



ORIGINAL RESEARCH PAPER

Nursing

EFFECTIVENESS OF MUSIC THERAPY ON AUTISTIC BEHAVIORS AMONG CHILDREN WITH AUTISM

KEY WORDS:

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ABSTRACT

**INTRODUCTION:** Autism is a severely incapacitating developmental disorder of brain function characterized by three major types of symptoms: impaired social interaction, problems with verbal and nonverbal communication, and unusual or severely limited activities and interests.

**METHOD:** An evaluative approach was used for this study. The research design used was one group pretest and posttest design. The conceptual framework of the study was based on "Weidenbach's prescriptive theory". Purposive sampling technique was used to select 30 samples for the study. The tool used for this study was Autism Treatment Evaluation Checklist (ATEC). Music therapy was administered to children with autism for one hour once a day for 4 weeks.

**RESULTS:** The mean pretest score was 61(SD+18) and the mean posttest score was 30(SD+14) respectively. The mean difference was 31. The posttest mean score was lower than the pretest mean score, which showed that music therapy is effective in reducing autistic behavior.

**DISCUSSION:** The study findings revealed that music therapy is beneficial for children with autism and there was a significant reduction in autistic behaviors among children with autism.

**CONCLUSION:** Music therapy has produced significant improvement in the level of communication and social interaction among children with autism.

INTRODUCTION

Autism is one of a group of serious developmental problems called autism spectrum disorders that appear in early childhood, usually before age 3. Though symptoms and severity vary, all autism spectrum disorders affect a child's ability to communicate and interact with others. The number of children diagnosed with autism appears to be rising. It's not clear whether this is due to better detection and reporting of autism or a real increase in the number of cases or both.

Autism is often referred to as an autism spectrum disorder (ASD) - because people with autism represent a broad group of people with varying degrees of disability. People on the autism spectrum have problems in three areas: social interaction, communicating with others, and behavioral challenges. In the last 10 years autism has become the most commonly diagnosed childhood developmental disorder.

Generally, the goals of treatment are to improve the overall functional status of the child by teaching communication and social, adaptive and academic skills, decreasing unacceptable behavior through behavioral interventions, and helping the family manage the stress associated with raising a child with autism.

The goal of treatment is to maximize the child's ability to function by reducing autism symptoms and supporting development and learning. Treatment options may include behavior and communication therapies, educational therapies, family therapies and medications. Complementary and alternative therapies include creative therapies such as art therapy or music therapy, sensory-based therapies, chelation therapies, special diets and acupuncture.

Music therapy helps in treating autistic children, but it has to be applied with kids in mind. It should not be too complicated for them to follow. Music that engages children in dancing and singing works very well in helping them communicate and develop social skills. Autistic children respond to music by singing in the same note, and some of them may even start communicate through singing. They may take up an instrument to play, and this will help them gain interest in acquiring a certain skill. Music therapy can help different autistic patients in different ways, but generally, it is beneficial to them because it makes them more responsive to things around them. Music therapy for an autistic child starts with learning how to play a musical instrument, as he or she may get intimidated by human contact. Slowly, the therapy moves on to include singing and even dancing, if the child shows interest for such activities. This gives the child an emotional outlet as well as a sense of fulfillment, which were lacking in the past because of limited social activity.

**Ladanet. al (2013),** conducted a study to determine the effectiveness of Orff music therapy on social interaction, verbal communication, and repetitive behavior of children with autism at Miami. All participants improved significantly in their social interaction and verbal communication.

**Jane (2007),** conducted a study to assess the effect of music therapy on social behavior of children with autism at California. Results indicated that there was significant improvement when music was used.

METHODOLOGY

**RESEARCH APPROACH:** Evaluative approach

**RESEARCH DESIGN:** One group pretest posttest design

**RESEARCH SETTING:** The study was conducted at Preethi Child Guidance Clinic, Madurai.

INCLUSION CRITERIA:

- Children with moderate autism
- Both male and female children

EXCLUSION CRITERIA:

- Sick children

**SAMPLE SIZE:** Sample size constitutes 30 children with autism.

**SAMPLING TECHNIQUE:** Non probability purposive sampling technique is used for this study.

TOOL:

Autism Treatment Evaluation Checklist (ATEC). It evaluates 77 items. These are subdivided into:

Speech/language/communication (14 items)

Sociability (20 items)

Sensory/ cognitive awareness (18 items)

Health/ physical / behavior (25 items)

DATA COLLECTION PROCEDURE:

Data collection was done in Preethi Child Guidance Clinic, Madurai for a period of 4 weeks. A written permission was obtained from the hospital management and oral consent was obtained from the parents prior to the study. The purpose of the study was explained to the parents. 30 children were selected by using the purposive sampling technique. On the first day pretest was conducted for 10 samples and first session of music therapy was given. The second day pretest was conducted for the next 10 samples and music therapy sessions were conducted for first 10 and second 10 samples in two sessions. Third day pretest was conducted for the

last 10 samples and music therapy sessions was conducted for all 30 samples in three sessions. The one hour session consists of a 15 minutes warm up session, next 30 minutes of music therapy and last 15 minutes winding up session. The intervention of music therapy was given to children for consecutive 28 days. On the 28<sup>th</sup> day, posttest was done to assess the degree of autistic behavior using the Autism Treatment Evaluation Checklist (ATEC). The data were collected, analyzed and tabulated.

**PLAN FOR DATA ANALYSIS:**

The collected data were tabulated and analyzed using descriptive and inferential statistical method. The statistical tool used was paired 't' test.

**RESULTS AND DISCUSSION:**

**TABLE 1**

n=30

Groups	Mean	SD	Mean difference	t value	Table value
Pretest	61	18	31	16.57	2.05
Posttest	30	14			

df= 29

P 0.05

**TABLE 1** shows the comparison of mean score, standard deviation and paired 't' value of pretest and posttest level of autistic behavior among children with autism.

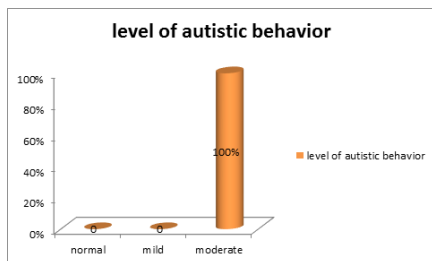
**TABLE**

**Table 2:** Frequency and percentage distribution of pretest level of autistic behavior among children with autism.

s.no	Level of autistic behavior	frequency	percentage
1.	Normal	-	-
2.	Mild	-	-
3.	Moderate	30	100%

**Table 2** depicts that 100% of children had moderate autistic behaviors.

**GRAPH 1:**



**Figure 1** shows the percentage distribution of pretest level of autistic behavior among children with autism.

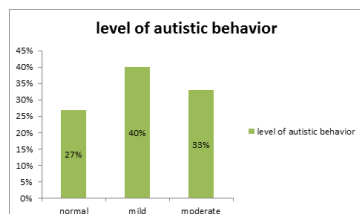
**TABLE 3**

**Table 3:** Frequency and percentage distribution of posttest level of autistic behaviors among children with autism.

s.no	Level of autistic behaviors	frequency	Percentage
1.	Normal	8	27%
2.	Mild	12	40%
3.	Moderate	10	33%

**Table 3** depicts that highest percentage (40%) of children had mild autistic behaviors and least percentage (27%) children had normal behaviors.

**GRAPH 2**



**Graph 2** shows the percentage distribution of posttest level of autistic behavior among children with autism.

**DISCUSSION**

The aim of this study was to assess the effectiveness of music therapy on autistic behaviors among children with autism. Among children with autism, all (100%) had moderate autistic behavior in pretest. Among children with autism (40%) had mild autistic behavior, 33% had moderate autistic behavior and 27% had normal autistic behavior in posttest. The pretest mean score was 61(SD±18) and the posttest mean score was 30(SD± 14). The mean difference was 31. The "t" value is 16.57, greater than the table value (2.05) which is significant at 0.05 level of significance. It shows there is a significant difference in the autistic behavior among children with autism who had undergone music therapy.

This study was consistent with the study findings of **Malka (2013)**, in which the results revealed that the level of autistic behavior in posttest is lower than the pretest scores. The mean posttest scores was 7.22 points lower than the pretest scores.

**CONCLUSION**

The aim of the study was to assess the effectiveness of music therapy on autistic behaviors among children with autism. Music therapy can be practiced in hospital settings, child guidance clinics and other health care settings as an evidence based practice in reducing the level of autistic behavior among children with autism. The findings will help the nurses to implement music therapy on autistic behavior among children with autism.

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