

EFFECT OF MUSIC ON AUTISTIC CHILD

DR. S.P. SINGH

Associate Professor, Dept. of Psychology, RBS College, Agra

Developmental disorders of neurobiological origin, such as autism, are classified according to their behavioral and developmental characteristics. The best way to describe autism is as a spectrum of illnesses with varying symptom intensity, onset ages, and associations with other disorders (e.g., mental retardation, specific language delay, epilepsy). Over time, a child's autism symptoms can change significantly both within and across individuals. Despite the fact that there are many distinct and constant similarities, particularly in terms of social deficiencies, there is no one behavior that is always indicative of autism and no behavior that would automatically disqualify a particular kid from receiving a diagnosis of autism.

Playing instrumental music stimulates the brain of an autistic child and makes new association with the existing ones. It improves the mental health and increases cognitive capacity for the person with autism. Researches indicate that music therapy helps children with autistic spectrum disorder. This therapy improves their skills in important area such as social interaction and communication. Music therapy also encourages their children for adaptation of new skill and also promoting parent child relationship. Apart from these neuro imagination shown that emotion and memory processing engaged with listening.

Music therapy is frequently utilised in therapies for children and adolescents with ASD to enhance meaningful contact. Children respond to social cues from their environment and take social initiative during social engagement, which is a reciprocal process (Shores, 1987). (Non-verbal) music may provide a more accessible way of contact for autistic children who have trouble understanding or interpreting verbal social communication (Geretsegger et al., 2014). Since a musical (non-verbal) message does not require translation into verbal language in order to be understood, the emphasis can stay on the social components of communication (Honing, 2009).

Autism has been a biggest problem for children for interacting in their social settings. Autistic children can listen to music which can make them feel comfortable and these can also help us in expressing themselves in social settings. Research has shown that dancing exercise can also help autistic child to grasp their fine motor skills. For autistic children, music therapy can help them in many ways as they help them remember songs and slowly they can help them in master speech. Music can confer many benefits to autistic individuals. First among these is improved communication. Parents and caregivers have found that autistic children are able to communicate and express themselves much better through music than any other form of expression. This can sometimes be in the form of singing, as an alternative to speech. Music has seen as one of the calming effect in the children. It has shown as a connection rooted in neurosciences, where, fine motor skills and gross motor skills are part of the functions of the brain. Autistic kids have functions differently than other children. It helps them to communicate orally.

While outcomes can vary, music therapy appears to be an effective therapy that can support verbal and social abilities in autistic children. Home-based sessions have also been mentioned by music therapists as a way to involve the family in the therapeutic process and provide comfort to the kids by having them in their familiar surroundings. Müller and Warwick (1993) examined the impact of families' participation in music therapy treatments for autistic children aged 3 to 14 years. The findings revealed that stereotyped behaviour decreased and turn-taking abilities rose. Three autistic children, ages 7-9, were treated at home using music therapy, according to Pasiali (2004). With each child individually, the music therapist addressed behavioral objectives. Through the development of shared attention, motor imitation, and synchronous rhythm, music therapy is seen as a means of fostering preverbal communication in children with autism. Additionally, music therapy has been utilized to improve some cognitive abilities like memory and concentration. Additionally, music therapy can enhance sociability. Research has found that the music can help to modify our brain and behavior in children with autism by helping them connecting with their brain. It is also said that it can help provoke brain activity, which obstructs a child activity to have control over their emotions. In 2018, study proved that music can help autistic children to have control over their actions and emotions. Listening to music can help autistic child play a major role in sub part of the brain regions like hippocampus and thalamus. The hippocampus plays a major role in cognitive development. Children with autism suffer from the cognitive development and this suffers with their random activity. It also hinders their day to day activities like learning and memory retention. The

thalamus another part of the brain plays a very important role as it helps us regulate our activities, awareness in our surroundings. Music intervention has showed that children with autism when listen to music are aware of their surrounding and have more accepted attitude in their daily life.

Children with autism can safely interact with others through music and the playing of musical instruments without having to touch or look others in the eyes. For instance, the Duo, a percussion instrument, enables two musicians to perform together and communicate without making eye contact. Children with autism eye contact might be difficult for them.

The research revealed that the kid's capacity for imitation, sharing, and social interaction had improved (Thompson et al., 2013). Yang (2016) shown that using music therapy at home boosted children's linguistic initiations. The coordination between parents and children also got better. The findings seem to suggest that music therapy in a family setting appears to improve communication between parents and children. Even though there are more studies on family music therapy, the level of parental involvement differs.

OBJECTIVES

- An attempt will be made to find out the effect of music therapy on behavior of autistic children.
- Which kind of music therapy recorded instrumental/ live instrumental is more effective?

HYPOTHESIS

Behavior problem will be managed with the help of music therapy. Live instrumental music will be more influential in the modification of autistic behavior.

Research Design

Before and after research design, was used in which autistic behavior was measured before both sessions live instrument and recorded instrumental music. For both session time duration was 45 minutes and two times in a day. After the musical session again autistic behavior was measured. In the present research, both the recorded and live instrumental was used as independent variable whereas the autistic behavior was dependent variable.

SAMPLE

50 autistic children were selected from different special schools of Agra city. No gender difference was maintained. Each child was having normal siblings and not having any other severe disease or disorder with him/ her. Their age range was between 9 years to 13 years. These 50 autistic children were further divided into two groups i.e. 25 in each group. One group was introduced with recorded instrumental music whereas other was introduced with live instrumental music.

ASSESSMENT TEST

Indian scale for assessment of Autism (ISAA) by National Trust is used. It consist of 40 items with 6 subtopics like Social Relationship and Reciprocity, emotional responsiveness, Speech, language and communication, Behavior Patterns, Sensory Aspects, Cognitive Components.

Indian Scale for Assessment of Autism

Domain-I Social Relationship and Reciprocity

Children suffering from intellectual disability like autism, have problem interacting with other children. They do have quick responses and do have problem in understanding others emotions. Their fine motor skills and gross motor skills are not developed properly.

Domain-II Emotional Responsiveness

Children suffering from Autism do not show their emotions in social settings. The emotions which they display are not according to their situations. or they overwhelm their emotions. They can started talking to themselves pr can start showing fear of anxiety.

Domain-III Speech - Language and Communication

Children suffering from Autism have problems in their speech as they cannot express their basic needs either verbal or non- verbal communication. Children with autism repeat their word or phrases or even sentences which are not in the context.

Domain-IV Behavior Patterns

Children suffering from Autism may have their self stimulate behaviour like waggle the hands using material; or objects. some autistic children are aggressive while some are restless and some do not even resist change.

Domain-V Sensory Aspects

A major Children suffering from Autism are either anxious towards light , sound , smell and other external factors which determined it. When they are anxious either they ignore certain objects or stare continuously at them as they do not exist. Some children with autism adapt thins from their surrounding environment.

Domain-VI Cognitive Component

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Children suffering from Autism they lack attention and concentration. They do not respond quickly to their surrounding instruction or either respond after a delay. on other side children have some special ability in some area like reading, music, artistic and memory.

Table 1:-Beforelive sessions and after live sessions of live instrumental music

Domains	Raw score		Raw score	t value
Social Relationship and Reciprocity	27	AFTER Live SESSIONS OF INSTRUMENTAL MUSIC	24	3.40
emotional Responsiveness	20		22	
Speech - Language and Communication	42		31	
Behavior Patterns	21		16	
Sensory Aspects	14		13	
Cognitive Component	16		13	

Table 2:-Before recorded sessions and after recorded sessions of recorded instrumental music

Domains	Raw score		Raw score	t value
Social Relationship and Reciprocity	27	AFTER Recorded SESSIONS OF INSTRUMENTAL MUSIC	24	3.51
Emotional Responsiveness	19		16	
Speech - Language and Communication	41		33	
Behaviour Patterns	23		20	
Sensory Aspects	16		13	
Cognitive Component	17		14	

DISCUSSION

In this case that music therapy helps children with Autistic behavior. In the present study after musical session live and recorded, it is observed that child appropriately express its emotion. Neurological base has reported that music is processed in both the hemispheres of the brain which stimulates cognitive functioning and also helpful in speech development. It was reported by Esther Thane (2016) in his studies that children with ASD are motivated to engage in music activities and it can be preferred medium to operate within. They thrive with instructure and music fulfills his need for structure and routine. Children with ASD seem to enjoy musical experiences because they are often good at it.

Geretseggar et.al 2013 concluded that music therapy is helpful for children with ASD. Music improves their skills in important area like social interaction and communication and it also contribute in favor of social adaptation skill and urge the parents to improve their child rearing practices. They also explain the use of music therapy for Autistic child is based on stern research 2010.

On the basis of the above table, Social Relationship and Reciprocity, Behavior Patterns and Cognitive Component are better in Autistic Child after listening to the live instrumental music.

Characteristics of the Social Relationship and Reciprocity: - Children suffering from intellectual disability like autism, have problem interacting with other children. They do have quick responses and do have problem in understanding others emotions. Their fine motor skills and gross motor skills are not developed properly.

Behavior Patterns

Children suffering from Autism may have their self stimulate behavior like waggle the hands using material; or objects. Some autistic children are aggressive while some are restless and some do not even resist change.

Cognitive Component

Children suffering from Autism they lack attention and concentration. They do not respond quickly to their surrounding instruction or either responds after a delay. On other side children have some special ability in some area like reading, music, artistic and memory.

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