



## RESEARCH ARTICLE

## A Study on Drama Therapy to Promote Imagination Development of Autistic Children--A Case Study in Guangxi, China

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**ABSTRACT**

Autism spectrum disorder (ASD) provides a neuro-developmental condition disorder that has been characterized by difficulties in social interaction, communication, along with imagination. Children's imagination, a vital aspect of cognitive development, enables them to participate in social role-play, problem solving, and creative thinking. However, imaginative play is frequently difficult for autistic children, which restricts their capacity to express creativity and explore hypothetical situations. This restriction can influence their emotional intelligence and social development, which are normally enhanced by imaginative play. The goal of the case study in Guangxi, China, is to analyze the use of drama therapy to encourage the development of autistic children's imaginations. A sample of 32 individuals aged 4-7 years old, consisting of 21 males and 11 females, participated in an 8-week experiment. The experiment involved drama therapy sessions held twice a week, with each session lasting for 30 minutes. Notably, none of the participants had prior experience with drama therapy. Pre- and post-intervention data were gathered to evaluate enhancements in emotional expressiveness, social interaction, and imagination. Feedback from parents and teachers was also collected to assess behavioral modifications in natural environments. The data was analyzed using statistical approaches, such as descriptive statistics and t-tests. The results demonstrated significant improvements in imagination and creative thinking, along with positive changes in social interaction and communication. Despite some logistical issues, participants, parents, and teachers were quite pleased with the program. The findings indicate that drama therapy is a potential strategy for supporting imaginative development in autistic children, warranting additional research in greater, controlled investigations.

**INTRODUCTION**

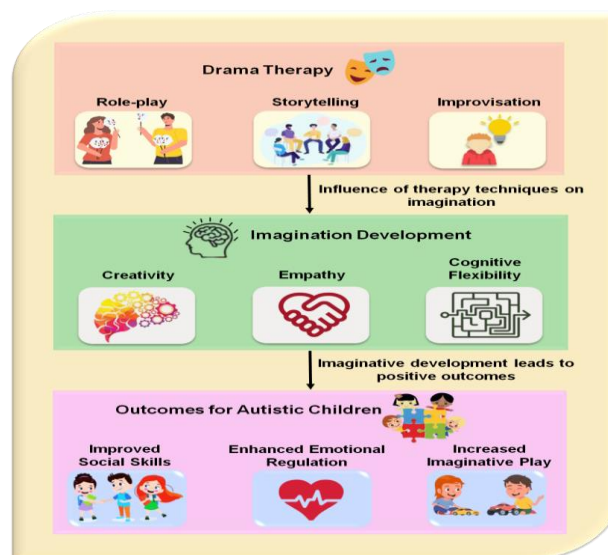
Autism Spectrum Disorder (ASD) constitutes a complicated neuro-developmental condition disorder highlighted by various kinds of social, communication, as well as behavioral difficulties [1]. This appears differently in every individual person, which leads to a range of skills along with the symptoms ranging from minor to severe condition. ASD essential features include difficulty with social communication interaction, reduced abilities to communicate, and the presence of repetitive activities along with limited interests [2]. Such difficulties could influence the everyday functioning and the quality of life, therefore early detection, as well as intervention, are critical. In contrast, the precise ASD causes are still mostly unknown, the integration of genetic and environmental components have been believed to be contributing to its growth. Comprehending the ASD is significant for creating the inclusive environments that assist people on the spectrum and maximize their possibilities for development and growth.

Autistic children's imaginative improvement serves as essential to improving their intellectual, social, along with emotional abilities [3]. Unlike other neurotypical pupils, autistic children could

experience distinct issues in imaginative play as well as creativity, which could frequently influence their capability to communicate with other people and navigate the social settings. Imagination enables the children to discover the diverse viewpoints, practice solving problems skills, as well as develop empathy using role-playing settings. Therapies and interventions that promote imaginative abilities could substantially benefit autistic children, which allows children to communicate themselves more without restriction, interact with other people, as well as enhance their entire life quality. Educators and caregivers could establish the supportive settings which foster personal development and improve social interaction through nurturing imagination [4].

Drama therapy provides an imaginative therapeutic method which employs drama along with performance approaches to improve individuals' social, emotional, and intellectual development, especially in ASD children [5]. Autistic children could discover their emotions, express themselves, as well as develop their social connections within a secure and encouraging atmosphere through dramatic play, storytelling, as well as role-playing. Such kind of treatment encourages imagination and creativity, which allows children to interact with their emotions as well as thoughts in a non-threatening setting. Drama therapy could also assist in building important skills like empathy, and communication, as well as solving problems [6], which allow people to have a greater comprehension of themselves and their surroundings. Children are provided with opportunities to take on various roles during guided sessions of therapy that could improve their capacity to handle the social interactions with others and encourage healthy emotional control, eventually contributing to their entire development and growth.

Figure 1 displays the conceptual framework of drama therapy and their role in improving the imagination development in the autistic children. The top of the figure contains drama therapy which includes role-play, storytelling, and improvisation that emphasizes how these therapeutic techniques engage children. In the middle of the figure contains imagination development which includes creativity, empathy, and cognitive flexibility that are fostered through the drama therapy. The bottom of the figure contains outcomes of autistic children which include improved social skills, enhanced emotional regulation, and increased imaginative play that summarizes the positive impacts of enhanced imagination. The flow from drama therapy to imagination development denotes the impact of therapy techniques on imagination. The flow from imaginative development to the outcomes shows how the imaginative development leads to positive outcomes.



**Figure 1: Conceptual Framework of Drama Therapy and Imagination Development**

The main objective of this research is to analyze the employ of drama therapy to promote the development of autistic children's imaginations.

The organization of the present investigation is as follows: The literature review is represented in Section 2. The complete explanation of materials and methods is described in Section 3. The results of this research are displayed in Section 4. The research's conclusion is provided in Section 5.

## 2. LITERATURE REVIEW

Wu, J., Chen, et. al. investigated the effectiveness of drama therapy strategies in an initial intervention, thirty regular group drama therapy sessions were conducted with ten homeless children aged three to six years with moderate to severe cognitive and developmental disabilities. The children were cheerful throughout the drama therapy sessions, which included self-exploration and familiarization with others [7]. The research [8] investigated the impact of drama treatment on social abilities among children having highly functioning autism. The study approach had been experimental, with three groups such as pre-test, post-test, and control. Dramatic treatment could assist to develop their social abilities as well as effectiveness in that sector. Thus, the research's outcomes could be useful as actual tactics for autism practitioners.

Study [9] focused to use the attachment concept as well as maternal insight to develop an interventions program for mothers whose children were at risk owing to poor parental care. Dramatic treatment has been employed to develop maternal insight in an immersive setting, which makes it both accessible and beneficial for the targeted demographic. The findings support a based-on evidence practice of employing dramatic therapy to treat at-risk mothers as well as children. Article [10] investigated the interaction with unfamiliar individuals as well as self-reported anxiety previous to and after the involvement in Social Emotional Neuroscience Endocrinology (SENSE) Theatre®. Theatrical and acting performance involving supportive role models promotes social interaction in daily contexts among unfamiliar people and lowers self-reported fear.

Work [11] examined if a developmental, individual-differences, relationship-based (DIR®) creative arts therapy (CAT) program accomplished its claimed purpose of stimulating customized social-emotional development among children who have ASD. The research showed moderate proof to support the proposition that the children who engaged in a DIR®-based CAT program had experienced enhanced as well as improved social or emotional abilities. Research [12] focused to investigate the evidence supporting such treatment for children having ASD through examining modifications in a child's imagined play as well as important strategies utilized during the treatment procedure. The findings help therapists understand how essential approaches have been employed during therapy sessions to improve the child's imaginative play skills.

Research [13] administered an in-person pretended play intervention to the children in school-aged identified with high-functioning ASD (HF-ASD) to improve their intellectual and emotive playing abilities, as well as their emotional comprehension. The results indicate positive short influence, readily enabled, and accessible playing intervention for children of school-aged having HF-ASD. The study [14] intended to examine the sand-play feasibility treatment approach in an open environment for ASD children and examine its impact on the social ability and development. The results demonstrated that increased communication with society helped the social and psychological growth of ASD children.

Research [15] examined several paradigms for comprehending imagination as well as metaphor in the setting of investigation on the creative abilities of ASD children. The article finishes through summarizing certain theoretical perceptions into the creative capabilities of ASD children that result from adopting an embodied-enactive viewpoint, as well as making recommendations for interaction therapies to improve imaginative abilities and metaphor interpretation in ASD children. Paper [16] involved a six-year-old Korean girl having the ASD. The results reveal that a parent focused imaginative strategy influences parental modifications and child growth: data suggests that parent-driven therapies are a realistic alternative for parents as well as ASD children to create a superior home setting that promotes the development of the child.

## 3. MATERIALS AND METHODS

The present research examines the utilization of drama therapy to encourage the development of autistic children's imaginations.

### 3.1 study participants

The investigation included a sample of 32 individuals aged 4-7 years old, consisting of 21 males and 11 females, participated in an 8-week experiment. The experiment involved drama therapy sessions held twice a week, with each session lasting for 30 minutes. Notably, none of the participants had

prior experience with drama therapy. Exclusion criteria had been employed to exclude the any individuals with serious cognitive disabilities, additional serious concurrent medical conditions such as serious anxiety or intellectual impairments which would interfere with their capability to participate in drama treatment, as well as preceding broad therapeutic interventions which could impact their responses regarding the present program. This selection approach is intended to provide a representative sample and reduce confounding factors which could affect the findings of the research.

### 3.2 Setting

Research had been carried out in Guangxi, China, especially at community centers as well as the specialized educational institutions for children with ASD. The following places have been chosen for their easy access along with a supportive atmosphere that is conducive to the drama treatment. Every institution has large rooms which permitted freedom of movement along with creative communication, as well as a variety of props, outfits, and video-audio elements to enhance therapeutic sessions. Guangxi's cultural setting highlights the community as well as familial support, which has been essential in encouraging involvement amongst those who participated, parents, as well as therapists. This backdrop offered a great setting for the immersive as well as interactive character of the theatrical therapeutic program, which allows children to explore their imaginations within a secure and supportive atmosphere.

### 3.3 Intervention

Table 1 illustrates the intervention which consists of program duration, session frequency, session duration, included activities, facilitators, used materials, objectives, and program structure. This systematic technique is intended to improve the emotional expressiveness, social skills, as well as imaginative thinking, and eventually benefit each participant's entire development.

**Table 1: Intervention**

| <b>Component</b>             | <b>Details</b>   |
|------------------------------|--|
| <b>Program Duration</b>      | ➤ 8 weeks  |
| <b>Frequency of sessions</b> | ➤ Twice a week   |
| <b>Session Duration</b>      | ➤ 30 minutes   |
| <b>Activities Included</b>   | <ul style="list-style-type: none"> <li>➤ Imaginative play.</li> <li>➤ Storytelling.</li> <li>➤ Role-playing.</li> <li>➤ Improvisation.</li> </ul>  |
| <b>Facilitators</b>          | ➤ Qualified drama therapists trained to work with children with autism   |
| <b>Materials Used</b>        | <ul style="list-style-type: none"> <li>➤ Costumes and props for role-playing activities.</li> <li>➤ Visual aids (books, pictures) for storytelling.</li> <li>➤ Improvisation tools (e.g., puppets, music) to enhance creativity.</li> </ul>  |
| <b>Objectives</b>            | <ul style="list-style-type: none"> <li>➤ Promote emotional expressiveness</li> <li>➤ Enhance social skills</li> <li>➤ Encourage imaginative thinking</li> </ul>  |
| <b>Program Structure</b>     | Each session included: <ul style="list-style-type: none"> <li>➤ Warm-Up Activities: Engaging exercises to prepare participants for the session.</li> <li>➤ Main Activities: Focused on specific goals (e.g., role-play scenarios).</li> <li>➤ Cool Down: Reflection and sharing experiences from the session.</li> </ul> |

### 3.4 Data collection

Table 2 provides the assessment methods for drama therapy which describe the procedures and tools utilized to gather data before and after the intervention, providing a thorough assessment of the drama treatment impacts on participants. It contains assessment methods of pre- and post-

intervention which allows for a comparative analysis of outcomes attributed to the intervention, tools and techniques to measure the social interaction, emotional expressiveness, as well as imaginative skills, and feedback collection from parents and teachers to assess the behavioral changes in natural environments.

**Table 2: Assessment Methods for Drama Therapy**

| Subsection  | Details  |
|---|--|
| <b>Pre- and Post- Intervention Assessment Methods</b> | Data collection was conducted before and after the 8-week drama therapy program for comparative analysis.  |
| <b>Tools and Techniques for Measurement</b>           | <p><b>Standardized Questionnaires:</b></p> <ul style="list-style-type: none"> <li>➤ Child Behavior Checklist (CBCL): It assesses the behavioral as well as emotional problems.</li> <li>➤ Social Responsiveness Scale (SRS): Evaluates social impairments and communication skills.</li> <li>➤ Imagination and Creativity Scale (ICS): Measures imaginative play and creative thinking.</li> </ul> <p><b>Observational Checklists:</b></p> <ul style="list-style-type: none"> <li>➤ Trained observers used checklists to record emotional expressiveness, social interaction, and engagement during activities.</li> </ul> |
| <b>Feedback Collection from Parents and Teachers</b>  | <p><b>Parent and Teacher Surveys:</b></p> <p>Structured surveys were distributed to parents and teachers before and after the intervention. These surveys included open-ended questions and Likert scale items to assess perceived changes in the child's behavior, communication skills, and social interactions in daily life.</p>   |

**3.5 Statistical analysis**

The statistical analysis analyzes the employ of drama therapy to encourage the development of autistic children's imaginations. The SPSS 25 version is employed for this research. The data analysis includes the quantitative and qualitative techniques to examine the drama therapy program's effectiveness. Descriptive statistics are employed to summarize the data including means and standard deviation (SD). T-tests are utilized to determine the statistically significant for variables differences among the pre-and post-intervention scores, and the p-values assess the reliability of the results. Qualitative data from teachers and parents had been structurally examined to provide the patterns as well as perceptions into behavioral modifications found in natural settings. The statistical significance value is  $p\text{-value} \leq 0.05$ .

**4. RESULTS**

This research is to examine the utilization of drama therapy to encourage the development of autistic children's imaginations. Here, the study provides the demographic profiles, quantitative findings, t-test variables outcome, qualitative findings, and program satisfaction.

**4.1 Demographic Profiles**

Table 3 provides the demographic profiles. It contains age, gender, socioeconomic status, and information about previous therapy.

**Table 3: Demographic Profiles**

| Demographic profiles |                    |                |
|----------------------|--------------------|----------------|
| Category             | Frequency (N = 32) | Percentage (%) |
| <b>Age</b>           |                    |                |
| 3-4 years            | 6                  | 18.7           |

|                             |    |      |
|-----------------------------|----|------|
| 4-5 years                   | 7  | 21.8 |
| 5-6 years                   | 9  | 28.1 |
| 6-7 years                   | 10 | 31.2 |
| <b>Gender</b>               |    |      |
| Male                        | 21 | 65.6 |
| Female                      | 11 | 34.3 |
| <b>Socioeconomic Status</b> |    |      |
| Low                         | 10 | 31.2 |
| Middle                      | 12 | 37.5 |
| High                        | 10 | 31.2 |
| <b>Previous Therapy</b>     |    |      |
| Yes                         | 0  | 0    |
| No                          | 32 | 100  |

### 4.2 Quantitative Findings

The quantitative examination of pre- and post-intervention tests demonstrated substantial enhancements in the participants' imaginations, emotional expressiveness, as well as social interaction abilities. *Table 4* demonstrates the quantitative outcomes for assessment tools using descriptive statistics which provides the mean, SD, t-values, and p-values. CBCL, SRS, and ICS are the three assessment tools. The two interventions are pre-intervention and post-intervention. The pre-intervention outcomes in assessment tools are mean = 34.2, SD = 6.5 in CBCL, mean = 32.5, SD = 8.7 in SRS, and mean = 18.5, SD = 4.1 in ICS. The post-intervention outcomes in assessment tools are mean = 25.8, SD = 5.4 in CBCL, mean = 22.1, SD = 7.5 in SRS, and mean = 27.3, SD = 3.8 in ICS. CBCL decrease implies a substantial enhancement in emotional regulation along with behavioral issues, which suggests that participants experienced lesser emotional and behavioral problems because of the drama therapy. SRS significantly reduction and suggests in improved social communication as well as engagement amongst participants, demonstrating that drama therapy has positively influenced in their capability to communicate with others. ICS increase which shows that individuals were engaged in greater imaginative activities, which demonstrates a significant improvement in their creative capabilities, which indicates that drama treatment significantly supported the creative expression.

**Table 4: Quantitative Findings**

| Assessment Tool | Pre-Intervention Mean (SD) | Post-Intervention Mean (SD) |
|-----------------|----------------------------|-----------------------------|
| CBCL            | 34.2 (6.5)                 | 25.8 (5.4)                  |
| SRS             | 32.5 (8.7)                 | 22.1 (7.5)                  |
| ICS             | 18.5 (4.1)                 | 27.3 (3.8)                  |

### 4.3 T-Test Outcomes of Variables

*Table 5* indicates the variables outcomes using the t-test. It contains t-values, p-values, pre-intervention, and post-intervention, which contain mean and SD values. The variables are emotional expressiveness, social interaction, imagination, creative thinking, communication, and behavioral modifications. The outcomes of variables in pre-intervention are emotional expressiveness (mean = 4.5, SD = 1.2), social interaction (mean = 5.2, SD = 1.3), imagination (mean = 3.8, SD = 1.0), creative thinking (mean = 4.0, SD = 1.1), communication (mean = 4.3, SD = 1.0), and behavioral modifications (mean = 3.5, SD = 1.4). The outcomes of variables in post-intervention are emotional expressiveness (mean = 6.8, SD = 1.0), social

interaction ( $mean = 7.5, SD = 1.1$ ), imagination ( $mean = 6.2, SD = 0.9$ ), creative thinking ( $mean = 6.5, SD = 1.2$ ), communication ( $mean = 6.9, SD = 1.1$ ), and behavioral modifications ( $mean = 7.0, SD = 1.3$ ). The t-values of variables are emotional expressiveness (10.25), social interaction (9.58), imagination (11.18), creative thinking (9.90), communication (10.10), and behavioral modifications (11.00). The attained p-value is  $< 0.001$  which is statistically significant. Drama therapy substantially improved in emotional expressiveness, social interaction, imagination, creativity, communication, and behavioral changes in autistic children.

**Table 5: Findings of T-Test**

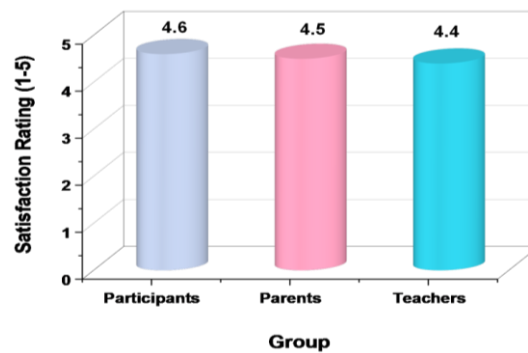
| Variables                       | Pre-Intervention Mean (SD) | Post-Intervention Mean (SD) | t-value | p-value |
|---------------------------------|----------------------------|-----------------------------|---------|---------|
| <b>Emotional Expressiveness</b> | 4.5 (1.2)                  | 6.8 (1.0)                   | 10.25   | <0.001  |
| <b>Social Interaction</b>       | 5.2 (1.3)                  | 7.5 (1.1)                   | 9.58    | <0.001  |
| <b>Imagination</b>              | 3.8 (1.0)                  | 6.2 (0.9)                   | 11.18   | <0.001  |
| <b>Creative Thinking</b>        | 4.0 (1.1)                  | 6.5 (1.2)                   | 9.90    | <0.001  |
| <b>Communication</b>            | 4.3 (1.0)                  | 6.9 (1.1)                   | 10.10   | <0.001  |
| <b>Behavioral Modifications</b> | 3.5 (1.4)                  | 7.0 (1.3)                   | 11.00   | <0.001  |

#### 4.4 Qualitative Findings

The qualitative response from parents as well as teachers demonstrated substantial changes in behavior among the participants after the drama therapeutic session. Several caregivers stated that the children's capabilities to communicate socially, express themselves emotionally, and participate in imaginative play have all improved noticeably. As an example, parents observed an improved willingness to start playing with other pupils, as well as a significant decrease in social anxiety throughout the interaction and communication. Teachers emphasized improved abilities in communication, like the capacity to explain ideas as well as emotions more effectively. Several caregivers stated a sketch regarding their children impulsively employing the role-playing to navigate the social circumstances at home as well as school demonstrates a greater comprehension of social interactions and increased imagination. This feedback emphasizes the positive influence of drama therapy on children's behavioral along with social development in natural environmental settings, demonstrating the program's efficacy in promoting the significant improvement.

#### 4.5 Satisfaction With The Program

Figure 2 displays the program satisfaction level rating (1-5) for participants, parents, and teachers. The achieved satisfaction rating outcomes in the group are participants as 4.6, parents as 4.5, and teachers as 4.4. Participants stated enjoyment along with involvement in the activities, and parents highlighted significant enhancements in their children's social capabilities or emotional self-expression that emphasize the positive influence to their entire well-being. Teachers noticed that the improved children's communications and teamwork in the program classroom. Feedback suggests that the program efficiency is beneficial and strong support in developing imagination as well as social development in the autistic children.



**Figure 2: Program Satisfaction**

## 5. CONCLUSION

Research mainly focused on the case study in Guangxi, China to analyze the employ of drama therapy to promote the development of autistic children's imaginations. The gathered participants are 32 individuals aged 4-7 years old, consisting of 21 males and 11 females, participated in an 8-week experiment. The experiment involved drama therapy sessions held twice a week, with each session lasting for 30 minutes. They participated in an 8-week program and engaged with drama therapists throughout the imaginative play, storytelling, role-playing, with improvisation. It includes the quantitative and qualitative techniques to analyze the drama therapy program's effectiveness. It has the assessment methods of pre- and post-intervention which allows for a comparative analysis of outcomes attributed to the intervention, tools, and techniques to measure the social interaction, emotional expressiveness, as well as imaginative skills, and feedback collection from parents as well as teachers to assess the behavioral changes in the natural environments. The achieved satisfaction rating outcomes in the group are participants (4.6), parents (4.5), and teachers (4.4). The achieved p-value is  $< 0.001$  which is statistically significant. Drama therapy considerably enhances the imagination, emotional expressiveness, as well as social skills in autistic children, which demonstrates its effectiveness in promoting the developmental growth and the positive behavioral modification. The limited participants are the constraint of the research. Future research should be explored in various therapeutic approaches and a larger amount of participants.

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