



PRACTICAL ADAPTIVE BEHAVIOR OF CHILDREN WITH MENTAL RETARDATION

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Abstract:

How do the children with mild and moderate mental retardation recognize and comprehend the external reality? How do they communicate their abilities of representation and exhibit their competencies? What kind of Practical skills do they possess? With what practical skills do they interact? These are some of the seminal questions in the contemporary discourse on children with mental retardation. This study is an attempt to grapple with some of the above questions, related to the practical adaptive behaviour of children with mental retardation. In social and domestic lives, the practical skills are important, and this article is to study the comparison of various domains of mentally retarded individuals with different degrees of retardation such as mild, moderate, severe, and profound. To carry out this research work a sample of 60 children with mental retardation are randomly selected, from two sub-populations i.e., mild and moderate children with mental retardation. This article mainly focuses on the practical adaptive behavior of children with mild and moderate mental retardation to their level of mental retardation, gender, level of the parent's education, and years of schooling. This research helped us to identify certain gaps in the existing knowledge. It was found based on the conducted research that the majority of the children with mild mental retardation exhibited practical behavior most frequently by participating in most of the classroom practical activities. It is also very important for us to realize that these children whose exceptionalities and disabilities can also be helped with good suggestions so, that they can lead a happy and productive life. From the analysis and testing of the hypothesis, it is evident that the variable 'gender' does not have any influence on children's practical skills. Irrespective of various backgrounds both the boys and girls are equally getting involved in the different practical activities, this may be the reason for the absence of gender discrimination in this context. It can be concluded that children with

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mental retardation exhibit delays in all aspects of practical skills management compared to non-retarded children and it is felt that if some verbal and non-verbal prompts are provided, these children can manage practical acts well in familiar situations.

Keywords: children with mild and moderate mental retardation; adaptive behavior and practical skills

1. Introduction

Children with mental retardation differ greatly regarding their degree of retardedness. They are generally classified into mild, moderate, severe, and profound. It is interesting to know that these children differ significantly in conceptualizing and constructing ideas, concepts, and adaptive behavior. But currently available training programs for special teachers include very little information about the adaptive behavior of children with mental retardation. The information about children with mental retardation and their adaptive behavior is not yet known in detail and there is also a scarcity of resource material in this area since there is not much research being done on these aspects on children with mental retardation. The American Association on Intellectual and Developmental Disabilities has defined about assessing intellectual disability which stresses that professionals must also consider the additional factors such as the community environment typical of the individual's peers and culture while teaching them. Professionals should also consider linguistic diversity and cultural differences in the way people communicate, move, and behave when they are teaching (2012, 11.ed). Hence, there is a need to examine the adaptive behavior of children with mental retardation. Considering these aspects an attempt is made in this paper to unearth the underlying practical adaptive behavior of the children with mental retardation.

According to Oakland, Thomas & Harrison, Patti (2008), an adaptive behavior refers to the ways individuals meet their personal needs as well as deal with the natural and social demands in their environments. One may think of adaptive behavior as a constellation of skills that allow a person to function effectively every day at home, school, work, and in the community. Adaptive behavior is the collection of conceptual, social, and practical skills that have been learned by people to function in their everyday lives. The concept of adaptive behavior (as expressed in conceptual, social, and practical adaptive skills) found in the manual of American Association on Mental Retardation (2002) is a continuation of the historical attention given to adaptive behavior in the diagnosis of mental retardation (McGrew, Bruininks, & Johnson, 1996; Thompson et al., 1999; Widaman & McGrew, 1996). The definition offered by the American Association on Intellectual and Developmental Disabilities (2012) also supports this idea.

Based on the extensive research done by many educationists such as Thompson et al. (1999), Widaman and McGrew (1996), and Widaman, Stacy, and Borthwick-Duffy (1993), Greenspan and Grandfield (1992), Kamphaus (1987a), there is an emerging consensus that the structure of adaptive behavior consists of the following three-factor clusters: (a) Cognitive, Communication, and Academic Skills (i.e., Conceptual skills); (b)

Social Competence Skills (i.e., Social skills); and (c) Independent Living Skills (i.e., Practical skills). A fourth factor-cluster, Motor or physical Competence (or development), is found in many factor-analytic studies of adaptive behavior (Thompson et al., 1999). This factor involves gross and fine-motor skills.

The mentally retarded individual should be prepared to the best of his or her ability to compete in society as an independent person. In the primary grades, this involves learning experiences in the academic area. In junior and senior high school levels, learning centers around practical application and vocational skills, and the utilization of academic subjects to assist in these skills. The job of the parents and teachers is to effectively prepare the students for the roles they will take in society (L. Gerald Buchan, Sally Teed & Craig Peterson). It is thus imperative that the teacher understand the nature of these children and be able to apply strategies for proper training of these children in improving their adaptive skills.

Many studies have demonstrated that children with mental retardation can learn quite a bit when placed in an environment deliberately engineered to promote progress. Such meticulous engineering is more important for children with retardation than for children with normal intellect. Realizing that even children whose exceptionalities are severe can be enabled to lead happy and productive lives is of utmost importance. We ought to encourage them to understand the forces of intellect, regardless of the deficit level. The main objective of this study is to enquire into the adaptive behavior concerning the practical skills of such children in respect of the ideas and descriptions given by persons with mild and moderate mental retardation about the world of events, objects, actions, and relations, it may generate an acceptable disciplinary knowledge and theoretical ideas related to their conceptual systems. It also identifies certain gaps in the existing knowledge.

2. Objective

To study the practical adaptive behavior of the children with mild and moderate mental retardation with respect to their level of mental retardation, gender, level of the parent's education and years of schooling.

3. Methodology

Hyderabad Special School for Mentally Handicapped at Sweekaar Rehabilitation Institute for Handicapped, Secunderabad, India was selected for the study.

To carry out this research work a sample of 60 children with mental retardation are randomly selected, from two sub-populations i.e., mild (42) and moderate (64) children with mental retardation. The selection of a sample of this nature was possible only with the guidance and support of the class teachers of Hyderabad special school for the handicapped. The subjects included in the study were from the categories of mild and moderate mental retardation with their mental age (MA) ranging from 4-8 years and chronological age (CA) from 10-15 years. This chronological age range was selected

because the mild and moderate mental retardation with 4 to 8 years MA range corresponds to 10 to 15 years of chronological age. Based on the chronological age, the sample is categorized into primary class, comprising children of age group 9-12 years and secondary class with an age group of 13-15 years. The present sample comprises 60 children with mental retardation of which 30 are with mild level and 30 are of moderate level mental retardation. Only mild and moderate groups were selected because the assessment priorities and remediation directions are similar, as compared to the severely handicapped group. A Hyderabad Special School trained psychologist tested all the children and recorded the mental age (MA) estimates. The common tests used for assessment were Binet–Kamat test of intelligence, the Vineland Social Maturity Scale also the Seguin Form Board. Based on the psychological classification, and as per the school records, the sample is divided into two groups, 30 cases belonging to IQ range of 35 to 49 i.e., children belonging to moderate level of mental retardation, and 30 cases belonging to IQ range of 50 to 70 i.e., children belonging to a mild level of mental retardation were selected.

To study the adaptive behavior of children with mental retardation, the tool is divided into different sections. The first section is about the profile of the respondents in which the personal data of the respondents is collected. The second section is related to the dependent variables selected for the study, the practical adaptive behavior which focuses on string the beads according to the color, keep pencils and pens in a box, arrange the textbooks in a row, keep tables and chairs in order, collect notebooks from the students. etc.

Children with mental retardation differ from normal children in understanding, interacting, and accepting people around them, and also in sharing their emotional feelings with others. Unlike normal children, the behavior of children with mental retardation is unpredictable and cannot be understood easily. Therefore, it is not easy to establish a good rapport with children with mental retardation. The sample children were hesitant in the beginning to interact with the investigators. Interaction with them was gradually developed with love, gentleness, and kindness, and soothing words. However, every interaction with each respondent was a new and unique experience in itself. Over six months of negotiation the respondents felt comfortable and could express their ideas and feelings freely. The investigators were able to notice a change in their outlook, attitude, and behavior after continuous interaction. The investigators played different roles like a playmate and friend and adopted different strategies (gestures, facial expression, voice modulation, eye contact etc.,) for instilling confidence and eliciting responses in children.

The researchers could establish a secured classroom climate and help the children to develop readiness to learn activities provided by the researchers. The researchers used various types of social reinforces such as smiling, verbal praise, patting, shake hands etc. These interactions helped the researchers to work effectively with the children and move to the next level of work as easily as possible.

3.1 Data Analysis and Interpretation

It is observed that irrespective of their levels of retardation, children could complete the tasks assigned to them at their own pace. They are maintaining rapport with their peer and they care and share. They recognized the pictures of persons given in their textbooks and when a known person/figure comes or appears in a book, they expressed a sense of happiness. Many children can work and maintain good social and cordial relationship with others. It is further noticed that when they are asked to follow instructions, they could not follow them instantly, but when repeated many times they understood and followed them. They also exhibited social responsibility by keeping their surroundings clean, closing the running taps, and helping the teacher in arranging things etc. The investigators also observed that the majority of children with mental retardation showed concern for their peers by comforting and helping them.

Investigators noticed that boys and girls performed the given tasks similarly and equally and there is no much difference between boys and girls in completing the task. From such behaviors, investigators could infer that children with mental retardation can learn simple daily skills, and can work and maintain good relationships. A few typical behaviors observed in the children were: greeting the researchers with warmth, getting ready to write by sharpening their pencils, taking out their books and papers from their school bags to write and read, waiting anxiously for a new activity to begin by the researcher/teacher, sitting in attention for the instructions to be given by the researcher, showing interest in the task assigned, responding to teacher's appreciation and praise such as clapping, patting, praising, etc., and being motivated to learn new tasks.

Both MacMillan and his colleagues and Greenspan (1992) agreed that the adaptive behavior criterion in assessment to identify people with mental retardation needs to be re conceptualized, to reflect actual problems of adaptation in daily functioning faced by those with mild mental retardation. Rather than basic practical skills of self-care and home-living, the areas of challenge for assessment are those that require planning, decision making, and judgment.

Practical skills are defined as those skills that are required in the everyday life of an individual. They may include skills that can influence a person's ability to function independently and productively in the community. For persons with mental retardation to adjust to living in the community, they need to acquire several skills, many of which are in the area of self-help. Researchers have found, for example, that successful living in the community depends on such things as the ability to manage money, prepare meals, and maintain a clean house, and keep one's clothing and oneself groomed (Schalock, Harper, & Carver, 1981).

Fayyaz Ahmad Faize May (2014), in his study "Improving adaptive skills in a child with mental retardation: a case study", affirms that Education is about changing the behavior of a person positively. However, this task is not easy for a teacher teaching to children with Developmental Disorder (DD). Such children have deficits in intellectual functioning, deficits in adaptive behavior, and the onset of these deficits during the developmental period. Improving the adaptive skills in children with Mental Retardation (MR) became a focus of interest to the researchers. A case study of 10 years old child with

MR was taken for this purpose. The data were collected through behavioral observation of the child, interviews with the parents and the teachers, and the use of psychological tests. The researchers designed and implemented an Individualized Educational Plan (IEP) incorporating different techniques of Behavior Therapy. The teachers and parents also assisted the researchers in implementing the plan. The adaptive skills of the child improved significantly as consequence.

3.2 Practical Adaptive Behavior vs. Level of Mental Retardation

To study the relationship between the practical adaptive behavior and level of mental retardation of children, the data collected has been analyzed and presented below.

Table 1: Practical Adaptive Behavior of Children with Mental Retardation vs. Level of Mental Retardation

		Practical Skills		Total
		Medium	Skills	
Level of MR	Mild Count	2	28	30
	% Level of MR	6.7	93.3	100.0
	% Practical Skills	15.4	59.6	50.0
	% Total	3.3	46.7	50.0
	Moderate Count	11	19	30
	% Level of MR	36.7	63.3	100.0
	% Practical Skills	84.6	40.4	50.0
	% Total	18.3	31.7	50.0
	Total Count	13	47	60
	% Level of MR	21.7	78.3	100.0
	% Practical Skills	100.0	100.0	100.0
	% Total	21.7	78.3	100.0

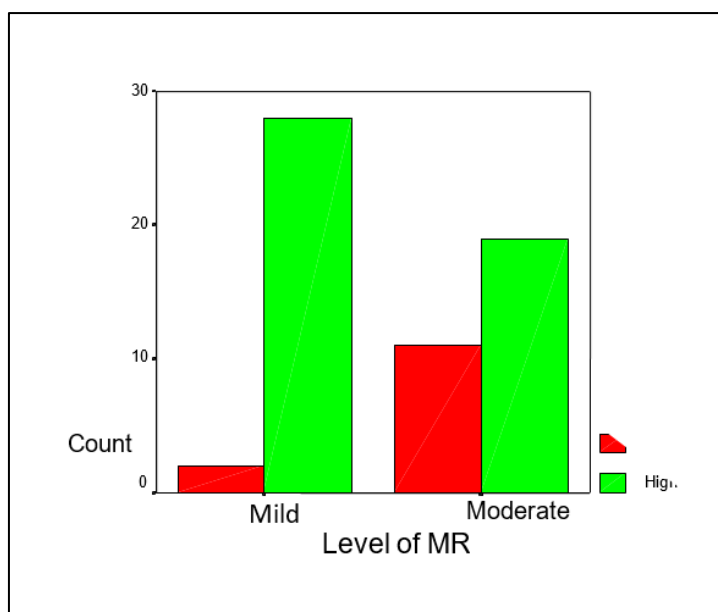


Figure 1: Practical Adaptive Behavior of Children with Mental Retardation vs. Level of Mental Retardation

The above table reveals that maximum numbers of children with mental retardation (21.7%) belong to medium levels of practical skills and (78.3%) belong to a high level of mental retardation. Among children with mild mental retardation, 93.3% possess a high level of practical skills. The majority of children with moderate mental retardation (36.7%) possess a medium level and (63.3%) possess a high level of practical skills.

3.3 Difference between the Mild, Moderate Groups of Children with Mental Retardation Concerning their Practical Skills

To study the difference between the mild and moderate retarded groups of children concerning their practical skills, the following null hypothesis has been formulated.

There is no significant difference between the children with mild and moderate mental retardation concerning their practical skills.

Table 2: Difference between MR children (Mild & Moderate) with respect to practical skills

Item	Value
Table Value	3.841
Calculated Value	24.754
Degrees of Freedom	1
Level of Significance	0.05

The calculated median test value (24.754) is more than the standard table value (3.841) at 1 degree of freedom and 0.05 levels of significance. Since the calculated value is more than the table value, the null hypothesis is rejected. In other words, the alternative hypothesis has been accepted, i.e., there are differences between the mild and moderate retarded groups of children concerning their practical adaptive behaviour.

3.4 Practical Adaptive Behavior of Children with Mental Retardation vs. Gender Background Parents Education, and Children's Years of Schooling

To study the practical adaptive behavior of children with mental retardation concerning their gender, level of parent's education, and years of schooling, the data collected has been processed and analyzed concerning their practical adaptive behavior and the results are presented below.

3.5 Difference between the Mentally Retarded Boys and Girls Concerning Their Practical Skills

To study the difference between the boys and girls concerning their practical skills, the following null hypothesis has been formulated: "There are no differences between the boys and girls with mental retardation respect to their practical skills".

The above null hypothesis has been tested by applying the statistical technique "Median Test" and the results were interpreted at 95% level of confidence.

Table 3: Difference between MR boys and MR girls with respect to practical skills

Item	Value
Table Value	3.841
Calculated Value	0.069
Degrees of Freedom	1
Level of Significance	0.05

To study the difference between the boys and girls concerning their practical adaptive behavior, a median test is applied & the results are interpreted at a 95% level of significance and it has been found that there are no differences between the boys and girls with mental retardation concerning their practical skills as the calculated "Median Test" value (0.069) is less than the standard table value (3.841) reveals that there is no difference between the boys and girls with mental retardation concerning their practical skills.

3.6 Difference between the Practical Skills of children Concerning Mother's and Father's Educational Background and Years of Schooling

Table 4: Difference between MR Children with respect to practical skills

H Test	Mother's Education	Father's Education	Years of Schooling
Table Value	9.488	9.488	12.592
Calculated Value	9.999	10.304	12.799
Degrees of Freedom	4	4	6
Levels of Significance	0.05	0.05	0.05

To study the difference between the groups of children with different mother's education, father's education background and years of schooling of children concerning their practical adaptive behavior, the hypothesis has been tested by applying the statistical technique H- test & the results were interpreted at 95% level of significance and it has been found that there is a significant difference between the retarded groups of children with different mother's education, father's education background and years of schooling concerning their practical adaptive behavior as the calculated H- test values (9.999), (10.304), (12.799) is more than the standard table value (9.488), (9.488), (12.592) respectively at 4 degrees of freedom.

4. Discussion of the Findings

Among children with mild mental retardation, 93.3% possess a high level of practical skills. The majority of children with moderate mental retardation; 36.7% possess a medium level of practical skills. It may be further stated that the level of mental retardation highly influences the practical skills of children. It may be further concluded that the majority of children despite their retardation, can perform better in most of the selected practical activities.

From the analysis of the data, it was found that there is no difference between boys and girls concerning their practical skills. The reason behind this fact may be due to the

equal importance given to both boys and girls in participating in practical activities and acquiring practical skills. Further it reveals that maximum number of boys (70%) and girls (86.7%) possess high level of practical skills. All the children possess almost identical practical skills, and this may be the reason for the absence of differences between genders in this context.

The study reveals that the majority of the children with mental retardation whose mothers studied up to post-graduation possess high level of practical skills. This reveals that with the increase in the mother's education level, there is also a corresponding increase in their children's practical skills. The mother's education plays a considerable role in shaping the practical behavior of children. Further, the study revealed that among children with mild and moderate retardation, the majority possess medium levels of practical skills, this has a relation with the father's educational level of children with mental retardation. It may be stated that as there is an increase in the education level of parents, there is also a corresponding increase in their children's level of practical skills.

This study revealed that there is a significant difference in the levels of practical skills among children with mental retardation about their years of schooling. Among the children who have 5 years, 6 years, 7 years of schooling, all most all possess a high level of practical skills. With an increase in the years of schooling, there is a corresponding increase in their level of practical skills. It can be stated that years of schooling might have influenced the practical skills of children.

The majority of the children with mild mental retardation and all most all the normal children were able to perform better in the selected activities on practical skills such as stringing beads according to the color, keeping pencils and pens in a box, arranging the textbooks in a row, keeping tables and chairs in an order, dividing the class into two groups of boys and girls, indicating the date in the calendar, distributing papers to the students, cleaning the blackboard, counting the number of charts in the classroom, collecting notebooks from the students, etc. Children were asked to perform twelve activities. It was found that the children with mild mental retardation were able to perform most of the given activities, whereas the children with moderate mental retardation could not perform all the given activities. It is observed that the majority of the children with mild mental retardation and all the normal children were able to score high marks in practical skills.

5. Conclusion

It can be concluded that Students with Intellectual disabilities who acquire good practical skills, and show more favorable adaptive behavior, have a more positive self-concept and this leads to the understanding of their limitations and capabilities in better ways. Further, it is also observed that the teachers working in these schools are specially trained, however, they are not updated fully in imparting education to this group of Intellectual disability as there are no opportunities for them to update their skills due to lack of provisions for In-service Education. Therefore, there is an urgent need to formulate some short-term programs, in-service programs basing upon the recent researches carried out

in the area of educating children with Intellectual disabilities across the globe. Therefore, special teachers should be provided with orientation and practical instructions to teach the children to acquire all the three skills such as conceptual, social, and practical skills of adaptive behavior. It is very necessary to provide sufficient opportunities for the children with mental retardation in mastering their environment. A space has to be provided for the development of effective conceptual, social, and practical skills among children with mental retardation.

Conflict of Interest Statement

The authors declare no conflicts of interests.

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