Integrated Exercise Program and Behavior Intervention of Mentally Challenged Children

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Abstract : The present study has undertaken to study the Behavior Interventions of Mentally Challenged Children through Integrated Exercise Program. The researcher has selected 48 subjects of mentally challenged boys children from Prabodhani school located in Nashik city. The researcher has first administered the pre test. On the basis of pre test performance (row score), their row score was converted into composite score and divided into two homogeneous groups namely Experimental and Control group. Experimental group was exposed to the Integrated Exercise Program and control group was excluded form the training. The integrated exercise program was designed including all the components of health related fitness. The (BASIC –MR) questioner domain A with 20 questions based on four categories i.e. ,motor skill, daily activity, Reading Writing , Social and Household Work etc was administered to assess the behavior pattern of the subject. Experimental Group was exposed to Integrated Exercise Program for six months After completion of the training programmes both the experimental and control groups were administrated for post test by questioner of BASIC- MR .After the collection of Data, t- ratio was used to for data analysis. The study shows a significant difference in behavior assessment of experimental and control group .The result of Behaviour Domain indicates that, there is a significant difference found in experimental group for Motor Skill, Daily Activities, Reading and Writing, Social and House Hold Work after the six month of Integrated Exercise Program. The study concludes that integrated exercise program is effective in healthy lifestyle and behavior interventions.

Key Words- Integrated Exercise Program, Behavior Intervention, Mentally Challenged.

Introduction –

There are many training program for improving the health and behavioral aspects according to the goal of the person. To achieve the good health exercise plays a very important role which is depended on good exercise program. National Academy of Sports Medicine (NASM) has designed the Optimum Performance Training Module (OPT) which is scientifically, clinically proven fitness based rehabilitation and reconditioning program for the client.. It was shown that incorporating the various components in their training program has improved bio- motor ability, high level of functional strength, neuromuscular efficiency and dynamic flexibility.

The mentally challenged children needs to be focused on health related fitness because structured integrated exercise program provide significant physical conditioning. The benefit of exercise however is not solely physical. Tomporowski and Ellis, studied physical advantages and noted the evidence of improvement in social Behaviour. Psychiatric and Behavioural disturbance are 3-4 times common in children with mental retardation than general population. Though the range of disorder is similar to general population, there is an overall relationship between intellectual level and the presence of disorder, as well as rates are increasing with severity of retardation.

Objectives

To study the effect of integrated exercise program on the Behaviour of mentally challenged Boys respondents.

Hypothesis

It was hypothesized that Motor Skill, Daily activities, Reading and Writing, Social and House Hold Work is improved due to integrated exercise program in Mentally Challenged Boys Respondents.

Methodology

The study was taken by the researcher to see the effect of integrated exercise on the behavior of mentally challenged children.

Population and Sampling

The population was mentally challenged children aged 16 to 17 years of boys studying in school, located in Nashik City(Maharashtra) .The present study goes with experimental research and questioner method. Since the population is special children rather than the normal children. So, the subjects were selected from Prabodhani Vidya Mandir, Nashik for the study. 48 mild and moderate mentally challenged children between the ages of 16-17 years were selected for the study. Their age and intelligence quotient level of the students was verified from the school admission register.

Collection of Data

In the present study researcher has selected 48 subjects of mentally challenged boys children from Prabodhani school located in Nashik city. The researcher has first administered the pre test. On the basis of pre test performance (row score), their row score was converted into composite score and divided into two homogeneous groups namely Experimental and Control group. Experimental group was exposed to the Integrated Exercise Program training and control group was not included for the training. The integrated exercise program was designed including all the components of health related fitness. The duration of the Integrated Exercise Program training was six months..

The research scholar reviewed the existing standardized questioner available in the valuable resources by the scholars in the field of human development and psychology and taking into consideration for the special case for mentally challenged children in Nashik city. Behavior assessment for special children is a very broad term, which contain so many domains. The (BASIC –MR) questioner domain A with 20 questions based on four categories i.e. ,motor skill, daily activity etc was administered to assess the behavior pattern of the subject. Experimental Group was exposed to Integrated Exercise Program for six months After completion of the training programmes both the experimental and control groups were administrated for post test by questioner of BASIC- MR .After the collection of Data t- ratio was used to for data analysis.

Data Analysis-

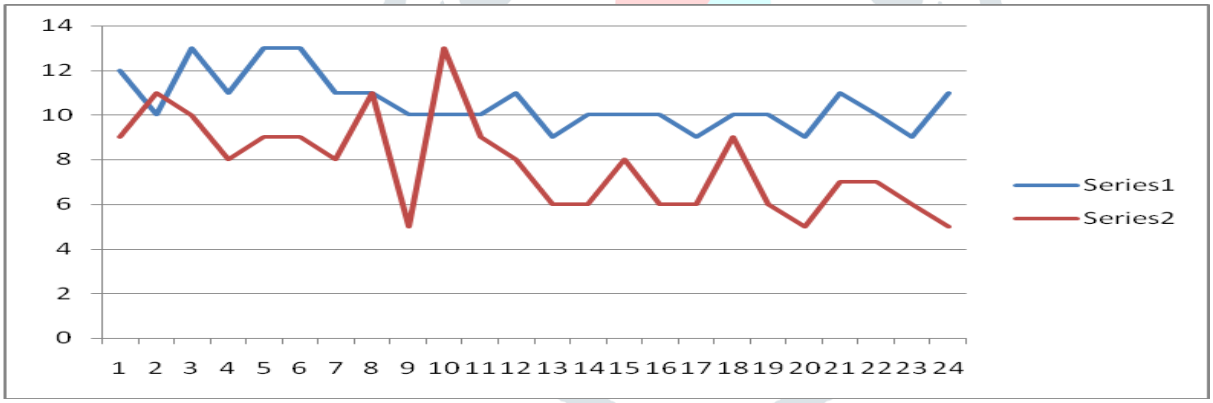
Table - 1

Summary of Mean, Standard Deviation, Mean Difference and t-ratio for the Post-test of Control and Experimental Groups of Behaviour (Motor Skill) for Mentally Challenged Boys Respondents

Post Test	Mean	Standard Deviation	Mean Difference	Standard Error	t-ratio
Control Group n = 24	7.792	2.126	2.750	0.500	5.502*
Experimental Group n = 24	10.542	1.215			

*Significant at 0.05 level Tabulated $t_{0.05(46)} = 1.678$

The findings of Table-1 reveal that the mean Post-test for Control and Experimental groups of behaviour (Motor Skill). The calculated t value is 5.502 which is greater than the tabulated t value 1.678 for 46 degree of freedom at 0.05 level. Hence, there is significant Mean Difference between the Post-test for Control and Experimental groups in Behaviour (Motor Skill) of Mentally Challenged Boys. It shows that there is improvement in motor skill due to training.



Series 1 - Experimental Group Series 2 - Control Group

Figure 1

Graphical Presentation of Post-test Data of Control and Experimental Groups of Behaviour (Motor Skill) for Mentally Challenged Boys Respondents

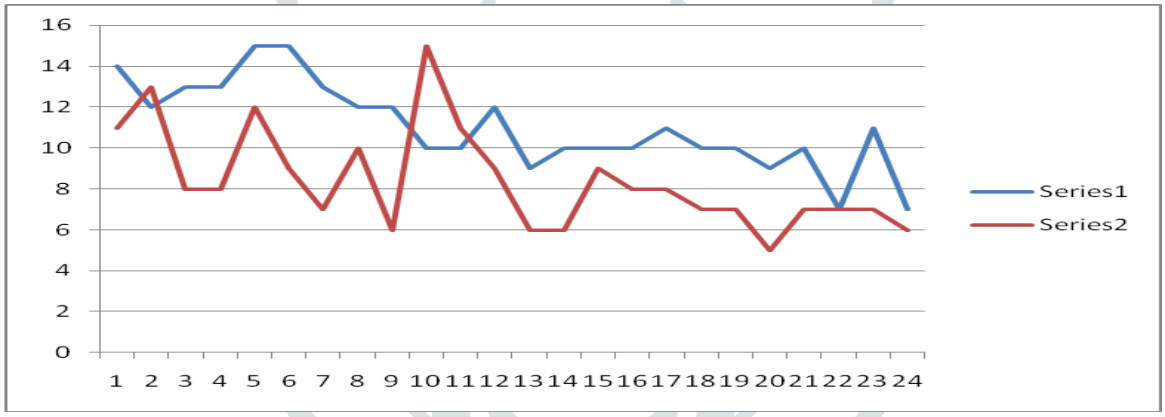
Table - 2

Summary of Mean, Standard Deviation, Mean Difference and t-ratio for the Post-test of Control and Experimental Groups of Behaviour (Daily Activities) for Mentally Challenged Boys Respondents

Post Test	Mean	Standard Deviation	Mean Difference	Standard Error	t-ratio
Control Group n = 24	8.417	2.483	2.625	0.669	3.926*
Experimental Group n = 24	11.042	2.136			

* Significant at 0.05 level Tabulated $t_{0.05(46)}$ =1.678

The findings of Table-2 reveal that the mean Post-test for Control and Experimental groups of behaviour (Daily activity). The calculated t value is 3.926 which is greater than the tabulated t value 1.678 for 46 degree of freedom at 0.05 level. Hence, there is significant Mean Difference between the Post-test for Control and Experimental groups in Behaviour (Daily Activity) of Mentally Challenged Boys. So, there is improvement in daily activities due to training. .



Series 1 - Experimental Group Series 2 - Control Group

Figure 2
Graphical Presentation of Post-test Data of Control and Experimental Groups of Behaviour (Daily Activities) for Mentally Challenged Boys Respondent

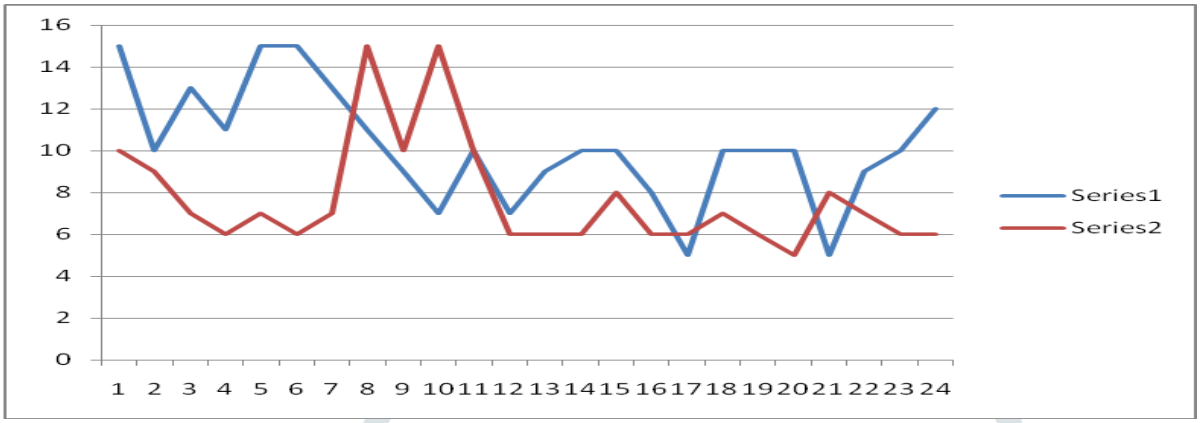
Table - 3

Summary of Mean, Standard Deviation, Mean Difference and t-ratio for the Post-test of Control and Experimental Groups of Behaviour (Reading Writing) for Mentally Challenged Boys Respondents

Post Test	Mean	Standard Deviation	Mean Difference	Standard Error	t-ratio
Control Group n = 24	7.708	2.662	2.458	0.781	3.150*
Experimental Group n = 24	10.167	2.745			

*Significant at 0.05 level Tabulated $t_{0.05(46)}$=1.678

The findings of Table-3 reveal that the mean Post-test for Control and Experimental groups in behaviour (Reading & Writing) . The calculated t value is 3.150 which is greater than the tabulated t value 1.678 for 46 degree of freedom at 0.05 level. Hence, there is significant Mean Difference between the Post-test for Control and Experimental groups in Behaviour (Reading & Writing) of Mentally Challenged Boys. So, there is improvement in daily activities due to training.



Series 1 - Experimental Group Series 2 - Control Group

Figure 3

Graphical Presentation of Post-test Data of Control and Experimental Groups of Behaviour (Reading Writing) for Mentally Challenged Boys Respondents

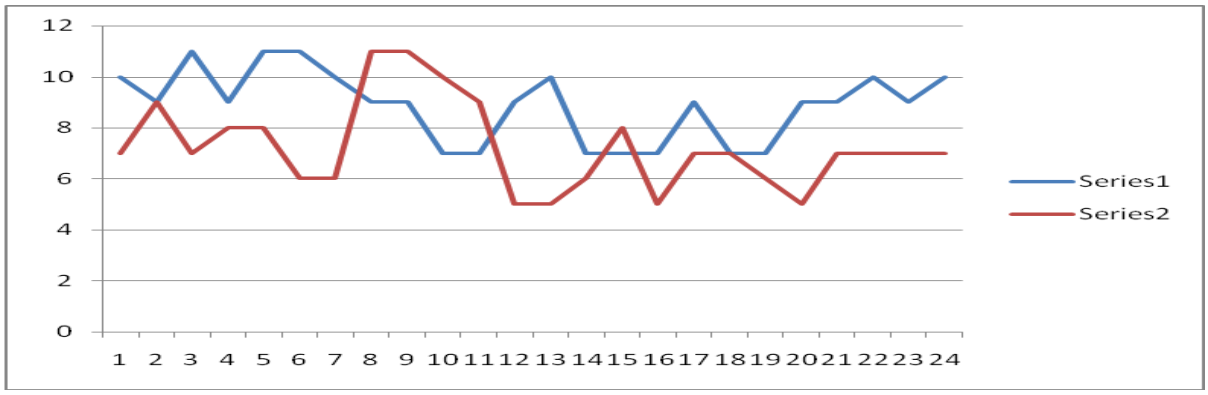
Table - 4

Summary of Mean, Standard Deviation, Mean Difference and t-ratio for the Post-test of Control and Experimental Groups of Behaviour (Social & House Hold Work) for Mentally Challenged Boys Respondents

Post Test	Mean	Standard Deviation	Mean Difference	Standard Error	t-ratio
Control Group n = 24	7.250	1.751	1.625	0.457	3.558*
Experimental Group n = 24	8.875	1.393			

*Significant at 0.05 level Tabulated $t_{0.05(46)}$ =1.678

The findings of Table-4 reveal that the mean Post-test for Control and Experimental groups of behaviour (Social & House Hold) . The calculated t value is 3.558 which is greater than the tabulated t value 1.678 for 46 degree of freedom at 0.05 level. Hence, there is Significant Mean Difference between the Post-test for Control and Experimental groups in Behaviour (Social & House Hold) of Mentally Challenged Boys. So, there is improvement in social and household work due to training.



Series 1 - Experimental Group Series 2 - Control Group

Figure 4

Graphical Presentation of Post-test Data of Control and Experimental Groups of Behaviour (Social & House Hold Work) for Mentally Challenged Boys Respondents

Findings and Conclusion –

"To deal with the Mentally Children is very difficult but a noble task. Ample of research work are being conducted worldwide for rehabilitation of these special children". (Gudrun and Doll, 2004; Sherrill, 1976). However, no work is available based on integrated exercise program for their behaviour. Moreover this will focus light in improving their lifestyle and improve their health status.

The research finding shows the significant difference in post test of control and experimental groups ($t = 5.502 > t_{0.05}(46) = 1.678$) in Motor Skill ,($t = 3.926 > t_{0.05}(46) = 1.678$) in Daily Activities, ($t = 3.150 > t_{0.05}(46) = 1.678$) in Reading Writing and ($t = 3.558 > t_{0.05}(46) = 1.678$) in Behaviour (Social and Household Work).

According to the objectives, study has focused on experimental study on Behaviour of Mentally Challenged Children. There is a Significant difference found in overall comparison between experimental and control group .The result of behaviour Domain indicates that, there is a significant difference found in experimental group for Motor Skill, Daily Activities, Reading and Writing, Social and House Hold Work.

Conclusion-

- It was observed during the training that some children are hyperactive, with the help of proper training there energy can be channelize and they can participate in competitive sports.
- It was concluded that there is strong need of integrated exercise program for mentally challenged children to maintain their fitness for execution of daily activities
- It was observed that school curriculum has more focused on cardio activities rather than other components of Health Related Fitness. Proper exercise programming will enhance their restricted movements and improve their fitness level which will make them more independent.

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