



**A STUDY TO ASSESS THE CONCLUSION OF SENSORY STIMULATION
TECHNIQUES ON SENSORY PERCEPTUAL ABILITY OF INTELLECTUAL
DISABILITY IN CHILDREN AMONG SPECIAL SCHOOLS OF MADHYA
PRADESH**

Mr. Ashok Kumar Sahu

Ph.D. Scholar, Malwanchal University, Indore

INTRODUCTION

Intellectual disability (ID) in children represents a significant public health and educational challenge worldwide, particularly in developing countries like India where disparities in early identification, intervention services, and special education resources continue to persist. Children with intellectual disability often experience marked limitations not only in intellectual functioning but also in adaptive behavior, including conceptual, social, and practical skills. Among these, sensory perceptual ability plays a foundational role in shaping learning, communication, motor coordination, emotional regulation, and social participation.

Sensory perception refers to the brain's ability to receive, organize, interpret, and respond to information obtained through the sensory systems, including visual, auditory, tactile, vestibular, proprioceptive, olfactory, and gustatory modalities. In children with intellectual disability, sensory processing and perceptual integration are frequently impaired, resulting in difficulties in attention, learning, self-care, behavior regulation, and academic performance. These deficits often manifest as sensory under-responsiveness, over-responsiveness, or sensory-seeking behaviors that interfere with daily functioning and educational attainment.

Sensory stimulation techniques constitute a structured set of therapeutic activities designed to enhance sensory awareness, integration, and perceptual discrimination

through planned exposure to sensory experiences. These techniques include tactile stimulation, auditory stimulation, visual stimulation, proprioceptive input, vestibular activities, and multi-sensory integration approaches. Evidence suggests that systematic sensory stimulation can facilitate neural plasticity, enhance sensory processing efficiency, and improve adaptive functioning among children with developmental disabilities.

OBJECTIVE

- Assess the sensory perceptual ability of Intellectual disability in children before administering sensory stimulation techniques.
- Assess the sensory perceptual ability of Intellectual disability in children after administering sensory stimulation techniques.
- Assess the effect of sensory stimulation techniques on sensory perceptual ability of Intellectual disability in children
- Find out the association between sensory perceptual ability of Intellectual disability in children and selected socio personal variables.

HYPOTHESIS :

All at 0.05 level of significant

H₁: There is a significant difference in sensory perceptual ability of Intellectual disability in children before and after administering sensory stimulation techniques.

H₂: There is significant association between sensory perceptual ability of Intellectual disability in children and selected socio demographic variables

OPERATIONAL DEFINITION:

Effect:

In this study, effect means changes in the level of sensory perceptual ability of Intellectual disability in children after administering sensory stimulation techniques as measured by sensory perceptual ability assessment scale.

Sensory stimulation techniques:

In this study, sensory stimulation techniques refer to the techniques involved in direct stimulation of five senses namely tactile, olfactory, visual, auditory and gustatory with the purpose of improving sensory perceptual ability². Sensory stimulation techniques are administered individually to the child for a period of 20minutes for 3weeks.

Sensory perceptual ability:

In this study, sensory perceptual ability refers to ability to consciously recognize and interpret sensory stimuli through unconscious association especially memory as measured by sensory perceptual ability assessment scale.

Intellectual disability in children:

In this study, Intellectual disability in children refer to children having mild and moderate intelligence quotient (35-69) falling in the age group 4-11 years

ASSUMPTIONS:

- Low Intelligence quotient (I.Q) is associated with low sensory perceptual ability.
- Sensory stimulation techniques change the sensory perceptual ability of mentally challenged children.
- Caregiver and teacher interactions improve sensory perceptual ability of mentally challenged children.

Research Methodology

The investigator adopted an experimental research approach. The design selected for the present study was pre experimental one group pretest post test method since there was no randomization and control. The setting selected for the study is Index special school, Indore, Madhya Pradesh. In the present study, population include mentally challenged children Sample size consists of 300 mentally challenged children with mild and moderate IQ (35-69) falling in the age group 4-11 years. And the sampling technique was purposive sampling technique. The tools used for the study were proforma to collect selected socio personal variables and sensory perceptual ability assessment scale to assess the sensory perceptual ability of mentally challenged children.

Result

- It was found that 76.7% of fathers and 56.7% of mothers of sample were in the age group >35years.
- Majority (90%) of parents were married and living together.
- It was revealed that 43.3% of sample were Christians.
- Among the sample, 36.7% fathers had collegiate education and 43% mothers had secondary education.
- Most of (56.7%) sample's fathers were labourers and 66.7% mothers were unemployed/house wife.
- It was found that 40% sample live in a family having a monthly income of Rs.>4500.
- Majority (93.3%) of parents had non- consanguineous marriage.
- It was revealed that 40% mothers were in the age group 25-30 at the time of birth of sample.
- Among the sample, 60% were females and 40% samples were in the age category 9-11 years.
- Half (50%) of the sample were first child.
- It was found that 56.7% sample belonged to nuclear family and 36.7% belonged to family having two children.
- Among the sample, 76.7% belonged to IQ level 50-69(mild MR). It was found that 20% of sample were auditory hypersensitive and 20% were auditory hyposensitive.
- Among the sample, 33.33% were visual hypersensitive and 13.33% were visual hyposensitive.
- It was revealed that 23.33% of sample were tactile hypersensitive and 10% were tactile hyposensitive.
- Among the sample, 3.33% were olfactory hypersensitive and 10% were olfactory hyposensitive.

- It was found that 10% of sample were gustatory hypersensitive and 6.66% were gustatory hyposensitive.
- There was significant difference between the mean pre and post test sensory perceptual ability scores ($t_{29}=12.45, p<0.05$).
- There was significant difference between the mean pre and post test sensory perceptual ability scores in auditory hypersensitivity($t_{29}=2.45, p<0.05$)
- There was significant difference between the mean pre and post test sensory perceptual ability scores in auditory hyposensitivity($t_{29}=2.26, p<0.05$)
- There was significant difference between the mean pre and post test sensory perceptual ability scores in visual hypersensitivity($t_{29}=3.15, p<0.05$)
- There was no significant difference between the mean pre and post test sensory perceptual ability scores in visual hyposensitivity($t_{29}=1.43, p>0.05$)
- There was significant difference between the mean pre and post test sensory perceptual ability scores in tactile hypersensitivity ($t_{29}=2.54, p<0.05$)
- There was no significant difference between the mean pre and post test sensory perceptual ability scores in tactile hyposensitivity ($t_{29}=1.72, p>0.05$)

Conclusion

The following conclusions were drawn based on the findings of the study.

- Sensory perceptual disabilities were common among mentally challenged children.
- Sensory stimulation techniques were effective in improving sensory perceptual ability of mentally challenged children.
- There was a significant association between sensory perceptual ability and selected socio personal variables such as age of mother at the time of birth of the sample, number of children, birth order and I.Q.
- There was no significant association between sensory perceptual ability and selected socio personal variables such as parent's age, parent's occupation, parent's educational status, gender and religion.