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A quantitative report on effectiveness of music therapy on behavioral changes among mentally challenged children

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Abstract

Background and Aims: Mentally challenged is a generalized neurodevelopment disorder characterized by significantly impaired intellectual and adaptive malfunctioning. Music therapists regard music therapy as a valuable intervention for students with moderate to severe intellectual disability or multiple disabilities. The present study was aimed to assess the effectiveness of music therapy on behavior among mentally challenged children.

Methods and Samples: A modified time series approach design was used to evaluate 30 mentally challenged children who fulfilled the inclusion criteria and were selected using purposive sampling technique. The tool used was modified MR Scale Part B.

Result: The findings reveal that the mean behaviour score at pre-assessment was 26.53 ± 7.46 and after 45 days of music therapy the mean behaviour score was 17.23 ± 9.56 . The difference was found to be statistically significant at $p=0.001$. Thus, there was a significant improvement in the behavior among mentally challenged children.

Conclusion: This study implies that the music therapy was effective in improving the behavior in mentally challenged children.

Keywords: Generalized neurodevelopment, intellectual

Introduction

According to American Association of Mental Deficiency (1983), "Mental Retardation can be defined as a significantly sub average general intellectual functioning, resulting or associated with concurrent impairment in adaptive behaviour and is manifested during the developmental period." Sub average means usually an intelligent quotient (IQ) of below 70; while adaptive behaviour is the person's ability to meet the responsibilities of social, personal, occupational and interpersonal areas of life according to his or her age and socio-cultural and educational background. Mental retardation can be caused by any condition that impairs development of the brain before birth, during birth, or in childhood years. Several hundred causes have been discovered, but the cause that affects the one-third of the people remains unknown. The three major causes of mental retardation are Down syndrome, fetal alcohol syndrome, and fragile X. Mental retardation there by makes a person incapable of living an independent life.

Intellectual disability affects about 2–3% of the general population as many as 200 million people. 75–90% of the affected people have mild intellectual disability. Recently survey made during the International year of the Disabled in India, indicated that approximately 3 per cent of the population are mentally retarded. In India, family bears the main burden of caring for such persons unlike in the developed world. Comparatively speaking, the incidence of behavioural disorders is 5 - 7 times more among people with intellectual disabilities (Dykens and Hodapp, 2001; Emerson, 2003; Bouras *et al*, 2004).

The mentally challenged often develops depressive reactions and tendency to repeat the speech of an adult (echolalia). The child may repeat the actions of his parents, mimicking the behaviour in walking or in other physical activities (echopraxia). Some show defensive behaviour and feelings. On the other hand, some challenged may react with patterns of excessive timidity. The challenged child may react to his emotional stress with habit disorders like enuresis (bedwetting) and wet or soil his clothing during the day (enuresis), or he may do this only at night (nocturnal enuresis), thumb sucking or nail—biting. He may also have feeding problems, such as, refusal to eat certain foods or even refusal to eat at all (anorexia).

In puberty the retardant tends to be subjected to over rejection on all sides by social institutions, family, neighbours and by other children. He is unable to adjust himself in vocation and develops frustration. Since frustration is one of the primary causes of aggression. The challenged child, like other children will sometimes engage in delinquent behaviour often he is not aware of the consequences of his behaviour. Music, when used as a Therapy, is called Music Therapy which is an interpersonal process where the therapist uses music and all of its facets-physical, mental, social, aesthetical, and spiritual to help clients to improve or maintain the health of the retardants.

Certain studies like Lander *et al.* (2005) revealed that music therapy is a dynamic process through which children with intellectual disability interact with their environment and peers. American Music Therapy Association (2006) states that the repetition of songs enables intellectually challenged children to identify numbers, colors and Objects, develop cognitive, behavioural, physical, emotional and social skills, and enhance communication. Music therapy has been extensively used in the past four decades as a treatment for children with disabilities (Wigram *et al.*, 2002; Nordau and Robbins, 2007). Children with Down syndrome seem specially responsive to music and show potential to be part of a music-making group (Wigram *et al.*, 2002).

The above reviews forced the investigator to develop a deep insight on the need of conducting the study.

Problem Statement

"A study to assess the effectiveness of music therapy on behavior among mentally challenged children in selected special schools of Indore (M.P)."

Objectives

Objectives of Study

1. To assess the pre interventional behavior among mentally challenged children.
2. To assess the effectiveness of music therapy on behavior among mentally challenged children.
3. To find out the association of pre interventional behavioral assessment and selected socio demographic variables.

Hypothesis

H₀: There is no significant effectiveness of music therapy on behavior among mentally challenged children at the level of $p \leq 0.05$.

RH₁: There is significant effectiveness of music therapy on behavior among mentally challenged children at the level of $p \leq 0.05$.

RH₂: There is significant association between pre interventional behavioral assessment and selected socio-demographic variables at the level of $p \leq 0.05$.

Study Design

Quasi Experimental Modified Time Series Method

Sample and Setting

30 mentally challenged children selected through non probability purposive sampling technique were the samples of the study. The study was conducted in Rotary Paul Harris Special School at Indore, Madhya Pradesh.

Inclusion criteria and exclusion criteria

- Mentally challenged children whose age ranges from 5 to 17 years were included.
- Mentally challenged children with mild and moderate degree (IQ between 35-70) were included and severe and profound degree (below 35) were excluded.

Tool and data collection

The tool consist of 2 sections

Section A: (Socio Demographic data): The item included in the demographic data collection are age, gender, level of IQ, Religion, Years of schooling, Educational status of father, Educational status of mother, occupation of father, Occupation of Mother, Type of Family, family history of mentally challenged.

Section B: (Modified Basic MR Scale Part-B): Modified Behavioral Assessment Scale for Indian Children-MR (Part-B) was used to assess behavior in mentally challenged children. It consists of 18 items grouped under 6 domains like violent and destructive behaviors, temper tantrums, misbehaves with others, self-injurious behavior, hyperactive behavior, and rebellious behaviors. The number of items in each domain varies. Each item was scored on three levels of severity of problem i.e., score '0' for never, '1' for occasionally, '2' for frequently.

Table I: Scoring of Scale

Behavior classification	Frequency of scoring
Normal	1-12
Aggressive	13-24
Violent	25-36

Data collection procedure: Pre interventional behavior assessment was done on the 1st day of study then the children were observed for 15 days without giving any intervention. Thereafter intervention was given for 45 days. The First 15 days intervention was given for 10 minutes, next 15 days intervention was given for 20 minutes and the third 15 days intervention was given for 30 minutes. Post interventional behavior was assessed using modified Basic-MR Scale Part-B after every 15 days intervention. Observation method was used for data collection.

Result and Interpretation

There were 11(36.7%) participants in the age group 5-8 years, 14 (46.7%) participants were in the age group 8-11 years, 3 (10.0%) participants were in the age group 12-14 years. Majority of the participants were in the age group 8-11 years. There were 10 (33.3%) males and 20 (66.7%) females, showing a female preponderance in the study. 9(30.0%) participants had mild IQ (52-69), while 21 (70.0%) participants had moderate IQ (36-51). The distribution of participants according to demographic variables is shown in Table No II.

In the pre-assessment, 11 (36.7%) participants were having aggressive behavior and 19 (63.3%) participants were having violent behavior. After 15 days (without music therapy), 11 (36.7%) participants were having aggressive behavior and 19 (63.3%) participants were having violent behavior. Next 15 days (with 10 minutes music therapy), 20 (66.7%) participants were having aggressive behavior and 10 (33.3%) participants were having violent behavior. Next

15 days (with 20 minutes music therapy), 10 (33.3%) participants were having normal behavior, 12 (40.0%) participants were having aggressive behavior and 8 (26.7%) participants were having violent behavior. Next 5 days (with 30 minutes music therapy), 16 (53.3%) participants were having normal behavior, 8 (26.7%) participants were having aggressive behavior and 6 (20.0%) participants were having violent behavior.

The mean behavior score at pre-assessment was 26.53 ± 7.46 , while at without music assessment was 26.47 ± 7.47 . The difference was found to be statistically not significant ($p=0.161$), showing no significant change in behavior without any intervention for 15 days.

First follow-up: The mean behavior score at 15 days without music was 26.47 ± 7.47 , while at 10 min per day music was 23.67 ± 8.18 . The difference was found to be statistically significant ($p=0.002$), showing a significant reduction in the behavior score at 10 min per day music.

Second follow-up: The mean behavior score at 10 min music per day was 23.67 ± 8.18 , while at 20 min per day music was 20.90 ± 9.51 . The difference was found to be statistically significant ($p=0.001$), showing a significant reduction in the behavior score at 20 min per day music.

Third follow-up: The mean behavior score at 20 min music per day was 20.90 ± 9.51 , while at 30 min per day music was 17.23 ± 9.56 . The difference was found to be statistically significant ($p=0.001$), showing a significant reduction in the behavior score at 30 min per day music.

Interpretation

The mean behavior score after intervention was found to be significantly higher than the mean pre interventional behavior score. Thus, H_0 that “there will be no significant effectiveness of music therapy on behavioral change among mentally challenged children at the level of $p < 0.05$ ”, has been rejected and the RH_1 that, “there will be significant effectiveness of music therapy on behavioral change among mentally challenged children at the level of $p < 0.05$ ” has been accepted.

There was a statistically significant association seen between socio demographic variables like level of IQ, duration of stay in special school and type of family with the pre- behavioral assessment at the level of $p < 0.05$ ”, thus RH_2 “there will be a significant association between pre-behavior assessment and selected socio demographic variables at the level of $p < 0.05$ ”, has been partially accepted.

Discussion

The results of the present study was similar with the study conducted by Ritu Kalgotra1 *et al.* to see the effect of music on behaviour disorders of children with intellectual disability using strategies from applied behaviour at Jammu Kashmir in the year 2017. Both the study results concluded that there is effectiveness of music therapy on the behaviour of mentally challenged child.

Conclusion

The findings of the study showed that the mean behaviour score after intervention was found to be significantly higher than the pre-assessment mean behaviour score. This study recommends including of such therapies in the conventional treatment modalities of mentally challenged children.

References

1. (Epidemiological finding on prevalence of mental disorders in article in Indian journal of psychiatry, 2012.
2. American Association on Intellectual and Developmental Disabilities (AAIDD). 2007. Retrieved December 10, 2008 from <http://www.aidd.org>
3. https://en.wikipedia.org/wiki/Intellectual_disability
Sources: American Association of Intellectual and Developmental Disabilities; National Center on Birth Defects and Developmental Disabilities; the United Nations Development Program; and the Centers for Disease Control and Prevention
4. <http://documents.worldbank.org/curated/en/577801468259486686/pdf/502090WP0Peopl11Box0342042B01PUBLIC1.pdf>