133 children diagnosed with mental retardation (MR) 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. Children who were above the age of 3 years were included in the study. Mothers of these children aged between 18-45 years, being the primary caregiver of the child, living with the child in the same household at least for one year and who consented to participate were included in the study.

Children with epilepsy or any other neurological condition, psychiatric co-morbidities, physical disability were excluded from the study. Mothers who were single mothers, widows, separated and divorced, those who have more than one child with disability or suffering from major mental illness or chronic physical illness were excluded from the study.

Basic socio demographic details were collected using a semi structured pro forma. The diagnosis of MR was confirmed using ICD-10 diagnostic criteria. IQ was assessed whenever necessary using Binet-Kamat test or Seguin form board test by a clinical psychologist. Mothers of children with MR were evaluated for psychiatric morbidity using MINI PLUS 5.0.0.

METHOD OF DATA COLLECTION:

Mothers who visited our outpatient department (OPD) for the therapy, treatment and follow up of their children with MR were recruited in the study. Total of 133 mothers were recruited in the study during the study period.

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Data was collected during the OPD hours using semi structured questionnaire which includes socio-demographic details like age of the child and the mother, education and occupation of mother, socio economic status, marital status, number of children , children with disability and history of chronic physical or psychiatric illness was collected. Detailed general physical examination, systemic examination and mental status examination was carried out. Those mothers who had psychiatric morbidity were provided with appropriate treatment.

International Classification of Diseases and related health problems (ICD-10) was used for the diagnosis of mental retardation in children. Binet-Kamat tests or Seguin form board test were used to confirm intelligence quotient in children if necessary. After taking informed written consent in mothers were called on prefixed date and time for detail evaluation and assessment.

On the day of appointment, mothers were assessed using MINI PLUS 5.0.0 (Mini International Neuropsychiatric Interview). MINI PLUS 5.0.0 is a short structured diagnostic interview for DSM- IV and ICD-10 psychiatric disorders developed jointly by psychiatrists and physicians in the USA and Europe with approximate administration time of 15minutes⁶⁴.

RESULTS

Mean age of the participants was 33.4 years (SD 6.502). 60 (45.11%) of the participants had completed at least primary education and 95 (71.4%) were homemakers. 90 (67.67%) were from rural background and 113 (84.96%) belonged to lower socioeconomic status. Mean age of children was 15.9 years (SD 4.97) and majority were males 82 (61.65%). Majority of children were diagnosed with mild mental retardation 62 (46.62%). (Table 1)

Table 1. Socio-demographic details of the participants

PARAMETERS	NUMBER	PERCENTAGE (%)
EDUCATION STATUS		
Primary	60	45.11
Secondary	40	30.08
Graduate	26	19.55
Illiterate	7	5.26
Occupation		
House wife/home maker	95	71.4
Coolie	27	20.30
Working	11	8.27
Socio-Economic Status		
Above Poverty Line	113	84.96
Below Poverty Line	20	15.04
Background		

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PARAMETERS	NUMBER	PERCENTAGE (%)
RURAL	90	67.67
URBAN	43	32.33
Severity of IDD among children		
MILD	62	46.62
MODERATE	49	36.84
SEVERE	18	13.53
PROFOUND	4	3.01

52 (39.1%) participants had psychiatric morbidity when screened with MINI PLUS 5.0.0. Out of which 22 (42.3%) had somatisation disorder, 14 (26.92%) had dysthymia, 11 (21.15%) had Major Depressive Disorder and 5 (9.61%) had Generalized Anxiety Disorder. (Table 2.)

Table 2. Psychiatric morbidity among participants

MINI PLUS 5.0.0 DIAGNOSIS	FREQUENCY	PERCENTAGE (%)
MDD	11	21.15%
Dysthymia	14	26.92%
Somatization	22	42.30%
GAD	5	9.61%
Total	52	100

As it can be seen in Table 3, age group of 30-39 years has highest psychiatric morbidity. Age was significantly associated with psychiatric morbidity.

Table 3 : Age wise distribution of psychiatric disorders

AGE in years	MDD	Dysthymia	Somatization	GAD	Total	Percentage	P
20-29	3	3	8	1	15	28.84%	>0.05
30-39	5	9	11	2	27	51.92%	0.025
40-49	2	2	1	2	07	13.46%	>0.05
50-59	1	0	2	0	03	5.76%	>0.05
Total	11	14	22	5	52		

Mothers of children with Mild MR had highest 27 (51.92%) psychiatric morbidity. Followed by Moderate MR. 18 (34.61%). (Table 4)

Table 4: Distribution of psychiatric morbidity among mothers according to severity of MR among children.

MINI Diagnosis	MDD	Dysthymia	Somatization	GAD	Total	Percentage
Child Diagnosis						
Mild MR	5	8	11	3	27	51.92%
Mod MR	6	4	8	0	18	34.61%

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MINI Diagnosis	MDD	Dysthymia	Somatization	GAD	Total	Percentage
Severe MR	0	2	2	1	05	9.61%
Profound MR	0	0	1	1	02	3.84%
Total	11	14	22	5	52	

DISCUSSION

Present study shows that 90(67.67%) mothers are from rural background and 43 (32.33%) of them are from urban background; this could be explained by the fact that, India constitutes majority of rural population and study was conducted in tertiary government hospital which cater services to majority of rural population in the northern Karnataka. This is similar to previous studies conducted in India³¹ which showed around 57-70% of the subjects belonged to rural background³¹⁻¹⁹.

In this study, majority of the participants are home makers, that constitutes 95 (71.4%) of mothers assessed followed by women working as unskilled workers 27(20.3%) and professionals 11(8.3%) of the sample studied. Previous studies also showed similar results.^{59,44}

Majority 113 (84.96%) of the participants in our study were from below poverty line (BPL). A Study in 2004 stated that, 67% of their sample, belonged to the poorer section with total family income less than Rs. 5000/month¹². Another study in 2017 showed that, most of the families (64%) belonged to the poorer section with total family income less than Rs. 5000/month¹⁹. As our health institute is a public sector tertiary health centre, it caters to the needs of people below poverty line majorly.

Majority of the children 62 (46.62%) in the present study had mild Mental retardation and 49 (36.84%) had moderate mental retardation, 18(13.53%) of them had severe mental retardation and profound MR was found to be least that is 4 (3.01%). These findings correlate with a study which showed that, majority 58% of the children had mild MR, while 30% had moderate MR and 12% had severe MR¹². Another study showed that more than 50% children in the sample had mild MR (51.67%) followed by moderate MR (30%) and least being severe MR (18.33%)¹³. Mothers of children with mild MR are hopeful about the future of their child and consult health care facilities.

The prevalence of psychiatric disorders is on the rise in general population and more so in the special population who function as caregivers to chronically ill. In the Current study, total psychiatric morbidity in mothers of mentally retarded children is found to be about 39.1% (n =52) among which 16.54% (n=22) met criteria for somatization disorder, 10.53% (n=14) had dysthymia, 8.27% (n=11) were diagnosed with MDD and 3.76% (n=5) were found to have GAD.

According to National mental health survey (NMHS) 2016, the lifetime prevalence of psychiatric disorders in the surveyed population was 13.7% and current prevalence of mental morbidity of individuals excluding tobacco use disorders above the age of 18 years was 10.6%.¹⁵ Our study has much higher prevalence of psychiatric disorders which could be explained by demands of care giving and the tremendous amount of stress that the mothers undergo on daily basis in taking care of the child who is intellectually disabled. It is also associated with social stigma and the concern about their future along with lack of awareness of the condition which act as contributors to the burden. **13 new)**

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In a study in India, total psychiatric morbidity was found to be 55% in parents and among them, depressive disorder was found in 28.33% of subjects, generalized anxiety disorder was found in 18.33%, and other psychiatric disorders like, psychotic disorder, insomnia and alcohol dependence were found in 8.33% of parents which is higher than our study population³¹.

In another study, among mothers of children with MR, 35% met criteria for anxiety, 40% for depression and 13% for both anxiety and depression²⁸. In another study, conducted among 100 caregivers of intellectually disabled children showed that, mild-to-moderate depressive symptoms were present in 23% and 16% had severe-to-extremely severe depressive symptoms. Mild-to-moderate anxiety symptoms were evident in 19% of caregivers and a further 19% had severe-to-extremely severe anxiety symptoms²⁷. A Cross Sectional Study on Psychiatric Morbidity in Primary Caregivers of Mentally Retarded Subjects showed 28.6% psychiatric morbidity of which, 25% was Depression, 2.4% was Alcohol abuse and 1.2% was Generalized anxiety disorder¹³. High number of mothers were suffering from somatisation in our study. This may be due to underlying personality traits, reaction patterns and cultural factors. This needs further research.

Psychiatric morbidity was more in mothers with mild MR (27% n=27), followed by moderate MR (34.61% n=18) and followed by severe (9.61% n=05) and profound MR (3.84% n=02) respectively which was not statistically significant ($p = 0.444$). Which was similar to previous studies³³ which showed that, psychopathology did not differ significantly among the grades of mental retardation³³. Possible explanation might be, as child grows expectation from the child increases, in terms of making them independent in the society and meeting the demands of society, friends, school, other family members and siblings and expectation is high especially from the child who has better IQ compared to the child with lower IQ where they might have lost hope and there are least chances of improvement. The responsibility to make them capable to meet the expectations from various areas of life is on parents especially on the mother who is constant caretaker of the child. When these expectations are not met, it might lead to disappointment, anger, frustration and also mild MR children are trainable and the additional burden of training them usually falls on the shoulders of mothers as fathers are usually working outside, this work of training the child is generally not shared between parents. All of these factors cumulatively result in greater amount of burden also, children with mild MR are trainable and the additional burden of training them usually falls on the shoulders of mothers as fathers are usually working outside, this is not generally shared between parents and stress leading on to the development of psychiatric problems in mothers.

CONCLUSION:

It is necessary to assess the mental health of caregivers of intellectually disabled children address their issues as wholesome including financial, social support, family relations and help them to develop effective coping strategies to handle the burden of care giving.

Developing self-help groups to relieve stress and to discuss problems among themselves to find solutions would help mothers to deal with their stress. Training ASHA, community health workers, medical officers, volunteers at the organizations and NGO's to educate the family regarding the condition of the child, to bring awareness to approach specialist care at the earlier and helping the family and parents to train the child would help to reduce burden on caregivers.

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LIMITATIONS:

It was conducted in a tertiary care centre and results cannot be generalized. Personality traits of mothers might have influenced the handling stress and thus psychiatric morbidity.

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Conflict of Interest

The author(s) declared no conflict of interest.

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