

Multiple intelligences among Attention Deficit Hyperactivity disorder (ADHD) children.

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ABSTRACT

This present research study aimed to identify the Attention deficit hyperactivity disorder (ADHD) children and examine their relationship with multiple intelligences. This study was conducted on a sample of N=80 children comprising of 40 ADHD and 40 Non-ADHD children selected randomly from different schools of Srinagar city of Jammu and Kashmir. Their age ranged from 7 to 10 years. ADHD children were identified with Disruptive Behavior Disorders (DBD) rating scale based on DSM-IV criteria. Gardner multiple intelligences scale was used to study different types of intelligences. Findings revealed that significant difference were found in multiple intelligences of children with ADHD as compared to non-ADHD.

Keywords: ADHD, DBD, DSM, MI.

1. INTRODUCTION:

A learner's potential can be compared with a rainbow Cloete(2005). Rainbows differ, depending on the amount of light and raindrops they reflect. If a rainbow is not viewed from the correct angle, some of the beautiful colors may not be seen at all. Nelson (1998) states that Attention-Deficit/ Hyperactivity Disorder (ADHD) are usually viewed from a negative perspective and that the true potential of learners with ADHD is often underestimated. According to Diller (1999) these negative perspectives and underestimations contribute to the fact that learners with ADHD are usually labelled as low achievers and/or learners who display disciplinary problems. Howard Gardner's (1983) theory of Multiple Intelligences (MI) make a significant contribution to changing the preponderating negative perceptions of learners with ADHD and can positively influence educators' perspectives on the teaching and learning of children with ADHD (Armstrong 2000, and Nolen 2004).

ADHD is one of the most prevalent childhood disorders, occurring in three to five percent of school-aged children Jakobson (2007) Symptoms of ADHD include (1) high levels of activity (2) impulsivity and (3) inattention, American Psychiatric Association(1994). Caplan & Sadock (2004) These symptoms must persist for a period of at least six months to the extent that it is perceived as maladaptive and inconsistent with the child's developmental level. Children with ADHD have been treated with a deficits-based response of interventions, focusing on what makes them unsuccessful in school, in relationships, and in social situations, rather than

identifying and teaching to their strengths. Given the large number of ADHD children with educational and social problems, it appears that many aspects of their powerful intelligence are not observed and their weak intelligence aspects are usually considered in schools and family. Thus, by justifying parents and teachers for early and timely discovery of weak intelligence aspects of these children and proper planning for their improvement, it is possible to bring them back to the normal intelligence level of their peers. By discovering their stronger intelligence aspects, it is also feasible to recommend programs to parents for increasing intelligence aspects and to specify their future field. Naheed et al., (2013) Moreover, self-confidence can be increased, and disorders such as coping behaviors and conduct disorder may also be prevented. Hence, this study aimed to evaluate multiple intelligences of children with ADHD in comparison with non-ADHD.

2. REVIEW LITERATURE

Gallagher (2006) and Schirduan (2004) found that learners diagnosed with ADHD usually have good visual intelligence, but perform poorly in the linguistic and logical/mathematical intellectual fields. Schirduan et al., (2004) mention that teaching in the traditional classroom centers mainly on learners' linguistic and logical/mathematical intelligences and learners with ADHD therefore experience scholastic problems because their stronger intelligences are not being optimally utilized. Nolen (2003) hold the opinion that the only way to generate transformation in the teaching of learners with ADHD is by changing the traditional teaching approach to a more learner-centred approach. The MI theory offers a theoretical framework for designing and implementing such a learner-centred approach Armstrong (2000). In order to accommodate ADHD learners optimally in classrooms, it is necessary for teachers to be knowledgeable about the MI theory and to be informed about the MI profiles of learners with ADHD Barrington(2004). Bailey et al., (2009) found that teachers' knowledge of the instruction of learners with ADHD is inadequate. Cloete (2005) reported that approximately 75% of teachers are not aware of the existence of multiple intelligences and they recommended that teachers should receive extensive training in Gardner's MI theory. Brown (2005) stated that teachers are obliged to teach ADHD learners in accordance with their MI profiles. In the same vein, Stanley (2006) concluded that MI profiles are indispensable tools for providing a higher quality of teaching to learners with ADHD.

3. OBJECTIVES OF THE STUDY:

- To identify Attention deficit hyperactivity disorder children (ADHD).
- To study multiple intelligences of ADHD children and non-ADHD children.

4. METHODOLOGY

The present study was conducted on a sample of 40 ADHD and 40 non-ADHD children selected randomly from different government and private schools of j & k state. To identify such children, disruptive behavior rating scale was used which consists of 45 statements based on DSM-IV criteria of diagnosis of Attention deficit

hyperactivity disorder (ADHD), oppositional defiant disorder and conduct disorder. After children were identified as having ADHD, Multiple intelligences test given by Howard Gardner was administered to study their different intelligence types. The data were tabulated and analyzed using spss.

4. Findings & analysis:

Table (4.1) Distribution of symptom severity of ADHD children in sample group.

ADHD Categories	Gender				N N=40
	Male		Female		
	Frequency	% age	Frequency	% age	
Mild	8	42.10%	11	57.89%	n=19
Moderate	9	69.23%	4	33.76%	n=13
Severe	5	62.5%	3	37.5%	n=8

From the above table (4.1) it is evident that 42.10% of boys 57.89% of girls have mild ADHD whereas, 69.23% of boys and 33.76% of girls have moderate ADHD. Further, 62.5% of boys & 37.5% of girls have severe ADHD.

Table (4.2) Comparison of mean scores of multiple intelligences (tests) between ADHD and Non-ADHD children

Multiple Intelligences	Group	N	Mean	Std. Dev.	t-value
Linguistic	ADHD	40	10.45	2.57	9.15**
	Non-ADHD	40	15.05	1.86	
Logical-Mathematical	ADHD	40	8.50	3.03	12.58**
	Non-ADHD	40	15.37	1.64	
Musical	ADHD	40	7.32	1.63	20.95**
	Non-ADHD	40	15.37	1.79	
Bodily-Kinesthetic	ADHD	40	9.05	3.10	11.27**
	Non-ADHD	40	15.27	1.60	
Spatial-Visual	ADHD	40	8.27	2.89	8.64**
	Non-ADHD	40	14.00	3.02	
Interpersonal	ADHD	40	8.25	2.41	14.29**
	Non-ADHD	40	15.02	1.77	

Intrapersonal	ADHD	40	8.32	2.78	13.50**
	Non-ADHD	40	15.25	1.66	
Naturalistic	ADHD	40	6.45	2.05	12.20**
	Non-ADHD	40	13.17	2.81	

** $p \leq 0.01$ level of significance

Table (4.2) clearly depicts that there is a significant difference in Linguistic, Logical-Mathematical, Musical, Bodily-Kinesthetic, Spatial-Visual, Interpersonal, Intrapersonal and Naturalistic multiple intelligences among ADHD and Non-ADHD children and is significant at 0.01 level.

5. DISCUSSION:

Findings of our study indicated that ADHD children have lower levels of Naturalistic, Musical, & Spatial-Visual intelligences because they are not able to understand the finesse of things, which relates to the ability to visualize or imagine the art or design. Further the results revealed that (72.5%) of ADHD children have low level of logical-mathematical intelligences. Mattox & Harder (2007) studied that ADHD children have problems with logical-mathematical intelligences they are not able to develop logical relationships which are required in performing these tasks. Findings of Toner, O'Donoghue, & Houghton, (2006) reveals that ADHD children have problem with self-understanding, they are not able to understand what they are doing and what they want to do which in turn develops the problem of interpersonal understanding, which is proved by our findings that (75%) of ADHD children have low level of intrapersonal & interpersonal intelligences. Further the findings reveal that (55%) of ADHD children have low level of linguistic intelligence which is supported by the results of Barkley (1994) that majority of the ADHD children have language problems which provides a way that ADHD children have low level of linguistic intelligence. The current findings of the study the show that ADHD children have low multiple intelligences.

6. CONCLUSION:

From this study it is concluded that there exists a significant difference among ADHD children and non ADHD children in relation to their multiple intelligences. Moderate symptoms of ADHD is more prevalent in boys where as girls have mild ADHD symptoms.

7. LIMITATIONS:

- Identification of ADHD children becomes difficult due to lack of awareness of parents and teachers.
- Since the sample of the present study comes from small region of a state generalizability to the larger population becomes difficult; however, the study has specific relevance to the study area and can serve as a useful model to others wishing to replicate the research elsewhere.

8. RECOMMENDATIONS:

- Parental depression and parenting styles should be studied in future research.
- Parents and teachers should work in cooperation for the betterment of such children.

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