



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (RJIIF): 5.38  
IJPESH 2023; 10(1): 386-388  
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[www.kheljournal.com](http://www.kheljournal.com)  
Received: 08-11-2022  
Accepted: 16-12-2022

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## Comparative study of development of flexibility of mentally challenged girls Of 10-12 years

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**DOI:** <https://doi.org/10.22271/kheljournal.2023.v10.i1f.2807>

### Abstract

The aims of the research study were to Compare Development of Flexibility among Mentally Challenged Girls of 10-12 years old by using adapted Physical and Therapeutic Exercises Programme. The need of this study was, Researcher feels that mentally challenged children are most neglected population in the society. They struggle very hard to meet their daily routine of the day. The subjects were selected from different schools in mentally challenged school children (girls). To have the difference of data for assessing the development it was decided to impart training and organize the test on subjects and the same subjects to be evaluated after a gap of six months with periodical evaluation for alteration in training The Flexibility Standard testes which are applicable for Mentally Challenged children a) Shoulder rotation test for Shoulder flexibility. b) Forward bend and reach for Trunk flexibility c) Side split test for Hip joint flexibility were selected for evaluating the development of Flexibility. Researcher hypothesized that there will be significant difference in flexibility in mentally challenged girls. Imparted six month training program in which Selective adapted physical education exercises and various therapeutic exercises were included. After Six Months training period the tests were administered individually under standard conditions applicable for specific tests and the time period required between two tests is amply considered. Every subject is allotted with a code and a separate self-contained form for training as well as for test results. Mean, Standard deviation and T-test were applied for statistical findings. From statistical data interpretation it can be stated that there is insignificant difference appeared in the development in Flexibility after adapted physical education exercises hence the hypothesis was rejected.

**Keywords:** Mentally challenged, flexibility, adapted physical education exercises, therapeutic exercises

### Introduction

Competitive play demands the ability to 'read' fast – changing situations, to anticipate the opponents next move, to adapt one's desires to those of one's team makes and to keep one's head in face of challenge. The Cheshire Education Committee's report on retarded children (1973) stated that: by the time they reach the secondary school children of low intelligence are generally of poorer physical development and are less physically able than the more intelligent. Some dull children have excellent coordination but the majority suffers from lack of contrast in range and quality of movement and a proneness to accidents because of this clumsiness. Mentally challenged children are very different from children who are physically challenged and from those children described as educationally subnormal (moderate) who have failed the normal educational system. Mentally challenged or educationally subnormal (serve) children are born with some dysfunction of the nervous system or may suffer from chromosome inequality (Down's syndrome). Some children may appear normal until perhaps the age of two, when it is realized the child is showing autistic tendencies, the cause of which is still unknown.

A more able mentally challenged child may function physically and socially close to the level of a normal child of his age but may behave emotionally in a younger manner, and may be intellectually at a still younger level. This is disconcerting for the teacher who is used to normal children, but presents an interesting challenge to the teacher who is experienced in assessing the abilities and needs of individuals mentally challenged children and in planning and carrying out a programmed of learning experiences designed for each child.

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**Objective of the Study**

1. To find out the degree of mental deformity among the selected subjects.
2. To organize the Pre & Post-test of Flexibility – Shoulder flexibility, Trunk flexibility, Hip Flexibility among mentally challenged girls of 10-12 years of age group.
3. To find out the development of Flexibility through post-test among the mentally challenged subjects.

To suggest and recommend few exercises and to continue with the same adapted physical education and therapeutic exercises for the development in Flexibility among the mentally challenged subjects

**Hypothesis**

The research scholar hypothesizes that there will be significant difference in the Development of Flexibility of Mentally Challenged Girls

**Delimitations**

1. The study is delimited to the mentally challenged subjects with moderately Intellectual Quotient.
2. The study is delimited to age 10-12 years of girls only.
3. The study is delimited to the subjects selected from different schools in the vicinity of Aurangabad city of Maharashtra
4. The Study is delimited to selected Motor ability – Flexibility only
5. The post test is conducted after 6 months after imparting adapted physical education and therapeutic exercises.

**Limitations**

1. The study is with the school subjects and hence the regularity of the subjects was the limitation.
2. The involvement of the subject during the training and tests are the limitation of the study

3. Food, daily routine other than schooling hours, rest, recovery, environment at home, health were few limitations of the study, which are beyond the control of the researcher.

**Methodology**

**Population**

The population is the mentally challenged girls school children with definite age group ranging between 10 to 12 years of Aurangabad city.

**Sample**

The samples of this study are randomly selected from different schools in mentally challenged subjects – Girls. The selected age groups of the subjects are from 10 to 12 years.

**Variables**

**Independent Variables**

1. Standard Tests to Evaluate development of Flexibility
1. Shoulder rotation test for Shoulder flexibility.
2. Forward bend and reach for Trunk flexibility.
3. Side split test for Hip joint flexibility

**Interweaving Variables**

1. **Sex:** Girls
2. **Age:** 10 to 12 years.
3. **Criteria:** Degree of Mentally Challenged
4. **Times:** Initial and Final

**Dependent Variables:** Results of Flexibility

**Collection of Data**

The subjects were selected from different schools in mentally challenged school children (Girls). In all testes were selected for evaluating development of Flexibility of the subjects between 10 to 12 years.

**Table 1:** The table is depicting the mean, standard deviation and t-test of development of Flexibility of Shoulder Flexibility of Mentally Challenged Girls between 10 to 12 years of age

Code (MCG 10-12)	Shoulder Flexibility-I	Shoulder Flexibility-F	Trunk Flexibility- I	Trunk Flexibility-F	Hip Flexibility I	Hip Flexibility F
Mean	24.66	22.77	6	4	7.11	6.44
S. D.	2.73	2.58	1.80	1.65	2.61	2.35
T – test	0.076	Df = 16	0.013	Df = 16	0.28	Df=16

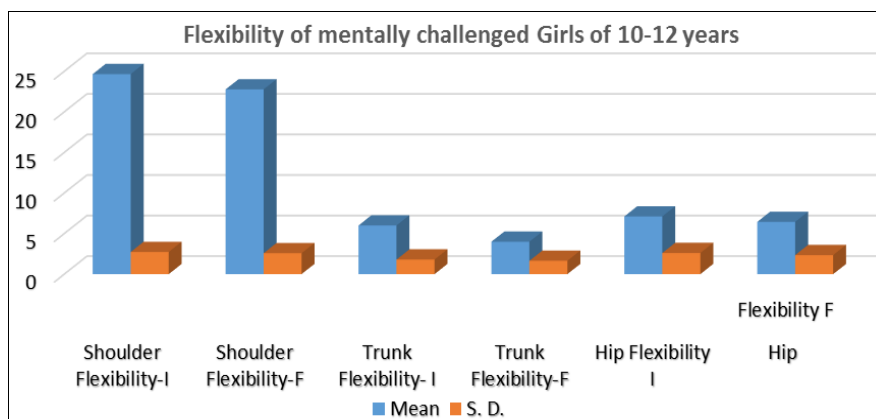
MCG: mentally challenged girls

Shoulder Flexibility I: Initial, Shoulder Flexibility F: Final

Trunk Flexibility I: Initial, Trunk Flexibility F: Final

Hip Flexibility I: Initial, Hip Flexibility F: Final

\* Significant at.05 level



**Graph 1:** The graph is depicting the mean, standard deviation of Flexibility of Shoulder Flexibility, Trunk Flexibility, and Hip Flexibility of Mentally Challenged Girls between 10 to 12 years of age

## Conclusion

The table and the graphs states that the mean of initial Shoulder Flexibility of Mentally Challenged girls between age group of 10 to 12 years is 24.66 Inch (SD = 2.73) and the mean of final Shoulder Flexibility taken after six months is 22.77 Inch (SD = 2.58) the calculated value of the t-test is 0.076 at.05 level of significance and the table value is 1.746 at the Df=16, hence it can be stated that when compared there is insignificant difference appeared in the development in Shoulder Flexibility after adapted physical education exercises.

The table and the graphs states that the mean of initial Trunk Flexibility of Mentally Challenged girls between age group of 10 to 12 years is 6 Inch (SD = 1.80) and the mean of final sitting Trunk Flexibility taken after six months is 4 Inch (SD = 1.65) the calculated value of the t-test is 0.013 at.05 level of significance and the table value is 1.746 at the Df=16, hence it can be stated that when compared there is insignificant difference appeared in the development in Trunk Flexibility after adapted physical education exercises.

The table and the graphs states that the mean of initial Hip Joint Flexibility of Mentally Challenged girls between age group of 10 to 12 years is 7.11 Inch (SD = 2.61) and the mean of final Hip Joint Flexibility taken after six months is 6.44 Inch (SD = 2.35) the calculated value of the t-test is 0.28 at.05 level of significance and the table value is 1.746 at the Df=16, hence it can be stated that there is insignificant difference appeared in the development in Hip Joint Flexibility after adapted physical education exercises.

From statistical data interpretation it can be stated that there is insignificant difference appeared in the development in Flexibility after adapted physical education exercises hence the hypothesis was rejected

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