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*Original article*

## EFFECTS OF SOCCER UNIFIED PROGRAM ON ADAPTIVE BEHAVIORAL FOR CHILDREN WITH MENTAL RETARDATION

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### Abstract

*Purpose.* Unified Sports is a Special Olympics' response to the inclusion movement. The program includes both students with disabilities and students without disabilities working together in athletic competitions. The purpose of this study was to investigate the participation effects in Unified vs. Segregated soccer on the adaptive behavioral for children with mental retardation.

*Methods.* 30 persons with mental retardation (aged 11-18years) were selected from Kuwait special Olympic and two schools contains special persons, the sample was distributed to three groups. The first group (n=10) participated in a unified sport. The second group (n=10) participated in segregated sport. While the third group (n=10) non-participated in any sports activities. The special Olympic principles were applied by all groups. A two- way ANOVA was used to analyses the data. The Vineland adaptive behavior scale for children with mental retardation was used

*Results.* The results revealed that significant Differences in adaptive behavior and physical tests between the three groups. The first group higher than the other two groups in adaptive behavior and physical tests. In addition, the second group higher than the third group in adaptive behavior and physical tests.

*Conclusions.* Findings indicated that inclusive in special Olympic was not detrimental to the adaptive behavior and physical tests of the present sample of Kuwaiti children with a low mental retardation adding support to the growing international literature that highlights inclusive schooling as a viable option for this population.

*Key words:* adaptive behavioral, segregated sport, Unified Sports, Special Olympics

### Introduction

The moment a human dream haunted Ms. Eunice Kennedy Shriver, sister of the late u.s. President John f. Kennedy in 1968 and started with her sister Rose Marie, who was born with an intellectual disability. She believed that if people with intellectual disabilities were given the same opportunities and experiences as everyone else, they could accomplish far more than anyone ever thought possible. On July 1968, the first International Special Olympics Games were held in Chicago, Illinois, USA. A global movement that today serves more than 4 million people with intellectual disabilities in more than 170 countries. Under the Oath "Let me win, but if I cannot win, let be brave in the attempt."

Intellectual disabilities are a serious social phenomenon is evident in all societies, particularly developing societies, and they are not few be ignored there are 6-7% of pre-school children belonging to that category, they are not useless as think they need special services (Fared, 1992) in 1981, the General Assembly approved the United Nations Charter of human rights of people with disabilities and that the "right to participation and

equal treatment" and this Charter is a worldwide recognition of the disabled Full participation in all the activities of the community to which they belong (Siperstein, 2002) and confirms the Egyptian Constitution to ensure equal educational opportunities for all healthy children and persons with disabilities within the formal education systems, and the State must guarantee the protection of motherhood, childhood and caring for young people and provide them with conditions conducive to the development of their talents.

Children's Act No. 12 of 1996 contains a special chapter on the care and rehabilitation of disabled children and the role of the State, civil society and non-governmental organizations in providing educational services for disabled children (Davis, 1995).

Mainstreaming (integration) is one of the roles and powers of special needs education, and studies show that the most recent global trends in developing countries apply the policy of education for disabled children with their peers. both in the same classroom, or in special classes attached to ordinary schools, accounting for the merger-alternative educational policy of isolation-least

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restrictive learning environment, a key principle in special education (Youssef, et al. 1995).

Integration means the education of persons with disabilities in ordinary schools with their peers and prepares them for work in the community. This program many interested specialists in education and rehabilitation of people with disabilities in America appeared with the emergence of American law (142) of 1975, which stipulates the need to provide better educational and professional care for the disabled with their peers.

Kauffman, (1995) believes to merge one of the modern trends in special education, and includes mentally disabled children in regular schools with simple actions that ensure access to educational programs provided.

In addition, some States have clear procedures for the implementation of the policy of integration for the disabled. The experience of the United States, for example, started in the 1960. By following the model of separating students with disabilities in their own classes, then this form has been amended a series of laws and legislation adopted a philosophy of normalization to integrate children with disabilities into the mainstream of community life and even learn in similar environments as much as possible of the prevailing around them with the appropriate classes for students with disabilities.

Here it is grown in education and philosophy based on the new rule is "capabilities of the student and not the deficit, with social justice and equality and not ignore and dimensions"

Special Olympics Unified Sports brings together athletes with and without mental retardation to train and compete on the same team. Throughout the year, in a variety of sports ranging from soccer to golf to figure skating, Unified Sports athletes improve their physical fitness, sharpen their skills, challenge the competition and have fun, too.

The concept of combining athletes with mental retardation and those without (called partners) was first introduced in the United States in the mid-1980s to provide another level of challenge for higher ability athletes and to promote equality and inclusion. Today, the initiative includes virtually all Special Olympics sports, and Unified Sports competitions are an important part of Special Olympics World Games, as well as local, state and national Games.

The program is designed to enhance special education students' social relationships and acceptance from peers (Siperstein & Hardman, 2001). In effect, the program seeks to improve each participant's physical, social, and global self-concepts. Physical self-concept involves students' beliefs about their ability to participate in sports and outdoor activities. How well students believe they

are able to relate to other people, including their peers, is their social self-concept. The global self-concept tends to cover their overall general feeling of self-worth. People hold different views of themselves in different contexts of life (Asci, 2002; Elbaum & Vaughn, 2001; Marsh & Hau, 2003).

The self-concept has been described by Coombs and (Harter, 1959) as the way in which individuals perceive themselves concerning fundamental aspects which are very important and central to their lives and which dictate a great deal of their behavior. This self-perception is important and determining how the individual will react in all life situations, whether at home with the family, with peers in a school or work setting, or in the community.

The self-concept of an individual begins to develop at birth and continues to develop and change as the individual matures. Some of the many factors which influence the development of self-concept are: the home environment, the degree of economic and emotional security, parental attitudes toward the individual and other siblings in the family, the type of child training used in the home, parents' reactions to the physical appearance of the child, peer interactions, relations with the outside world, and parental acceptance of the abilities and achievements of the child.

According to (Monica & Inge 1996) the research into the self-concept of individuals with intellectual disabilities is very limited and no studies have examined the self-concept of children with Down syndrome. Self-concept is considered to be a predictor of coping with life stresses (Bandura, 1993) and there would appear to be a link between self-concept and academic achievement. For example the meta-analysis of studies conducted by Hattie (1992) and the studies by Short (1992) and Chapman (1988).

With reference to the overall objective of the State to ensure equal educational opportunities for all healthy children and persons with disabilities within the formal education systems, and that the State shall guarantee the protection of motherhood, childhood and caring for young people and provide them with conditions conducive to the development of their talents. It was necessary to be integrated and dynamic education programs developed in accordance with the tendencies and needs of disabled children and misfits to provide integrated growth opportunities to become healthy individuals of "mental, physical, social, and from this point the purpose of this study was to investigate the participation effects in Unified vs. Segregated sports on the Athlete self-concept for persons with mental retardation (MR). The Piers-Harris Self-concept Scale for children was used.



## Methods

30 persons with mental retardation (aged 11-18 years) were selected from Kuwait special Olympic and two schools contains special persons, the sample was distributed to three groups. The first group (n=10) participated in a unified sport. The second group (n=10) participated in segregated sport. While the third group (n=10) non-participated in any sports activities. The special Olympic principles were applied by all groups.

### Tool.

#### • Eurofit Fitness Testing Battery

The Eurofit Physical Fitness Test Battery is a set of nine physical fitness tests covering flexibility, speed, endurance and strength. The standardized test battery was devised by the Council of Europe, for children of school age and has been used in many European schools since 1988. The series of tests is designed so that they can be performed within 35 to 40 minutes, using very simple equipment. A similar Eurofit for adults was published in 1995.

The following nine tests from the Eurofit Manual are the standard tests recommended for testing school age children.

- 1) Anthropometry: height, weight, BMI,
- 2) Flamingo Balance test - single leg balance test
- 3) Plate Tapping - test speed of limb movement
- 4) Sit-and-Reach - flexibility test (using 15cm at the level of the feet)
- 5) Standing Broad Jump - measures explosive leg power.
- 6) Handgrip Test - measures static arm strength
- 7) Sit-ups in 30 seconds - measures trunk strength
- 8) Bent Arm Hang - muscular endurance/functional strength
- 9) 10 x 5 meter Shuttle Run - measures running speed and agility

#### • Piers- Harris Self-Concept Scale

The Piers- Harris Self- concept Scale includes the Total score and the six domain scales. The six domain scales measure specific aspects of self-concept. They can also be used to assess strengths and weaknesses in self-image. On all scales, higher scores indicate favorable self-concept (i.e., high degree of self-esteem or self-regard), whereas lower scores are associated with more negative self-concept. Total Score is a measure of general self-concept. It is based on responses to all 60 Piers-Harris 2 items. This child's Total score of 39 is in the Low range. He expressed serious doubts about his own self-worth. He likely has negative self-appraisals in several specific areas of functioning, which can be clarified

by examining the domain scale scores and item responses. Total scores in this range are frequently associated with disturbances in mood and behavior that may require therapeutic intervention.

#### 1) Behavioural Adjustment (BEH)

The BEH scale measures admission or denial of problematic behaviors in the home and school settings. This child's BEH score of 29 is in the Very Low range. He endorsed pervasive negative feelings about his own behaviour. He is likely to feel that he frequently causes trouble, acts aggressively, and is unable to comply with the standards of conduct set by his parents and/or teachers. Very low BEH scores can be associated with a variety of psychological syndromes, especially disruptive behavior disorders such as conduct disorder, oppositional defiant disorder, and attention-deficit/hyperactivity disorder.

#### 2) Intellectual and School Status (INT)

The INT scale represents a youngster's self-assessment of intellectual abilities and academic performance. The items also cover general satisfaction with school and future expectations about achievement. This child's INT score of 34 is in the Low range. He acknowledged numerous perceived difficulties in school-related tasks. Depending on the item responses, these problems may be academic and/or behavioral in nature. He may have a general sense that he does not fit in well at school and does not have the necessary "smarts" to succeed in his schoolwork. A low INT score may have varying significance depending on the child's prior history of academic achievement. Youngsters with a record of high achievement, a low INT score may indicate unrealistically high expectations from themselves or their parents. In youngsters with a record of low academic achievement or a history of learning or behavioral problems in school, a low INT score may reflect an internalization of the disappointment of parents, teachers, and other authority figures. Screening for learning disability and/or attention-deficit/hyperactivity disorder should be considered for this child.

#### 3) Physical Appearance and Attributes (PHY)

The PHY scale measures a youngster's appraisal of his or her physical appearance, as well as attributes such as leadership and the ability to express ideas. This child's PHY score of 45 is in the Average range. He seems to have relatively balanced feelings about his physical appearance and strength. His specific positive and negative self-appraisals can be discerned by examining the item responses. This pattern of responses is similar to that of

the typical student in the Piers-Harris 2 standardization sample.

#### 4) Freedom From Anxiety (FRE)

The FRE scale assesses anxiety and dysphonic mood. Individual items tap a variety of specific emotions, including worry, nervousness, shyness, sadness, and fear. This child's FRE score of 54 is in the Average range. He endorsed mostly positive mood states, but acknowledged a few negative feelings as well. These specific aspects of his emotional experience can be discerned by examining the item responses. This pattern of responses is similar to that of the typical student in the Piers-Harris 2 standardization sample.

#### 5) Popularity (POP)

The POP scale represents a youngster's evaluation of his or her social functioning. The items tap perceived popularity, ability to make friends, and inclusion in activities such as games and sports. This child's POP score of 44 is in the Low Average range. He endorsed a mixture of positive and negative feelings with regard to his peer relationships. Although his score is considered to be within normal limits, he acknowledged more interpersonal difficulties than

#### Results.

the typical student in the Piers-Harris 2 standardization sample. The nature of these concerns can be clarified by examining the item responses.

#### 6) Happiness and Satisfaction (HAP)

The HAP scale assesses general feelings of happiness and satisfaction with life. This child's HAP score of 59 is in the Above Average range. He evaluated himself and his life circumstances in a generally positive way. He reported an overall sense of wellbeing. He would tend to describe himself as cheerful, satisfied, lucky, and able to get along well with others.

#### Statistical Analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups are reported as mean difference  $\pm$  95% confidence intervals (mean SD  $\pm$  95% CI). ANOVA-test for one way were used to determine the differences in all variables between the two groups. And LSD was used to determine the differences mean in the three groups. P-value  $< 0.05$  was considered statistically significant.

Table 1 the age anthropometric characteristics, Training experience and IQ of the subjects.

Group	N.	Age	Height	Weight	Training experience	IQ
Unified	12	13.34 $\pm$ 3.67	149.36 $\pm$ 5.67	51.22 $\pm$ 3.54	4.20 $\pm$ 1.11	58.29 $\pm$ 4.23
Non – unified	10	13.77 $\pm$ 3.78	152.47 $\pm$ 6.02	53.47 $\pm$ 4.04	4.47 $\pm$ 1.02	57.09 $\pm$ 4.12
Control	18	14.05 $\pm$ 2.98	150.90 $\pm$ 4.88	52.11 $\pm$ 5.12	00 $\pm$ 00	58.11 $\pm$ 4.01

Table 1 shows no significant differences were observed in the all characteristics of the subjects in the three groups.

Table 2. Mean  $\pm$  SD and Least Significant Difference Test "LSD" between the three Groups (Unified, Non – unified, Control) in Piers- Harris Self-Concept Scale and Eurofit Fitness Testing Battery

Variables	Unified	Non – unified	Control	U-NU	U-C	NU-C
<b>Piers- Harris Self-Concept Scale</b>						
Behavioral Adjustment	38.34 $\pm$ 3.23	36.41 $\pm$ 4.01	32.87 $\pm$ 4.69	NS	S	S
Intellectual and School Status	40.12 $\pm$ 4.52	38.36 $\pm$ 3.57	30.28 $\pm$ 7.21	NS	S	S
Physical Appearance and Attributes	40.05 $\pm$ 5.71	38.09 $\pm$ 4.94	31.57 $\pm$ 6.58	NS	S	S
Freedom From Anxiety	37.35 $\pm$ 4.37	35.22 $\pm$ 5.12	31.58 $\pm$ 7.40	NS	S	NS
Popularity	38.34 $\pm$ 6.43	36.48 $\pm$ 5.69	29.89 $\pm$ 6.39	NS	S	S
Happiness and Satisfaction	38.12 $\pm$ 5.22	33.11 $\pm$ 4.87	30.17 $\pm$ 7.12	S	S	S
<b>Eurofit Fitness Testing Battery</b>						
Flamingo Balance test	11.34 $\pm$ 3.25	11.29 $\pm$ 3.46	5.37 $\pm$ 4.36	NS	S	S
Plate Tapping	14.36 $\pm$ 4.11	13.98 $\pm$ 3.68	8.65 $\pm$ 4.78	NS	S	S
Standing Broad Jump	1.42 $\pm$ 0.24	1.35 $\pm$ 0.42	1.04 $\pm$ 0.54	NS	S	S
Handgrip Test	13.74 $\pm$ 3.24	14.02 $\pm$ 4.21	9.75 $\pm$ 5.34	NS	S	S
Sit-ups in 30 seconds	17.21 $\pm$ 3.08	16.38 $\pm$ 3.57	11.11 $\pm$ 4.14	NS	S	S
Bent Arm Hang	8.04 $\pm$ 2.75	8.11 $\pm$ 2.08	5.08 $\pm$ 3.11	NS	S	S
10 x 5 meter Shuttle Run	30.28 $\pm$ 2.36	30.32 $\pm$ 2.74	24.34 $\pm$ 3.92	NS	S	S

Table 2 shows that:

- Significant Difference between Unified group and Control group in all Piers- Harris Self-Concept Scale in favor of Unified group.
- Significant Difference between Non – Unified group and Control group in all Piers- Harris Self-Concept Scale in favor of Non – Unified group except factor of Freedom from Anxiety
- No Significant Difference between Unified group and Non – Unified group in all Piers- Harris Self-Concept Scale except factor of Happiness and Satisfaction in favor of Unified group.
- Significant Difference between Unified group and Control group in all Eurofit Fitness Testing Battery in favor of Unified group.
- Significant Difference between Non – Unified group and Control group in all Eurofit Fitness Testing Battery in favor of Non – Unified group.
- No Significant Difference between Unified group and Non – Unified group in all Eurofit Fitness Testing Battery.

**Table 3. The correlation between in Piers- Harris Self-Concept Scale and Eurofit Fitness Testing Battery.**

Variables	Eurofit Fitness Testing Battery						
	Flamingo Balance test	Plate Tapping	Standing Broad Jump	Handgrip Test	Sit-ups in 30 seconds	Bent Arm Hang	10 x 5 m Shuttle Run
<b>Behavioral Adjustment</b>	0.643**	0.432**	0.332*	0.421**	0.721**	0.432**	0.365*
<b>Intellectual and School Status</b>	0.507**	0.331**	0.315*	0.523**	0.622**	0.541**	0.332*
<b>Physical Appearance and Attributes</b>	0.721**	0.655**	0.409*	0.786**	0.821**	0.701**	0.613**
<b>Freedom From Anxiety</b>	0.736**	0.627**	0.605**	0.535**	0.500**	0.541**	0.525**
<b>Popularity</b>	0.567**	0.674**	0.632**	0.599**	0.578**	0.569**	0.705**
<b>Happiness and Satisfaction</b>	0.802**	0.765**	0.689**	0.798**	0.499*	0.812**	0.801**

\*R with 0.05 = 0.304

\*\*R with 0.01 = 0.393

Table 3 shows the high significant correlation between Piers- Harris Self-Concept Scale and Eurofit Fitness Testing Battery. And we can predict of the self-concept through the Eurofit Fitness Testing Battery.

### Discussion.

This study addressed the question: Do children with low mental retardation who participated in unified sports and special Olympic have a self-concept that is similar to or different from the self-concept of normally developing children of the same age?

(Monica, 1998) is the Most interested in that category has directed its efforts towards education and drew attention to the importance of play in developing such individuals. Where is playing an important part in the activities of the adjustment and guidance to mentally disabled children to get rich by playing for the psychological and social values such as self-control and self-acceptance and self-confidence, using palpation and many other experiences that will lead to the development of the individual is mentally disabled.

Researchers have suggested that young children typically overestimate their ability, and blur the distinction between their ideal and real selves (Anderson, Adams, 1985).

The Physical activity has a great deal of flexibility and educational facilities and material not found in other decisions, especially activities

academic activities, and the involvement with mental disabilities in physical education programs are essential for being a few decisions but probably only helps them achieve their goals is not preparatory physical and kinetic aspects, but also in the psychological and social aspects and mental as well.

This is confirmed by the (Anour, Rateb, 1999) belief that sports activities is an effective medium through which children will be able to down the personal and social skills, so as to encourage them to integrate into society and enjoy the joys of life along with the misfits, and strengthen children have a sense of belonging to the community and leadership has been instrumental in the sporting activities that make them more agile and capable of absorption and reflection as well as make them more self-confident and more accepted in the society in which they live. And confirmed by Donald, Del, 2008) that physical education is characterized by the flexibility in curriculum and ease to modify activities and, therefore, they are considered the most suitable decisions for successful integration of children down. It is therefore important to identify the success physical



education to children down in achieving their objectives.

The researcher believes that, despite the emergence of many laws and studies in the Western world and the importance of integrating the disabled, regardless of the quality of their disability in the General chapters of both the integration into the classroom or within classes of physical education and sport. We even now in Egyptian society still in isolation from their peers from the misfits, intellectual education schools are a good example of chapter policies between persons with disabilities and able-bodied peers but at present, the State is moving towards began the implementation of those policies, but most take shadow merge direction only.

Harter (1988) argued that this tendency was not evidence that young children deliberately try to misrepresent themselves or consciously decide to respond in a socially desirable way, but that it reflects the inability of young children to use social comparison. She referred to this inability to make realistic judgments as a normative distortion based on cognitive limitations.

Rubel (1983) investigated the use of social comparison in the self-evaluations of children by giving his subjects feedback on their own performance on difficult tasks and information about the performance of other children their age. The children were then asked for self-evaluations.

He found that children younger than seven years did not refer to the information about the performances of other children in their evaluations. Rather, they based their evaluations on an "absolute standard" of whether or not they were able to complete the task. Other authors have also reported that children under 7 years of age do not use social comparison information in forming their self-concepts but are focused on absolute physical and behavioral characteristics (Harter, 1988)

### Conclusions

Findings indicated that inclusive in special Olympic was not detrimental to the self-concept of the present sample of Egyptian children with a low intellectual disability adding support to the growing international literature that highlights inclusive schooling as a viable option for this population.

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