

# Using Art as Therapy with a Child with Attention Deficit/Hyperactivity Disorder - Comorbid Intellectual Disability: A Case Study

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**Abstract:** *Objective:* The aim of the present study is to highlight the significance of Art as therapy for the reduction of symptoms of Attention Deficit Hyper Activity Disorder.

*Place of Study:* Karachi, Pakistan.

*Research Design:* Case study.

*Sample and Method:* This paper is based on a case of a 6 year and 5 months old girl with Attention Deficit Hyper Activity Disorder predominantly hyperactive-Impulsive type and Mild Intellectual disability diagnosed by Trained and qualified clinical psychologist At Institute of Clinical Psychology, University of Karachi. She was regular student of Special school, Karachi Pakistan. She was given 25 sessions of behavioral approach to art therapy. ADHD-T was administered (pre-post intervention) for measuring the intensity of symptoms Attention Deficit Hyper Activity Disorder and improvement in the developmental and artistic level of the child.

*Conclusions:* The results revealed the effectiveness of art therapy in reduction of the symptoms of Attention Deficit/hyperactivity Disorder. The improvement is vivid in the graphic presentation of the art work. Limitations and implications were also discussed.

*Results:* Results showed decrease in the intensity of the symptoms of Attention.

**Keywords:** Art therapy, ADHD, developmental level, artistic level.

Attention Deficit/Hyperactivity Disorder (ADHD) is one of the most prevalent childhood disorder which affects the functioning of individual who suffers and his/her family as a whole in every social class, every culture and continent throughout the globe. This neurobehavioral disorder is characterized by an impulsivity, inattention and hyperactivity that affect school-aged children and adults. ADHD is heterogeneous, and the presentation of symptoms can vary considerably. At this time biological markers for diagnosis do not exist, hence the diagnosis is based purely on observation of hallmark behaviors commonly associated with this disorder. (DSM-V, American Psychiatric Association, 2013) [1].

The symptom of inattention and or hyperactivity-impulsivity has a persistent pattern and interferes with functioning or development. This is an essential feature of ADHD, and the focus of this case study.

The behavioral manifestation of symptoms of inattention in ADHD are; drifting off task, having failure or difficulty in sustaining focus and being disorganized and these all behaviors are not due to defiance or lack of understanding. It is linked with various underlying

cognitive processes and might show cognitive problems on tests of attention and executive functioning (DSM V, American Psychiatric Association, 2013) [1].

Impulsivity refers to hurried actions that happen in the moment without foresight and that have high probability of harm. Impulsivity may reflect a need for instant rewards or an inability to postponement of gratification. Impulsive behaviors may manifest as social intrusiveness, for example, interrupting others markedly and/or as making essential decisions without thoughtfulness of long-term consequences (DSM V, American Psychiatric Association, 2013) [1].

There are many documented treatment approaches and numerous researches to investigate the efficacy of different treatments used to treat the children with ADHD. According to the findings of a study conducted on approximately 600 children with ADHD to investigate the Multimodal treatment approach, behavior modification, medication and the combination of two were found to be most effective (National Institute of Mental Health, MTA, 1999) [2]. For more than three decades behavioral techniques and treatments have been used to treat children with disruptive behaviors (O'Leary & Becker, 1967) [3].

Art therapy (AT) is a relatively new profession in comparison to the traditional methods of treatment. It

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looks to work as a treatment modality through the use of art as medium for healing. The AT has two camps of thought; "art psychotherapy" and "art as therapy". These two approaches to therapy are deep-rooted in different theoretical ideologies dealing with how the art is used and the outcomes it produces (Ulman, 1987) [4]. The famous Art therapists such as Naumburg and Kramer have based their therapy on Freudian theory for instance Naumburg (1966) [5], named her approach as "dynamically oriented art therapy," in which she relates clients associations to images that are reflecting dynamic of unconscious. While Kramer (1971) [6], called her approach as "art as therapy" relying on the ego-building potential of sublimation which is a creative process of ego mastering (Ulman, 1987) [4]. For the purpose of this study, the focus is on "art as therapy" as the approach to art therapy.

According to Safran (2002) [7] art therapy is an invaluable intervention method for children with ADHD as it can provide the therapist with the pre-therapy status of the child and help in keeping track of the development and positive changes occurring through the course of intervention. Kearns (2004) [8] has asserted that children experiencing problems in sensory integration can greatly benefit from art therapy sessions as it can help them in becoming more focused as well as facilitate them in social integration.

From above mentioned literature and applicability of art therapy with children with emotional, developmental and behavioral problems it is clear that behavior therapy or art therapy or behavioral approach to art therapy are effective treatment methods in the reduction of inattention and impulsive behaviors. However, limited researches are available with reference to utilization of Art therapy or approaches of Art therapy as treatment intervention for children with symptoms of intention of impulsive behaviors. Extensive amount of research is required on all aspects of this disorder but specifically, in regards to behavioral symptoms and treatment of those symptoms.

## **CASE STUDY**

### **History and Presenting Complaints**

XYZ (the name has been changed to provide confidentiality) was a six years and five months old girl, who was diagnosed with Attention- Deficit Hyper activity disorder predominantly hyperactive-Impulsive type and Mild Intellectual Disability at the age of six years according to the diagnostic criteria of ADHD (mild) and Mild intellectual disability (old term mental

retardation). She was diagnosed as a child with ADHD by the trained and qualified clinical psychologist on the basis of clinical Interview, detailed Assessment (ADHD-T, WPPSI, WRAT VABS, HFD and criteria given in Diagnostic and statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 2000). Her birth order was last and has two elder siblings. Her father's qualification was Graduate and he works in a private company. Her mother's education was intermediate and she is a housewife. She belongs to a nuclear family with lower-middle socio-economic status. She was a regular student of special school at Karachi, Pakistan.

As the diagnosis of disorder is mainly symptoms based on observation. So during eight hours of observation it was observed that she was a child who has difficulty in remain seated in class. she was usually twisting or moving while seating. During group activities in the class it was very difficult for her to wait for her turn, she usually demands immediate attention, or move the face of the teacher or the person towards herself. It was too difficult for her to be on one activity till the end, she usually shift from one activity to the other activity without completing it. She never put back the things at their places after the activity even in lunch hour he never put his lunch box back in his bag. She has good fine motors skills.

For collecting the baseline data, measuring the severity and frequency of behaviors, setting goals, intervention and selecting art material following tests and procedures were done.

## **Measures**

### **Demographic Data Sheet**

A demographic sheet was prepared; it consisted of name, age, sex, birth order, year of schooling, family structure, socio-economic status, parental qualification and profession.

### **Observation Recording Sheet**

A recording sheet was prepared to record the baseline data and later was used to record the session notes i.e. any significant behaviors, verbalization and procedure within sessions.

### **Attention- Deficit / Hyperactivity Disorder Test (ADHDT)**

The ADHDT is a standardized, individually administered test of Attention Deficit/ Hyper Activity Disorder (ADHD). Based on the DSM-IV (APA, 1994)

[9] criteria of ADHD. The ADHDT is comprised of three subtests: Hyperactivity, Impulsivity and Inattention respectively, totaling 36 items. The items are related to the three core symptoms of the ADHD. Scores were computed for each subtest. Then the raw scores were converted to standard scores and percentile ranks. The sum of the subtests standard score were converted into the ADHD Quotient and their percentile. For the purpose of this study raw scores were used. The internal consistency and reliability of the subtests were determined to be in the .80s and .90s<sup>8</sup>.

## **Therapeutic Intervention**

### ***Pre Intervention***

Initially the researcher obtains permission from the authorities of the School and discussed the purpose and ethical consideration of this study. Then informed consent from the authorities and parents was taken and researcher ensured that all the information and data would only be used for the research purpose. Brief description of the study was also given.

The study was started in September 2012. Two sessions per week were conducted with the child. The duration of each session was 50 minutes. Twenty five sessions with were supposed to be done within a time period of 10 weeks (2.5 month). But due to the absentees, occasional holidays and mainly city circumstances (like strikes and protests) the time period was stretched. 25 sessions were conducted within a period of 14 to 15 weeks.

The child was diagnosed with ADHD (mild) and Intellectual disability, Mild by the trained and qualified clinical psychologist on the basis of clinical Interview, detailed Assessment and criteria given in Diagnostic and statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 1994) [1]. First of all the child was observed 8 hours (4 hours a day; 2 days) to assess and confirm the display and frequency of the behavioral symptoms of ADHD prior to the therapy sessions. Afterwards the Attention Deficit/ Hyper Activity Disorder Test (ADHD-T) was administered to obtain the severity and frequency of impulsive behaviors and inattention the form of scores and a baseline was established. To understand the mental maturity level (Kopptiz, 1968) [10] and the artistic developmental level (Malchiodi, 2003) [11], the researcher let the child draw freely in the first session.

### ***Intervention Phase***

After understanding the child's developmental and artistic level, appropriate and obtainable goals were set

for the child. At the beginning of the therapy session when she was ask to draw freely, she take colored big sheet that is chart papers, a box of crayons and then more crayons than instead of drawing, open the boxes start placing them of the table. Than the exposure or usage of the pre-art and art material i.e water, flour dough, modelling clay, crayons and pencil color was introduced. The child was clearly explained and later discussed about the do and don'ts or the boundaries of the session that is, the starting of the session, selecting the activity or the material, safe the material and product and putting back all the material used and cleaning the place before leaving.

Afterwards in the sessions the techniques of behavior therapy to art therapy were used, more specifically behavioral approach to art therapy was used. Roth's behavioral techniques created for art therapy were also incorporated. Throughout the process the use of positive reinforcement was a fundamental component, in the form of verbal appreciation, clapping, tap, nonverbal gestures and cues which encourages the child to continue the process and assists in developing therapeutic alliance. Appropriate behaviors like on task behaviors, sitting, completing the task, use and handling of material, making choices of activity, clearing the place, keeping all things back at their place and saving the product all were encouraged or rewarded in verbal and tangible rewards. The researcher used interventions that had an impact by providing modeling and prompting; introduce different art materials and mediums that can create interest and involvement in the process.

### ***Post Intervention***

After the completion of the treatment sessions, the child was assessed again with ADHDT test to evaluate the any reduction in impulsive behaviors or inattention as well as for developmental indicators level.

Data in the form of artwork creations created by the child was stored in folders. Each artwork was numbered, labeled and photographed with name (coded) of the child, session number and date on the back. Case notes based on the researcher's observation and all that occurred during the sessions, questions, significant verbalization of the child within the session all was documented.

## **RESULTS**

Therapeutic out come of the therapy showed that art therapy is effective in the reduction of syptoms of ADHD (Table 1).

**Table 1: Difference in the Raw Scores on the Symptoms of Inattention, Impulsivity and Inattention before and after Treatment**

N=1	Pre Treatment	Post Treatment	Pre-post Difference
Hyperactivity	17	16	1
Impulsivity	15	14	1
Inattention	13	13	0
Total	45	43	2

Note: Pre-post difference showed that after the application of art therapy there is a reduction in the scores raw scores of Hyperactivity and Impulsivity.

## DISCUSSION

Art therapy is used to as a treatment modality with children with emotional and behavioral problems. This case study showed that the children with Attention Deficit Hyper Activity Disorder can benefit from Art as therapy. The researcher evaluated the differences of the raw scores of the subtests measuring the hyperactivity, impulsivity and inattention. It indicates that there was reduction in hyperactivity and impulsive behaviors (Table 1).

Findings of this study are consistent with the limited previous findings in other countries that mention art therapy to be an effective intervention for those who are suffering with symptoms of Attention Deficit Hyper Activity Disorder. For Attention Deficit Hyper Activity Disorder as according to Association of Natural Psychology, art therapy might be one of the most single effective therapies to help children and adults to concentrate, slow down and stabilize.

Previously Smitheman-Brown and Church [12] in their study with children with ADHD has investigated visual measurement of creative growth and behavioral changes due to art therapy. The findings of their study indicates the efficacy of art activity in increasing attentional abilities, better decision making, growth, completion of task, interest in personal aesthetics and decrease in impulsive behaviors These findings supports the efficacy of the Art therapy in two populations, primarily with children with Attention Deficit Hyper Activity Disorder and secondarily its effectiveness with the developmentally delay children. The present findings are consistent with the pervious researches conducted with the children with intellectual disabilities.

## CONCLUSION AND FUTURE DIRECTIONS

Art therapy more specifically behavioral approach to Art therapy is found to be beneficial in the reduction of

behavioral symptoms of Attention- Deficit / Hyperactivity Disorder. Present study demonstrates the effectiveness of a therapeutic intervention in Pakistani (Asain) culture where medication is the first line of choice in treating the disorder. In view of the present study findings it is strongly recommended that professional dealing with children with Attention- Deficit / Hyperactivity Disorder should consider the importance of art therapy in their treatment and educational plans.

## ETHICAL CONSIDERATION

Before starting any work with the child informed consent was obtained from the authorities of the school/institute (director and the concern teacher) as Ethics and considerations became the most important area in conducting a research with human subjects. To ensure confidentially the name has been changed to pseudonym and to keep the anonymity, all the identifying graphic imagery and the name of the child was removed from all the images.

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