

Impact of special education on management of adjustment problems faced by children with learning disability

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■ **ABSTRACT :** During elementary school age, children learn about the wider world and master improved athletic abilities, participation in games with rules, more logical thought processes, mastery of basic literacy skills and advances in self-understanding, morality and friendship (Berk, 2003). The development during elementary school age has considerable significance for behavior pattern and adjustment for later stages. Learning disability, an unexplained difficulty experienced by children of at least average intelligence in acquiring basic academic skills usually identified during elementary school age. The study sample were elementary school children selected from Hyderabad, Nellore and Chittoor districts of united state of Andhra Pradesh representing three regions of the state *i.e.* Rayalaseema, Costal region and Telangana. Total sample were 120 children with LD attending special education (60) and not attending special education (60). In this study found that the prevalence of learning disability was more among boys than girls and among first born children and had average intelligence. Parents of children with LD perceived more stressful emotional reactions of about their children's adjustments and the mean scores showed that parents perceived less stress for children who were attending full time SE classes than those attending classes in resource rooms.

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During elementary school age, children learn about the wider world and master improved athletic abilities, participation in games with rules, more logical thought processes, mastery of basic literacy skills, and advances in self-understanding, morality and friendship (Berk, 2003).

The development during elementary school age has considerable significance for behaviour pattern and adjustment for later stages. The term 'adjustment' is often used as a synonym for accommodation and adaptation.

The term denotes the results of equilibrium, which may be affected by either of these processes (Monroe, 1990). It is used to emphasize the individual's struggle to survive in his or her social and physical environment. The school is the major socialization institution for any child. It is the child's first contact with the world outside the house. During school years a child spends 5 to 7 hours a day in the school. School is one the most important foundation pillars on which the child's personality develops. Children learn proficiencies in various abilities like, learning

process and home work, social communications, handling emotion and so on.

Adjustment is a continuous process by which an individual varies in behaviour to produce a more harmonious relationship between oneself and his/her environment. It is a condition in which the behaviour of an individual conforms to the needs of the individual and demands of the environment. In adjustment, both personal and environmental factors work side by side. In adjustment, the two crucial factors are the individual and the environment. In the study of the individual, the considerations are the heredity and biological factors, the psychological factors and the quality of socialization given to him or her. Whereas, the environment includes all the social factors. Every individual from the time he or she steps out of the family and goes to school makes to a long series of adjustments between the whole unique personality and the environment. The ardent desire of each boy and girl to become an individual person having a healthy physique, a growing intellectual ability, a greater degree of emotional poise and increased participation in social groups, such characteristics enhance one's personality.

During this stage students can engage in problematic behaviours because of health problems, personal or family problems, adjustment or developmental issues (e.g., "immaturity" or self-esteem issues), or general academic difficulties. Generally behaviour problems are school based and are mainly due to learning difficulty. These problems do not be identified till the child enters formal schooling.

Learning disability, an unexplained difficulty experienced by children of at least average intelligence in acquiring basic academic skills usually identified during elementary school age.

People with learning disabilities have trouble taking in information through their senses and processing that information accurately to the brain. Usually they will receive scrambling information like a distorted radio signal or fuzzy television picture.

General learning disability must be differentiated from specific learning difficulty (eg. dyslexia) which means that the person has one difficulty such as in reading, writing or understanding, but has no problem with learning in other areas.

Learning disabilities usually fall under these categories:

Classification of learning disabilities:

Learning disabilities can be classified as follows.

Dyslexia:

It is a condition where child has difficulty in reading, writing, spelling, speaking etc.

Dyscalculia:

The child has problem in doing maths problems, understanding time, using money.

Dysgraphia:

In this dysgraphia child will have problems with handwriting, spelling, organizing ideas etc.

Dyspraxia (Sensory integration disorder):

The child has problem with eye-hand co-ordination, balance, manual dexterity etc.

Dysphasia/Aphasia:

In this condition the child has problem with understanding spoken language, poor reading comprehension.

Auditory processing disorder:

The child has difficulty with hearing differences between sounds and also problem with reading, comprehension, language.

Visual processing disorder:

In this condition the child has difficulty in interpreting visual information, like maps, charts, symbols, pictures.

Special education:

Special education or special needs education is the education of students with special needs in a way that addresses the students' individual differences and needs. Ideally, this process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, accessible settings, and other interventions designed to help learners with special needs achieve a higher level of personal self-sufficiency and success in school and community than would be available if the student were only given

access to a typical classroom education.

Another large issue is the lack of resources enabling individuals with special needs to receive an education in the developing world. As a consequence, 98 per cent of children with special needs in developing countries do not have access to education.

Objectives:

– To identify the sample children with learning disability using identification of learning disability inventory (LDDI) (Hammill and Bryant, 1998).

– To assess the relationship among special education variables and parents' perception of emotional reactions towards children's adjustments.

RESEARCH METHODS

Sample:

The study sample were elementary school children selected from Hyderabad, Nellore and Chittoor districts of united state of Andhra Pradesh representing three regions of the state *i.e.* Rayalaseema, Coastal region and Telangana. Five revenue divisions were selected randomly from each district and total 15 revenue divisions among three districts were selected. Within each revenue division 4 Government schools were selected randomly. The sample were identified using purposive and stratified random sampling techniques. In the first stage with the help of school teacher students in 3rd, 4th and 5th grades who were backward in academics were administered with LDDI inventory. The sample children's IQ was measured using Ravens Progressive Matrices Test by following the standard procedure for administration of the test, in school premises in a separate room with comfortable seating position for the child to perform the test. Children with learning disabilities were administered with the parental perception of emotional reactions towards children's adjustments scale.

Tools and materials for research:

– Learning disability diagnostic inventory – (Developed by Hammill and Bryant, 1998)

– Standard Raven's progressive matrices (SPM) test (Developed by Raven, 1976)

– General information schedule

– Parental perception of emotional reactions towards children's adjustments scale.

The tool developed for the present investigation

were developed by following standard procedures for development of tools. The reliability and validity were established by testing the tools on a pilot study sample.

RESEARCH FINDINGS AND DISCUSSION

The data collected from two groups of sample that is children with LD attending special education and children with LD not attending special education were scored. Coding was given to the data. The data was subjected to vigorous analysis by using relevant statistical techniques. The nature of the analysis was determined from the point of view of the objectives formulated.

The sample for children with learning disability (LD) were selected using learning disability diagnosis inventory (LDDI, Hammill and Bryan, 1998). Thus, 40 children (33.3 %) from 3rd grade, 45 children (37.5 %) from 4th grade and 35 children (29.2%) from 5th grade, constituted the sample. The sample children were selected from 3rd, 4th and 5th grades because it is most suitable age for early identification and intervention through proper remedial strategy for children with LD. Among the samples who were identified as learning disabled, there were 64.22 per cent of boys and 35.8 per cent of girls. From the data it was evident that comparatively the prevalence of learning disability was more among boys than girls. With regard to sample children with LD majority (42.5%) were first born followed by second (35%) and later born (27%). Studies have shown that with increase in number of siblings there is a decrease in number of positive cases of LD.

Children's IQ was measured using Raven's progressive matrices test (Raven, 1976). From the Table 1, It is interesting to note that majority of children with LD (61.6%) had average intelligence and 23.3 per cent had below average intelligence. 15 per cent of children with LD were found to have above average intelligence.

Studies have shown that people with learning disabilities have average to above average intelligence (Gerber, 1998), that may be the reason usually LD children were identified when they score less academic achievement than their intelligence.

Table 2, shows the type of LD problems according to attending and not attending special education. Majority (94%) of children had reading problems followed by listening (93%), writing (81.7%), speaking (80.8%), mathematics (78.3%) and reasoning (48.3%) problems.

It is clearly known from Table 3 that children without

LD had more problems in social (mean 20.29; SD=6.91) and emotional (mean=24.4; SD=8.06) areas of adjustment followed by home and academic areas (mean=26.24 ; SD=8.48 and mean=27.42; SD=7.83). Whereas for children with LD the parent's perceived more problems in social (mean=28.41; SD=5.81) and emotional areas (mean=29.89; SD=6.54). Next to it, parents' perceived that children had problems in academic (mean=30.17; SD=7.68) and home areas (mean=30.37; SD= 6.31).

Comparatively children with LD seemed to have low score in all areas of adjustments than those without LD according to parent's perception. It indicated that parents of children with LD had more stress regarding their children's adjustments. These findings are inline with that of Dyson (1996), who also reported that parents of children with disabilities experienced a disproportionately grater level of stress relating to their children than did those of children without disabilities.

Table 1: Distribution of sample children with LD according to child variables

Sr. No.	Variables	Children with LD		Total
		Attending SE	Not attending SE	
1.	Grade			
	3 rd	19 (31.7)	21 (35.0)	40 (33.3)
	4 th	23 (38.3)	22 (36.7)	45 (37.5)
	5 th	18 (30.0)	17 (28.3)	35 (29.2)
2.	Gender			
	Boys	41 (68.3)	36 (60.0)	77 (64.2)
	Girls	19 (31.7)	24 (40.0)	43 (35.8)
	Total	60	60	120
3.	Age			
	8 Years	15 (25.0)	20 (33.3)	35 (29.2)
	9 Years	15 (25.0)	20 (33.3)	35 (29.2)
	10 Years	15 (25.0)	13 (21.7)	28 (23.3)
	11 Years	15 (25.0)	7 (11.7)	22 (18.3)
4.	Birth order			
	First	8 (13.3)	43 (71.1)	51 (42.5)
	Second	26 (43.3)	16 (26.7)	42 (35)
	Third/fourth	26 (43.3)	1 (1.7)	27 (22.5)
5.	IQ			
	Below average	22 (36.6)	6 (10.0)	28 (23.3)
	Average	31 (51.6)	43 (71.7)	74 (61.6)
	Above average	7 (11.6)	11 (18.3)	18 (15.0)

Table 2 : Distribution of sample according to type of problem across status of attending SE

Types of problem according to LDDI	Children with learning disability		Total
	Attending special education (n=60)	Not attending special education (n=60)	
Listening	58 (96.7)	54 (90.0)	112 (93.3)
Speaking	57 (95.0)	40 (66.7)	97 (80.8)
Reading	55 (91.7)	58 (96.7)	113 (94.2)
Writing	58 (96.7)	40 (66.7)	98 (81.66)
Mathematics	57 (95.0)	37 (61.7)	94 (78.3)
Reasoning	54 (90.0)	4 (6.7)	58 (48.33)

The full time special education schools are available only at Hyderabad (in united Andhra Pradesh). In the other districts (Nellore and Chittoor) where the samples were identified, the resource rooms were available, in which a special education teacher will be available for few hours per week.

From Table 4 it is evident that among the samples who were identified as attending special education classes three fourths of sample (73.3%) were attending full time special education. Nearly one fourth (26.7%) were attending special education classes in resource room attached to the general school setup. Ninety per cent of sample children who were attending special education classes were attending the special classes based on the suggestion from the class teacher. Very few were referred by the psychologist and others (6.7 % and 3.3 %, respectively).

Majority of sample children (60%) were attending the special education classes from 6 months to one year period. 16.7 per cent were attending for a period of below 6 months and 23.3 per cent for more than one year.

More than half of children attending SE were spending in SE classes 3 hours per day. Next to it 26.6 per cent were attending 1 hour per day in special education classes. Usually in resource room special classes will be provided for one hour only per day.

From Table 5, it is known that children with LD who were attending resource room and full time SE did not differ significantly in their adjustment problems in all four areas of adjustment as per parent's perception. The t-values were not significant. However, when the mean scores of adjustment problems were observed, parents perceived less stress for children who were attending the

Table 3: Mean scores for emotional reactions of parents towards children's adjustment of children with and without LD

Areas of problems	Children with LD					
	Attending special education		Not attending special education		Total children with LD	
	Mean	SD	Mean	SD	Mean	SD
Academic	29.55	5.867	25.30	8.947	27.42	7.830
Home	28.73	7.818	23.75	8.446	26.24	8.481
Emotional	25.67	7.717	23.22	8.273	24.44	8.060
Social	21.37	6.265	19.22	7.402	20.29	6.913
Total	104.12	22.141	90.65	28.243	97.38	26.158

Table 4: Distribution of sample according to SE variables (percentages in parenthesis)

Sr. No.	Special education variables	Children with LD attending SE (n=60)
1.	Person suggested special education	
	Psychologist	4 (6.7)
	Teacher	54 (90.0)
	Relatives/Others	2 (3.3)
2.	Type of special education	
	Resource room	16 (26.7)
	Full time SE	44 (73.3)
3.	Duration of attending SE	
	Below 6 months	10 (16.7)
	6 months – 1 year	36 (60.0)
	1 year – 2 years	14 (23.3)
4.	Time spends in SE per day	
	1 hour	16 (26.6)
	2 hours	14 (23.3)
	3 hours	30 (50.0)

full time SE classes when compared to those attending classes in resource rooms.

It divulges from Table 6, that children with LD who were attending SE differed significantly in academic and social areas ($f=3.56; P<.035$ and $f=3.34; P<.042$) depending on the duration of attending SE classes. The f -values were significant. Nevertheless, an insight into the table shows an encouraging trend in adjustment of children who were attending SE classes. In all areas of adjustments, the magnitude of problems decreased as the duration of attending SE classes increased.

From Table 7, it is clear that as the duration of time spent in SE classes increased, the adjustments in all areas seemed to be good. Comparatively as per parents perceptionscores were more for students who were attending SE for around 3 hours a day than those for students who were attending for 2 hours and 1 hour per day, which means better adjustments.

Attending SE classes for around 3 hrs per day helps students to understand their problems and techniques to

cope up with the problems. Attending for more time in a SE class might have helped students to improve their adjustments.

Conclusion:

- Comparatively the prevalence of learning disability was more among boys than girls and among first born children.
- Majority of children with LD had average intelligence on par with normal achievers.
- Parents of children with LD perceived more stressful emotional reactions of about their children's adjustments
- More than half of children attending SE were spending SE classes 3 hours per day.
- When relationship among SE variables and parental perception of emotional reactions towards children's adjustments was considered, the mean scores showed that parents perceived less stress for children who were attending full time SE classes than those

Table 5 : Mean scores of parental perception of emotional reactions towards children's adjustments according to type of special education

Type of SE	Mean scores of adjustment problems				
	Academic	Home	Emotional	Social	Total
Resource room	29.66 (5.621)	30.07 (6.824)	26.24 (7.125)	21.86 (5.611)	107.45 (18.841)
Full time SE	29.45 (6.180)	27.48 (8.567)	25.13 (8.314)	20.90 (6.882)	101.00 (24.740)
t-value	0.018 [@] P<0.895	1.657 [@] P<0.203	0.308 [@] P<0.581	0.347 [@] P<0.558	0.347 [@] P<0.558

Table 6: Mean scores of parents' perception of emotional reactions towards children's adjustments according to duration of attending SE

Duration of attending SE	Mean scores of adjustment problems				
	Academic	Home	Emotional	Social	Total
< 6 months	25.43(4.860)	30.43 (7.807)	23.57 (5.255)	18.71 (5.619)	98.14 (19.744)
6-12 months	29.31 (6.109)	27.82 (8.413)	25.08 (8.649)	20.59 (6.628)	101.77 (24.099)
>12 months	32.29 (4.340)	30.43 (5.932)	28.36 (5.257)	24.86 (4.055)	113.64 (14.627)
f-value	3.568 [@] P<0.035	0.753 [@] P<0.475	1.232 [@] P<0.299	3.346 ^{**} P<0.042	1.819 [@] P<0.171

** indicate significance of value at P=0.01

Table 7: Mean scores of parental perception of emotional reactions towards children's adjustments according to time spent in special education classes per day

Time spent in SE per day	Mean scores of adjustment problems				
	Academic	Home	Emotional	Social	Total
1 hour	29.50 (5.669)	29.85 (6.942)	26.47 (7.166)	21.21 (5.629)	106.32 (18.729)
2 hours	27.33 (7.371)	25.67 (5.859)	21.67 (6.658)	21.00 (12.530)	99.00 (33.151)
3 hours	29.91 (6.193)	27.48 (9.145)	25.00 (8.660)	21.65 (6.582)	101.52 (25.895)
f-value	0.253 [@] P<0.777	0.872 [@] P<0.424	0.666 [@] P<0.518	0.039 [@] P<0.962	0.399 [@] P<0.673

attending classes in resource rooms.

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