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The study on behavior problem in children with mental disabilities

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ABSTRACT

The present study was designed to identify problem behaviors of mentally retarded children with attempts to show the difference of time spent for play activities in a typical 24-hour activity log and nature of play peers and time involvement of mental retarded children with behaviors problem in compare to mental retarded children without behaviors problem. Also the present study uses cross sectional observation and key informant interview techniques to elicit data in a group of 140 children with behavior problem in severity level of mild and moderate mental retardation. Their chronological ages ranges between 3-14 years. The sample included males and females. For the purpose of this study, three schedules were used: 'Demography data sheet' with a 'Daily Activity Log Schedule' and 'Behavioral Assessment Scales for Indian Children with Mental Retardation (BASIC-MR) Part-B. was administered to identify the problem behaviors. In sum the results showed that the hyperactive behaviors are more prevalent followed by violent and destructive behaviors, misbehavior with others, odd behaviors, and rebellious behaviors. The other categories of behaviors are relatively less prevalent. The representation of result in the various types of activities typically indulged in 24-hour cycle of a day for mentally retarded children with and without problem behaviours indicated that the Children with problem behaviours are found to differ significantly in the amount of time they spend on watching television, attending therapy classes as compared to their peers without any reported problem behaviours and The presence or absence of problem behaviours in children with mental retardation emerges as a statistically significant variable in influencing the types and duration of time spent by significant others during play (X^2 ; 5.161; $p > 0.023$; S). It appears that children with problem behaviours have fewer companions in the form of same aged or younger aged peers than children without problem behaviours.

INTRODUCTION

Intellectual and developmental disabilities constitutes a major share of permanent handicapping conditions in young children. Also called 'mental retardation', these persons are characterized by appearance of being dull and slow, having slow rates of development since birth in all areas, discrepancy between physical and current mental ages, poor academic achievements with repeated failures at school; along with dependence on others in performance of daily activities like dressing, bathing, toileting, grooming, brushing, etc. They are slow in understanding, memory, attention-concentration, imagination, thinking, reasoning, problem solving, and decision making. They have difficulties in expression or understanding of language-verbal and non-verbal, in managing money, telling time, reading calendar and orientation within familiar surroundings. As adults, they show incompetence in performance of vocational activities expected for their age. At all age levels and ranges of severity they are inadequate in social skills like greeting, community orientation, manners and etiquette. Sometimes, not always, they have associated features like mental illness, fits, problem behaviors, etc [1]. Many times children with mental retardation show behaviors that are considered as problematic, because of the harm or inconvenience them cause others or to the child himself the presence of problem behaviors in children puts great strain on teachers, parents and peer groups. Besides they may also interfere with learning in the school and classroom setting. These problem behaviors could be due to a number of reasons. From the behavioral point of view, it may be due to lack of communication skills, cognitive

skills or problem solving skills etc. It may also be due to wrong handling by people in the environment of the child. It also occurs due to inadequate management [8].

Play is one of the most natural and convenient means to reach children. Despite differences in meaning, definitions and understanding on the types or theories of play, it is consistently reported how play is a universal phenomenon in children-including the children with mental retardation [5]. A variety of classification and types of play are acknowledged by different investigators. The phenomenon of play has been investigated in various settings like home, school, playground, indoors, out of doors, single or solitary, group based, with one or both parents, teachers, caregivers and so on. Play has been used in several of the reviewed papers as medium of instruction for normal children as well as those with special needs [4]. Many studies have shown children with aggressive behavior problems to respond differently to hypothetical social problems comparing with other children. More specifically, children with aggressive behavior problems have poor social problem solving skills: they are more likely to respond aggressively than other children in social problem situations and also believe that aggressive behavior is more effective than other forms of responses. There is also some evidence that children with mild mental retardation and concomitant behavior problems are more likely to respond aggressively to hypothetical social problems than children with mild mental retardation and no accompanying behavior problems. Very few studies have been conducted with this specific population although children with mental retardation generally show more behavior problems than children with normal intellectual abilities [1]. There is paucity of research in the field of activity log in mental retarded children with behaviors problem. There are very few data based or empirical investigations on daily activities of children with mental retardation-especially those with behaviors problem [9].

In one investigation on activity log of preschool children diagnosed as 'developmental disabilities' with behavior problem, it was reported that only 4.12 % of a day's schedule is spent on playing with peers. This was against 7.9 % of the time spent on playing alone and 9.61 % of time spent on watching television [8]. These studies have given initial leads into the identify problem behaviors of mentally retarded children and there is a need to investigate to explore the nature, type and amount of time in a typical day spent for play activities by these children and prevailing play preferences and activities and play peers retardation in a group of mental retardation children with behaviors problem.

OBJECTIVES:

- I. To explore the extent of problem behaviors in children with mental retardation in relation to specific organism variables like age, gender and educational level
- II. To explore the nature, type and amount of time spent for play activities in a typical 24-hour activity log of mental retarded children in relation to behavior problem in children with mental retardation
- III. To explore the nature of play peers and involvement for mental retarded children in relation to behavior problem in children with mental retardation

MATERIALS AND METHODS

Sampling was carried out in the following interconnected but separate phases. In the first phase of data collection, 310 children diagnosed as mental retardation. A part of the sample was taken from various special schools in Mysore and Bangalore while others were also from the cases routinely seen at All India Institute of Speech and Hearing, under Ministry of Health and Family Welfare, Government of India, located at Mysore. In the second phase of the overall children the study was carried out on a sample of 140 children who had at least one problem behavior in the category of Behavioral Assessment Scales for Indian Children with Mental Retardation (BASIC-MR) like violent and destructive behavior, temper tantrums, self-injurious behavior, Misbehavior with others, repetitive behaviors, odd behaviors, hyperactive behaviors, rebellious behaviors, antisocial behaviors, and fears were included in the sample as mental retarded children with behavior problem. This sample included males and females from pre-primary, primary, secondary and prevocational classes with mental retardation in the age range of 3-14 years. Within the sample, there were 69 cases diagnosed as 'mild mental retardation' and 71 cases with 'moderate mental retardation'. Data was collected and compiled in Microsoft Excel format and subject to statistical analysis by using freely downloadable statistical software/calculators on the web.

Tools used:

The procedure for data collection involved use of cross sectional observation and key informant interview techniques along with some other tools for the purpose of this study.

- I. 'Demographic data sheet' covered queries on personal details, diagnostic condition and health status of each child included a simple 'Daily Activity Log Schedules' was also designed to elicit information about each child's hourly engagements during a typical day. For every hour in the 24-hour log schedule, data was elicited on the child's and others activities in terms of the time spent on sleeping, ablution, watching television (or playing computer and video

games), playing alone, playing with peers, feeding, attending school (if any), home teaching and others. The total time spent by a given child and/or the significant family members under these activity heading were totaled and rounded off to the nearest minute. Wherever information was reported on the child's simultaneous involvement in two or more of the above mentioned activities (such as, feeding while watching television or playing alone while the television is on), they were recorded as such. Thus, there could be less/more than the 24-hour schedule for some children, when totaling the reported activities for a given day or for all the children taken together in this sample.

II. Behavioral Assessment Scales for Indian Children with Mental Retardation (BASIC-MR) Part-B: The Behaviour Assessment Scales for Indian Children with Mental Retardation (BASIC-MR) [2] is designed to elicit systematic information on the current level of behaviours in school aged children with mental retardation. The scales are suitable for mentally handicapped children between the ages of 3-16 (18) years. The scales are relevant for behavioural assessment and can also be used as a curriculum guide for programme planning and training based on the individual needs of each child with mental retardation. The scales have been field tested on a select sample population. Information on the technical aspects, such as, reliability, validity and sensitivity of the scale is available [3]. The BASIC MR is available in two parts: Part "A" and Part "B". The items included in the PART A of the scale helps to assess the current level of skill behaviours in a child with mental retardation. The items included in PART B of the scale helps to assess the current level of problem behaviours in a child with mental retardation. The PART A consists of 280 items grouped under 7 domains: Motor, Activities of Daily Living, Language, Reading- Writing, Number-Time, Domestic-Social and Pre-vocational-Money. There are 40 items under each domain. The PART B consists of 75 items grouped under 10 domains: violent and destructive behavior, temper tantrums, self- injurious behavior, Misbehavior with others, repetitive behaviors, odd behaviors, hyperactive behaviors, rebellious behaviors, antisocial behaviors, and fears. The number of items within each domain varies. Scoring for items under BASIC MR PART B is carried out for each item as well as child with mental retardation by rating them along a three point rating scale, viz., never (Score 0), occasionally (Score 1) and frequently (Score 2) respectively. Wherein the stated problem behaviour in the scale does not occur in the child at all, it is marked as zero. If the stated problem behaviour occurs once in a while or now and then, it is marked as "occasional" and given a score of one. If the stated problem behaviour occurs quite often or habitually, it is marked "frequently" and given a score of two. Thus, the maximum possible score for any child on BASIC MR PART B is 150.

RESULTS AND DISCUSSION

Table 1. Percentage in Different Categories of Behaviour Problems in for Children with Mental Retardation

Category	Overall	Sex		Age			Education Level			
		Male	Female	3-6	7-10	11-14	Pre-primary	primary	Secondary	Pre-vocational
N										
Violent and destructive behavior	29.56	32.55	20.68	32.35	32.5	24.39	26.53	31.57	25	35.48
Temper tantrum	9.56	10.46	6.89	11.76	12.5	4.87	10.20	5.26	18.75	6.45
Misbehavior with others,	20.86	26.74	6.89	17.24	35	14.63	20.40	26.31	25	19.35
Self- injurious behavior	9.56	6.97	17.24	2.94	12.5	12.19	8.16	5.26	6.25	16.12
Repetitive behaviors	12.17	12.79	10.34	14.70	7.5	14.63	6.12	10.52	31.25	19.37
Odd behaviors	22.86	19.76	31.03	32.35	17.5	19.52	28.57	5.26	18.75	22.58
Hyperactive behaviors,	64.34	67.44	55.17	67.64	70	56.09	69.39	63.15	62.5	54.83
Rebellious behaviors	22.86	11.62	10.34	17.64	17.5	31.70	12.34	35.57	25	32.25
Antisocial behaviors	14.78	18.64	3.44	20.58	7.5	17.07	12.24	5.26	18.75	19.35
Fears	3.47	2.32	6.89	5.88	-----	4.87	6.12	-----	6.25	-----

Table 2. Distribution of Activity Log on a Typical Day for Children with Mental Retardation in relation to Presence or absence of Problem Behaviours

Activity	Problem Behaviour		Total	Percentage	F	P
	Present	Absent				
N	62	78	140			
Sleep	570.4 (91.78)	576.5 (99.2)	573.9 (95.7)	43.4	0.002	0.998
TV Time	77.8 (47.1)	80.5 (48.44)	79.4 (47.7)	6.0	3.490	0.033*
Feeding	131.94 (33.0)	126.7 (31.0)	129.1 (32.9)	9.8	2.043	0.134
Play	54.2 (49.3)	54.0 (52.5)	54.1 (50.98)	4.1	1.306	0.274
School	321.4 (50.0)	325.2 (54.6)	323.6 (52.5)	24.5	0.996	0.372
Ablution	89.8 (25.1)	95.6 (28.9)	92.4 (27.0)	7.0	0.009	0.991

Home Teaching	26.2 (32.4)	32.9 (48.4)	30.0 (40.2)	2.3	0.137	0.872
Therapy Class	24.2 (30.0)	28.9 (37.9)	26.9 (34.6)	2.0	3.459	0.034*
Others	12.6 (23.8)	14.2 (25.6)	13.5 (24.8)	1.0	12.944	0.001*
Total	1314.8 (1632.2)	1329.1 (124.96)	1322.8 (141.6)	100.0	3.969	0.021*
No Activity	102.7 (26.9)	131.6 (22.7)	117.2 (24.8)			

Figures are expressed in minutes; Figures in Brackets indicate SD values;

** indicate areas of statistically significant differences between the groups of mental retarded children in relation to presence or absence of problem behaviours.*

Table 3. Types of Play Peers for Children with Mental Retardation with respect to presence or absence of problem behaviours

Activity	Problem Behaviour		Total
	Present	Absent	
N	62	78	140
Same Age Peers	16 (25.8)	24* (38.7)	40
Younger Peers	17 (27.4)	18* (29.0)	35
Alone	14 (22.5)	19 (30.6)	33
With Others	16 (25.8)	16 (25.8)	32
Older Peers	12 (19.3)	15 (24.1)	27
Pets	8 (12.9)	17 (27.4)	25
Elderly	6 (9.68)	13 (20.9)	19

Figures are expressed in minutes; Figures in Brackets indicate SD values;

** indicate areas of statistically significant differences between the groups of mental retarded children in relation to presence or absence of problem behaviours.*

The results of the study are analyzed and discussed under following headings:

A). Distribution of Behavior problem in children with mental retardation:

I. The analysis of results on distribution of behavior problem in children with mental retardation indicate that, 27% of children showed violent and destructive behavior, 10% of children showed temper tantrums, 21% of children showed misbehavior with others, 9 % of children showed self injurious behavior, 12 % of children showed repetitive behavior, 23% of children showed rebellious behavior, 15% of children showed antisocial behavior and 3 % of children showed fears.

II. In relation to gender variable, result indicate that, male children with mental retardation showed 32.55% violent and destructive behavior, 10.46% showed temper tantrums, 26.74% showed misbehavior with others, 6.97% showed self injurious behavior, 12.79% showed repetitive behavior, 19.76%, showed odd behavior, 64.44% showed hyperactive behavior, 11.62% showed rebellious behavior, 18.64% showed antisocial behavior and 2.32% showed fears. Among female children with mental retardation 20.68% showed violent and destructive behavior, 6.89% showed temper tantrums, 6.89% showed misbehavior with others, 17.24% showed self injurious behavior, 10.34% showed repetitive behavior, 31.03% showed odd behavior 55.17% showed hyperactive behavior, 11.62% showed rebellious behavior, 3.44% showed antisocial behavior and 6.89% showed fears.

III. In relation to age group variable In 3-6 age group result indicate that , 32.55% children showed violent and destructive behavior, 11.76% showed temper tantrums, 17.24% showed misbehavior with others, 2.94% showed self injurious behavior, 14.70% showed repetitive behavior, 32.35% showed odd behavior, 67.64% showed hyperactive behavior 17.64% showed rebellious behavior and 5.88% showed fears.

In children 7-10 years old result shows that ,32.5% children showed violent and destructive behavior, 12.5% showed temper tantrums, 35% showed misbehavior with others, 12.5% showed self injurious behavior, 7.5% showed repetitive behavior, 17.5% showed odd behavior, 70% showed hyperactive behavior, 17.5% showed anti social behavior and none of the subject showed fear.

In 11-14 years old children result indicate that, 24.39% children showed violent and destructive behavior, 4.87% showed temper tantrums, 14.63% showed misbehavior with others, 12.19% showed self injurious behavior, 14.63% showed repetitive behavior, 19.51% showed odd behavior, 56.09% showed hyperactive behavior, 31.70% showed rebellious behavior, 17.07% showed antisocial behavior and 4.87% showed fears.

IV. In relation to education level variable the results also indicate that In Pre-primary level, 26.53% children showed violent and destructive behavior, 10.20% showed temper tantrums, 20.40% showed misbehavior with others, 8.16% showed self injurious behavior, 6.12% showed repetitive behavior, 28.57% showed odd behavior, 69.39% showed hyperactive behavior, 12.24% showed rebellious behavior, 12.24% showed antisocial behavior, and 6.2% showed fears.

In Primary level result showed that , 31.57% children showed violent and destructive behavior, 5.26% showed temper tantrums, 26.31% showed misbehavior with others, 5.26% showed self injurious behavior, 10.52% showed repetitive behavior, 5.26% showed odd behavior, 63.15% showed hyperactive behavior, 35.57% showed rebellious behavior, 5.26% showed antisocial behavior and not a single subject in this group showed fear. In Secondary level the results indicate that, 25% children showed violent and destructive behavior, 18.75% showed temper tantrums, 25% showed misbehavior with others, 6.25% showed self injurious behavior, 31.25% showed repetitive behavior, 18.75% showed odd behavior, 62.5% showed hyperactive behavior, 25% showed rebellious behavior, 18.75% showed antisocial behavior and 6.25% showed fears.

In Pre-vocational level The results also indicate that, 35.5% children showed violent and destructive behavior, 6.45% showed temper tantrums, 19.35% showed misbehavior with others, 16.12% showed self injurious behavior, 19.37% showed repetitive behavior, 22.58% showed odd behavior, 54.83% showed hyperactive behavior, 32.25% showed rebellious behavior, 19.37% showed antisocial behavior and not a single subject in this group showed fear, In sum the results showed that the hyperactive behaviors are more prevalent followed by violent and destructive behaviors, misbehavior with others, odd behaviors, and rebellious behaviors. The other categories of behaviors are relatively less prevalent (Table No.1)

B). Distribution of daily activity in typical 24-hour activity log of mental retarded children in relation to

Behaviour problem:

To recapitulate, the specific findings on the reported typical 24-hour activity log of children with mental retardation in relation to the variable of problem behaviour are: (Table No. 2)

I. Children with problem behaviours are found to differ significantly in the amount of time they spend on watching television as compared to their peers without any reported problem behaviours ($p < 0.03$)

II. Children with mental retardation having problem behaviours are found to spend significantly lesser time on attending therapy classes (Mean: 24.2; SD: 30.0) as compared to their peers without problem behaviours (Mean: 28.9; SD: 37.9). ($p: 0.034$).

III. Mentally retarded children without problem behaviours are found to occupy themselves for more time on some 'other' activities (Mean: 12.6; SD: 23.8) compared to their peers with problem behaviours (Mean: 131.6; SD: 22.7)

IV. There are no differences between mentally retarded children in their amount of time spent on other activities of daily living, such as, sleep, feeding, play, ablution, etc., in relation to the variable of their having or not having problem behaviours.

V. On the whole, problem behaviours in children with mental retardation appear to be significant influence on the 24-hour activity log or routines of children with mental retardation.

C). Distribution of Play Peers and Time Involvement: of mental retarded children in relation to behavior

Problem:

The following section highlights the types and distribution of time spent by different play peers for children with retardation and the results indicate that there is a wide range of play peers available for children with mental retardation. The range of play peers varies from same aged peers (N = 40 out of 140), younger peers (N: 35 out of 140), older peers (N: 27 out of 140), pets (N: 25) and the elderly (N: 19 out of 140) respectively. It is important to note that there is a sizable sample with mental retardation (N: 33 out of 140) who are left to play alone.

In relation to mental retarded children with problem behaviour the results indicate:

I. The presence or absence of problem behaviours in children with mental retardation emerges as a statistically significant variable in influencing the types and duration of time spent by significant others during play ($X^2; 5.161; p > 0.023; S$). It appears that children with problem behaviours have fewer companions in the form of same aged or younger aged peers than children without problem behaviours (Table No. 3).

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