



EFFECTIVENESS OF CLAY MODELING IN IMPROVING THE HAND MOTOR SKILLS AMONG MILD MENTALLY RETARDED CHILDREN

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ABSTRACT

Introduction: Mentally retarded children are those who have less mobility because of mental conditions, especially in comparison with healthy subjects, and that is why they suffer from physical-motor weakness.

Aim: The purpose of the study was to assess the effectiveness of clay modeling in improving the hand motor skills among mild mentally retarded children in selected special school

Methods: The samples for the study were, 35 mild mentally retarded children with decreased hand motor skills. In pretest, hand motor skills of mild mentally retarded children were assessed and then clay modeling has been administered for six weeks. After six weeks, a posttest was conducted in order to assess the hand motor skills of mild mentally retarded children.

Results: During the post test 37.1% of mild mentally retarded children had decreased had motor skills and 62.9% of mild mentally retarded children had moderate hand motor skills. The post test mean score of hand motor skills is 25.3 which was improved than the pretest mean score 20.3 ($t=16.015$, $df=34$ and $p<0.0001$).

Conclusion: The result showed that performance in school was associated with the hand motor skills of mild mentally retarded children.

KEYWORDS : clay modeling, motor skills, mental retardation

INTRODUCTION

Mild mentally retarded children typically have difficulties in social, communication, physical and functional academic skills. But these children are educable and trainable. Continuous training will improve their disabilities. Poor motor skills can lead to frustration, boredom, low self-esteem and discouragement because they make the child less self-sufficient, hence fine motor skills can be improved through various interventions like play, arts, crafts and games. Clay modeling can help to train mild mentally retarded children with motor skill problems to better use of his or her fingers. The child can gain control over finger movement and start using them in a more effective manner. It improves the grasping, flexing and bending power of the fingers, which inturn would allow the person to start using hands for everyday tasks.

AIM

The purpose of the study was to assess the effectiveness of clay modeling in improving the hand motor skills among mild mentally retarded children in selected special school

MATERIALS AND METHODS

The data collection tool used for generating the necessary data was a modified Basic Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC –MR). The samples for the study were, 35 mild mentally retarded children with decreased hand motor skills. In pretest, hand motor skills of mild mentally retarded children were assessed and then clay modeling has been administered for six weeks. After six weeks, a posttest was conducted in order to assess the hand motor skills of mild mentally retarded children.

RESULTS

Table 1 Distribution of Demographic Variables

Variables	Components of Variables	Frequency (f)	Percentage (%)
Age	5-7 years	7	20
	8-10 years	13	37.1
	11-15 years	15	42.9
Gender	Male	22	62.9
	Female	13	37.1
Education	Primary	15	42.9
	Junior	20	57.1
Performance in	Good	0	0

school	Average	25	71.4
	Poor	10	28.8

Table 2 Assessment of Hand Motor Skills

Score	Hand motor skills	Before		After	
		frequency	%	frequency	%
1-25	Decreased	35	100	13	37.1
26-50	Moderate	0	0	17	62.9
51-75	Increased	0	0	0	0

Table 3 Effectiveness of Clay Modeling in Improving Hand Motor Skills

Subject	Before		After		Effectiveness		P value
	Mean	S.D	Mean	S.D	Mean	S.D	
Hand motor skills	20.3	4.2	25.3	3.5	5.0	1.8	<0.0001

DISCUSSION

A total number of 35 mild mentally retarded children were selected by consecutive sampling technique. The hand motor skills of these children were assessed by using a modified Basic Behavioral Assessment Scale for Indian Children with Mental Retardation (BASIC – MR). On analyzing the data on hand motor skills of mild mentally retarded children before administering clay modeling revealed that 100% of children had decreased hand motor skills. The finding were supported by the study done by Jelle and Vuiji (2009) on motor performance of children with mild intellectual disability, they stated that 81.8% of mild intellectual disability children have impairment in their motor performance. On analyzing the data on hand motor skills of mild mentally retarded children after administering clay modeling 62.9% of children had moderate level of hand motor skills and 37.1% of children had decreased hand motor skills. These findings were supported by the study done by Paulette, Gladis and Ross (2007) on play therapy for mild intellectual disability to improve motor skills, they have noted clay modeling along with play therapy have developed the hand motor skills of 76.4% among mild intellectual disability children. On analyzing the data on pretest and posttest hand motor skills of mild mentally retarded children found that the mean hand motor skills of mild mentally retarded children before administering of clay modeling was 20.3 ± 4.2 and the same was improved after administering clay modeling was 25.3 ± 3.5 . The mean improvement of hand motor skills after clay modeling was 5.0 ± 1.8 . The above mean was significant at $p<0.0001$. This difference was statistically very highly significant ($t= 16.015$, $df=34$ and $p<0.0001$). These findings were

congruent with study done by Donald, Martha and Nribhay (2008) on effect of play therapy on mild intellectual disability found that play therapy is an effective intervention in improving the hand motor skills of children with mild intellectual disability. By analyzing the data, the performance in school has significant association with the hand motor skills of children with mild mentally retarded children. The other demographic variable have no significant association with the hand motor skills of mild mentally retarded children. These findings were supported by the study done by Elysee, Hille and Ouden (2009) on school performance of mild intellectual disability they have stated that about 84% of the children with mild intellectual disability they have stated that about 84% of the children with mild intellectual disability have impairment in motor skills and hence they are below the grade of normal school performance.

CONCLUSION

The study finding revealed that there was a significant improvement in the hand motor skills among mild mentally retarded children after the administration of clay modeling. Thus clay modeling plays an important role in improving the hand motor skills among mild mentally retarded children.

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