

Behavioural Characteristics and Behavioural Disturbances among Children with Intellectual Disability

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ABSTRACT

The present study investigated Behavioural Characteristics and Behavioural Disturbances among 60 children with intellectually disabled or mentally retarded and 60 normal children (30 males & 30 females). The age of the children ranged between 10 to 12 years. Mentally retarded children were taken from special schools for the mentally retarded children of Ranchi and normal children were taken from different schools of Ranchi town. Mothers of both groups of children rated the behaviour characteristics and disturbances of the children on the excitability rating scale and behavioural assessment scale for Indian children with mental retardation (BASIC-MR, Part-B). Results indicated that total problem scores varied significantly according to the IQ level (retarded & normal) and gender of the subjects. In both groups male showed higher level of excitability and behavioural disturbances than female.

Keywords: *Behaviour Characteristics and Behavioural Disturbances*

Mental retardation is a condition of incomplete development of mind especially characterised by sub normality of intelligence arising from inherent causes or induced by disease or injury. Mental retardation varied in severity. The Diagnostic and Statistical Manual of Mental Disorder (DSM-IV-TR 2004) classified four different degrees of mental retardation: mild, Moderate, severe and Profound. These categories are based on the person's level of functioning and IQ scores.

Researchers reported that children with mental retardation are at risk for a variety of psychological problems including stress, depression, anxiety, emotional immaturity, feeling of insecurity and adjustment problems. These problems are due to specific stressors such as loss of an important supportive relationship, Lack of stable home, Proper parental care, deprivation, negligence and the cumulative impact of this day to day sorrow can have serious emotional consequences. In mental retardation intelligence is the core problem. This handicap behaviour creates personality problems and difficulties in adaptive behaviour.

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Intensity, sensitivity and excitability are the primary characteristics of the mentally retarded. These terms are used to describe sometimes distinct behaviour or characteristics of mentally retarded children. Numerous studies have shown that retarded because of their limited capacities coupled with negative attitude like rejection from the environment develop negative personality characteristics such as aggression, emotional disturbances etc.

Behavioural disturbances in children with intellectual disability are considered as a variety of symptoms of their reactions caused by emotional disturbances and environmental maladjustment such as violent and destructive behaviour, self injurious behaviour etc.

Children's behavioural disturbances typically are first noticed by parents or teachers, who may refer these children to a physician, a psychologist or other mental health professional. When behavioural disturbances occur with such intensity, frequency or duration that personal, social or academic performance is affected negatively, the children may be given a diagnosis of a mental disorder by a psychologist or physician.

Behavioural disturbances are reported to be four to five times more in mentally retarded individuals as compared to non-retarded individuals (Rutter et al 1976, Kurtz et al 2003, Mossman, 2002). Iverson and Fox (1998) found that prevalence of behavioural disturbances was the highest among people with milder form of retardation. Jacobson (1982) and Tiwary (2012) also found similar results.

Objectives

1. To investigate the patterns of behavioural characteristics and disturbances among children with intellectual disability.
2. To determine gender difference in behavioural characteristics and behavioural disturbances of disabled and normal children.

METHODOLOGY

Sample

The sample consisted of 120 children, out of which 60 were disabled or mentally retarded and 60 were normal control group, half of which was male 30 and other half was female 30 in each group. The sample of mentally retarded subjects was selected from different institutions for mentally retarded children in Ranchi and their age between 10-12 years. Sample of normal subjects was drawn from different schools of Ranchi. Only those children with a good academic record were selected to be included in the sample. Purposive sampling technique was used for selecting the sample.

Measures

1. **Stanford-Binet Intelligence Scale (Form LM):** A Hindi adaptation of Stanford-Binet intelligence scale revised (LM) form by Kulshrestha (1971) was used for measuring intelligence of both mentally retarded and normal individuals. This form measures

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abilities in seven categories: Language, reasoning, memory, social intelligence, conceptual, numerical reasoning and visual motors. Test items are in the form of words, objects and pictures and responses given by the subjects are in the form of drawing, calculating, writing and speaking. The reliability of this scale ranges from 0.96 to 0.97. And the validity co-efficient ranges between 0.40-0.75.

- 2. Excitability Rating Scale:** Hindi adaptation of the excitability rating scale developed by Sinha and Sen (1987) was used to study the behaviour characteristics of mentally retarded children. The scale consists of nine factors (activity level, variability of work activity, verbal activity, sociability, interpersonal responses, amenability and predictability) and included 38 items in all. One item is rated on a 5 point scale. The reliability and validity of this scale is quite high.
- 3. The Behaviour Assessment Scale for Indian Children with Mental Retardation (Basic-MR) Part B:** This scale was developed by Peshawaria and Nenkatesan (1992) to determine behavioural disturbances. This scale consists of 75 items covering ten domains of problem behaviours viz Violent and destructive behaviour, Temper tantrum, Misbehaviour with others, Self injurious behaviour, Repetitive behaviour, Rebellious behaviours, Anti-social behaviours and Fears. The scale has been standardised and field tested. The test retest reliability correlation co efficient was found to be 0.68.

Procedure

- 1. Phase-I:** After building up rapport all the subjects were administered individually the Indian adaptation of Stanford -Binet Intelligence Scale to evaluate their IQ level. For each sub-test specific instructions have been given in the exact words in Hindi language and the order of giving the tests in each group was followed as it was presented in the manual .Although selected children of disabled group were well identified retarded and were sent to special schools by regular schools but for uniformity in their intelligence level, IQ scores of 50 to 70 on Stanford-Binet Intelligence Scale was taken as a criteria for selection of sample. The children were grouped into two levels of IQ; one is 50 to 70(disabled) and 90 to 100 (normal).
- 2. Phase-II:** The next phase of the study was to administer the Excitability Rating Scale and Behavioural Assessment Scale for children to parents and teachers who were well acquainted with the children. Scoring was done according to standard norms provided in the respective manuals of tests.

RESULTS AND DISCUSSION

For analysis the data Percentage distribution of subject with regard to their behavioural characteristics and disturbances was calculated. 't' test was applied to find out gender differences in behaviour disturbance.

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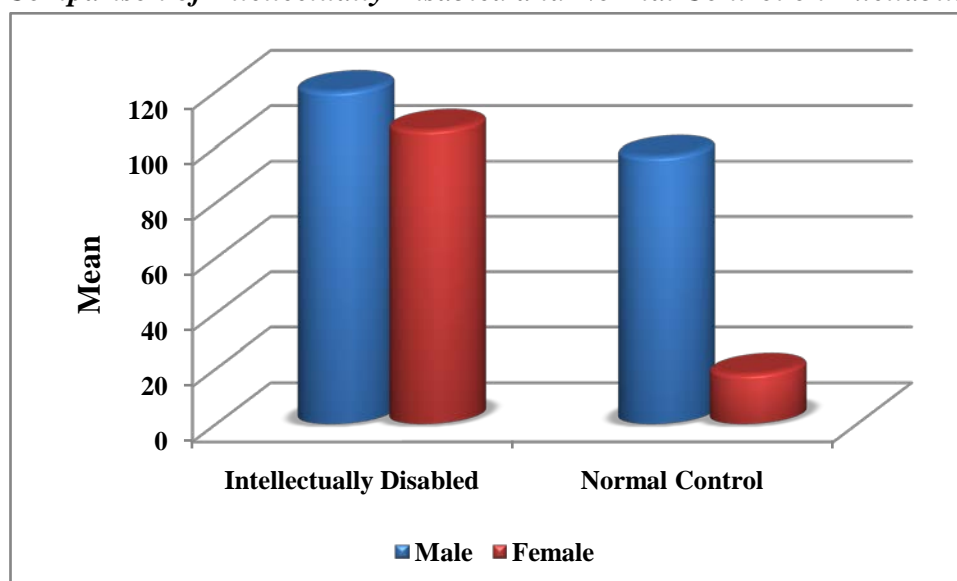
Table I (a): Comparison of Intellectually Disabled and Normal Control on Excitability Rating Scale

Group	Intellectually Disabled		Normal Control	
	Mean	SD	Mean	SD
Male	120	21.12	96.60	9.63
Female	106	9.63	18.00	12.65

Table I (b) t values for the male and female intellectually disabled and normal control group on Excitability

Variables	t	P value
Disabled vs Normal Male Children	5.52	0.01
Disabled vs Normal Female Children	30.32	0.01
Disabled Male vs Female Children	3.30	0.01
Normal Male vs Female Children	27.08	0.01

Figure I Comparison of Intellectually Disabled and Normal Control on Excitability Scores



It was evident from the table I that intellectually disabled group had scored significantly higher than normal control group. It may also be noted that the males of both groups scored more in excitability rating scale.

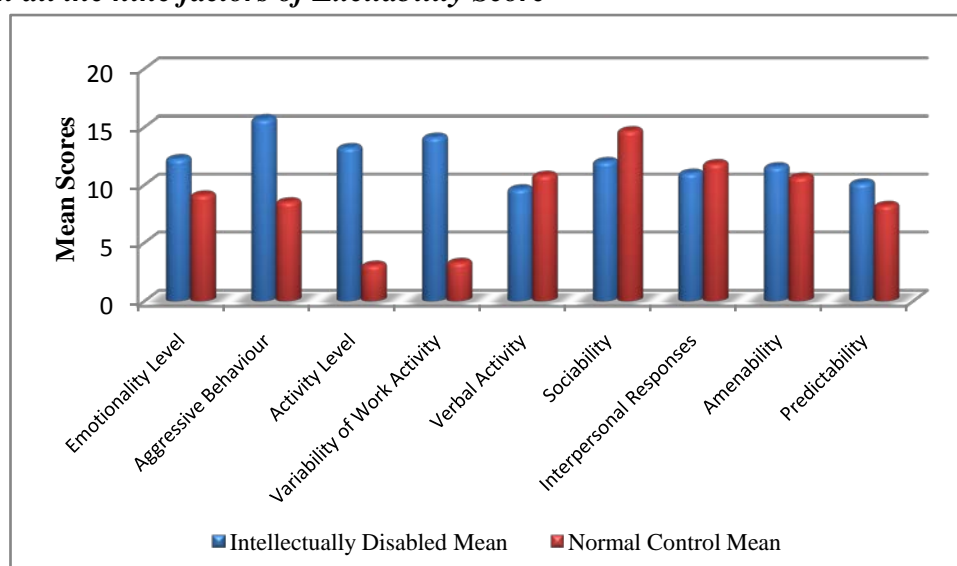
Table II Means, SD and t values for the Intellectually Disabled and Normal Control Group on all the nine factors of Excitability Score

Factors	Intellectually Disabled		Normal Control		t	P Value
	Mean	SD	Mean	SD		
Emotionality Level	12.26	3.66	9.12	1.85	5.93	0.01
Aggressive Behaviour	15.68	3.06	8.53	2.27	14.54	0.01
Activity Level	13.22	10.2	3.10	1.65	7.58	0.01
Variability of Work Activity	14.12	8.96	3.34	1.88	9.12	0.01

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Factors	Intellectually Disabled		Normal Control		t	P Value
	Mean	SD	Mean	SD		
Verbal Activity	9.65	3.12	10.82	2.07	2.42	0.05
Sociability	12.01	3.25	14.68	3.00	4.68	0.01
Interpersonal Responses	11.01	2.34	11.83	2.58	1.86	NS
Amenability	11.56	2.47	10.68	1.44	2.38	0.05
Predictability	10.15	3.25	8.22	2.40	3.71	0.01

Figure II Means, SDs and t values for the Intellectually Disabled and Normal Control Group on all the nine factors of Excitability Score



Result shows that intellectually disabled group and normal control group differ significantly on the different factors of excitability. The retarded children obtain higher score on the factors likely emotionality, aggressive behaviour, activity, variability of work activity, amenability and predictability factors of excitability scale whereas normal children have shown higher scores on verbal activity, sociability and interpersonal responses.

Table-III Comparison of Behaviour Disturbances between Disabled and Normal Children

Behavioural Disturbances	Intellectually Disabled		Normal Control	
	N	%	N	%
Violent and Destructive Behaviour	22	37.29	3	5.73
Temper Tantrum	31	51.04	7	12.08
Misbehaviour with others	27	45.71	20	33.93
Self Injurious Behaviour	22	36.08	2	2.83
Repetitive Behaviour	25	41.56	4	7.29
Odd Behaviour	18	30	5	8.44
Hyperactive Behaviour	28	46.67	34	56.39
Rebellious Behaviour	16	27.08	19	32.08
Anti Social Behaviour	04	6.94	4	6.38
Fear	10	16.88	21	34.38

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Figure III Comparison of Behaviour Disturbances between Disabled and Normal Children

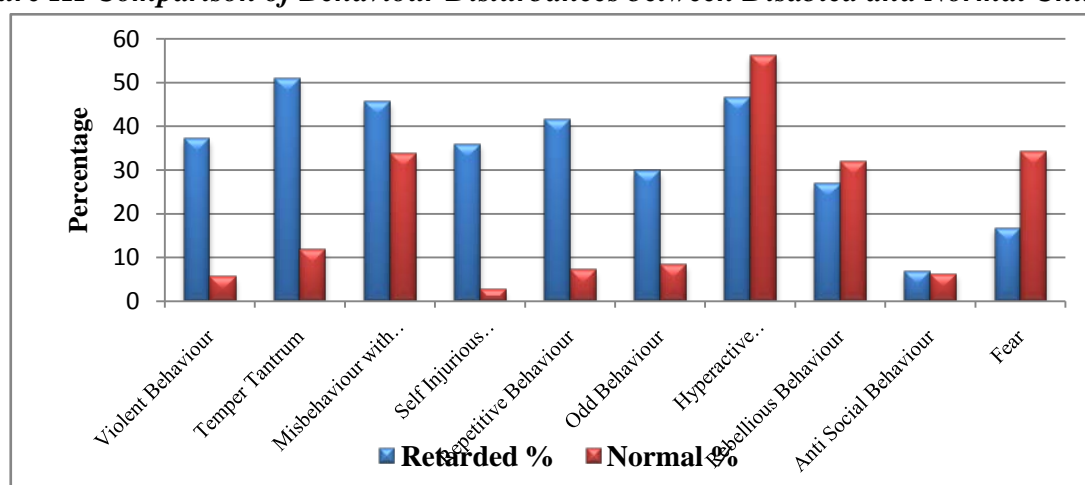


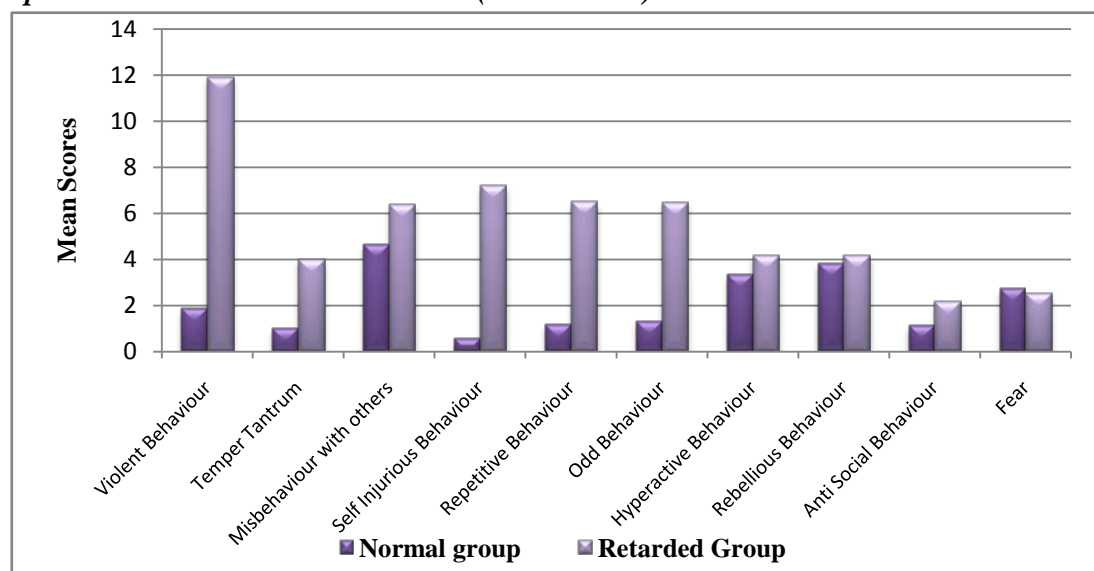
Table III shows that prevalence of various behavioural disturbances in retarded group ranged between 6.94 to 51.04%. Highest prevalence was found for Temper tantrum (51.04%) followed by hyperactive behaviour (46.67%) misbehaviour with others (45.71%), repetitive behaviour (41.56%), violent and destructive behaviour (37.29%) and self injurious behaviour (36.08%) fear (16.88%) and anti social behaviour (6.94%) but in normal group highest prevalence was found for hyperactive behaviour (56.39%) followed by fear (34.38%), misbehaviour with others (33.93%) and rebellious behaviour (32.08%).

Table-IV Comparison of Behaviour Disturbances between Disabled and Normal Control Group on (BASIC-MR) Behaviour Assessment Scale

Subjects Variables	Normal group		Retarded Group		t	P value
	Mean	SD	Mean	SD		
Violent and Destructive Behaviour	1.88	1.08	11.93	3.63	20.55	0.01
Temper Tantrum	1.03	1.12	4.02	1.59	11.91	0.01
Misbehaviour with others	4.65	2.05	6.40	2.55	4.14	0.01
Self Injurious Behaviour	0.57	0.70	7.22	2.46	20.15	0.01
Repetitive Behaviour	1.17	1.06	6.50	2.59	14.75	0.01
Odd Behaviour	1.35	1.21	6.47	2.01	16.52	0.01
Hyperactive Behaviour	3.35	1.26	4.17	1.50	3.24	0.01
Rebellious Behaviour	3.85	1.13	4.18	1.78	1.22	NS
Anti Social Behaviour	1.15	0.78	2.17	1.64	4.35	0.01
Fear	2.75	2.43	2.55	1.88	0.50	NS

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Figure IV Comparison of Behaviour Disturbances between Disabled and Normal Control Group on Behaviour Assessment Scale (BASIC-MR)



Result depicted in table IV shows that intellectually disabled and normal group differ significantly on various behavioural disturbances like violent and destructive behaviour, temper tantrum, misbehaviour with others, self injurious behaviour, repetitive behaviour, odd behaviour, hyperactive behaviour and anti social behaviour and in all these comparisons mentally retarded subjects have obtained significantly higher mean scores than normal subjects. All the t values are significant at 0.01 level. Though non-significant t values have been found with regard to rebellious behaviour and fear, in these two comparisons the mean scores of retarded as compare to normal subjects are higher.

In all there were eight problems where the differences between retarded and normal subjects were found to be significant.

Violent and destructive behaviour was most severe problem among mentally retarded children followed by self injurious behaviour, repetitive behaviour, odd behaviour whereas in normal, misbehaviour, rebellious behaviour, hyperactivity and fear were most common problems behaviour.

Table-V Gender difference in Behaviour Disturbances among Disabled Children.

Problem Behaviours	Male		Female		t	P value
	Mean	SD	Mean	SD		
Violent and Destructive Behaviour	12.60	3.95	11.27	3.17	2.03	0.05
Temper Tantrum	3.93	1.51	4.10	1.69	0.58	NS
Misbehaviour with others	6.63	2.65	6.17	2.48	0.98	NS
Self Injurious Behaviour	6.43	1.98	8.00	2.68	3.65	0.01
Repetitive Behaviour	7.20	2.28	5.80	2.78	3.02	0.01
Odd Behaviour	6.53	2.03	6.40	2.03	0.35	NS

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Problem Behaviours	Male		Female		t	P value
	Mean	SD	Mean	SD		
Hyperactive Behaviour	4.27	1.50	4.07	1.53	0.72	NS
Rebellious Behaviour	4.43	1.55	3.93	1.98	1.54	NS
Anti Social Behaviour	2.30	1.80	2.03	1.47	0.99	NS
Fear	2.67	1.02	2.43	1.76	0.91	NS

Figure V Gender difference in Behaviour Disturbances among Disabled Children

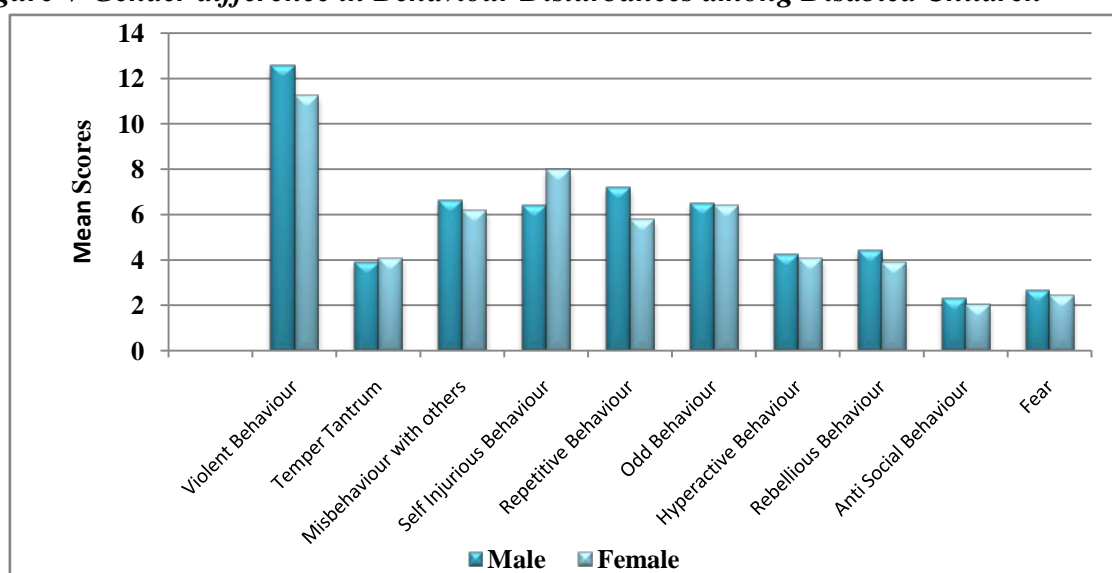


Table V is showing severity of disorder in both males and females retarded children. Results show that retarded males have more behavioural disturbance than females. Mean scores of all the domains of behavioural disturbances reveal that male retarded obtained higher scores on Misbehaviour with others, Odd behaviour, Hyperactive behaviour, Rebellious behaviour, Anti social behaviour and Fears as Compare to females and this difference was not statistically significant but in relation to Repetitive behaviour Violent and destructive behaviour and Repetitive behaviour males showed significantly higher mean score than females. Exception is found in relation to self injurious behaviour where females have scored significantly higher mean scores as compare to male (3.65, $P < 0.01$).

In all there were only three problems, where the difference between males and females retarded was found to be significant. These were violent and destructive behaviour, self injurious behaviour and repetitive behaviour.

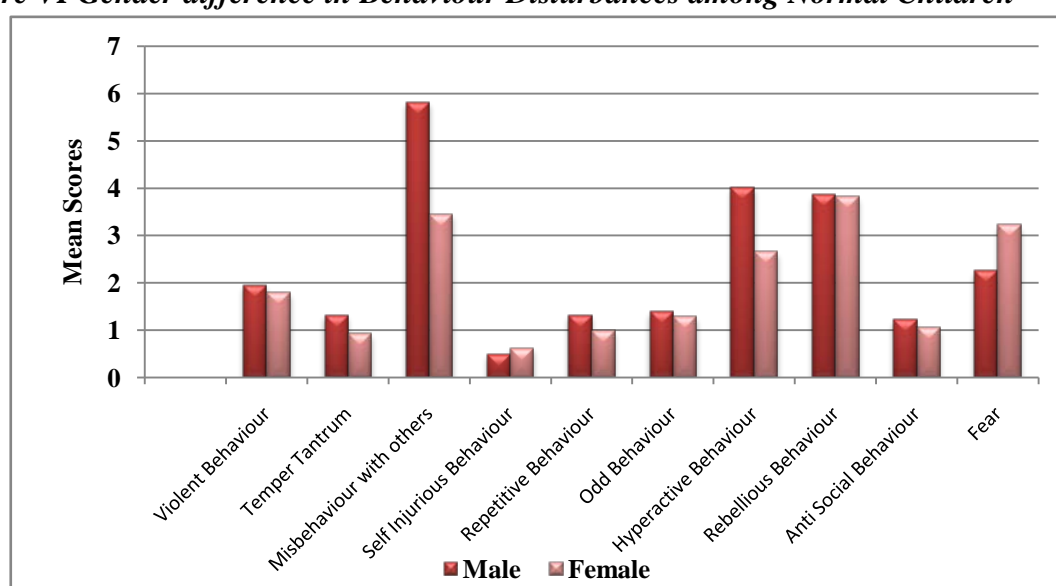
Male retarded had significantly higher scores on violent and destructive behaviour, repetitive behaviour and the females had higher scores on self injurious behaviour.

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Table-VI Gender difference in Behaviour Disturbances among Normal Children.

Problem Behaviours	Male		Female		t	P value
	Mean	SD	Mean	SD		
Violent and Destructive Behaviour	1.96	1.88	1.80	0.96	0.59	NS
Temper Tantrum	1.33	1.30	0.93	0.91	1.95	NS
Misbehaviour with others	5.83	1.88	3.47	1.46	7.67	0.01
Self Injurious Behaviour	0.50	0.62	0.63	0.76	0.74	NS
Repetitive Behaviour	1.33	.18	1.00	0.91	2.75	0.01
Odd Behaviour	1.40	1.33	1.30	1.29	0.42	NS
Hyperactive Behaviour	4.03	1.07	2.67	1.06	6.99	0.01
Rebellious Behaviour	3.87	1.17	3.83	1.11	0.19	NS
Anti Social Behaviour	1.23	0.68	1.07	0.83	1.15	NS
Fear	2.27	2.31	3.23	2.47	2.19	0.05

Figure VI Gender difference in Behaviour Disturbances among Normal Children



Result revealed that there are significant differences between male and female of normal subjects on misbehaviour with others (7.67; $p < .01$) repetitive behaviour (2.75; $p < 0.01$), hyperactive behaviour (6.99; $p < .01$) and fear (2.19; $p < 0.05$). In all cases males have obtained higher mean scores than females except fear.

CONCLUSIONS

1. Mentally retarded group compare to normal control group had shown higher level of excitability and behaviour disturbance.
2. The retarded subjects obtained the higher percentage than normal control subjects on all the domains of the problem behaviours as well as total scores.
3. Retarded and normal control groups had differed significantly on different domains of excitability and behavioural disturbances.

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4. Males had higher scores on repetitive behaviour where as females had more on self injurious behaviour.
5. Males of normal control group seem to have higher behavioural problems than their females counterpart.

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Conflict of Interests: The author declared no conflict of interests.

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