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Effectiveness of Group Play Therapy in Behavioural Problems of Children with Autism

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Abstract

This study investigates the efficacy of group play therapy in lowering behavioural issues in children between the ages of 8 to 12 who have been evaluated for Autism Spectrum Disorder (ASD). A total of 30 children were allocated into 2 equal groups: an experimental group and a conventional group. Both groups underwent baseline and post-test assessment using the Children Behaviour Checklist (CBCL). The experimental group engaged in group play therapy sessions over a period of 6 weeks, whereas the control group received conventional therapy. The statistical analysis of paired and unpaired t test demonstrated a notable decrease in CBCL scores in the experimental group after therapy, indicating a decrease in behavioural issues in comparison to the control group. These findings emphasize the possibility of group play therapy as a helpful intervention for enhancing outcomes in children with Autism Spectrum Disorder (ASD).

Keywords: Children behaviour checklist, Autism spectrum disorder,Activities of daily living, Diagnostic statistical manual of mental disorder , Exercises , Group play.

Introduction:

Autism spectrum disorder is a neurodevelopmental condition that impacts social interaction, communication, learning, and behaviour. The phrase "spectrum" encompasses a broad array of symptoms, abilities, and degrees of dysfunction that are present in children with ASD[1]. Approximately 1.3 billion individuals, who are 15 years old or older, make up roughly one third of the whole population and 2 million individuals in India are believed to have symptoms of Autism Spectrum Disorder (ASD)[2]. Approximately 1 in 100 youngsters globally are thought to have autism[3].

The aetiology of Autism remains uncertain, however, it is a multifaceted condition that is believed to arise from a confluence of genetic, environmental, and neurological factors[4]. The syndromes that fall within the Autism Spectrum Disorder are Autistic disorder, Asperger's syndrome, Rett syndrome, disintegrative disorder, and pervasive developmental disorder[5]. The indications and manifestations of Autism Spectrum Disorder (ASD) encompass limited eye contact, challenges in comprehending personal space and boundaries, difficulties in recognising facial expressions, fear of irrelevant objects, repetitive use of words, irrelevant

speech, self-harming behaviours such as head banging and biting oneself, aggressive conduct, unconventional play with toys, minor disruptions to routine, repetitive behaviours like hand flapping, rocking, and spinning objects, as well as smelling objects or people[6.]

Occupational therapy can be beneficial for children on the autism spectrum at home and at school. Activities of daily living (ADLs) such as eating, washing, grooming, dressing, and so on are the main emphasis of occupational therapy. Specifically, when it comes to autism, occupational therapists who specialize in sensory motor integration and skill training optimize sensory processes, modify behaviour, and provide instruction for the development of gross and fine motor skills, play, social skills, communication, and playfulness[7]. Group play promotes the growth of play behaviour and use play as the primary approach to stimulate improvements in the motor, sensory integrative, cognitive, emotional, and social functions of children[8].Play includes a variety of activities such as drawing, painting, clock game, dot/line extension drawing, gender-related games, story-telling games, clay game, house-building games, shredding pages, ball play, finger painting, vision training cards, word repetition, and more[9].

Play therapy has a significant impact on a child's ability to engage with others and form relationships in their daily life. Parents and caregivers have access to a wide range of excellent options to help promote the social and emotional development of children with autism.The aim of this study is to assess the effectiveness of group play therapy in reducing behavioural problems in children diagnosed with Autism spectrum disorder.[10]

Methodology:

In this experimental study, 30 children were selected and they were allocated into two equal groups. Informed consent was obtained from the parents. Both male and female children between the age of 8 to 12 diagnosed with autism were included in the study. Children with diagnoses other than autism, as well as moderate to severe scores in their diagnosis and children with functional hearing and vision impairments were excluded from the study.

Study Procedure:

For the selected participants, pre-test values were obtained using Children Behaviour Checklist (CBCL). The group play activities, consisting of Drawing/painting, Clock game, story telling, word repetition, vision training cards, Clock game, dot/line extension drawing, Gender related games, story telling games, Clay game, story telling, nut and screw game, Finger painting, house building games, Clock game, story telling , words repetition game, Snake and ladder game , clay game, Ballon game, Musical chair game, Ball play, Tearing pages game, free drawing, dancingfor 1 hour per session, 2 session per week for 6 weeks.

Similarly, control group received comprehensive management and family and academic support are covered in six weeks of therapy. Parents educated on reinforcement, and teacher collaboration, while children acquire independence and use a daily report card. Later sessions teach mindfulness, breathing, and meditation for cognitive restructuring and stress management. Healthy eating, rest, and exercise are stressed for physical and mental wellness. Each one-hour session targets specific skills and strategies essential for effectively managing lasts for for 1 hour per session, 2 session per week for 6 weeks. Following the completion of the intervention post-test values were obtained using Children Behaviour Checklist (CBCL).

Data Analysis:

We conducted paired and unpaired t tests on the results of the Children's Behaviour Checklist (CBCL) to analyse the collected data from the study. The difference within the group results was significant ($p<0.05$) for both the experimental and control groups, with pre- and post-test mean ± standard deviations of 65.4 ± 3.14 and 64.93 ± 2.79, 60.33 ± 2.66, and 66 ± 2.70, respectively (Table 3). The difference between the experimental and control groups' scores was significant ($p<0.05$), with pre- and post-test mean ± standard deviations of 65.4 ± 3.14 and 64.93 ± 2.79, 66 ± 2.70, and 64.93 ± 2.79, respectively (Table 4). This shows that the treatment had a significant effect than would have been expected by chance.

TABLE 1. DEMOGRAPHIC DATA OF EXPERIMENTAL GROUP

S.NO	AGE	NO. OF MALE	NO. OF FEMALE	MOTHER AGE	MEAN CBCL 2	
					PRE-TEST	POST TEST
MEAN	9.27	8	7	65.4	35.13	60.33
SD	1.49			3.76		

TABLE 2. DEMOGRAPHIC DATA OF CONTROL GROUP

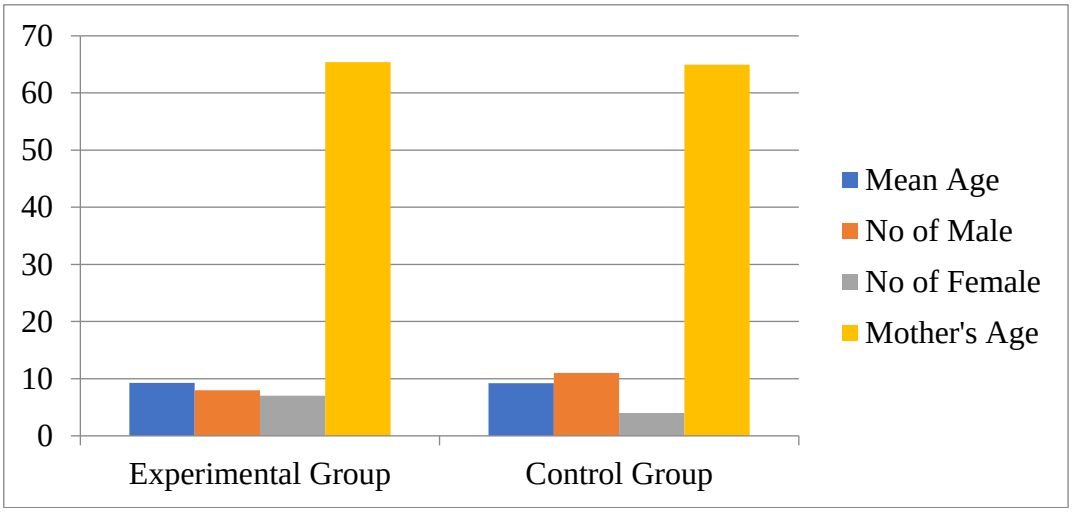
S.NO	AGE	NO. OF MALE	NO. OF FEMALE	MOTHER AGE	MEAN CBCL 1	
					PRE-TEST	POST TEST
MEAN	9.20	11	4	64.93	33.53	66
SD	1.47			3.85		

TABLE 3. COMPARISON OF PRE-TEST AND POST TEST VALUES WITHIN THE GROUPS

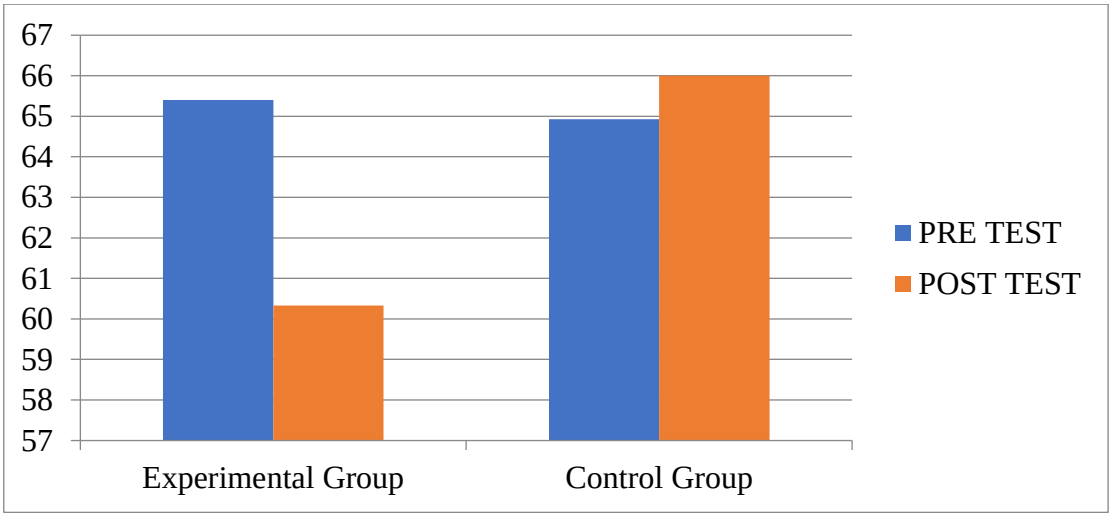
CBCL	Pre-Test Mean ± SD	Post-Test Mean ± SD	Paired t-test value	p-value
Experimental group	65.4 ± 3.14	60.33 ± 2.66	7.18	<0.05
Control group	64.93 ± 2.79	66 ± 2.70	0.00106	

TABLE 4. COMPARISON OF PRE-TEST AND POST TEST VALUES BETWEEN THE GROUPS

CBCL	Experimental group	Control group	Independent t-test value	p-value
Pre-Test Mean ± SD	65.4 ± 3.14	64.93 ± 2.79	0.33	<0.05
Post-Test Mean ± SD	60.33 ± 2.66	66 ± 2.70	1.62	



GRAPH 1. COMPARISON OF DEMOGRAPHIC DATA BETWEEN THE GROUPS



GRAPH 2. COMPARISON OF CBCL BETWEEN THE GROUPS

Results:

The study investigated the efficacy of group play therapy in mitigating behavioural issues among children diagnosed with Autism Spectrum Disorder (ASD). In the experimental group, comprising children who

underwent group play therapy, the pre-test mean CBCL score was 65.4 with a standard deviation (SD) of 3.14, while the post-test mean score decreased significantly to 60.33 ± 2.66. This reduction in CBCL scores was statistically significant, as indicated by the paired t-test with a p-value of 7.18E-07.
Conversely, in the control group, consisting of children who did not receive group play therapy, the pre-test mean CBCL score was 64.93 ± 2.79, which slightly increased to 66 ± 2.70 in the post-test assessment. The paired t-test revealed a significant difference between the pre-test and post-test scores, with a p-value of 0.00106. This suggests that there was an increase in behavioural problems among children in the control group over the study period.
Furthermore, when comparing the experimental and control groups, there was no significant difference in the pre-test CBCL scores, with an independent t-test p-value of 0.33. However, in the post-test assessment, the difference in CBCL scores between the two groups was statistically significant ($p < 0.001$), indicating a greater reduction in behavioural problems among children who underwent group play therapy compared to those in the control group.
Overall, these findings highlight the effectiveness of group play therapy in ameliorating behavioural issues among children with ASD. The significant reduction in CBCL scores following group play therapy underscores the potential of this intervention in improving the quality of life for children with ASD and their families. Moreover, the comparison between the experimental and control groups emphasizes the beneficial impact of group play therapy as an intervention for managing behavioural problems in children with ASD.

Conclusion:

In conclusion, our study highlights the potential effectiveness of group play therapy in reducing behavioural problems among children with Autism Spectrum Disorder (ASD). The findings suggest that participation in group play therapy sessions led to a significant decrease in problematic behaviours as measured by the Children Behaviour Checklist (CBCL). Despite some limitations, including small sample size and reliance on subjective measures, the results provide valuable insights into the benefits of group play therapy as an adjunctive intervention for children with ASD. Further research with larger sample sizes and rigorous study designs is warranted to validate these findings and explore long-term outcomes. Overall, group play therapy shows promise as a non-pharmacological approach to addressing behavioural challenges in children with ASD, emphasizing the importance of early intervention and tailored therapeutic interventions in improving outcomes for this population

Discussion:

The study's findings illuminate the potential efficacy of group play therapy in resolving behavioural issues in children diagnosed with Autism Spectrum Disorder (ASD). The notable decrease in CBCL scores observed in children who participated in group play therapy highlights the potential effectiveness of this intervention in enhancing the behavioural outcomes of individuals with ASD.The drop in CBCL scores found in the experimental group after group play therapy aligns with other research that demonstrates the positive impact of play-based therapies on the behaviour and social skills of children with ASD. Group play therapy provides a methodical yet adaptable approach to meet the varied requirements of children with Autism Spectrum Disorder (ASD) in a nurturing and engaging setting. Children with ASD can improve their social interaction, communication, and emotional control by participating in play activities that are appropriate for their developmental level. This can lead to enhancements in their behavioural functioning.

The comparison between the experimental and control groups revealed a significant difference in post-test CBCL scores, indicating a greater reduction in behavioural problems among children who received group play therapy compared to those who did not. This suggests that group play therapy may offer unique benefits in managing behavioural challenges associated with ASD, complementing traditional therapeutic approaches and educational interventions. The interactive nature of group play therapy provides opportunities for children with ASD to learn and practice social skills in a naturalistic setting, fostering peer interaction, cooperation, and emotional expression.The study also highlights the importance of early intervention in addressing behavioural problems among children with ASD. By providing group play therapy soon after diagnosis or during early childhood, clinicians and educators can capitalize on the developmental plasticity of young children with ASD and maximize the potential for positive outcomes.

Although our study specifically examined children with ASD, the favourable results reported in both therapies emphasise the importance of utilising play-based methods to address a range of behavioural difficulties in neurodevelopmental disorders(16).

Overall, our study contributes to the growing body of literature supporting the effectiveness of play therapy interventions in addressing behavioural problems among children with ASD. By leveraging group play therapy as a therapeutic modality, clinicians and educators can enhance the socioemotional development and quality of life of children with ASD, paving the way for more inclusive and supportive interventions in clinical practice.

Limitations:

The small sample size and quasi-experimental design limit the generalizability of the findings.Reliance on subjective measures, such as the Children Behaviour Checklist (CBCL), may introduce bias.Variation in the duration and intensity of group play therapy sessions among participants could influence outcomes.Long-term effects of group play therapy on behavioural outcomes were not assessed, warranting longitudinal follow-up studies.

Recommendation:

- Future research should explore optimal timing and duration of group play therapy interventions.
- Incorporating objective measures of behavioural outcomes, such as direct observation methods and neuroimaging techniques, could provide a more comprehensive assessment.
- Comparative effectiveness studies comparing group play therapy to other interventions for ASD are needed.
- Standardizing intervention protocols and monitoring session adherence could mitigate variability in future studies.

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