

## *Original Article*

# Study of Behavioural Problems in Mentally Retarded Children

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### **Abstract**

**Background-** Behaviour disorders are common in children with mental retardation and in addition to the subjective distress they cause the individual, they restrict opportunities to engage in many normal activities. **Methods-** 50 children from age group 6-14 years were randomly selected from a special school for mentally retarded children and assessed. **Results-** Analysis of the data revealed 66% the children to be above cut off score. Mean CBCL score was 56.42. There was significantly higher prevalence of behaviour problems in the younger age group. There was higher prevalence of behaviour problems in children with moderate mental retardation than in children with mild mental retardation. Common behaviour problems reported were 'impulsive or acts without thinking', 'can not concentrate' & 'sudden changes in mood or feelings'. Common behaviour problems in younger age group were 'impulsive', 'can't concentrate', 'acts too young for her age' etc. and in the older group it was 'impulsive', 'can not concentrate' and 'acts too young for her age'. Common behaviour problems in children with mild mental retardation were 'impulsive', 'can't concentrate', 'Gets hurt a lot, accident prone' etc and in children with moderate retardation were 'can't concentrate', 'bites fingernails', 'Gets hurt a lot, accident prone' etc. **Discussion-** Analysis of the data revealed a significantly higher prevalence of behaviour problem in mentally retarded children. Behaviour problems were more in the younger age group There was higher prevalence of behaviour problems in children with moderate mental retardation than in children with mild mental retardation. No specific trend could be observed in the types of behaviour problems as regards to sex, age, income of the parents and severity of mental retardation.

**Key words** - Children, Mental retardation, Behaviour

Behaviour disorders are particularly important for children with mental retardation, since in addition to the subjective distress they cause the individual; they restrict opportunities to engage in many normal activities. Holmes<sup>1</sup> found that people with mental handicaps who had behaviour problems have reduced freedom of movement, less training in domestic, social and self help skills, fewer leisure activities at home and fewer friends than those without such problems. Table 1 reviews the studies based on prevalence of psychiatric and Behavioural disorders in children with mental retardation.

In India, Purukayastha et al<sup>2</sup> in study of 574 subjects revealed that nearly half of the subjects has associated psychiatric or behavioural disorder, ADHD was found in 11.1% conduct disorder 1.1%, temper tantrums 3%, aggression 0.6%, autism 4.7% and other nonspecific behaviours 10.8%.

From these behaviour it can be inferred that psychiatric and behaviour disturbances are 3-4 times commoner in children with mental retardation than in general population.<sup>3</sup> Though the range of disorder in similar to general population, there is an over all relationship between intellectual level

**Table-1**  
**Prevalence of Behaviour Problems in Mentally Retarded Population**

<i>Sl. No.</i>	<i>Study</i>	<i>Age Group</i>	<i>Population</i>	<i>Nature of M.R.</i>	<i>Rates</i>
1.	Rutter et al <sup>3</sup>	9-10 yrs	59	< 70	30% (P)*, 2% (t) #
2.	Birch et al <sup>4</sup>	8-10 yrs	78	Mild	34%
				Severe	45%
3.	Koller et al <sup>5,6</sup>	< 16 yrs	140	Mild	35%
				Severe	46%
4.	Corbett <sup>7</sup>	16-22 yrs	87	Mild	41%
				Severe	48%
5.	Jacobson <sup>8,9</sup>	< 21yrs	84	Severe	47%
6.	Gillberg et al <sup>10</sup>	13-17 yrs	164	Mild	48%
				Severe	54%
7.	Gath & Gumley <sup>11</sup>	6-17 yrs	154	Mild	57%
				Severe	64%
				Down syndrome	30%

and the presence of disorder, as well as rates are increasing with severity of retardation

### Material and Methods

50 children from age group 6-14 years were randomly selected from a School of mentally challenged children.

The investigator introduced himself as doctor doing research on behaviour problems in children. The aim of the study and method adopted was explained to each parent and their cooperation was solicited. Findings of the physical examination, sociodemographic & biographic data and evaluation of mental status was done in each child and recorded in a special designed Performa. Child Behaviour Check List was utilized in assessing behaviour patterns in each child. This checklist developed by Achendanch is a family of self-rated instruments that surveys a board range of difficulties encountered in children from preschool age through adolescence. It is a multi axial, empirically based scales, normed by age and gender & assess social competencies as well as behaviour/emotional problems. CBCL consist of 2 parts: 20 social competence items and 1118 behaviour problem items. In the present study only the measure of behaviour problems was used. The behaviour problem section of CBCL consists of 118 non-

redundant items describing a broad range of problem behaviour, which is of concern to parents and clinicians.

The cut of scores (marking the "normal range" for each sex/age groups) followed in this study was similar to those given by the Achenbach in CBCL manual.

These are as under:

Age	Girls	Boys
4-5 yrs	42	42
6-11 yrs	37	40
12-16 yrs	37	38

The data collected was tabulated and analyzed using chi square test (Yate's correction wherever required), Fisher's exact test, ANOVA.

### Result

Total number of children in the study was fifty out of which thirty-five children were in the age group of 6-11 years and the rest fifteen children were in the age group 12- 14 years. Mean age of the subject in the group was 9.9 years (SD- 2.53 years). Mean income of the group was 5860 Rs (SD- 3259.27). Religion wise distribution reflected most of the children to be Hindus (37). Rest was Muslim (6), Sikh (4) and Christian (3). Analysis of the sample data reveled 66% the children to be above

cut off score. Mean CBCL score was 56.42 (SD 35.37) Further analysis of data revealed a significantly higher prevalence of behaviour problems in the younger age group (6-11 yr.) than the older (12-14 yr.). (Table-1) Sex wise distribution of the sample did not reveal any statistically significant difference in behaviour problems between male and female population. (Table-2). No specific trend was analyzed in the religion wise distribution, as the sample was uneven and small. (Table- 6) There was no statistically significant difference in behaviour problem with regard to income of the parents. (Table-7) Analysis of the data with regards to severity of mental retardation revealed a significant higher prevalence of behaviour problems in children with moderate mental retardation than in children with mild mental retardation. As the sample consisting of children with severe mental retardation was quite small it was not commented upon. (Table-8) Common behaviour problems reported were 'impulsive or acts without thinking', 'can not concentrate' & 'sudden changes in mood or feelings'. (Table-9) Common behaviour problems in younger age group were 'impulsive', 'can't concentrate', 'acts too young for her age' etc. and in the older group it was 'impulsive', 'can not concentrate' and 'acts too young for her age'. (Table-10) Behaviour profile in sex wise distribution of the sample revealed common problems in male to be 'Temper tantrums and hot temper, 'impulsive' 'doesn't get along with other kids' etc. and in female to be 'Get hurt a lot, accident prone', 'can't concentrate', 'impulsive' etc. (Table-11) Common behaviour problems in children with parents in income group of less than four thousand rupees a month were 'Gets hurt a lot, accident prone', 'can't concentrate', 'impulsive etc. in income group of rupees four thousand to six thousand per month were 'impulsive', 'can't concentrate', 'screams a lot' etc. and in income group of above six thousand rupees per month were 'cruel to animals', 'argues a lot', 'prefers being with older kid' etc. (Table-15) Common behaviour problems in children with mild mental retardation were impulsive, 'can't concentrate', 'Gets hurt a lot, accident prone' etc and in children with moderate retardation were 'can't concentrate', 'bites fingernails', 'Gets hurt a lot, accident prone' etc. No specific trend could be

**Table-1**  
**Age Wise Distribution of CBCL Scores in the Study Subjects**

Age	Above cut of (Abnormal)	Below cut off (Normal)	Total
6-11 Years	27 (77%)	8 (23%)	35
12-16 Years	6 (40%)	9 (60%)	15
Total	33	17	50

X<sup>2</sup> = 6.454                      DF =1                      P<0.05 (S)

**Table-2**  
**Sex Wise Distribution of CBCL Scores in the Study Subjects**

Age	Above cut of (Abnormal)	Below cut off (Normal)	Total
Male	16 (64%)	9 (36%)	25
Female	17 (68%)	8 (32%)	25
Total	33	17	50

X<sup>2</sup>=0.087                      DF =1                      P>0.75 (NS)

**Table-3**  
**Relation of CBCL Scores to Religion in the Study Subjects**

Religion	Above cut of (Abnormal)	Below cut off (Normal)	Total
Hindu	26	11	37
Muslim	4	02	6
Sikh	3	01	4
Christian	0	03	3
Total	33	17	50

Small uneven sample. Statistical analysis not done.

**Table-4**  
**Relation of CBCL Scores to Income of the Parents in the Study Subjects**

Income	Above cut of (Abnormal)	Below cut off (Normal)	Total
Up to Rs 4000	6 (50%)	6 (50%)	12
Rs 4000-Rs 6000	24 (77.4%)	4 (57.2%)	31
> Rs 6000	3 (42.8%)	4 (57.2%)	7
Total	33	17	50

\* X<sup>2</sup> = 4.731                      DF = 2                      P > 0.05 (NS)  
\* Yates continuity correction applied

**Table-5**  
**Relation of CBCL Scores to Severity of Mental Retardation in the Study Subjects**

<i>Income</i>	<i>Above cut of (Abnormal)</i>	<i>Below cut off (Normal)</i>	<i>Total</i>
Mild	11 (50%)	11 (50%)	22
Moderate	19 (79.2%)	5 (20.8%)	
Severe	3 (75%)	1 (25%)	04
Total	33	17	50

\* X<sup>2</sup> = 4.968 DF = 2 P > 0.5 (NS)

\*Yates continuity correction applied

**Table-6**  
**Common Behaviour Problems in the Study Subjects**

<i>Most Common</i>	<i>2<sup>nd</sup> Most Common</i>	<i>3<sup>rd</sup> Most Common</i>
Impulsive or acts without thinking 35 (70%)	Can't concentrate 33 (66%)	Sudden changes in mood or feelings 31 (62%)

**Table-7**  
**Age Wise Distribution of Common Behaviour Problems in the Study Subjects**

<i>Age</i>	<i>Most Common</i>	<i>2nd Most Common</i>	<i>3rd Most Common</i>
6-11years (35)	Impulsive 26 (74%)	Gets hurt a lot, accident prone 25 (71%)	Can't concentrate 19 (54%)
12-16 years (15)	Impulsive 12 (80%)	Can't concentrate 11 (73%)	Acts too young for his/her age 10 (67%)

**Table-8**  
**Sex Wise Distribution of Common Behaviour Problems in the Study Subjects**

<i>Sex</i>	<i>Most Common</i>	<i>2nd Most Common</i>	<i>3rd Most Common</i>
Male (25)	Temper tantrums and hot temper 22 (88%)	Impulsive 21 (84%)	Doesn't get along with other kids 17 (68%)
Female (25)	Gets hurt a lot, accident prone 22 (88%)	Can't concentrate 21 (84%)	Impulsive 15 (60%)

**Table-9**  
**Relation of Common Behaviour Problems to Income of Parents of the Study Subjects**

<i>Income</i>	<i>Most Common</i>	<i>2nd Most Common</i>	<i>3rd Most Common</i>
Up to Rs 4000 (12)	Gets hurt a lot, accident prone 09 (75%)	Can't concentrate 08 (66%)	Impulsive 07 (58%)
Rs 4000-Rs 6000 (31)	Impulsive 25 (81%)	Can't concentrate 24 (77%)	Screams a lot 21 (68%)
> Rs 6000 (07)	Cruel to animals 07 (100%)	Argues a lot Prefers being with older kid 06 (86%)	

**Table-10**  
**Relation of Common Behaviour Problems to Severity of Mental Retardation in the Study Subjects**

<i>Mental Retardation</i>	<i>Most Common</i>	<i>2nd Most Common</i>	<i>3rd Most Common</i>
Mild (22)	Impulsive 15 (68%)	Can't concentrate 14 (64%)	Gets hurt a lot, accident prone 11 (50%)
Moderate (24)	Can't concentrate 22 (91%)	Can't concentrate 21 (88%)	Screams a lot 21 (79%)
Severe (04)	Small sample		

brought out in small sample of children with severe mental retardation. (Table-16)

### Discussion

Analysis of the ASHA school sample data revealed a significantly higher prevalence of behaviour problem (66%). The result was comparable with most of the research findings mainly Gilberg et al,<sup>10</sup> Jacobson<sup>8,9</sup> and Purukayastha et al.<sup>2</sup> Mean CBCL score was significantly high indicating a high severity of behaviour disturbances. Further analysis of data revealed a significantly higher prevalence of behaviour problems in the younger age group (6-11 yr.) than the older (12-14 yrs). The finding was similar to findings by Lapouse and Monk,<sup>12</sup> Vardini<sup>13</sup> and Sarkar.<sup>14</sup> Sex wise distribution of the sample did not reveal any statistically significant difference in behaviour problems between male and female population. This goes against the findings by Lapouse and Monk,<sup>12</sup> Vardini<sup>13</sup> and Sarkar.<sup>14</sup> No specific trend was analyzed in the religion wise distribution, as the sample was uneven and small. There was no statistically significant difference in behaviour problem with regard to income of the parents. Analysis of the data with regards to severity of mental retardation revealed a significant higher prevalence of behaviour problems in children with moderate mental retardation than in children with mild mental retardation. These findings are similar to other researchers in the past by Jacobson<sup>9,10</sup> Gilberg et al<sup>11</sup> etc. Profile of behaviour problems revealed that the externalizing behaviour problems were more common in mentally retarded population.

### Limitation of the study

Sample size of 50 appears inadequate for a comprehensive insight into the problem and larger sample size would be sought to explore statistically significant difference in behaviour along a socio demographic profile. However considering the strength of this study it still emerges as an important contribution in the field of child behaviour that would encourage further research to study the men of tomorrow.

### Conclusion

Prevalence of behaviour problem in mentally

challenged children was high. Age wise analysis of mentally retarded population revealed higher prevalence of behaviour problems in lower age group (5-11 yrs) in comparison to higher age group (12-14 yrs). Common behaviour problems There was higher prevalence of behaviour problems in children with moderate mental retardation than with mild mental retardation. Externalizing behaviour problems were much more common than internalizing ones. Behaviour problems decreased with increase in the income of the parents. There was no significant gender or religion wise difference in the behaviour problems of the sample population.

### References

1. Holmes N. The quality of life of mentally handicapped Adults and their parents. (Dissertation). London, University of London: 1988.
2. Purukayastha M, Girimaji S, Srinath S, Sheshadri SP. Clinical profiles in mental retardation. In: Hegde R, Malhotra S Shah LP, Editors. Research endeavors in child and adolescent psychiatry in India. Goa: Tanvi Graphics, 1997; 48-53.
3. Rutter M, Tizard J, Whitmore K. Education health and behaviour. London: Longman gp, 1970.
4. Birch H G, Richardson S A, Barird D, Horobin G, Ilsley R. Mental subnormality in the community: A clinical and epidemiological study. Williams and Wilkins, 1970, Baltimore
5. Koller H, Richardson S A, Katz M, Mc Laren J. Behaviour disturbance in the early adult years in populations who were and were not mentally retarded. J Prevent Psychiatry 1982; 453-468.
6. Koller H, Richardson S A, Katz M. Behaviour disturbance in the childhood among a five-year birth cohort of all mentally retarded young adults in a city. American J Ment Deficiency 1983; 87 : 386-395.
7. Corbett J A, Epidemiological approaches in child psychiatry. London: Academic press, 1977.
8. Jacobson J.W. Problem behaviour and psychiatric impairment within a developmentally disabled population 1: Behaviour and frequency. Appl Res Ment Retardation 1982a; 3: 121-139.
9. Jacobson J.W : Problem behaviour and

- psychiatric impairment within a developed disabled population II: Behaviour severity. *Appl Res Ment Retardation* 1982b; 3: 369-381.
10. Gilberg C, Pearson E, Grefman M, Themner U. Psychiatric disorder in mildly and severely mentally retarded urban children and adolescents: epidemiological aspects 1986: *Br J Psychiatry* 1986; 149 : 68-74
  11. Gath A, Gumley D. Behaviour problems in retarded children with special referral to Downs syndrome. *Br J Psychiatry* 1986; 149 : 156-161.
  12. Lapouse R, Monk A. Behaviour deviation in a representative sample of children: variation by age, sex, race, social class and family size. *Am J Orthopsychiatry* 1964; 34 : 436-446.
  13. Vardini R.P. Psychosocial problems amongst rural children – An epidemiological study (Dissertation). Bangalore, Bangalore university: 1983.
  14. Sarkar A: Prevalence and pattern of psychological disturbance in 8-11 year old school-going children (Dissertation). Bangalore, Bangalore university 1990.