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The Effect of 12 Weeks Dance Education on Physical Fitness Values At Mentally Retarded Children

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Abstract

The purpose of the study was to examine the effect of 12 weeks of dance education on the values of physical fitness at children with mental retarded. 22 educable mentally retarded children from Dr. Günseli-Dr. Bülent Akınsal Secondary School and Working School participated in this study.

Mentally Disabled children who participated voluntarily were grouped as the average age of 16.27± 1.00 year with11 people (9 males, 2females) of the experimental group and the average age of 15.90± 0.83 year to 11people(7males, 4 females) as the control group. Participants in the experimental group was implemented 12-weekdance education program including 2 days a week, 2 hours a day. Program contents included the basic posture correction, flexibility, ability to maintain a rhythm, motion diversity and self-expression skills, pair work and group work. Physical fitness values of experimental and control group were measured in before and after studies. After the 12-week dance education, It was determined that there was statistically significant differences in vertical jump, flexibility, sprint and balance parameters between the experimental and control groups.($p<0.05$). In the study of comparing the experimental group in itself, statistically significant differences were found of the specified physical fitness parameters ($p<0.01$). As a result; physical fitness levels of the educable mentally retarded individuals who regularly participated in dance activities showed significant improvements. The results of this study, it was observed that after 12-week education program there was more development of many physical fitness parameters in the experimental group than the control group and this revealed that the importance of dance education on educable mentally retarded children.

Key Words: mentally retarded children, education, physical fitness

Introduction

There were a lot of studies toidentify the physical,physiological andmotoric properties of mentally educable retarded individuals and development level of them.It is stated that training and sporting activities which were done regularly has the effects ofmotor development and the changes in behavior in mentally retarded individuals (Elena et.al.2011, Burt et.al. 2007).Sport and physicalactivity programs ensured the improvement ofchildren'sposture, teamwork, discipline, sportsmanship,leadership andthe developmentof skills such assocializing(Karacan et.al. 2003).

Sport is oneof the best methods for integrationof disabled people tosociety. Nowadays,there aresports facilitiesin various areas for disabled people according to their disability status and degrees(Pense et.al. 2011).

The purpose of the study was to examine the effect of 12 weeks of dance education on the values of physical fitness at children with mental retarded. The effect of dance education was discussed on physical fitnessand competences.In addition,The compliance of mentally disabled children withnon-disabledpeerswere observed insports andsimilarbranches.

Materials and Methods

22 educablementally retarded children from Dr. Günseli-Dr. Bülent Akınsal Secondary School and Working School participated in this study.Mentally disabled children who participated voluntarily were grouped as the average age of 16.27± 1.00with11 people(9 males,2females)of the experimental groupand the average age of 15.90± 0.83to 11people(7males, 4 females) as the control group.The average of height, weight, and BMI of experimental group are respectively 168.54 cm, 67.5 kg, BMI 24.83, and control groups' are respectively 162.45 cm, 69.41 kg, BMI 26.66.

Before dance education, pre-tests were conducted about the physical(height, weight,BMI) andmotoriccharacteristics (flamingo balance, vertical jump, flexibility, sprint) of theexperimental and control groups. At the end ofthe 12-weekdance training applied tothe experimental grouplasttests were conductedinboth groups to find the effectonmotoric features. Flamingo balance test was used to evaluate the balance ability. Balance board and protocol was used which made in standard size of Eurofit for the test. Vertical jump test was made by using New Test 2000 battery. While flexibility was being evaluated by Eurofit test battery and Sprint ability was being evaluated by 20 m. sprint test.

Application

The experimental group performed a danceeducationprogram for two days a week, two hours a dayfor a totalof 12 weeks but the control group did not apply any work. Studies were carried out as an individual in the first3 weeks, from 3to 12 weekscreating large group of subjects were carried out withthe participationof all subjects.Study included basicposturecorrection,flexibility,ability tomaintain a rhythm, motion diversity andself-expressionskills, pair and group work.

Statistical Analysis

Data obtained fromexperimental and control groups with data collectiontools were analyzed by SPSS 18 program.The average andstandard deviation valuesof all variableswere calculated.Differences between the values of pre-test andpost-test of subjects were analyzed by using the Wilcoxon test and differences betweensubjects were analyzed bytheMann Whitney-U test.

Results

Statistical evaluations related to physical fitness

Pre-testand post-testofphysical andmotoricabilities of the mentally handicapped childreninthe experimental and controlgroup areevaluated comparatively.

Table 1 demonstrates Pre-test-post-test ofthe motoric properties ofthe arithmetic mean (X) + standard deviation (SD) andMann-Whitney Uand Wilcoxon test results of the mentally retarded childreninthe experimental and controlgroup.After the 12-week dance education, it was determined that there was statistically significant differences in vertical jump, flexibility and sprint parameters between the experimental and control groups($p<0.05$). In the study of comparing the experimental group in itself, statistically significant differences were found of the specified all physical fitness parameters ($p<0.01$).

Table 1. Pre and Post test motoric characteristics differences of the experimental and control group

n=22		Pre Test	Post Test	p
Balance(s)	Experimental	14.81±4.49	10.36±4.00	0.003**
	p	0.71	0.10	
	Control	15.63±3.07	15.72±3.06	0.066
Vertical Jump(cm)	Experimental	21.63±8.15	24.27±8,90	0.003**
	p	0.13	0.021*	
	Control	16.90±4.63	17.45±4.36	0.058
Sprint(s)	Experimental	4.58±.87	4.28±.83	0.016**
	p	0.26	0.049*	
	Control	5.57±2.20	5.65±2.40	0.79
Flexibility (cm)	Experimental	18.36±7.64	22.27±7.30	0.003**
	P	0.13	0.035*	
	Control	13.09±9.22	14.09±9.21	0.016**

*p<0.05, **p<0.001

Discussion

As a result; educable mentally retardedindividuals who regularly participate indanceactivities showedsignificantimprovements about theirphysical fitnesslevels. In parallelto our study, Savucu and his colleagues (2006), found significant improvements inthesprint and vertical jump parameters of the mental disabilities in twice a week for12 weeksina 70-minutebasketball training.

Biçer et. al.(2004) examined the effects of power andstrength exercises of children with mental disabilities on skills and abilitiesin their study and observed significant improvement onvertical jump. Rimmer(2004), adultswithmental disabilities have been subjectto the training program including strength exercisesfor 12 weeks and has recorded significant progress in their muscle strength and endurance.

The results of ourstudy, the experimental group who take part in the12-week dance education program was observed more development ofmanyphysical fitness parameters than the control group and this revealed the importanceof dance education on educable mentally retarded children.

Therefore, if thiskind of activities should be organizedin accordance withthe needs and aspirationsof children and should be made commonly, they make significant contributionto the development ofthechildren.

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