World Journal of Sport Sciences 3 (S): 605-616, 2010
ISSN 2078-4724
© IDOSI Publications, 2010

Effects of Inclusion in a Recreational Sports Program on Improving Some Basic Motor Skills and Health Behavior for Mentally Retarded (Able to Learn) and Normal Children

Sobhy Mohamed Mohamed Serag

Department of Sports Recreation, Faculty of Physical Education, Kafr Al-Sheikh University, Egypt

Abstract: The current research aims at identifying the effect of inclusion in a recreational sports program on improving some basic motor skills and health behavior for mentally retarded (able to learn) and normal children. The researcher used the quasi-experimental approach on sample of 15 mentally retarded children from Al-Tarbia Al-Fekria Primary school (Kafr Al-Shaikh Educational directorate) and 15 normal Children from Al-Moalemat experimental primary school (Kafr Al-Shaikh Educational directorate). Data collection was done using basic motor skills tests and health behavior inventory. The researcher designed a recreational sports program using running, hopping, bouncing and throwing competitions, accompanied with music for improving basic motor skills. The program included 18 units for 12 weeks (3 units per week). The unit duration was 35 minutes. Program application was done outside the school day through inclusion of mentally retarded (able to learn) children with normal ones in Al-Tarbia Al-Fekria Primary school. Pre-tests were taken on 10-11/2/2010. Main study was performed from 13/2/2010 to 13/5/2010. Post-tests were taken on 15-16/5/2010. Results revealed that inclusion in a recreational sports program had a positive effect on improving some basic motor skills and health behavior for mentally retarded (able to learn) and normal children. The researcher recommends the activation of inclusion of mentally retarded (able to learn) and normal children in recreational activities inside and outside school.

Key words: Sports recreation · Basic motor skills · health behavior · Mentally retarded children · Normal children

INTRODUCTION

Modern societies are now more concerned with children with disabilities. This concern is clear in qualitative development of educational and rehabilitation programs for this group, including the development of service providing environments. Instead of gathering disabled individuals in special education centers or facilities, the number of voices demanding their inclusion in less isolated environments is increasing.

Playing is an important aspect of modification and direction activities of the mentally retarded child because play is rich in psychological and social values like control and management, self-acceptance, confidence and emotional aspects of success and social acceptance. This is what is sought in most provided programs for those children [1]. Also, basic moves are essential requirements for most motor skills and are the early base of sports experience. One of the physical education objectives in primary stage, as identified in physical education curricula and its executive programs, is to concentrate on such moves and work on developing them [2].

It is reported how important developing basic motor skills for all children and provide them with various motor experiences and a sum of knowledge and information that works on establishing their self- and world- cognition. This is applicable on mentally retarded children who are able to learn. Developing basic motor skills is essential for success in other complex moves [3]. Mentally retarded children with mild levels of disability are falling too far behind normal children in basic motor skills. Most mentally retarded children with mild levels of disability are able to do the minimum level of motor skills related to daily life like walking, climbing, kinesthetic cognition and running [4].

The important role of society is necessary in enforcing and protecting health as this society should work on protecting the environment, disseminating concepts of health behavior and its positive effects and fighting bad habits. Health behavior aims at the benefits of family members, neighborhood and schools. Official, social and civil leaderships should take their responsibilities towards applying health behaviors, prevention and early detection of diseases [5].

Corresponding Author: Sobhy Mohamed Mohamed Serag, Department of Sports Recreation, Faculty of Physical Education, Kafr Al-Sheikh University, Egypt.

Including these concepts and behaviors early is the best way to establish such habits and modify children's behaviors and attitudes towards gaining new positive habits and behaviors related to safety rules. Training the child on a healthy life style at this age helps establishing good health habits. It is indicated that physical education is characterized by movement. It is an education through practice and modification of individual's behavior. Physical education objectives depend on inclusiveness in its behavioral objectives. Sports stimulate the disabled children's desire and enthusiasm to involve in various sports activities. Most these activities can be performed on their levels of capability and physical ability as it is easy to modify health behaviors through these activities [6].

Because recreational sports activities are flexible and easy to modify, it is the best choice for including mentally retarded children who are able to learn with normal children. Involving in recreational sports activities during childhood and after depends greatly on learning and mastering basic motor skills and health behaviors. This involvement enhances the child's health and fitness. These gains are achieved through involving mentally retarded children who are able to learn although the basic motor skills levels of most of those children are far below the levels of their normal counterparts and so are their health behaviors. This limitation in motor performance and health behavior may limit the involvement of mentally retarded children who are able to learn in recreational activities and feeling success accompanied with it. This leads to a decrease in their performance level on basic motor skills and health behavior and isolates them from their normal counterparts. They need to perform on the same, or even higher, levels of their normal counterparts.

More recently, inclusion of mentally retarded children who are able to learn in normal physical education lessons increased because of modern philosophy in special education that adopted putting disabled individuals in less isolated environments. Although physical education aims basically at developing fitness, basic motor skills and sports skills for individual and team sports, most studies dealing with inclusion and it effect on physical education concentrated on psychological and social aspects besides attitudes towards studying and The physical and motor aspects of physical education and the effect of inclusion on it did not receive much attention [7-10].

It is indicated that the most important benefit of basic motor skills for mentally retarded children who are able to learn in concentrated in functional skills as success in basic motor skills helps performing daily life skills [11]. Some studies affirmed that if we can provide sports activities for mentally retarded children who are able to learn where they can use their senses and muscles in motor skills; this may improve their social compatibility [12].

These findings agree with many researches [4, 13, 15-21].

The researcher thinks that the idea of including disabled individuals in societies received a great interest during the last two decades in the form of putting legislations that make inclusion policy possible inside various social institutes. Though, this group of people does not receive enough ways to help them practice sports normally without isolating them from their normal counterparts. The researcher thinks that this isolation has negative effects on mentally retarded children as they only simulate and deal with other mentally retarded children. This has negative effects on basic motor skills and health behavior. So, the researcher is trying to identify the effect of inclusion in a recreational sports program on improving some basic motor skills and health behavior for mentally retarded (able to learn) and normal children.

MATERIALS AND METHODS

For improving the basic motor skills and healthy behavior for mentally retarded children, who are able to learn and normal children through including them in a recreational sports program, the researcher used the quasi-experimental approach with one group design (pre-/post- tests) on a sample of 15 mentally retarded children from Al-Tarbia Al-Fekria Primary school (3rd and 4th grade students aged between 9-12 years and their intelligence rate was between 55-69 points) and 15 normal children from Al-Moalemat experimental primary school (2nd and 3rd grads aged between 8-9 years and intelligence rate was between 84 -95 points). This sample was purposefully chosen according to the following:

- Mentally retarded children who are able to learn and normal children are from the same socio-economic environment as their schools are located in the same area and they are all governmental schools.
- Parents' consent on involving their child in the program with normal peers.
- All children are free of any motor difficulties that may affect their involvement.

Table 1: The sample size and percentage to community

No.	Item	Mentally retarded	Percentage	Normal	Percentage
1-	Main sample	15	42.857%	15	10.345%
2-	Pilot sample	4	11.429%	8	5.517%
3-	Exclusion	7	20%	25	17.241%
4-	Remaining community	9	25.714%	97	66.897%
5-	Total community	35	100%	145	100%

Table 2: Means, median, SD and Squewness for mentally retarded children who are able to learn and normal children on growth rates (age – height – weight), intelligence, basic motor skills and health behavior. (n=15)

No.	Variables	Measurement	Children	Means	Median	SD	Squewness
Growth rates							
1-	Age	Year	Retarded	10.480	10.000	3.050	0.472
			Normal	8.690	8050	2.572	0.222
2-	Height	Cm	Retarded	131.500	133.500	15.540	-0.386
			Normal	129.50	129.00	4.151	0.361
3-	Weight	Kg	Retarded	34.580	35.400	5.670	-0.434
			Normal	3175	32.50	3.415	-0.659
4-	Intelligence	Point	Retarded	61.300	60.00	3.700	1.054
			Normal	91.425	90.500	2.350	1.181
Basic motor skills							
5-	Walking 30m on marks	Second	Retarded	34.282	34.500	2.315	-0.283
			Normal	30.551	30.00	10.714	0.964
6-	Running 20m	Second	Retarded	13.329	13.500	1.956	-0.262
			Normal	10.934	10.500	1.657	0.786
7-	Hopping 10m on right foot	Second	Retarded	14.318	14.000	2.339	0.408
			Normal	11.219	11.500	1.939	-0.435
8-	Hopping 10m on left foot	Second	Retarded	18.324	18.000	3.140	0.310
			Normal	14.840	14.500	2.994	0.341
9-	Wide jump from stance	Cm	Retarded	55.634	55.500	10.315	0.039
			Normal	73.909	75.000	9.967	-0.328
10-	Throwing a tennis ball with right hand	Cm	Retarded	7.372	7.500	3.118	-0.123
			Normal	8.864	8.500	3.433	-0.318
11-	Throwing a tennis ball with left hand	Cm	Retarded	4.531	5.000	2.375	-0.592
			Normal	7.864	7.5000	3.123	0.350
12-	Climbing (15) stairs up and down	Second	Retarded	11.629	11.500	0.718	0.539
			Normal	9.461	9.500	0.723	-0.162
13-	Ball kicking	Cm	Retarded	318.115	318.500	14.950	0.077
			Normal	485.775	485.500	9.312	0.089
14-	Ball dribbling for 10m	Second	Retarded	22.334	22.500	6.215	0.080
			Normal	17.445	17.00	5.615	0.238
Health behavior							
15-	Personal sanitary	Point	Retarded	21.243	22.000	4.512	-0.503
			Normal	23.718	23.500	2.225	0.294
16-	Sports health behavior	Point	Retarded	23.345	23.500	3.608	-0.129
			Normal	24.312	24.500	2.575	-0.219
17-	Health and nutrition habits	Point	Retarded	21.524	21.500	3.925	0.018
			Normal	23.415	23.000	2.825	0.441
18-	Psycho-emotional behavior	Point	Retarded	22.227	22.00	3.811	0.179
			Normal	24.675	24.500	3.775	0.139
19-	Preventive behavior	Point	Retarded	21.718	21.000	4.610	0.467
			Normal	24.595	24.500	2.891	0.099

The researcher used the following tools for collecting data:

- Mentally retarded children who are able to learn and normal children have no pervious experiences in dealing with each others.
- Mentally retarded children who are able to learn should have the minimum level of verbal communication with their normal counterparts. The sample size and percentage to community are shown in Table 1.

The researcher homogenized the sample for growth rates (age – height – weight), intelligence, basic motor skills and health behavior as shown in Table 2. Squewness values for growth rates, basic motor skills tests and health behavior inventory ranged between -0.592 and 1.054 for mentally retarded children who are able to learn and between -0.659 and 1.181 for normal children. Values were between 3± indicating that research community is free from any radical distributions.

Table 3: recurrence and percentage of agreement on basic motor skills tests for 3-10 years children according to experts' opinions (n=9)

No.	Basic motor skills	Measurement	(R)	(%)
1-	Walking 30m on marks	Second	9	100
2-	Running 20m	Second	8	88.88
3-	Hopping 10m on right foot	Second	7	77.77
4-	Hopping 10m on left foot	Second	7	77.77
5-	Wide jump from stance	Second	9	100
6-	Throwing a tennis ball with right hand	M	8	88.88
7-	Throwing a tennis ball with left hand	M	8	88.88
8-	Throwing and catching the ball with one hand into overlapping circles	Number	5	55.55
9-	Climbing the balance beam and hanging on it	Second	3	33.33
10-	Vertical jump	Second	6	66.66
11-	Dynamic balance	Second	5	55.55
12-	Static balance	Second	5	55.55
13-	Climbing 15 stairs up and down	Second	7	77.77
14-	Ball kicking	M	7	77.77
15-	Ball dribbling for 10m	Second	7	77.77

First: Basic Motor Skills Tests: The researcher chose the basic motor skills tests for the age group of 3-10 years after reviewing the related literature [4, 11, 15, 21-24].

The researcher interviewed the experienced staff in Psychology and Athletic Recreation Faculty of Physical Education, Kafr Al-Sheikh, Tanta, Alexandria University to identify tests of basic motor skills. Therefore evaluated these tests for measuring basic motor skills, according to views of those professionals and experts. Having determining the basic motor skills for children of 3-10 years, he consulted again those experts to select the appropriate test as shown in Table 3.

Table 3 showed that the percentage of agreement among experts varied from 33.33% to 100%. The researcher chose 10 tests out of 15 original tests as the percentage of agreement for these tests ranged from 77.77% to 100%. The researcher chose those tests because of the following:

- They are used in several studies that indicated high validity and stability for these tests.
- They are suitable for the age group.
- They are easy to apply.

Second: Health Behavior Inventory: This inventory contains 97 items divided into 5 axes: 29 items for personal sanitary,18 items for sports health behavior, 22 items for healthy and nutrition habits, 19 items for psycho-emotional behavior and 9 items for prevention behavior. A two-point scale was used in designing the inventory. Some items are negative and others are positive. Total score of the inventory ranged from 97 to 194. Validity ranged from 0.79 to 0.95.Pilot study was done during the first week of the second term of 2009-2010 school year, 6-11/2/2010, on a sample of 4 mentally retarded (able to learn) children and 8 normal children to identify the suitability of tests for this age group, how to perform it and applying parts of recreational program to avoid any difficulties that may arise during main application.

To identify tests stability, the researcher applied them on a sample of 4 mentally retarded (able to learn) children and 8 normal children during the first week of the second term of 2009-2010 school year, 6-11/2/2010. Stability values for basic skills tests ranged from 0.964 to 0.882 and for health behavior inventory from 0.957 to 0.891. Validity values for basic skills tests ranged from 7.087 to 2.405 and for health behavior inventory from 5.381 to 4.148. These values are statistically significant on $p \leq 0.05$.

The Recreational Program: The researcher designed the recreational program according to the related literature [4, 16, 25-30]. These studies dealt with recreational programs. The researcher chose a set of motor activities, including small and preliminary games suitable for the sample and available capabilities. Experts agreed on the importance of chosen activities for both mentally retarded (able to learn) and normal children. Activities were distributed on the program units.

The Recommended Program's Aims: The recreational program aims at improving some basic motor skills and health behavior for mentally retarded (able to learn) and normal children in the first stage of basic education through the following objectives:

Cognitive Objectives:

- Students acquire a set of desired health behaviors and abandon undesired habits.
- Developing students' abilities to work cooperatively in teams.
- Providing students with health behavior that are suitable for this age group and can be applied in daily life.
- Developing students' creative and imaginative abilities through recreational activities.

Skills Objectives:

- Developing basic motor skills for mentally retarded (able to learn) and normal children in the first stage of basic education.
- Creating variation in recreational activities for mentally retarded (able to learn) according to their age group.
- Providing students with basic skills for recreational activities like motor activities, small games and competitions.

Emotional Objectives:

- Developing the feel of happiness and joy according to socially accepted health behavior.
- Developing self-dependence and self-confidence.
- Developing loyalty to the group and cooperation with colleagues in preparing the lesson equipments.
- Developing response to work and effort.
- Accepting motor performance and concentrating on explanation and demonstration.
- Encouraging competitive spirit and maintaining order.

The Following Considerations Were Taken into Account in Designing the Program:

- Using exciting, simple and varied recreational activities.
- Considering the age group characteristics.
- Allowing all students to involve in activities at the same time.
- Recreational activities should help modifying health behavior.
- Considering progression from easy to difficult, from simple to complex, from slow to quick and from known to unknown.
- Providing suitable place for performance.
- Providing safety conditions according to students' health status and noting any sign of exhaustion.
- Considering individual differences between mentally retarded (able to learn) and normal children.
- Recreational activities should be joyful and fun
- Content should be suitable for its objectives.
- The program should provide students with positive behaviors and attitudes towards each others.
- Equipment should be colorful, attractive and suitable, in size and weight, for students' age group.
- Games should be suitable for intelligence rate of mentally retarded (able to learn) and normal children.
- Using music, rhythm, whistles and drums during performance to avoid boring and create a joyful atmosphere.
- Using simple activities depending on combining simple moves (running – hopping – walking) to create variation and fun.

The Researcher Used the Following Equipments: Benches – balloons - boxes – specter – wooden chairs – cones – ropes – whistle – drawn and numbered circles – hops – colored small balls (basketballs – handballs – volleyballs – tennis balls – medical balls) – sticks – flags – colored stickers – baskets – sand bags – colored paper strips – colored handkerchiefs – plates – numbered paper strips – grain bags – lime powder.

To achieve these objectives, the content was distributed on a number of units for mentally retarded (able to learn) and normal children in the first stage of basic education, as follows:

a) Preliminary part: It aims at preparing students psychologically, physically and physiologically for working with others using fun to create a cheerful impression. This part includes:

- Basic skills (walking – running – hopping – bouncing) accompanied with music.
- Small games (competitions) accompanied with music. This part took 10 minutes.

b) Main part: It aims at improving the functional, skills and emotional status of mentally retarded (able to learn) and normal children and basic skills (walking – running – hopping – bouncing – jumping – kicking - throwing). It contains activities, many small and preliminary games with music. This part took 20 minutes.

c) Conclusion: the researcher included this cool-down part after the main part. It includes walking, swings and jogging to cool down the body. This part took 5 minutes.

Table 4: A second - week model for units of the integrated recreational program applied to mentally retarded (able to learn) and normal children from 13/2/2010 to 13/5/2010

Week: 2			Units: 5-6	Unit duration: 35 minutes
Unit objectives:			Improving basic motor skills	Improving health behavior
Parts		Duration	Content	Objectives
Preliminary		10 minutes	Gathering strips: Divide students into 3 groups and specify a color and a basket for each group. With the signal students hop to gathers strips with the specified color from the floor. The group wins when gathering all strips first with music.	Improving hop skill and felling fun
Main	First phase	10 minutes	Progressive rescue: Draw two lines (20m wide). Divide students in pairs (retarded with normal) in equal groups. With the signal the first pair moves quickly to touch the next pair. The group that finishes first wins.	Improving walk skill and health behavior and feeling fun
	Second phase	10 minutes	Musical circles: Hops are spread on the floor in a circle. Each student gets into a hop. With music the student get out of the hop. When music stops each student tries to stand inside a hop. The student without a hop gets out along with a hop. The game ends with one student inside a hop.	Improving run and walk skills and felling fun
Conclusion		5 minutes	Divide students in pairs (retarded with normal) they walk hand in hand and rising their arms up then down alternatively	Cool down to normal status

The program included 18 units for 12 weeks (3 units per week) and each unit was repeated twice. Program application was done outside the school day through inclusion of mentally retarded (able to learn) children with normal ones in Al-Tarbia Al-Fekria Primary school, Kafr Al-Sheikh Educational directorate. Units were performed always on Saturday, Monday and Wednesday per week. Pre-tests were taken on 10-11/2/2010 as students had field training under direct supervision of the researcher. Tests begin with explaining what the student is asked to do, role modeling and then each student makes one trial followed by two other trials from which the best is recorded. Main study was performed from 13/2/2010 to 13/5/2010. Post-tests were taken on 15-16/5/2010 following the same protocols of pre-tests. The researcher used the suitable statistical treatments procedures: means, median, S.D., squewnenss and t test.

RESULTS AND DISCUSSION

Table 5 showed a positive effect of the recommended program between pre- and post tests on basic motor skills for mentally retarded children who are able to learn in favor of the post-test as (t) value ranged from 4.413 to 27.799 and improvement percentage ranged from 19.526% to 79.298%. There was a positive effect of the recommended program between pre- and post tests on basic motor skills for mentally retarded children who are able to learn in favor of the post-test as (t) value ranged from 4.413 to 27.799 and improvement percentage ranged from 19.526% to 79.298% for walking on marks, running, hopping with right and left legs, wide jump from stance, throwing tennis ball with right and left hand, climbing 15 stairs steps up and down, kicking a ball and dribbling a ball variables. The researcher thinks that these differences are due to the inclusion in the recreational program, designed on scientific bases consistent with the nature and characteristics of the age group, either for mentally retarded (able to learn) or normal children. At this stage, if the child has the opportunity to practice regular motor activities through exciting games; this will increase the challenges and works on integrating mental and motor work. This has an effect on developing basic motor skills. These results are also due to the inclusion of mentally retarded children who are able to learn in recreational activities as this inclusion represents a normal environment that creates a kind of competition where the retarded child tries to feel no less than his/her normal counterparts as he/she is able to achieve. This was clear in the mentally retarded child's efforts to gain the researcher's, the physical education teacher's and field trainees' confidence. All this has a great effect on encouraging mentally retarded children who are able to learn to perform well.

Table 5: Means, SD and (t) values for pre- and post-tests of mentally retarded (able to learn) children (n=15) on basic motor skills

			Pre-test		Post-test			
No.	Variables	Measurement	Means	SD	Means	SD	(t)	(%)
1-	Walking 30m on marks	Second	34.282	2.315	27.588	1.353	4.413	19.526
2-	Running 20m	Second	13.329	1.956	9.944	1.567	6.797	25.396
3-	Hopping 10m on right foot	Second	14.318	2.319	10.416	2.116	8.355	27.252
4-	Hopping 10m on left foot	Second	18.324	3.140	12.685	2.516	6.619	30.773
5-	Wide jump from stance	Second	55.634	10.315	85.545	10.222	12.809	53.573
6-	Throwing a tennis ball with right hand	M	7.372	3.118	12.665	2.819	7.095	71.0799
7-	Throwing a tennis ball with left hand	M	4.531	2.375	8.124	3.455	5.215	79.298
8-	Climbing (15) stairs up and down	Second	11.629	0.718	7.968	0.981	8.416	31.482
9-	Ball kicking	M	318.115	14.950	527.160	21.175	27.799	65.714
10-	Ball dribbling for 10m	Second	22.334	6.215	18.775	7.218	6.702	15.935

(t) Table value on $p \leq 0.05 = 2.14$

Table 6: means, SD and (t) values for pre- and post-tests of mentally retarded (able to learn) children (n=15) on health behavior

			Pre-test		Post-test			
No.	Variables	Measurement	Means	SD	Means	SD	(t)	(%)
1-	Personal sanitary	Point	21.243	4.512	25.534	2.962	6.040	20.200
2-	Sports health behavior	Point	23.345	3.608	26.512	2.408	3.566	13.566
3-	Health and nutrition habits	Point	21.524	3.925	25.138	1.212	5.551	16.791
4-	Psycho-emotional behavior	Point	22.227	3.811	26.241	2.273	5.424	18.59
5-	Preventive behavior	Point	21.718	4.610	25.337	2.100	4.030	16.664

(t) Table value on $p \leq 0.05 = 2.14$

The major benefit of basic motor skills for mentally retarded children who are able to learn is concentrated on functional skills and success in these skills helps performing daily life skills [11]. It is indicated that if we provide mentally retarded children who are able to learn with sports activities where they can use their senses and muscles, this may increase their social compatibility as the movement results from a real game the child lives in with his/her reality and imagination. Movement represents learning, health and cure as movement is excitement, joy and fun [12, 31]. This agrees with studies indicated that the recommended program has a positive effect on motor and physical development basic motor skills for the mentally retarded children who are able to learn [15, 16, 23, 24].

The researcher thinks that joy and happiness the child feels during involvement in these motor activities make him/her feels satisfied as he/she can involve in activities he/she chooses with his/her mates.

Table 6 showed a positive effect of the recommended program between pre- and post tests on health behavior for mentally retarded children who are able to learn in favor of the post-test as (t) value ranged from (3.566 – 6.040) and improvement percentage ranged from 13.566% to 20.200%.Pre measures were administered to the subjects on Wednesday 11/2/2010, under direct supervision of the researcher, identifying what each student should do after having a demonstration, each student performed a beginning trial, then two trials for selecting the best one on them. There was a positive effect of the recommended program between pre- and post tests on health behavior for mentally retarded children who are able to learn in favor of the post-test as (t) value ranged from 3.566 to 6.040 and improvement percentage ranged from 13.566% to 20.200%.

The researcher thinks that these differences are due to the inclusion of mentally retarded children, who are able to learn, in the recreational program, as this inclusion is done in a natural environment where mentally retarded children who are able to learn, can interact with normal children. Thus, both of them they can gain good behavior and adaptation to deal with each others. Motor activities provide the child with opportunity to practice good behaviors and to know why we accept, or refuse a certain behavior. This is consistent with the results of specific studies that sports recreational programs and practicing

Table 7: Means, SD and (t) values for pre- and post-tests of normal children (n=15) on basic motor skills

			Pre-test		Post-test			
No.	Variables	Measurement	Means	SD	Means	SD	(t)	(%)
1-	Walking 30m on marks	Second	30.551	1.714	25.711	1.335	9.699	15.842
2-	Running 20m	Second	10.934	1.657	8.917	1.365	7.028	18.447
3-	Hopping 10m on right foot	Second	11.219	1.939	9.014	1.329	6.159	19.654
4-	Hopping 10m on left foot	Second	14.840	2.994	10.575	2.561	6.633	28.740
5-	Wide jump from stance	Second	73.909	9.967	99.445	9.315	11.794	34.551
6-	Throwing a tennis ball with right hand	M	8.864	3.433	14.512	2.099	8.355	63.718
7-	Throwing a tennis ball with left hand	M	7.864	3.123	11.222	3.225	4.924	46.971
8-	Climbing (15) stairs up and down	Second	9.461	0.723	5.873	0.851	6.090	37.924
9-	Ball kicking	M	485.755	9.312	853.625	17.375	29.515	75.724
10-	Ball dribbling for 10m	Second	17.445	5.615	13.122	4.725	6.692	24.781

(t) Table value on $p \leq 0.05 = 2.14$

Table 8: Means, SD and (t) values for pre- and post-tests of normal children (n=15) on health behavior

			Pre-test		Post-test			
No.	Variables	Measurement	Means	SD	Means	SD	(t)	(%)
1-	Personal sanitary	Point	23.718	2.225	25.534	1.467	3.697	15.587
2-	Sports health behavior	Point	24.312	2.575	26.512	1.938	4.406	18.123
3-	Health and nutrition habits	Point	23.415	2.825	25.138	2.095	3.903	16.669
4-	Psycho-emotional behavior	Point	24.675	3.775	26.241	2.118	3.760	15.238
5-	Preventive behavior	Point	24.595	2.891	25.337	1.704	2.817	11.454

(t) Table value on $p \leq 0.05 = 2.14$

motor activities have positive effects on modifying health behaviors of mentally retarded children who are able to learn. This proves the first hypothesis [16, 17, 32-34].

Table 7 showed a positive effect of the recommended program between pre- and post tests on basic motor skills for normal children in favor of the post-test as (t) value ranged from 4.924 to29.515 and improvement percentage ranged from 13.566% to 20.200%.

There was a positive effect of the recommended program between pre- and post tests on basic motor skills for normal children in favor of the post-test as (t) value ranged from 4.924 to 29.515 and improvement percentage ranged from 13.566% to 20.200%. for walking on marks, running, hopping with right and left legs, wide jump from stance, throwing tennis ball with right and left hand, climbing 15 stairs steps up and down, kicking a ball and dribbling a ball variables. The researcher thinks these differences are due to the inclusion in the recreational program, as children are involved in recreational activities that break up boredom. Basic motor skills are necessary demands for most sports activities and form the early base of sports experience. It is one of the physical education objectives in primary stage according to the Ministry of Education curricula. So, they should have more concentration in developing them [2].

Choosing the content of program units is based on specific objectives of the motor skills for this age group that give them the feeling of effectiveness and involvement while following healthy habits and desired behavioral patterns. These activities give children the feelings of joy, happiness, relief and confidence as they contain small games, preliminary games, colored ball games and various motor activities based on scientific bases to help them acquire basic motor skills. This result in harmony with some studies indicated that movement is a spontaneous physical activity that continually takes various forms. This is consistent with the child's growth and transformation from one stage to another [35].

Table 8 showed a positive effect of the recommended program between pre- and post tests on health behavior for normal children in favor of the post-test as (t) value ranged from 4.307 to 6.423 and improvement percentage ranged from 11.454% to 18.123%. There was a positive effect of the recommended program between pre- and post tests on health behavior for normal children in favor of the post-test as (t) value ranged from 4.307 to 6.423) and improvement percentage ranged from 11.454% to18.123% on personal sanitary, sports health behavior, health and nutrition habits, psycho-emotional behavior,preventive behavior. The researcher thinks that is due to

Table 9: Means, SD and (t) values for post-tests of mentally retarded (able to learn) and normal children (n=30) on basic motor skills

			Retarded		Normal			
No.	Variables	Measurement	Means	SD	Means	SD	Means difference	(t)
1-	Walking 30m on marks	Second	27.588	1.353	25.711	1.335	1.877	5.317
2-	Running 20m	Second	9.944	1.567	8.917	1.365	1.027	2.660
3-	Hopping 10m on right foot	Second	10.416	2.116	9.014	1.329	1.402	3.022
4-	Hopping 10m on left foot	Second	12.685	2.516	10.575	2.561	2.11	3.163
5-	Wide jump from stance	Second	85.545	10.222	99.445	9.315	13.900	14.570
6-	Throwing a tennis ball with right hand	M	12.665	2.819	14.512	2.099	1.847	2.828
7-	Throwing a tennis ball with left hand	M	8.124	3.455	11.222	3.225	3.098	3.528
8-	Climbing (15) stairs up and down	Second	7.968	0.981	5.873	0.851	1.065	11.526
9-	Ball kicking	M	527.160	21.175	853.625	17.375	326.465	45..279
10-	Ball dribbling for 10m	Second	18.775	7.218	13.122	4.725	4.863	2.109

(t) Table value on $p \leq 0.05 = 2.14$

Table 10: means, SD and (t) values for post-tests of mentally retarded (able to learn) and normal children (n=30) on health behavior

			Normal		Retarded			
No.	Variables	Measurement	Means	SD	Means	SD	Means difference	(t)
1-	Personal sanitary	Point	23.718	2.225	25.534	2.962	1.881	3.064
2-	Sports health behavior	Point	24.312	2.575	26.512	2.408	2.206	3.843
3-	Health and nutrition habits	Point	23.415	2.825	25.138	1.212	2.180	4.855
4-	Psycho-emotional behavior	Point	24.675	3.775	26.241	2.273	2.194	3.800
5-	Preventive behavior	Point	24.595	2.891	25.337	2.100	2.075	4.132

(t) Table value on $p \leq 0.05 = 2.14$

the inclusion in the recreational program which leads to developing health behavior of the sample depending on children's positive attitudes all along the program, beginning with thinking of the suitable motor behavior to free expression in various situations besides the program effectiveness containing colored ball games and various hurdle and climbing games and motor activities through which the child's behaviors towards involving in recreational activities are modified.

It is indicated that recreational programs provide the opportunity for noticing different patterns of behavior and building relations with individuals who have common interests to improve manners and values desired for enhancing the human character and social decency. This proves the second hypothesis [36].

Table 9 showed a positive effect of the recommended program between post tests on basic motor skills for mentally retarded and normal children in favor of normal children as (t) value ranged from 2.109 to 45.279. There was a positive effect of the recommended program between post tests on basic motor skills for mentally retarded and normal children in favor of normal children as (t) value ranged from 2.109 to 45.279 for walking on marks, running, hopping with right and left legs, wide jump from stance, throwing tennis ball with right and left hand, climbing 15 stairs steps up and down, kicking a ball and dribbling a ball variables. The researcher thinks these differences are due to the inclusion in the recreational program, as it contains various funny and cheerful games. These games have simple and flexible rules making it easy to repeat them after simple explanation. Mentally retarded children who are able to learn tarry in basic motor skills compared with normal children. But most mentally retarded children who are able to learn can perform motor skills and patterns connected to daily life like walking, running, climbing and kinesthetic cognition [4].

It is suggested that the physical and mental characteristics of mentally retarded children who are able to learn indicated slowness in motion and lack of motor coordination. They are characterized by inability to balance during walking [37]. Children with intelligence rate from 50 to 70 are able to learn and can reach the 3rd and 4th grade as their mental age is between 6-9 years. They have the ability to use regular educational programs but their progress is slow compared with normal students [38]. Each child has the desire to practice movement and exciting play. If adults do not help him/her on satisfying this desire through preparing suitable activity programs, he/she will try to satisfy this need through exciting activities that benefit him/her [39-41]. By the end of pre-school stage, the child acquires basic motor skills like running, walking, hopping, jumping and throwing but these skills need to be refined [42].

Table 10 showed a positive effect of the recommended program between post tests on health behavior for mentally retarded and normal children in

favor of normal children as (t) value ranged from 3.064 to 4.855. There was a positive effect of the recommended program between post tests on health behavior for mentally retarded and normal children in favor of normal children as (t) value ranged from 3.064 to 4.855 on personal sanitary, sports health behavior, health and nutrition habits, psycho-emotional behavior and preventive behavior. The researcher thinks that is due to the inclusion in the recreational program as it has a positive effect on providing children with sports and health information about their desired activities. Being with normal children gives mentally retarded children a model to follow when performing the activity and in dealing with different behavioral situations. This agrees with results of many studies indicated that basic motor skills program for mentally retarded children should include walking, running, climbing, hopping, jumping, dancing, throwing and catching as they have positive effects on acquiring behavior and forming acceptable social relations [17, 26, 34, 43].

This led the researcher to consider sports recreational activities as a very important approach for modifying health behaviors of mentally retarded (able to learn) and normal children to activate their existence in the society. This proves the third hypothesis.

CONCLUSION

- There are statistically significant differences between the means of pre- and post- tests for mentally retarded (able to learn) students on basic motor skills and health behavior in favor of post-tests.
- There are statistically significant differences between the means of pre- and post- tests normal students on basic motor skills and health behavior in favor of post-tests.
- There are statistically significant differences between the means post- tests for mentally retarded (able to learn) and normal students on basic motor skills and health behavior in favor of normal students.

RECOMMENDATIONS

Activating integration of Mentally Retarded into a community of normal children, regarding recreational activities inside and outside school.

REFERENCES

1. Al-Kooly, A.A. and O.K. Rateb, 1998. Motor Education. Dar Al-Fikr Al-Araby, 5thEd., Cairo, Egypt, pp: 296-297. (In Arabic).
2. Al-Kooly, A.A. and O.K. Rateb, 1982. Motor Education. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 23. (In Arabic).
3. Gallahue, D.L., 1987. Developmental physical education for todays, elementrary school children, Macimillan publishing company, new york, pp: 83.
4. Soliman, M.F., 2004. Effects of a recommended recreational program on developing basic motor skills for mentally retarded children (6-12 years). M.Sc.Thesis, Faculty of Physical Education for men, Helwan University, Egypt, pp: 5. (In Arabic).
5. Al-Shitany, E.A.A., 2005. Effects of sports health program on health behavior of deaf and dump persons. M.Sc.Thesis, Faculty of Physical Education, Tanta University, Egypt, pp: 4. (In Arabic).
6. Salama, B.I., 1997. Health and health education. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 16. (In Arabic).
7. Silveman, S., P. Dodds, J. placek and F. Rife, 1984. Academic learning time in elementary school physical education for student subgroups and instructional activity units. Research quarterly for exercise and Sport, pp: 365-370.
8. Depaepe, J.L., 1987. The influence of three restrictive environments on the content motor control and performance of moderately mentally retarded students. J. Teaching in Physical Education, 26: 34-41.
9. Vogler, E.W., M.H. Vadar, B. Cusimano and P. Darst, 1992. Experience, expertise and teaching effectiveness with mainstreamed and non disabled children in physical education adapted physical activity. Quarterly, pp: 346-329.
10. Heikinaro, J. and E.W. Vogler, 1996. Physical education including individuals with disabilities in school settings. Sport Sci. Review, pp: 12-25.
11. Eichsted, C.B. and B.W. Lavay, 1990. Physical activity for individuals with 8 mental retardation infancy through adulthood.Human kinetics books, pp: 206: 207.
12. Holli, V. and Vanbarg, 1988. Physical training of mentally retarded children. Reborton Company, pp: 10.
13. Al-Khalifa, A.M., 2001. Attitudes of physical education teachers towards inclusion of mentally retarded persons who are able to learn in normal physical education lessons. M.Sc. Thesis, Faculty of Education, Abd El-Aziz Al-Saud University, KSA, pp: 85. (In Arabic).

14. Abd El-Rahman, F.F. and N.M. Kasem, 2004. Effects of a recreational program on some psychological, motor and daily life skills for mentally retarded who are able to learn. The 1st Arab Conference "Mental Retardation: Prevention and Care". Faculty of Physical Education – Assuit University, Egypt, pp: 236-254. (In Arabic).
15. Helal, M.B., 2005. A small games program accompanied with music and its effect on some basic normal moves of specially needed children who are able to learn. M.Sc. Thesis, Faculty of Physical Education, Tanta University, Egypt, pp: 76. (In Arabic).
16. Salem, M.M.S., 2005. Effects of Sports activities on inclusion of mentally retarded children in a group of normal children on developing skills performance and adaptive behavior. Ph.D. thesis. Faculty of Physical Education, Tanta University, Egypt, pp: 103-113. (In Arabic).
17. Abd El-Tawab, A.M., 2006. Effects of Sports recreational program on guiding health behaviors of mentally retarded children who are able to learn. M.Sc.Thesis, Faculty of Physical Education, Tanta University, Egypt, pp: 50-55. (In Arabic).
18. Farley, G., 1991. The current Attitudes of principals and teachers Regarding Mainstreaming in Virginia Middle-level schools EDD. J. teaching in Physical Education, 26: 327-335.
19. Rizzo, T.L. and L.D.R. Kirkendal, 1995. Teaching students with Mild Disabilities: What Affects Attitudes of Future physical Educators?.Adapted Physical Activity Quarterly, 12: 216.
20. Maccabe, J.R., J.R. Jenkuio, P.E. Mills, P.S. Dale and K.N. Colem, 1999. Effects of group composition, maternal and developmental level on play in preschool children with disabilities. J. Early Intervention, 22: 164-178.
21. Allawey, M.H. and R.M. Nasr Eldeen, 1987. Skilled and psychological tests in sporting field. Dar El-Fikr El- Araby, Cairo, pp: 157-158.
22. Al-Koly, A.A. and O.K. Rateb, 1998. Effects of motor education programs on motor performance of 3rd grade students at Mecca, KSA. Education in Egypt Conference, Faculty of Education, Suez Canal University, Egypt, pp: 137. (In Arabic).
23. Al-Gabaly, I.H., 2004. A recommended exercises program for improving some basic motor skills and motor satisfaction of pre-school children. The scientific J. Faculty of Physical Education, Tanta University, Egypt, 5: 581-614. (In Arabic).
24. Salman, G., 2009. Cognitive-motor activities and its effects on developing basic movement for mild mentally retarded individuals. 3rd International Conference, Faculty of Physical Education, Zagazig University, Egypt, pp: 57-64. (In Arabic).
25. Mohamed, R.S., 2002. Effects of inclusion in a recreational program on self-concept of mentally retarded children and attitudes of normal persons towards them. Ph.D. Thesis, Faculty of Physical Education for men, Helwan University, Egypt, pp: 122-126. (In Arabic).
26. Ibraheem, H. and L. Farahat, 1998. Physical education and recreation for disabled persons. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 121-125. (In Arabic).
27. Mohamed, T.A. and T. Abd El-Reheem, 2001. Studies in recreation. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 52-65. (In Arabic).
28. Mohamed, T.A., 2001. Recreation and recreational education. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 109-115. (In Arabic).
29. Sheta, A.A., 2004. Recreational needs of childhood and youth in Arab Societies. The Egyptian Library, Alexandria, Egypt, pp: 42-62. (In Arabic).
30. Al-Safty, A. and S. Al-Sherbiny, 2006. Effects of recreational games and motor story as a recreational activity on some daily life activities and verbal and numerical concepts of kindergarten children. The scientific Journal, Faculty of Physical Education, Tanta University, Egypt, pp: 36: 37. (In Arabic).
31. Mohamed, T.A., 1997. Playgrounds; a future perspective in the light of child learning. The scientific conference of woman and child. Faculty of Physical Education for girls, Alexandria University, Egypt, pp: 25. (In Arabic).
32. Ebeed, M.A., 2000. Educating mentally retarded children. Al-Safa Press. Amman, Jordan, pp: 79-99. (In Arabic).
33. Radwan, M. and Reschke, 2004. Health Behavior and attitudes towards health a comparative study between Syrian and German students, Labzk University, Vienna. International J. sports Medicine,16:345
34. Konbar, A.M., 2004. Effects of small games program on some aspects of health behavior and coping with disability in mentally retarded individuals. Ph.D. Thesis,Faculty of Physical Education, Tanta University, Egypt, pp: 42-44: 90-95. (In Arabic).
35. Sadek, M.M., 1997. Educating child through movement. The scientific conference of woman and child. Faculty of Physical Education for girls, Alexandria University, Egypt, pp: 118. (In Arabic).

36. Al-Hamahemy, M.M. and A.A. Mostafa, 1999. Recreation: theories and applications. Markz Al-Ketab Press, Cairo, Egypt, pp: 33-53. (In Arabic).
37. Abd El-Ghany, Y.M., 2002. Effects of a motor rehabilitation program on some motor abilities and posture deformities of mentally retarded (able to learn) individuals. Ph.D. Thesis, Faculty of Physical Education, Tanta University, Egypt, pp: 12. (In Arabic).
38. Foosil, M., 1999. Physiolojical Basis for Exercise and sport. Mc craw, pp: 98.
39. Zahran, L.A., 1997. Motor development as a means of integrated physical education of the child in early years. The scientific conference of woman and child, Faculty of Physical Education for girls, Alexandria University, Egypt, pp: 115. (In Arabic).
40. Shokair, Z.M., 2002. Serving specially needed individuals; total inclusion, early intervention and integrated rehab. El_Nahda library, Cairo, Egypt, pp: 9-47. (In Arabic).
41. Farag, E.M., 1988. Physical Education Methodology and Curricula; Out-door activity management. Dar Al-Fikr Al-Araby, Cairo, Egypt, pp: 12. (In Arabic).
42. Al-Sarheed, A.A. and F.I. Othman, 1990. Basics of motor education and its applications for kindergartens and primary schools. Dar Al-Kalam Press, Kuwait, pp: 57. (In Arabic).
43. Al-Besara, A.A., 2002. Evaluation of learning styles for kindergarten special needs children. M.Sc. Thesis, Faculty of Physical Education, Tanta University, Egypt, pp: 39-46. (In Arabic).