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Sathik Ali  
Sree Balaji College of Nursing  
CLC Works Road, Chrompet,  
Chennai, India.

## Effectiveness of sensory stimulation technique on sensory perceptual ability and emotional well-being on mentally challenged children attending a selected special school

Sathik Ali

### Abstract

**Background of the Study:** The terms Mental Retardation, Intellectual disability and mental challenge are used interchangeably. Intellect comprises perception, memory, recognition, conceptualization, convergent and divergent reasoning (creativity and classification), verbal facility and motor competence. There is noticeable deficiency in motor, cognitive, social, and language functions. Mentally challenged child is complicated by physical and emotional problems.

**Objectives:** To assess the level of sensory perception and emotional wellbeing among mentally challenged children before and after administering sensory stimulation technique among experimental and control group. To determine the effectiveness of sensory stimulation technique on sensory perception and emotional wellbeing among mentally challenged children. To compare the level of sensory perceptual ability and emotional wellbeing among both experimental and control group. To associate the level of sensory perception and emotional wellbeing with demographic variables.

**Hypothesis:** There will be significant difference between the post-test score of sensory perception in experimental and control group among mentally challenged children There will be significant difference between the post-test score of emotional well-being in experimental and control group among mentally challenged children.

**Methodology:** A quasi experimental pre and post-test control group design is selected for the study Purposive sampling technique was used for the study.

**Final Result and Conclusion:** In the pre-test & post test scores sensory perceptual ability of both experimental & control group. Among the experimental group 8(26.7%) will show probable difference, majority 22(73.3%) will show definite difference, in the pre-test. But in the post-test 4(13.3%) of the samples is on typical performance, and 14(46.7%) of the sample will show probable differences and 12(40%) of the sample is on definite difference. In the control group 7(23.3%) will show probable difference, and 23(76.7%) is on definite difference, in the pre-test. But there was no change in the post test score as 8(26.7%) will show on probable difference and 22(73.3%) is on definite difference.

In the pre-test & post test scores of emotional well being level for both experimental & control group. Among the experimental group 5(26.7%) will show mild emotional well-being, majority 25(83.3%) will show moderate emotional well-being, in the pre-test. But in the post-test 16(53.3%) of the samples is on mild emotional wellbeing, and 14(46.7%) of the sample will show moderate emotional well-being. In the control group 7(23.3%) will show mild emotional wellbeing, and 23(76.7%) is on moderate emotional well-being, in the pre-test. But there was no change in the post test score as 7(23.7%) will show mild emotional well-being and 23(76.6%) is on moderate emotional well-being.

**Keywords:** sensory perception, effectiveness, sensory stimulation techniques, mentally challenged children, special school.

### Introduction

Watching a young child grow is a wonderful and unique experience. Learning to sit up, walk and talk are some of the major milestones a child will achieve. Normal children learn the skills of daily living such as feeding, dressing, toilet training, and social skills such as playing, and interacting with others easily, Mental retardation is defined as significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive sensory perception and manifested during the developmental period that adversely affects a child's educational performance.

**Correspondence**  
Sathik Ali  
Sree Balaji College of Nursing  
CLC Works Road, Chrompet,  
Chennai, India.

**Objectives**

1. To assess the level of sensory perception and emotional wellbeing among mentally challenged children before and after administering sensory stimulation technique among experimental and control group.
2. To determine the effectiveness of sensory stimulation technique on sensory perception and emotional wellbeing among mentally challenged children.
3. To compare the level of sensory perceptual ability and emotional wellbeing among both experimental and control group.
4. To associate the level of sensory perception and emotional wellbeing with demographic variables.

**Hypothesis**

**H<sub>1</sub>:** There will be significant difference between the post-test score of sensory perception in experimental and control group among mentally challenged children.

**H<sub>2</sub>:** There will be significant difference between the post-test score of emotional well-being in experimental and control group among mentally challenged children.

**H<sub>3</sub>:** There will be a significant association between the level of sensory perception and their selected demographic variables in experimental group and control group among mentally challenged children.

**H<sub>4</sub>:** There will be a significant association between the level of emotional well-being and their selected demographic variables in experimental group and control group among mentally challenged children

**Methodology**

Score Interpretation	Experimental group n=30				Control group n=30				Chi-square t=18.6*** S(p<0.001)
	Pre test		Post test		Pre test		Post test		
	F	%	F	%	F	%	f	%	
Typical Performance (190-155)	--	--	4	13.3	--	--	--	--	
Probable Difference (154-142)	8	26.7	14	46.7	7	23.3	8	26.7	
Definite Difference (141-38)	22	73.3	12	40	23	76.7	22	73.3	

**Result:** Ipre test and post test level of sensory perceptual ability among mentally challenged childrens in experimental and control group

A quasi experimental pre and post-test control group design is selected for the study Purposive sampling technique was used for the studying asthma special school, Trichy. The study population will comprise of mentally challenged children age group of (5-14) years The total sample size was 60, 30 in the experimental group and 30 in the control group by Purposive sampling technique. The questionnaire has 3 parts consisting of Demographic variables these are age, gender, religion, education level of care giver, birth order, mode of delivery, type of stay, duration of stay, education level of children, in the second part of questionnaire short sensory profile was used. Interpretation of score was done as follow

**Scoring Interpretation for Short Sensory Profile**

Typical performance -190-155  
 Probable difference-154-142  
 Definite difference -141-38

**Scoring Interpretation for Emotional 'Wellbeing**

Mild emotional well-being-16-36Moderate emotional well-being-37-61High emotional well-being-62-80

**Result 1:** pre test and post test level of sensory perceptual ability among mentally challenged childrens in experimental and control group

Reveals the comparison of sensory stimulation techniques among mentally challenged children. The pre-test & post test scores of both experimental & control group. Among the experimental group 8(26.7%) will show probable difference, majority 22(73.3%) will show definite difference, in the pre-test. But in the post-test 4(13.3%) of the samples is on typical performance, and 14(46.7%) of the sample will show probable differences and 12(40%) of the sample is on definite difference. In the control group 7(23.3%) will show probable difference, and 23(76.7%) is

on definite difference, in the pre-test. But there was no change in the post test score as 8(26.7%) will show on probable difference and 22(73.3%) is on definite difference. The mean score was 104.7 in the pre –test, SD was 24.2 and mean post –test score was 96.8 and SD was 20.8, so the total overall value reduction was 8.1 in mean and SD was 4.4 with the paired t- test value is 18.6and there is significant effectiveness at P value is  $p<0.001$

Reveals the comparison of emotional well being among mentally challenged children. the pre-test & post test scores of both experimental & control group. Among the experimental group 5(26.7%) will show mild emotional well-being, majority 25(83.3%) will show moderate emotional well-being, in the pre-test. But in the post-test 16(53.3%) of the samples is on mild emotional wellbeing, and 14(46.7%) of the sample will show moderate emotional well-being. In the control group 7(23.3%) will show mild emotional wellbeing, and 23(76.7%) is on moderate emotional well-being, in the pre-test. But there was no change in the post test score as 7(23.7%) will show mild emotional well-being and 23(76.6%) is on moderate emotional well-being The mean score was 41.2 in the pre –test, SD was 8.2 and mean post –test score was 32.0 and SD was 6.3, so the total overall value reduction was 9.2 in mean and SD was 2.2 with the paired t- test value is 6.1and there is significant effectiveness at P value is  $p<0.001$

**Major findings of the study**

In the pre-test & post test scores of sensory perceptual ability among mentally challenged children of both experimental & control group. Among the experimental group 8(26.7%) will show probable difference, majority 22(73.3%) will show definite difference, in the pre-test. But in the post-test 4(13.3%) of the samples is on typical performance, and 14(46.7%) of the sample will show probable differences and 12(40%) of the sample is on definite difference. In the control group 7(23.3%) will show probable difference, and 23(76.7%) is on definite difference, in the pre-test. But there was no change in the post test score

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In the pre-test & post test scores of emotional well being among mentally challenged children of both experimental & control group. Among the experimental group 5(26.7%) will show mild emotional well-being, majority 25(83.3%) will show moderate emotional well-being, in the pre-test. But in the post-test 16(53.3%) of the samples is on mild emotional wellbeing, and 14(46.7%) of the sample will show moderate emotional well-being. In the control group 7(23.3%) will show mild emotional wellbeing, and 23(76.7%) is on moderate emotional well-being, in the pre-test. But there was no change in the post test score as 7(23.7%) will show mild emotional well-being and 23(76.6%) is on moderate emotional well-being

### **Conclusion**

The study reveals that there was significant improve in the level of sensory stimulation level of mentally challenged children's in the post test. The effectiveness of sensory stimulation techniques that improve the sensory perceptual ability among mentally challenged children a using paired “t” test shows 18.6 significant at the level of  $p < 0.001$

The study reveals that there was significant improve in the level of emotional well being of mentally challenged childrens, in the post test. The effectiveness of sensory stimulation techniques that improve the emotional well being among mentally challenged children a using paired “t” test shows 3.4 significant at the level of  $p < 0.001$

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