

# Application of Remedial Practices used for the Treatment of Attention Deficit Hyperactivity Disorder



**Saumya Gupta**  
Research Scholar,  
Deptt.of Psychology,  
D.A.V. Collage,  
Civil Lines, Kanpur



**Smita Trivedi**  
Assistant Professor,  
Deptt.of Psychology,  
D.A.V. Collage,  
Civil Lines, Kanpur



**Sarita Mishra**  
Head,  
Deptt.of Psychology,  
D.A.V. Collage,  
Civil Lines, Kanpur

## Abstract

Attention Deficit Hyperactivity Disorder is a neurological condition that involves problem with inattention and hyperactivity-impulsivity that are developmentally inconsistent with the age of the child. ADHD is a function of developmental failure in the brain circuitry that monitors inhibition and self control. Inattention is observed in behavior such as seeming not to listen, not following instructions and easily distracted. Hyperactivity refers to excessive or developmentally levels of activity, whether motor or vocal. Impulsiveness means that the individual acts or speaks without thinking.

The high prevalence of ADHD and its significant impact on children and families, it is important for social workers to understand and know how to remediate.

This paper looks at attention deficit hyperactivity disorder, explores its remedial practices and gives special attention to its effect on children. The paper raises the uses remedial practices for children with ADHD. Behavior Modification technique, Parenting Skills Training, Social Skills Training and Play therapy, play of very important role for ADHD children.

**Keywords:** Neurological, Inconsistent, Inattention, Hyperactivity, Impulsivity.

## Introduction

ADHD is a development disorder characterized by developmentally inappropriate levels of hyperactivity, impulsivity and inattention (APA 2013). The American Psychiatric Association ( APA ) Diagnostic and Statistical Manual ( DSM- 5 ) states that patients must have experienced a minimum of six symptoms of inattention (e.g. failing to sustain attention in tasks or play activities, not listening when being spoken to directly), or six symptoms of hyperactivity/ impulsivity (e.g. talking excessively , fidgeting with hand or feet ).

Attention Deficit Hyperactivity Disorder (ADHD) is a condition that becomes apparent in some children in the preschool and early school years. It is hard for these children to control their behaviour and / or pay attention. It is estimated that between 3 and 5 percent of children have attention deficit hyperactivity disorder (ADHD), or approximately 2 million children in the United States. This means that in a classroom of 25 to 35 children, it is likely that at least one will have ADHD.

According to DSM-IV:ADHD is a disruptive behavioral disorder characterized by a set of chronic and impairing behavior patterns that display abnormal levels of inattention, hyper activity or their combination. There are three types of ADHD- 1.Predominantly hyperactive impulsive type. 2. Predominantly in attentive type .3.Combined type.

ADHD diagnoses have skyrocketed nearly 50 percent since 2003, bringing the total number of American children with ADHD to nearly 6 million, according to 2015 statistics from the Center for Disease Control and Prevention (CDC).The CDC reports that 11 percent of all children in the U.S. aged 4-17 had been diagnosed with ADHD by 2011. Boys are nearly three times more likely to be diagnosed with ADHD (13.2 percent) than are girls (5.6 percent).

Brain Dysfunction has been the presumed cause of ADHD, although there are many other hypotheses. Researchers are investigating biological causes through specialised anatomical and physiological tests involved blood flow to the brain and neurotransmitters. It is assumed that most cases of ADHD have a biological cause, but the exact cause is still unknown (Kauffman, 2000; Kronenberger & Meyer, 1996).

Behaviour modification is commonly used in educational to control the unwanted behaviour of children with ADHD, as well as children with other emotional and behavioural disabilities. William Pelham, an expert in behavioural treatment for children with ADHD, describes five categories of behavioral treatment: Cognitive-behavioral interventions, Clinical behaviour therapy, contingency management, Intensive, packaged behavioural treatments.

Parent training is another intervention often used alone or in conjunction with medication to support children with ADHD. This approach is used frequently by psychologists or counsellors who work with children with ADHD and their families. Parent training helps parents control unwanted behaviours in their children by using such systems as a token or time out in their home (Kauffman, 2000).

Play has long been used as an alternative therapy tool to treat symptoms of children with problem such as ADHD. Play is an indirect way for therapists to recast children's perceptions, cognitions and behaviours. Child Psychiatrists and Psychologist have long believed that playtime can be used for children to connect, learn, provide reassurance, calm, anxiety and perhaps improve self - esteem. Very young children express themselves through play, when meaningful discourse is not possible.

#### **Objectives of the Study**

The main objective of the study is to study is to see the effective remedial practices in treating ADHD children i.e. – Medication, Behavior modification, Parenting Skill Training, Play therapy, Social Skills Training.

#### **Hypothesis**

There will be decrement in the symptoms of ADHD children after the application of remedial practices used for treatment.

1. Medication is an effective remedial practice for the treatment of ADHD children.
2. Behavior modification is an effective as a remedial practice for the treatment of ADHD children.
3. Parenting skills training is an effective as a remedial practice for the treatment of ADHD children.
4. Play therapy is an effective remedial practice for the treatment of ADHD children.
5. Social skills training are an effective remedial practice for the treatment of ADHD children.

#### **Research Type**

The approach of the present study is "Pretest-Post Test Design". Pretest - Post test Design is usually a Quasi - Experimental where participants are studied before and after the experimental manipulation. Pretest - Post test Designs are the preferred method to compare participant groups and measure the degree of change occurring as a result of treatments or interventions. Pretest - Post test Design simply means participants are not randomly assigned.

#### **Case History**

A 9 yr old child came with his mother with the chief complaints of poor concentration span, hyperactivity, inability to sit at a place for long;

tendency to avoid written work, being very restless and troubling children. The Parents further reported that the child had a full term normal delivery. The birth cry was immediate. Birth weight was normal.

Reportedly, all the developmental milestones were attained on time. She added that her husband works in Shimla and she is also a working woman. The child is largely left to the care of the maid. Interaction with the child revealed that he is pleasant, smart child who enjoys games and is curious to learn new things. To gain a better understanding of his current functioning, a detailed psychological evaluation was undertaken.

#### **Parents Interview**

A semi - structured Interview was conducted with the parents to know the child behavior and also known some personal details about his parents. Mother reported that when he was 4yr old we saw some inappropriate behavior. A main concern about his son was hyperactive, easily distracted, very restless and poor concentration. Child has a history of sleeping difficulties. Child also has a difficulty remembering things and objects.

#### **Observation**

As had been observed during the assessment found that he was inattentive, cooperative and communicative but tended to get easily distracted. He was able to comprehend the instructions adequately. He kept moving through the session. Child through the toys not plays them. He was less interested in coloring, playing and writing. He was motivated and performed the test with interest. Rapport was established and maintained with ease.

#### **Test Administered**

To assess the child's current functioning, the following test was administered:

1. Malin's Intelligence Scale for Indian Children (MISIC)
2. Attention Deficit Hyperactivity Disorder Test (ADHDT)

#### **Test Finding**

##### **MISIC**

On MISIC, the child obtained a VQ of 112, a PQ of 114 and a Global IQ of 113 suggestive of Above Average Level of Current Intellectual Functioning. The test profile if the child on MISIC is as follow:

Verbal Subtests	IQ	Performance Subtests	IQ
Information	126	Picture Completion	120
Comprehension	109	Block Design	105
Arithmetic	110	Object Assembly	129
Similarities	129	Coding	97
Vocabulary	77	Mazes	121
Digit Span	120		

The subtest analysis of his performance on MISIC shows that on the subtest assessing the Ability for vocabulary the child's score suggest below Average performance. His scores on the subtest assessing the Ability for Comprehension, Arithmetic, Visuo-spatial Ability, and Problem solving Ability, suggest average performance. His Ability for Factual

Information, Ability to Reason by Analogy, Attention and New Learning Ability, Ability for sorting missing details in visually presented material, Visual Integration and Perceptual Organization Ability, and Abstraction Ability, is at an above average performance.

#### **A Detailed Description of The Profile of Intelligence Scores Obtained on MISIC**

Subtest	Interpretation
Verbal subtests	
Information	The child's factual knowledge, long term memory and ability to recall factual information is above average
Comprehension	The child's social comprehension skill and practical judgments and common sense abilities are average
Arithmetic	The child's numerical reasoning ability is above average
Similarities	The child's factual knowledge, long term memory and ability to recall factual information is above average
Vocabulary	The child's language development, word knowledge and verbal fluency is below average
Digit span	The child's short term auditory memory for non- meaningful information; concentration and ability to remember a sequence of numbers is above average

Subtest	Interpretation
Performance Subtests	
Picture completion	The child's ability to attend to visual detail and visual discrimination is above average
Block design	The child's visual abstract ability and spatial analytical ability is average
Object assembly	The child's part-whole reasoning abilities; visual analysis and its co-ordination with simple assembly skills; and visuo-motor integration abilities are above average
Coding	The child's visuo-motor quickness and problem solving abilities are average
Mazes	The child's visuo-motor co-ordination and grapho-motor planning abilities are above average

#### **ADHDT**

On ADHDT, the child obtained a total standard score of 29 with the corresponding percentile of 45 and ADHDT Quotient of 98 suggesting that the probability that the child has ADHD is Average. The child obtained a standard

score of 11, 8 and 10 on the hyperactivity, impulsivity and inattention subtests respectively.

#### **Impression**

The test findings of Intellectual Assessment suggest that the child has an IQ of 113, suggestive of Above Average Level of current intellectual functioning. On ADHDT, the probability that the child has ADHD is Average.

#### **Recommendations**

The child's parents need to engage the child in brain gym exercises such as, grain sorting, letter cancellation etc to enhance his attention and concentration span.

The child needs to engage in various exercises hyperactivity and impulsivity reduction exercises. One instruction at a time can be given to the child.

The child's should be asked to repeat the instruction before carrying it out to ensure that he has understood it clearly.

Lot of sweet and food items containing artificial colors should be avoided as they are likely to increase the child's hyperactivity and inattention.

Parents are advised to spend some quality time with him. To reduce his distractibility, while teaching him, a corner setting can be used.

For his inappropriate behavior, parents are advised to use effective behavior modification tendencies based on the concept of token economy and differential reinforcements. Corporal punishment should be avoided.

To better channelize his energies he needs to be put into some hobby classes.

Since the child needs individual attention in school. It is advisable that he

1. Is made to sit near the teacher.
2. Is made to sit in first bench of the middle row neither near the window nor near the door as in this case he is likely to get easily distracted.
3. Preferably written instructions can be given.

He can be given small responsibilities such as rubbing the black board; distributing copies etc .He should be appreciated for the correct behaviors he engages in and his inappropriate ways of gaining attention should be completely discouraged and ignored.

#### **Findings**

According to this case recommendation shows that behavior modification technique, play therapy and parenting skills training are very beneficial and helpful for this case / subject/ child. With the help of behavior modification technique investigators try to control child inappropriate behavior and reinforced for appropriate and positive behavior. To control child hyperactivity investigator take help of play therapy. With the help of Play therapy investigator engaging child in different types of activity for release their hyperactivity. To improve child home behavior investigator trained parents, gave different types of training and instructions for how to control and improve child's current behavior which was not good. For applying these remedial practices child try to control their hyperactive behavior and improve our inappropriate behavior day by day.

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