



THE EFFECT OF PHYSICAL ACTIVITY ON SOCIAL ADAPTATION AND SKILLS DEVELOPMENT IN MENTALLY DISABLED INDIVIDUALSⁱ

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Abstract:

The aim of this research is to determine the effect of physical activity on social adjustment and skill development in mentally disabled individuals. The sample of the study consisted of 50 (n=40 male and n=10 female) mentally handicapped individuals aged between 11 and 15 who were educated at the Malatya Anatolian Special Education and Rehabilitation Center. These individuals were divided into two groups as experiment (n=25) and control (n=25). Individuals constituting the experimental group were given a bowling activity for 4 days and 2 hours in every week and tracking activity 1 day and 1 hour in every week throughout 12 weeks. Individuals who form the control group do not participate in any activities and continue their daily lives. In order to determine the effect of physical activity on social adaptation and skill development in mentally disabled individuals, the Social Skills and Compliance Scale (SSCS) was applied to parents of members of the experimental and control groups before and after of exercise program that is for 12 weeks. After analyzing the statistical analysis, it was found that there was a statistically significant difference between pre-test and post-test scores of SSCS total scores and subscales of the scale in both experimental and control groups ($p < 0.05$). When the mean values of the pre-tests and final scores applied to the individuals in the experiment and control groups are examined, it was seen that the average of the final test scores of the individuals in the experimental group decreases; the average of the post test scores of the individuals in the control group increased. It

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was reached from results of these findings that physical activity that continues throughout 12 weeks contributed to the development of social cohesion and competence of mentally disabled individuals. For this reason, should be frequently included in physical activities which have to enhance and support social development levels of mentally disabled individuals who are trained in rehabilitation centers so that they can adapt to the environment they live in.

Keywords: mentally disabled, physical education, social adapt

1. Introduction

Social skill is a form of behavior that occurs in a particular social situation. However, in similar social contexts, behavior types exhibited by individuals may vary and seen social skills deficiencies in some individuals. Individuals lack social skills because they sometimes do not know where and how to use the skills they have. One of the most important factors affecting the inadequacy of social skills is whether individuals are disabled or not (Akfirat, 2004). Although mentally disabled children follow the same developmental stages as healthy children, they follow them back (Biçer and oth., 2004), and mentally disabled children show social skills inadequacy. Inadequate social skills of mentally retarded children; results from their inability to recognize each other with their healthy peers, and their inadequacy in communication skills (Avcıoğlu, 2005a). Children with intellectual disabilities due to insufficient social skills can't find an opportunity to interact with their peers who do not need special education. The effect of these causes leads to inadequate communication and interaction between both children with mental retardation and their peers. The inadequacies in social skills negatively affect the students' relations with their peers, their school life, their quality of life, their peers, their teachers, their parents and even their business life in adulthood. Therefore, students with intellectual disabilities need support to acquire and use certain social skills (Avcıoğlu, 2012b). In other words, this support can be provided through physical education and sports, exercise and physical activities for educated children with intellectual disabilities. Physical activity is as important for healthy individuals as it is for people with intellectual disabilities. It was emphasized to the importance of improving and maintaining the physical fitness levels of mentally disabled individuals for a healthy life. It was reported that sport activities is beneficial for experiencing of self-concern, self-reliance, socialization and sense of accomplishment. (Savucu and Biçer, 2009).

For this reason, this research is important to determine the effect of physical activity on social adjustment and skill development in mentally disabled individuals and to understand the necessity of physical activity for mentally disabled individuals trained in rehabilitation centers.

2. Method

The sample of the study consisted of 50 (n=40 male and n=10 female) mentally handicapped individuals aged between 11 and 15 who were educated at the Malatya Anatolian Special Education and Rehabilitation Center. These individuals were divided into two groups as experiment (n=25) and control (n=25). Individuals constituting the experimental group were given a bowling activity for 4 days (Monday, Tuesday, Wednesday, and Thursday) and 2 hours in every week and tracking activity 1 day (Saturday) and 1 hour in every week throughout 12 weeks. Individuals who form the control group do not participate in any activities and continue their daily lives. In order to determine the effect of physical activity on social adaptation and skill development in mentally disabled individuals, the Social Skills and Compliance Scale (SSCS) that consists from 59 questions was applied to parents of members of the experimental and control groups before and after of exercise program that is for 12 weeks. The lowest score is 59 points and the highest score is 177 points. There are a total of 7 subscales; impulsivity, avoidance threshold, attention and mobility, social relationship, emotional state, need for approval and introversion. As the total points and subscale scores obtained from the scale decrease, the social adaptation and skills improve, while the social adaptation and the skills become worse.

3. Statistical Analysis of Data

The frequency distributions of the sex variables of the individuals who are participating in the study were calculated. The mean scores and standard deviations of the SSCS total score and the subscales of the scale were determined to determine the level of social skills and harmony of the individuals. The data used in the study were tested with the Kolmogorov-Smirnov Test for normal distribution. Paired Sample T Test was used to determine whether the difference between the mean of two independent groups was meaningful as it was understood that the data were normal distribution. Statistical analysis of the data was performed at a 95% confidence interval and 0.05 error level in the Statistical Package for the Social Sciences (SPSS 22.0) package program.

4. Findings

Table 1: Distribution Related to the Personal Information of the Athletes Constituting the Research Group

Variables	Subcategories	N	%
Gender	Female	10	20
	Male	40	80
	Total	50	100

The frequency distributions of the gender variables of the individuals constituting the research group are shown in Table 1.

Table 2: Individual Social Skills and Compliance Scale (SSCS) Total Scores and Values Related to the Sub-Dimensions of the Scale

Scales	N	\bar{X}	Sd±	\bar{X}	Sd±	Lowest and Highest Points to Obtain from SSCS
SSCS Total Point	50	130.98	8.23	111.64	37.44	59-177
Impulsivity	50	30.80	2.49	26.44	8.39	14-42
Frustration threshold	50	17.62	1.78	15.28	5.06	8-24
Attention and mobility	50	21.58	2.46	19.04	7.26	10-30
Social relationship	50	22.48	2.58	17.06	5.66	10-30
Emotional state	50	15.82	1.81	13.12	4.86	7-21
Need for approval	50	11.44	1.48	9.42	3.59	5-15
Introvert	50	11.24	1.28	9.30	3.62	5-15

Table 2 shows the total scores of the SSCS and the mean and standard deviation values of the subscales of the scale and the lowest and highest scores that can be taken from the scale.

Table 3: Comparison of Pre-test and Post-test Scores for the Social Skill and Compliance Scale (SSCS) and Subscales of the Scale

Variables	Groups	N	\bar{X}	Sd±	S _{error}	t Test		
						t	df	p
SSCS Total Point	Pre test	25	128.76	8.10	1.62	32.283	24	0.000*
	Post test	25	75.32	5.69	1.14			
Impulsivity	Pre test	25	30.20	2.51	0.50	19.138	24	0.000*
	Post test	25	18.44	1.96	0.39			
Frustration threshold	Pre test	25	17.36	1.82	0.36	18.224	24	0.000*
	Post test	25	10.60	1.58	0.31			
Attention and mobility	Pre test	25	21.64	2.75	0.55	12.895	24	0.000*
	Post test	25	12.32	2.39	0.47			
Social relationship	Pre test	25	21.96	2.45	0.49	21.550	24	0.000*
	Post test	25	11.80	1.60	0.32			
Emotional state	Pre test	25	15.40	1.97	0.39	13.052	24	0.000*
	Post test	25	8.68	1.49	0.29			
Need for approval	Pre test	25	11.36	1.52	0.30	12.098	24	0.000*
	Post test	25	6.12	1.05	0.21			
Introvert	Pre test	25	10.84	1.14	0.22	16.875	24	0.000*
	Post test	25	6.00	1.04	0.20			

* Significance at 0.05 level

In Table 3, it is seen that there is a statistically significant difference between pre-test and post-test scores of SSCS total scores and subscales of the scale ($p < 0.05$).

Table 4: Comparison of Pre-test and Post-test Scores for the Control Group's Social Skills and Compliance Scale (SSCS) and the Subscales of the Scale

Variables	Groups	N	\bar{X}	Sd±	S _{error}	t Test		
						t	df	p
SSCS Total Point	Pre test	25	133.20	7.91	1.58	-5.229	24	0.000*
	Post test	25	147.96	9.08	1.81			
Impulsivity	Pre test	25	31.40	2.38	0.47	-3.554	24	0.002*
	Post test	25	34.44	2.59	0.52			
Frustration threshold	Pre test	25	17.88	1.74	0.34	-4.030	24	0.000*
	Post test	25	19.96	2.05	0.41			
Attention and mobility	Pre test	25	21.52	2.20	0.44	-5.101	24	0.000*
	Post test	25	25.76	2.81	0.56			
Social relationship	Pre test	25	23.00	2.64	0.52	0.864	24	0.396
	Post test	25	22.32	2.32	0.46			
Emotional state	Pre test	25	16.24	1.56	0.31	-2.213	24	0.037*
	Post test	25	17.56	2.21	0.44			
Need for approval	Pre test	25	11.52	1.47	0.29	-2.400	24	0.025*
	Post test	25	12.72	1.59	0.31			
Introvert	Pre test	25	11.64	1.31	0.26	-2.174	24	0.040*
	Post test	25	12.60	1.73	0.34			

* Significance at 0.05 level

Table 4 shows that there is a statistically significant difference between the pre-test and post-test scores (except for the social relationship sub-dimension) of the SSCS and the subscales of the scale ($p < 0.05$).

5. Discussion and Conclusion

Physical activity allows individuals with disabilities to develop spiritually and socially and facilitate their integration into society (Eichsteadt and Lavay, 1995). Physical activity should therefore be regarded as a means of contributing to social cohesion and social cohesion of mentally challenged individuals (Dunn, 1997). In this study with the aim of determining the effect of physical activity on social adaptation and skill development in mentally disabled individuals, it was found that there was a significant

difference between pre-test and post-test scores of SSCS total scores and scale subscales of the individuals in both experimental and control groups ($p < 0.05$) (Table 1 and Table 2). When the mean values of the pre-tests and final scores applied to the individuals in the experiment group are examined, it is understood that the average of the final test scores of the individuals decreases and social adaptation and skills increase accordingly. It is seen that the average of the post test scores increased at the end of the 12-week period when individuals in the control group did not participate in any activities other than daily activities in daily life, and as a result, social adjustment and skills became worse. According to these findings, it can be said that the activities performed regularly for 12 weeks have contributed to the development of social adaptation and skills of mentally disabled individuals. When the literature is examined, studies that are parallel to the results reached in this research have been reached. As a matter of fact, Mc Mahon's (1998) study showed that physical activities are important in terms of integrating society, establishing friendships and social acceptance in disabled people. In another study, Chiang (2003) reported that social interactions of autistic children increased, friendship improved with their peers, and loneliness decreased after an activity in an amusing environment for autistic children. Calfas and Taylor (1994) investigated 20 different studies aiming to determine the effect of physical activity on psychological variables (depression, anxiety, stress, self-esteem, self-concept, hostility, anger, intellectual functioning and psychiatric disorders) reported that physical activity had a positive effect on psychological variables. It can be said that the social adaptation skills of the individuals who feel good in terms of psychological variables may also increase due to physical activity.

The findings from this study have been concluded that physical activity contributes to the development of social cohesion and competence of mentally disabled individuals and low level of physical activity or an inactive lifestyle leads to decreased social cohesion and competence. For this reason, should be frequently included in physical activities which have to enhance and support social development levels of mentally disabled individuals who are trained in rehabilitation centers so that they can adapt to the environment they live in.

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