

## **The impact of collective exercise program (Free - Tools) on the Level of Behavioral Disorders and Some Elements of Physical Fitness among some Pupils of Mental Disabilities who are able to Learn**

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The purpose of the study is to identify the effectiveness of the use of free collective exercises and tools to reduce the level of behavioral disorders and the development of some of the elements of physical fitness among some pupils of mental disabilities midwives to learn in Jazan, kingdom of Saudi Arabia, we used experimental method to design measurement with one group by pre , Interconnection and post to the research variables, and so on a total sample number of (17) pupil of schoolgirls chapters intellectual education middle school and attached to the first medium school in Jazan. The results indicated that The use of the diverse collective exercises (free - tools) has had a positive impact in reducing the manifestations of behavioral disorders and the development of some elements of physical fitness among the sample of the research .

**Key Words** : Exercises, Behavioral disorders, physical fitness, Mental disabilities.

### **Introduction :**

Mental disabilities are usually associated with adaptive behavior to the individual and his ability to deal with the community around him, the individual who is mentally disabled has low levels of the job of mental performance, , so people with mental disabilities are more vulnerable to the emergence of

problems and behavioral disorders , which considered as a result of the lack of adaptation with the needs of the community around him ,the lack of mental or perceptual stimuli around him and assessed in proportion to the conventional social behavior .(2), (4), (8).

And also doing sports

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activities plays a significant role in the treatment of behavioral disorders to mentally handicapped where physical activity is an important function in the growth of the body, mind and aims to provide an opportunity for everyone to satisfy their needs and impart greater social growth .(3)

The results of studies such as the study of "Nashwa nafa and Amal morsi" (2000) (6), "Amany el gandi" (2009) (1), "Nahed Hathout and Elham Abdel Azim" (2009) (5), Heller Tamar and others Heller, (2011) (7) showed that doing sports activities works to improve and develop some of the physical, psychological and social aspects of the disabled in the category of mentally consenting to learn.

Through our work in Jazan University ,kingdom of Saudi Arabia ,and the requirements of the work to visit special education schools, we noticed that this category of students in spite of a quota of physical activity per day within the school in their schedule, they did not take advantage of the manner in which satisfy their desires to get the movement

and activity, so most of students do not participate and tend to withdraw the involvement with their peers persons who act aggressively toward the lower positions, and from here the idea of this research came in designing a program of free collective exercises by using the tools , knowing its impact on the manifestations of behavioral disorders and the development of some of the elements of physical fitness among some simple mental disable pupils who are able to learn .

#### **The Purpose of the study is to:**

Identify the effectiveness of using free collective exercises by using tools to reduce the level of behavioral disorders and the development of some the elements of physical fitness among some of mental disable pupils who are able to learn in Jazan, kingdom of Saudi Arabia.

#### **Research hypotheses :**

1. There are significant differences between the averages of Pre, Interconnection , and Post measurements to the research group in the manifestations of behavioral disorders (aggression - social withdrawal

- stubbornness) for the sake of post measurement.

2. There are significant differences between the averages of Pre, Interconnection, and Post measurements to the research group of the elements of fitness variables under consideration for the sake of post measurement.

### **Plan and research procedures:**

**Method :** The use of the experimental method with the help of one of the experimental designs with one group of Pre, Interconnection , and Post measurements to the research group .

### **Research sample :**

Sample was selected purposively where the schoolgirls chapters intellectual education middle school and attached to the first medium school in Jizan and their number was (17) school girls aged from 18 to 20years and the smart ranged from (45 to 55) degrees according to the results intelligence applicable standards (Stanford scale between the fourth image, the WISC macro picture).

The researcher adopted in collecting these data of each

pupil from the psychological and social aspects at school , and data has been checked between the research sample in all the variables under study reaching transactions sprains and splaying between ( $\pm 3$ ) .

### **Means and tools of data collection:**

We used the same devices and tools for collecting research data, also the appropriate physical tests for this category after reviewing the scientific literature , the results of related studies and behavioral disorders scale for mentally disabled students who are able to learn the preparation "Mohammed ElYazouri" (2012) .

### **Scientific transactions of data collection tools:**

#### **Honesty check:**

The sincerity of physical tests used in the research has been accounted ,also the sincerity of behavioral disorders scale used the sincerity of differentiation on the reconnaissance of the research sample and the contingent of 10 students have been selected from the research community and outside of the sample and the results showed the existence of significant differences between the averages of the spring upper and

lower spring in physical tests and behavioral disorders in research suggesting it is honest to measure status for them .

**Persistence Calculates:**

the constancy of used tests in the research has been found by finding the correlation coefficient between the test application and re-apply of it (Test- Retest) taking into account the existence of an interval between the two applications of two days for physical tests and (10) ten days to Calculate behavioral disorders on exploratory sample, The correlation coefficient values between the two applications the first and second statistically significant in physical tests and behavioral disorders scale under which refers to characterize these tests and that a high degree of consistency scale .

**The proposed program of exercises:**

The proposed program aims to reduce the manifestations of behavioral disorders (aggression- social withdrawal - stubbornness) and the development of some of the elements of physical fitness represented in(The ability of the muscle - Endurance abdominal muscles - Hard balance - Fitness - Compatibility) with the mentally students disabled who are able to learn

**The program content:**

We have accessed to many

of research studies and references that deal with such programs of such groups. The program included warm-up exercises (7 minutes), Exercises of the main part (35 minutes) and the final part is (3 minutes)

**Pre - measurements:**

**Pre - measurements** were made on the individuals of research sample in all the variables of the research, in the period between Sunday, 09/02/2014 to Tuesday, 11/02/2014 .

**The application of the proposed program of collective exercises:**

The program was applied for a period of 10 weeks in the period from Sunday, 16/2/2014 to Thursday, 01/05/2014 by (2) training unites per week.

**Interconnection measurements:**

The researcher made interconnection measurement for the individuals in the research sample in variables during the period from 16/3/2014 to 18/3/2014.

**The post measurements:**

The post measurements was conducted for the individuals of the research sample for all the variables from Sunday, 04/05/2014 to Tuesday, 06/05/2014 pm in the same order ,terms and conditions that have been used in tribal

and Graphic measurements . **discussion:**

**Research result and**

**Table (1)**

**Significance of differences between the averages of two measurements of pre and Interconnection in the manifestations of behavioral disorders and physical variables**

Variable	Pre measurement		Interconnection measurement		value T	Ratio improvement	
	Means	Standard deviation	Means	Standard deviation			
Manifestations of behavioral disorders	aggression	27,76	6,50	33,88	5,49	1,88	13,98%
	Social withdrawal	41,40	12,40	40,11	10,02	0,248	3,14%
	Stubbornness	33,24	5,86	28,47	6,30	2,28	14,35%
Physical	The ability of the muscle	67,10	17,40	72,50	16,60	0,93	7,45%
	Endurance abdominal muscles	13,18	2,74	14,71	2,66	1,65	10,40%
	Hard balance	13,56	4,96	15,66	5,36	1,19	13,41%
	Fitness	23,68	4,12	22,00	3,55	1,28	7,09%
	Compatibility	4,82	1,81	6,06	2,05	1,86	20,46%

Value (T) Driven at a level of  $0.05 = 2.12$

It has been noticed from the results of table (1) that the lack of statistically significant differences between the two measurements of pre and Interconnection in both of aggression and social withdrawal, while there are statistically significant differences between the two

measurements of pre and Interconnection in stubbornness in favor of Interconnection measurement, and there is lack of statistically significant differences between the two measurements of pre and Interconnection to the research group in physical variables.

**Table (2)**  
**Significance of differences between the averages of two**  
**measurements of Interconnection and post in the manifestations**  
**of behavioral disorders and physical variables**

Variable		Interconnection measurement		Post measurement		value T	Ratio improvement
		Means	Standard deviation	Means	Standard deviation		
Manifestations of behavioral disorders	aggression	23.88	5.49	18.94	4.74	2.81	20.69%
	Social withdrawal	40.11	10.02	32.20	11.50	2.16	19.72%
	Stubbornness	28.47	6.30	23.29	6.10	2.43	18.19%
Physical	The ability of the muscle	72.50	16.60	81.30	16.40	1.55	10.42%
	Endurance abdominal muscles	14.71	2.66	16.88	2.15	2.62	12.85%
	Hard balance	15.66	5.36	18.74	5.99	1.58	16.43%
	Fitness	22.00	3.55	20.16	3.08	1.62	8.36%
	Compatibility	6.06	2.05	8.35	2.47	2.84	27.42%

Value (T) Driven at a level of  $0.05 = 2.12$

From the results of table (2), It has been noticed that the existence of significant differences between the two measurements of Interconnection and post in the dimensions of (aggression, social withdrawal and stubbornness), and the lack of statistically significant differences between the two

measurements of Interconnection and post measurement in the research group in the physical variables of The ability of the muscle of legs , balance and Fitness while there are significant differences in the Endurance abdominal muscles and compatibility in favor of the post measurement .

**Table (3)**  
**Significance of differences between the averages of two measurements of pre and post in the manifestations of behavioral disorders**

Variable	Pre measurement		Post measurement		value T	Ratio improvement	
	Means	Standard deviation	Means	Standard deviation			
Manifestations of behavioral disorders	aggression	27.76	6.50	18.94	4.74	4.53	31.77%
	Social withdrawal	41.40	12.40	32.20	11.50	2.24	22.22%
	Stubbornness	33.24	5.86	23.29	6.10	4.85	29.93%
Physical	The ability of the muscle	67.10	17.40	81.30	16.40	2.45	17.47%
	Endurance abdominal muscles	13.18	2.74	16.88	2.15	4.39	21.92%
	Hard balance	13.56	4.96	18.74	5.99	2.75	27.64%
	Fitness	23.68	4.12	20.16	3.08	2.83	14.86%
	Compatibility	4.82	1.81	8.35	2.47	4.75	42.27%

Value (T) Driven at a level of 0.05 = 2.12

From the results of table (3), It has been noticed that There are significant differences between the two measures in the pre and post dimensions (aggression, social withdrawal and stubbornness) as well as physical variables in the research, in favor of the post measurement

**Table (4)**  
**Analyzing Variance among the three measurements (pre - Interconnection - post) In the manifestations of behavioral disorders and physical variables in research**

Variables	source of variation	degrees of freedom	sum of squares	squares average value	value F	
Manifestations of behavioral disorders	aggression	between measurements	2	666.9	332.5	10.53
		Inside measurements	48	1515.8	31.6	
	Social withdrawal	between measurements	2	954	477	3.25
		Inside measurements	48	7049	147	

**Follow Table (4)**  
**Analyzing Variance among the three measurements (pre -**  
**Interconnection - post) In the manifestations of behavioral**  
**disorders and physical variables in research**

Variables	source of variation	degrees of freedom	sum of squares	squares average value	value F	
	Stubbornness	between measurements	2	840.5	420.3	11.34
		Inside measurements	48	1778.8	37.1	
physical	The ability of the muscle	between measurements	2	1740	870	3.08
		Inside measurements	48	13550	282	
	Endurance abdominal muscles	between measurements	2	117.92	58.96	9.20
		Inside measurements	48	307.76	6.41	
	Hard balance	between measurements	2	230.5	115.2	3.88
		Inside measurements	48	1426.5	29.7	
Fitness	between measurements	2	105.8	52.9	4.07	
	Inside measurements	48	624.0	13.00		
Compatibility	between measurements	2	109.06	54.53	12.05	
	Inside measurements	48	217.29	4.53		

Value (F) Tabulated at a temperature of (2.48) and the level of 0.05 = 3.19

Table (4) shows the presence of significant differences between the three measurements in the

Manifestations of behavioral disorders and physical variables in favor of the post measurements.



**Table (5)**  
**Significance of differences between the three of research**  
**measurements in the Manifestations of behavioral disorders And**  
**physical variables in research using L. S. D**

Averages		Measurement	Means	Tribal measurement	Graphic measurement	Post measurement	Value L. S. D
Manifestations of behavioral disorders	Aggression	Pre-measurement	27.76	—	3.88	8.82	4.10
		Interconnection measurement	23.88		—	4.94	
		Post measurement	18.94			—	
	Social withdrawal	Pre-measurement	41.40	—	1.29	9.20	8.80
		Interconnection measurement	40.11		—	7.91	
		Post measurement	32.2			—	
	Stubbornness	Pre-measurement	33.24	—	4.77	9.95	4.40
		Interconnection measurement	28.47		—	5.18	
		Post measurement	23.29			—	
physical	The ability of the muscle	Pre-measurement	67.1	—	5.40	14.20	12.25
		Interconnection measurement	72.5		—	8.80	
		Post measurement	81.3			—	
	Endurance abdominal muscles	Pre-measurement	13.18	—	1.53	3.70	1.84
		Interconnection measurement	14.71		—	2.17	
		Post measurement	16.88			—	
	Hard balance	Pre-measurement	13.56	—	2.10	3.08	3.97
		Interconnection measurement	15.66		—	5.18	
		Post measurement	18.74			—	
	Fitness	Pre-measurement	23.68	—	1.68	3.52	2.63
		Interconnection measurement	22.00		—	1.84	
		Post measurement	20.16			—	
	Compatibility	Pre-measurement	4.82	—	1.24	3.53	1.55
		Interconnection measurement	6.06		—	2.29	
		Post measurement	8.35			—	

Table (5) shows that there are significant differences between the averages of pre, Interconnection and Post measurements in the dimensions of behavioral disorders in favor of the post measurement .

There are significant differences between the averages of pre, Interconnection and Post measurements in physical variables in favor of the post measurement .

#### **Discussion the results of associated with behavioral disorders:**

From the results of table (1) It is seen that there are differences between the two measurements pre and Interconnection in aggression and social withdrawal, but there are not statistically significant, while in stubbornness these differences are statistically significant in favor of the Interconnection measurement

The researcher says that "the fact that the length of time between the two measurements is sufficient to induce statistically significant differences in aggression and social withdrawal" .

By studying the results of table (2) it is clear that there are significant differences between the averages of two measurements of Interconnection and the post in the dimensions of behavioral disorders (aggression, social withdrawal and stubbornness) in favor of the post measurement.

Results of table (3) also shows that There are significant differences between the averages of two measurements of pre and post in the dimensions of behavioral disorders (aggression, social withdrawal and stubbornness) in favor of the post measurement .

the results of variance analysis in table (4,5) indicates the presence of statistically significant differences between the averages of the three measurements in the dimensions of behavioral disorders, where the value of these differences became apparent through L.S.D value of which was in favor of the post measurement

The researcher attributed these differences to the effectiveness of the proposed program of exercises and

incorporates it from a variety of free group exercises and tools, which is one of the favorite activities to the self and an activity that has its own gravity to the category of the disabled to give him a sense of participation and effectiveness, encouragement, satisfaction and happiness all that had an impact in reducing the manifestations of aggression they have and increase social participation and interaction with the environment and those around and reduce stubbornness.

as well as The nature of the interesting program, gradual content, manner of implementation of attractive and characterized the training units of the spirit of fun and freedom form good compromise to learn a lot of concepts, information and behavioral social patterns which are full of fun and likable to self.

Results of Heller, Tamar, & others (2011) (7), showed that physical activity has positive effect on the physical, social, psychological status for people with mental disabilities.

By These results we can validate the first hypothesis for

the research, which states, that "There are significant differences between the averages of pre, Interconnection and post to the research group in the manifestations of behavioral disorders (aggression - social withdrawal - stubbornness) in favor of the post measurement.

### **Discussion the results associated with the elements of fitness:**

The results of Table (1) shows that there is no statistically significant difference between the averages of two measurements of pre and Interconnection to the research group in physical variables

The results of table (2) shows lack of statistically significant difference between the two measurements of Interconnection and post to the research group in muscle power in legs, balance and agility variables while there are significant differences between the two measurement of Interconnection and post in the muscular skin and compatibility variables, while results of table (3) shows that there are significant differences between the averages of two

measurements of pre and post to the research group in physical variables in the research, in favor of the post measurement. .

As explained in table (4) (5) results for analyzing variation and the values of L. S. D show that there are statistically significant differences between the averages of the three measurements pre, Interconnection and the post in physical variables in research in favor of the post measurement.

These findings indicate that the long time between the two measurements pre and post were not sufficient to induce statistically significant differences while there are significant differences between the two measurements pre and post due to the proposed program of exercises has affected actively the development of these physical elements of the members of the research group and consistent these results with the results of the study of both the nashwa Nafaa and Amal Morsi "(2000) (6)" Amany el Gandi "(2008) (1) that shows the positive impact of sports programs to improve the physical qualities for the

mentally disabled

These results validate the second hypotheses of the research, which stipulates "no statistically significant differences between the averages of Pre , Interconnection and the post to the research group of the elements of fitness variables under consideration in favor of the post measurement.

**Conclusions:** The use of the diverse collective exercises (free - tools) has had a positive impact in reducing the manifestations of behavioral disorders and the development of some elements of physical fitness among the sample of the research .

**Recommendations:** In the light of the results of the study reached from the results, the researcher recommends,:

Program diverse collective exercise with this group of students in special education schools because of its positive impact on the manifestations of behavioral disorders and elements of fitness .

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