



EFFECTIVENESS OF OUTDOOR TREATMENT PROGRAM ALONG WITH ART THERAPY FOR YOUNG CHILDREN WITH AUTISM SPECTRUM DISORDER-AN EXPERIMENTAL STUDY

Physiotherapy

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ABSTRACT

BACKGROUND: Autism is a complex neurological and developmental disability that appears within the early developmental stages of life. Outdoor play is seen as a crucial and valuable experience for all children. The goals of art therapy are to promote healing through creativity and enhance the physical, psychological, and spiritual well-being.

AIM AND OBJECTIVES:

AIM: The study aims to find out the effectiveness of the Outdoor Treatment program along with art therapy in children with autism spectrum disorder and determine the better of these get best results & greater benefits for autistic children.

OBJECTIVES: To find out the effectiveness of outdoor treatment program along with art therapy in increasing child's interest in treatment, improve verbal & nonverbal communication skills, improve coordination function, and minimize the aggression & repetitive movements in the autistic child.

METHOD: Thirty patients selected based on inclusion and exclusion criteria. The details of the treatment were explained to the subjects and written consent was taken from the participant's parents. They were treated with outdoor treatment program along with art therapy for 6 days/week, the patient were reassessed with CARS after 6 weeks.

RESULTS: The data was analyzed using SPSS version 22.0. Parametric test was used within the group analysis. A Greater significant improvement in sensory & motor function was found after 6 weeks.

CONCLUSIONS: Outdoor treatment program along with Art therapy is effective to reduce aggressive & improvement in sensory & motor function of autistic child.

KEYWORDS

Autism spectrum disorder, young child, outdoor treatment program, art therapy, sensory & motor function.

1. INTRODUCTION

Autism was brought to light in 1943 by German-born psychiatrist, Leo Kanner while working at John's Hopkins' University School of Medicine. Autism was first identified by Psychiatrist Leo Kanner and Eugen Bleuler, who was a Swiss Psychiatrist, had used the word "autism", before hand, in describing the schizophrenic's withdrawal from interaction with others. Kanner achieved his identification of Autism through a detailed description of individual cases.¹

Autism is a complex neurological and developmental disability that appears within the early developmental stages of life. Autism affects the normal functioning of the brain, communication as well as social skills of the child.² Autism is a life-long condition and it cannot be cured. However, severity can be decreased through special education and treatments. Females have a less prevalence than males.² Children with ASD appears as awkward in their motor skills and movement. Many of these faces coordination problems combined with communication, social skills and behavioral problems, which can lead to more complex learning difficulties in later development such as playground and sporting skills.² Some examples of these behaviors are self-injurious behavior, aggression, pica (eating inedible objects), disruptive behavior and elopement. Children with autism also faces challenges with verbal and nonverbal communication; social skills include understanding others' motivations, studying and responding to gestural cues, and maintaining joint attention; as well as recognizing and sightedness their own.²

Outdoor play is seen as an important and worthwhile experience for all children. It is not an optional or extra, but a necessary factor in a child's everyday life and environment. Nonetheless, the literature consistently exhibit that children with disabilities participate less in outdoor activities in comparison to their typically developing saint. The health promotion position statements show evidence about importance of outdoor activities. It highlighted how, in general, the children particularly enjoyed outdoor play been designed about sit Findings.³ Children with ASD, who are unconvincing to imbricate in physical activity or less physical activity than their peers without disabilities, face self-imposed isolation limiting opportunities for interplay and social skill practice.⁴

opportunities for contact with the outdoor environment, and this could further influence their development.⁵ Exposure to outdoor natural environments can have both physiological and psychological benefits, including attention restoration, vitality arousal, emotional remake e.g. anger decreased, raising family interaction (Taylor et al., 1998). In addition, the natural fragrance improved affective status: peace, alertness, and mood.⁶

Art therapy is a session of the therapeutic process and the creative procedure. The field of art therapy combines the potent resource of art with the creative process to bring healing. Art making is infusion that can be felt, view, and listened. It is a blusterer act, giving the client a scale of control and opening up creative findings and possibilities for transformation.⁷ the verity of textures, colors, smells, and tastes of art materials have a latent capacity to prevent or motivate emotional and sensory responses. The intuitive property of art tools and application techniques can inset whole body movements.⁸ goals of art therapy are to promote healing through creativity and step up the physical, psychological, and spiritual well-being. You are in charge when you are doing art.⁹ "Sensory law is often less stressful for the client in art therapy because the art provides a product to focus on the other side the process of integrating uncomfortable sensory experiences".¹⁰

BRIEFLY, the fundamental principles of art therapy are that:

1. Visible image making is an important phase of the human learning process;
2. Art made in the presence of a therapist may enable a child to get in touch with feelings that cannot easily be expressed in words;
3. The art can act as a 'personage' for powerful emotions.
4. It may be a means of communication between child and therapist;
5. It can serve to clarify the transference.¹¹

There are five types of Art therapy :-

- (1) Drawing Therapy
- (2) Clay Therapy
- (3) Drama Therapy
- (4) Dance Therapy

Need Of Study

There are so many Observational researches showing the importance & benefits of Outdoor activities & Outdoor play in Autistic children but, none of them use Outdoor as a treatment program for Autistic children.

According to previous researches, there are no evidence shows that this type of research has been done yet so the need of study is to find out the effectiveness of Outdoor treatment program along with Art therapy in Behavior, sensory & motor function in Autism spectrum disorder.

2. AIM AND OBJECTIVES

AIM:

To find out the effectiveness of Outdoor Treatment program along with art therapy in children with autism spectrum disorder and determine the better of these to get best results & greater benefits for autistic children.

OBJECTIVES:

- To find out the effectiveness of outdoor treatment program along with art therapy in increasing child's interest in treatment.
- To find out the effectiveness of outdoor treatment program along with art therapy to improve sensory function in the autistic child.
- To find out the effectiveness of outdoor treatment program along with art therapy to improve motor function in the autistic child.
- To find out the effectiveness of outdoor treatment program along with art therapy to minimize the aggression in the autistic child.

3. Hypothesis

Null Hypothesis

- There is no significant effect of Outdoor treatment program along with Art therapy in young children with an autism spectrum disorder

Alternative Hypothesis

- There is significant effect of Outdoor treatment program along with Art therapy in young children with an autism spectrum disorder.

4. METHODOLOGY

4.1 METHOD

Study Design- Experimental design

Study Setting- OPD- 4, pediatric Department, Nootan College of Physiotherapy, Sankalchand Patel University, Visnagar.

Study Technique- Convenience Sampling

Intervention Duration- 6 weeks

4.2 Criteria For Selection

Inclusion Criteria:

- Age 5-14 years
- Both male and female
- Subjects who are willing to be a part of the study
- Subjects having Autism spectrum disorder

Exclusion Criteria:

- Children who having a risk of fall
- Children who having a recent injury

4.3 Procedures of Data Collection

After taking Ethical consideration, the participants undergo a detailed pre-evaluation. The pre-evaluation included history, Milestone, Examination & primitive Reflexes of subjects.

Then the individuals, who fulfill the selection criteria, were informed about the study and requested to participant's parents to sign written consent forms.

The participants who will fill the consent form will undergo pre-evaluation.

The Pre-participation evaluation form consists of Childhood Autism Rating Scale (CARS).

Then selected 30 participants by the Convenience sampling method were treated with outdoor treatment program along with art therapy.

The treatment protocol was consisting of 6 sessions of strengthening exercise protocol\ week for 6 weeks.

Each patient was evaluated prior to the first session and after the last

session for improvement in Behaviour, social skills, sensory & motor function. The difference in the outcome measures was recorded and the data will be analyzed further.

4.4 Treatment Protocol

- The list of Art therapy
 - Drawing Therapy
 - Draw a things you can see around
 - Fill the colors in picture book
 - Draw your favorite (animal, bird, food, etc)
 - Draw your family picture
 - Clay Therapy
 - Making Toys
 - Making Food Items
 - Making Animals
 - Drama Therapy
 - Story Play
 - Dance Therapy
 - Copy the Steps
 - Catch the Beat

The List Of Strengthening Exercise.

- Sit to Stand [20 reps]
- Vestibular Ball Activity [10 min]
- Walking – forward & backward
- Wobble Board Activity
- Stair Climbing
- Hula hoop



Figure 4.4.1: Applying Art Therapy With Outdoor

5. RESULT

Table 5.1: Gender distribution Among Subjects

Subjects	Female		Male	
	Frequency	Percentage	Frequency	Percentage
	16	53.3	14	46.7

Table 1 and show the Gender distribution among Group a total of 14 males (46.7%) and 16 females (53.3%) subjects participated in the study.

Table 5.2: Intergroup comparison of pre and post treatment

Outcome	Pre-Treatment		Post-Treatment		p value
	Mean	SD	Mean	SD	
CARS questioner	20.767	± 3.12	24.767	± 3.71	0.00

Graph 5.1: Intergroup comparison of pre and post treatment



Table 2 and Graph 1 show comparison of Childhood Autism Rating Scale after 6 weeks. Statistically significant difference ($p < 0.00$) in CARS Score was found in subjects after 6 weeks.

6. DISCUSSION

The aim of the study was to find out the effectiveness of outdoor treatment program along with art therapy in autism spectrum disorder. Thirty subjects were selected as per the inclusion. After that demographic data, patient's examination and investigation, patients were assessed. The result of the present study demonstrated the improvement in children's interest towards treatment, verbal & non-verbal communication skills, coordination function, minimize aggression & repetitive movements was also noted with CARS after 6 weeks of management.

Though a significant improvement was found after treatment, it showed greater improvement in the CARS score. (p -value<0.00).

Thus, the alternative hypothesis [H₁] is failed to reject. Autism spectrum disorder has become one of the most prevent childhood disorders in this day & age, which affects every social class, every culture. It is currently believed that autism, which affects five times more males than females. Children with autism having delayed or absence of speech, repetitive and restricted stereotyped actions and movements, little to no eye contact, inappropriate attachments to objects, lack of play skills and behavioral issues.

A multitude of treatment interventions has been proposed to be effective in the management of autism spectrum disorder, including Behavioural management therapy, Cognitive behaviour therapy, Early intervention, Educational and school-based therapies, Joint attention therapy, treatment, Nutritional therapy, Occupational therapy.

The main purpose of the treatment is to increase children's interest towards treatment, improve verbal & non-verbal communication skills, improve coordination function, and minimize the aggression & repetitive activities.

By combining a nature-based approach with established mindfulness techniques, practitioners can create a unique therapeutic program that targets behaviors, social skills.

In natural environment the child is in control of the circumstances in which behavior modification and shaping occurs. The child naturally occurring interests and motivations are at the center of the treatment. Child's intrinsic motivations are used by practitioners in order to build upon communication skills also reduce disruptive behavior.

Art therapy is a means to arouse communicative drives & also can be fun and provide leisure while achieving developmental goals. "Sensory regulation is often less stressful for the client in art therapy as it provides the product to focus beyond the process of integrating a comfortable sensory experiences."

Autism spectrum disorder is classified as complex neurological and developmental disability that affects the normal functioning of the brain and outdoor treatment program along with art therapy helps to improve children's interest towards treatment, verbal as well as non-verbal communication skills, and coordination function, minimize aggression & repetitive activities.

This study was conducted on thirty subjects with a mean age of 8.60 ± 2.40 (mean $\pm$ SD). The group of 30 subjects received outdoor treatment program along with art therapy 1 session/day and 6 days/week for 6 weeks. In this study childhood autism rating scale was used as outcome measure. The result showed a significant improvement in the outcome measure in the post-treatment stage as compared to the pre-treatment stage.

The above-exposed statement suggests that the Art therapy can be employed along with an Outdoor treatment program in the effective management of subjects with autism spectrum disorder in improving motor and sensory functions, reducing anger and repetitive movements.

Group art therapy sessions with this population did prove to be very difficult at times According to the author Rachal Piliere [12] but according to authors Blake, Aine; Sexton, Julie outdoor treatment program is effective in motor function and art therapy can also improve sensory function. [2]

Environmental factors play a key role to improve communication

skills and social interaction in autism affected children. Therefore outdoor activities are helpful for them as a treatment protocol.

Outdoor & art therapy are helpful for them as a treatment protocol to improve sensory as well as motor function.

7. CONCLUSION

Outdoor treatment program along with Art therapy is effective to reduce aggressive & improvement in sensory & motor function of autistic child.

Limitations of the study:

- The study involves a small sample size.

Future recommendations of the study:

- Long-term follow-up can be taken
- This study can also apply in old age people with depression.

Acknowledgement

First and foremost, I would like to thank my parents for their valuable support and confidence throughout my study.

I would like to thank my mentor and guide Dr. Roshani Patel (M.P.T. Musculoskeletal and Sports Science), Assistant Professor, and Nootan College of Physiotherapy for the valuable guidance and advice whenever I needed.

I would also like to thank my patients for their participation, support and understanding without them it was not easy to carry out the whole research.

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