



International

Journal of Human Sciences

ISSN:2458-9489

Volume 14 Issue 4 Year: 2017

Effects of adapted physical activity applied on intellectual disability students toward level of emotional adjustment, self-managing and the socialization: Parent and teacher interactive research

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Abstract

The purpose of the research is to investigate the effects of adapted physical activity applied on intellectual disability students toward level of emotional adjustment, self-managing and the socialization. The study was designed as pretest-posttest experimental model. Intellectual disabled students from 5th and 6th grade who continue their education at the public school in Esenyurt district of İstanbul in 2015-2016 academic year spring semester. Adapted physical activity program was applied to the students for 2 days 1 hour per week for 12 weeks. Hacettepe Emotional Adjustment Scale, Self-Managing and Socialization which are subheadings of the AAMD Adaptive Behavior Scale were used to collect data. Pretest-posttest descriptive analysis was done and Wilcoxon Test was used in dependent comparisons. The results showed that there was a decline in students' pretest-posttest mean scores of *neurotic problems* and *behavior problems* according to mothers and the school counselor of the students. An increase was observed in pretest-posttest mean scores of *self-managing* and *socialization* on behalf of the posttest. According to data from mother and school counselor, significant differences were determined between pretest-posttest on behalf of the posttest in *neurotic* and *behavior problems* which are subheadings of the Emotional Adjustment Scale, self-managing and *socialization* which are subheadings of the AAMD Adaptive Behavior Scale. Adapted physical activity applied on intellectual disability students affected positively level of emotional adjustment; self-managing and the socialization were seen. Additionally students' socialization scores increased and emotional adjustment problems decreased were observed.

Keywords: Sport; Intellectual disabled; Emotional Adjustment; Self-Managing; Socialization.

1. Introduction

The introduction of the social-ecological model of disability by the World Health Organization in its International Classification of Functioning, Disability, and Health have provided a framework for understanding disability as a function of the interaction between personal competencies and environmental demands (WHO, 2001; Shogren and friends 2016). Basically, the most important behavior of the modern society is the respect for every person's right to live. There is no compelling evidence supporting interventions aiming at improving mental health problems in people with mild to moderate intellectual disability (Koslowski and friends 2016). But in the society,

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the behavior against the people affected from disability in different ways, can change their quality of life in practice as well as protecting their social rights with the laws (İlhan and friends 2016). Individuals with intellectual disabilities who are provided appropriate personalized supports over a sustained period generally have improved life outcomes (American Association on Intellectual and Developmental Disabilities, 2017). It is an indisputable truth that the individuals, whether they are affected from disability or not, have to earn some capabilities to be able to live in the society independently. (Aykut, Emecen, Dayı and Karasu, 2014). The intellectual disability children are the least known of the handicapped children, although they are the most frequent seen group in the handicapped children. (İlhan, 2008).

The lightly intellectual disability children are generally noticed when they start the elementary school and they generally fall behind in reading-writing and basic mathematics. This group constitutes nearly the 85% of the intellectual disability children. (Eripek, 2005). Although the intellectual disability children follow the same progression phases with the normally developed children, they follow them from behind and cannot improve like them (Özer, 2013). The adjustment disorder they show in different ways, cause failure in their social and academic duties they study on. In reality, it is important for intellectual disability to achieve success. Carefully planned physical exercise or the sport programs help those people to achieve success (Kınalı, 2003). The positive effect of sport is, to include handicapped people and to provide them better relationships with the society by physical and mental development (Savucu ve ark. 2006). Sport activities are as important for handicapped people as the healthy people (Çevik, 2013). Bringing the sportive abilities of educable intellectual disability children into the forefront with the recreative activities and helping them to develop in this ground, developing their personal and social abilities, can make them perceive themselves in a healthy way and participate in the society as a productive individual (Bayazıt, 2014). It can be mentioned as the regular activities, group exercises and team games can affect the intellectual disability people as physically, intellectual, socially and spiritually, the families can understand these people better and they are more compatible with the society. Sport provides handicapped people to come together with the healthy and handicapped people and by this way, it fulfills a very important function for the “integration” which is the objective to accomplish in the special education (Savucu ve Biçer, 2009). Even if the emotional adjustment problems are thought to be a situation particular to adults, these problems can be observed in children too. The emotional adjustment process which we defined as, the people’s establishing and sustaining a balanced relation with their own and their community, is very difficult for the children who have adaptation problem (Yavuzer, 2014; Selimhocaoğlu, 2009). These children attract notice with the behavior like lying too much, irritability, anxiety, truancy, stealing and breaking the rules (Yörükoğlu, 2013; Yavuzer, 2012; Karataş, 2011).

Sport activities for intellectual disability people, provide positive effect for increasing the quality of their daily living, getting over with their disabilities, and their socialization with the positive motivation and also strengthen their communication with the healthy people around them (Yılmaz ve ark. 2015). According to the results of the researches, it is proved that sport and games have important positions for their development and contribute them to grow healthy (Hazar, 1996). The children with the intellectual disability can have differences in managing themselves, can be distracted in a very short period and can spend their way to different interests. Even there are very sociable ones in them, we can see that some of them are scared from many things around them and sit alone in a corner. They are silent and far from the crowd. Right here, sport activities support children to collect their attention, to show initiative and to make contact with their friends by encouraging participation to the activities.

1.1. Focus of the Study

The idea of physical activities are very important for intellectual disability children to defaecate from their disabilities, decreasing their mental and social nonconcurrences, increasing their level of expressing themselves, improving their self reliance, and reintroducing them to the society, has become known by the families day by day. It is thought that our study can be scientifically supportive for the families end the children of the intellectual disability children. In this context, the purpose of this study is to research the effect of the physical activities for the intellectual disability children over the emotional adjustment, managing themselves and socializing.

2. Methodology

2.1. Participants

The research was made in the spring semester of 2015-2016 school year, Istanbul city, Esenyurt district and with 6 students from the 5th grade and 6 students from the 6th grade who are maintaining their education in the public school of the Ministry of National Education.

2.2. Procedures

In this research about the effect of the physical activities for the intellectual disability students over the emotional adjustment, managing themselves and socializing levels, are figured in the pretest-posttest application group test model. The choice of physical activities applied according to the purpose, are made for developing their abilities about emotional adjustment, socializing and managing themselves, by taking the interests and demands, abilities, free times, sufficiency of the applying environment in consideration. The study was made in 12 weeks as 2 days in a week and one hour per a day. In this research, the physical activity program including order exercises, warm-up exercises, paired exercises, circuit training tracks, educational games, group competitions and games are applied to children. After viewing the students' Ram Special Teaching Institution Report with the counselor, physical education teacher, special education teacher, and vice principal of the school which the study will be made, 28 students from the 5th and 6th grades have attended the sportive activities. (these activities are; flat racing, slalom dribbling football and throwing balls to a determined target). After considering the level of students' applying and performing the commands, the number of students was decreased to 12 according to the homogeneity of the group. The permission slip necessary for the study was taken from the District National Education Directorate. And also permissions from the school management, parents and the children have taken and finally past from the ethical committee.

2.3. Instruments

As a data collection tool, emotional adjustment Scale and scales about the self-management and socializing levels which are the lower levels of the AAMD Adaptive Behavior Scala are applied by the mothers and the teachers of the children before and after the 12 week program.

For determining the socialization level of the children, the matters about "Socialization" and "self-management" which are the subtitles of progressional specialties of "American Association on Mental Deficiency" Adaptive Behavior Scala, (AAMD) have been used. Translation into Turkish and standardization was made by Epir in 1974. The matters of the socialization subtitle are; cooperation, helping each other, considering others, having information about their families, inner circle, friends and people they know from far away, leadership in group activities, interaction with the others in the activities or group games, the specialties of active attendance and basic attendances, sharing and social maturity levels. The matters of self-management subtitle are; initiative, passivity, focusing attention in the activities, encouragement in doing something, hard or simple activities as leisure activities.

Hacettepe Emotional Adjustment Scala is a scala which has a legitimacy and confidence study made by Hacettepe University Medical Faculty Child and Adolescent Psychiatry Department, with the purpose of assessing the emotional adjustment. It was developed in 1985 by Prof. Bahar

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Gokler and Prof. Ferhunde Oktem. The scala consists of 32 matters including mental symptoms can happen in every child. For every matter there are choices as “No”, “Some” and “Much”; the scoring was made by adding the points as 0,1,2 which come against these choices. The Emotional Adjustment Scala includes three factors as Neurotic problems, Behavior problems and other behavior problems, to determine the emotional adjustment level of the children. *As a neurotic characteristic*: In 12 questions, there are characteristics as, shyness, timidity, lack of confidence, cowardness, mousiness, selfishness and not sharing, not being able to do anything by own, scaring at night and not sleeping alone, being anxious and hypochondriac, not having friends and playing alone, going to school unwillingly, being calm and withdrawn, being joyless and unhappy and carelessness. *As a behavior disorder*: In 12 questions there are characteristics as, briskness and euphory, irritability and being angry very quickly, jealousy, obstinacy and disobeying, lying, getting things without permission which do not belong themselves, not getting along with the children of the same age, not being affected of the punishment and not settling down, being aggressive and attacker, being unkind and harmful, irresponsibility and not making own duty and being over daintiness. *As the Other Problems*: In 7 questions there are matters as; impediment, tic, eating nails, not controlling the bowels, peeing in the bed and unsuccessfulness in the school.

2.4. Analysis of Data

In this study with the purpose of calculating the effect of adapted physical activities over the emotional adjustment, self-management and socializing levels of the intellectual disability students; the “Wilcoxon Test” was used in calculating the emotional adjustment scale, self-management and socialization scalas which were filled by the parents and the teachers of the students, in pretest-posttest descriptive analyses and in dependent comparisons.

3. Findings

The purpose of this study is to research the effect of adapted physical activities over the emotional adjustment, self-management and socializing levels of the intellectual disability students.

Table 1. pretest-posttest emotional adjustment level Averages according to the parents

Parent pretest	n	Minimum	Maximum	Mean	Std. Sp.
Behavior problems Total	12	,00	9,00	5,91	2,71
Neurotic problems Total	12	3,00	16,00	8,91	3,60
Parent posttest	n	Minimum	Maximum	Mean	Std. Sp.
Neurotic problems Total	12	,00	7,00	2,83	2,51
Behavior problems Total	12	,00	3,00	1,08	1,16

It is determined that there are decreases in neurotic problems pretest ($8,91 \pm 3,60$)-posttest ($2,83 \pm 2,51$) and behavior problems pretest ($5,91 \pm 2,71$)- posttest ($1,08 \pm 1,16$) average points.

Table 2. pretest-posttest self management level Averages according to the parents

Parent pretest self-management	n	Minimum	Maximum	Mean	Std. Sp.
Initiative	12	,00	3,00	1,16	,717
Passivity	12	1,00	6,00	4,33	1,87
Attention	12	,00	4,00	2,08	1,24
Patience	12	1,00	4,00	2,66	,984
Leisure	12	1,00	3,00	1,50	,674
Self-management Total	12	6,00	17,00	11,7	3,72

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Parent posttest self-management	n	Minimum	Maximum	Mean	Std. Sp.
Initiative	12	1,00	3,00	2,08	,996
Passivity	12	3,00	6,00	4,83	1,02
Attention	12	2,00	4,00	2,83	,577
Patience	12	2,00	4,00	3,41	,668
Leisure	12	2,00	3,00	2,41	,514
Self-management Total	12	10,00	19,00	15,5	2,64

There is an increase on behalf of the posttest in the self-management pretest total point ($11,7 \pm 3,72$)- posttest ($15,5 \pm 2,64$) as the average points.

Table 3. pretest-posttest socializing level Averages according to the parents

Pretest socializing level Averages according to the parents	n	Minimum	Maximum	Mean	Std. Sp.
Cooperation	12	,00	2,00	1,25	,621
Considering others	12	1,00	3,00	1,66	,651
Realizing others	12	1,00	5,00	3,41	1,37
Interaction with the others	12	,00	3,00	1,75	1,05
Attending group activities	12	,00	2,00	1,16	,577
Selfishness	12	3,00	4,00	3,58	,514
Social Maturity	12	2,00	6,00	4,25	1,13
Socializing Total	12	12,00	22,00	17,0	2,77
Posttest socializing level Averages according to the parents	n	Minimum	Maximum	Mean	Std. Sp.
Cooperation	12	3,00	4,00	3,83	,389
Considering others	12	4,00	6,00	5,41	,792
Realizing others	12	1,00	3,00	2,00	,603
Interaction with the others	12	3,00	4,00	3,83	,389
Attending group activities	12	,00	3,00	2,50	,904
Selfishness	12	1,00	3,00	2,25	,866
Social Maturity	12	3,00	4,00	3,83	,389
Socializing Total	12	17,00	24,00	21,0	2,53

There is an increase on behalf of the posttest in the socializing pretest total point ($17,0 \pm 2,77$)-posttest ($21,0 \pm 2,53$) as the average points.

Table 4. pretest-posttest emotional adjustment level Averages according to the teachers

Pretest emotional adjustment level Averages according to the teachers	n	Minimum	Maximum	Mean	Std. Sp.
Behavior problems Total	12	3,00	16,00	9,08	4,14
Neurotic problems Total	12	,00	8,00	5,08	2,81

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Posttest emotional adjustment level Averages according to the teachers	n	Minimum	Maximum	Mean	Std. Sp.
Neurotic problems Total	12	,00	7,00	2,83	2,51
Behavior problems Total	12	,00	3,00	1,08	1,16

It is determined that there are decreases in neurotic problems pretest ($9,08 \pm 4,14$)- posttest ($2,83 \pm 2,51$) and behavior problems pretest ($5,08 \pm 2,81$)- posttest ($1,08 \pm 1,16$) average points.

Table 5. pretest-posttest self-management level Averages according to the teachers

Pretest self-management averages	n	Minimum	Maximum	Mean	Std. Sp.
Initiative	12	,00	1,00	,916	,288
Passivity	12	1,00	6,00	3,91	1,83
Attention	12	,00	4,00	1,83	1,19
Patience	12	1,00	4,00	2,16	1,11
Leisure	12	2,00	4,00	2,66	,651
Self-management Total	12	6,00	17,00	10,5	3,67
Posttest self-management averages	n	Minimum	Maximum	Mean	Std. Sp.
Initiative	12	1,00	3,00	2,08	,996
Passivity	12	3,00	6,00	4,83	1,02
Attention	12	2,00	4,00	2,83	,577
Patience	12	2,00	4,00	3,41	,668
Leisure	12	2,00	3,00	2,41	,514
Self-management Total	12	10,00	19,00	15,58	2,64

There is an increase on behalf of the posttest in the self-management pretest total point pretest ($10,5 \pm 3,67$)- posttest ($15,5 \pm 2,64$) as the average points.

Table 6. pretest-posttest socializing level Averages according to the teachers

Pretest socializing level Averages	n	Minimum	Maximum	Mean	Std. Sp.
Cooperation	12	1,00	2,00	1,16	,389
Considering others	12	1,00	4,00	1,66	,984
Realizing others	12	1,00	5,00	3,50	1,08
Interaction with the others	12	,00	3,00	1,75	,753
Attending group activities	12	1,00	2,00	1,16	,389
Selfishness	12	3,00	4,00	3,66	,492
Social Maturity	12	2,00	6,00	4,33	1,07
Socializing Total	12	14,00	21,00	17,2	2,09

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Posttest socializing level Averages	n	Minimum	Maximum	Mean	Std. Sp.
Cooperation	12	1,00	2,00	1,25	,452
Considering others	12	1,00	3,00	2,00	,603
Realizing others	12	3,00	4,00	3,83	,389
Interaction with the others	12	,00	3,00	2,50	,904
Attending group activities	12	1,00	3,00	2,25	,866
Selfishness	12	3,00	4,00	3,83	,389
Social Maturity	12	4,00	6,00	5,41	,792
Socializing Total	12	17,00	24,00	21,0	2,53

There is an increase on behalf of the posttest in the socializing pretest total point ($17,0 \pm 2,77$)-posttest ($21,0 \pm 2,53$) as the average points.

Table 7. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest behavior problem level test

Pretest posttest	n	Rank mean	Rank total	z	p
Negative Rank	11	6,00	66,00	2,93	,003*
Positive Rank	0	,00	,00		
	1	-	-		

It shows that there is a significant difference between the pretest posttest points of the children which they get from the behavior disorder sub-dimension ($z = -2,93$, $p < 0,05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 8. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest neurotic problem level test

Pretest posttest	n	Rank mean	Rank total	z	p
Negative Rank	12	6,50	78,00	3,07	,002*
Positive Rank	0	,00	,00		
	0	-	-		

It shows that there is a significant difference between the pretest posttest points of the children which they get from the neurotic disorder sub-dimension ($z = -3,07$, $p < 0,05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 9. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest self-management test

	Pretest-post test	N	Rank mean	Rank total	z	p
Posttest Initiative Pretest Initiative	Negative Rank	0	,00	,00	2,33	,020*
	Positive Rank	6	3,50	21,00		
		6				
Posttest Passivity Pretest Passivity	Negative Rank	4	3,50	14,00	1,02	,305
	Positive Rank	5	6,20	31,00		
		3				

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Posttest Attention Pretest Attention	Negative Rank	2	3,50	7,00	1,89	,058
	Positive Rank	7	5,43	38,00		
		3				
Posttest Patience Pretest Patience	Negative Rank	0	,00	,00	2,25	,024*
	Positive Rank	6	3,50	21,00		
		6				
Posttest Leisure Pretest Leisure	Negative Rank	0	,00	,00	2,81	,005*
	Positive Rank	9	5,00	45,00		
		3				

It shows that there is a significant difference between the pretest posttest points of the children which they get from the leisure ($z=2.81$, $p<0.05$), Initiative ($z=2.33$, $p<0.05$) and patience ($z=2.25$, $p<0.05$) sub-dimensions. When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 10. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest self-management test total points

Pretest-posttest	n	Rank mean	Rank total	z	p
Negative Rank	1	1,00	1,00	2,71	,007*
Positive Rank	9	6,00	54,00		
	2	-	-		

It is observed that there is a significant difference between the pretest posttest points of the children which they get from the self-management sub-dimension ($z=-2,71$, $p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 11. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest socialization test

	Pretest-posttest	n	Rank mean	Rank total	z	p
Posttest Cooperation Pretest Cooperation	Negative Rank	3	3,50	10,50	,000	1,000
	Positive Rank	3	3,50	10,50		
		6				
Posttest Considering others Pretest Considering others	Negative Rank	1	3,50	3,50	1,63	,102
	Positive Rank	5	3,50	17,50		
		6				
Posttest Realizing others Pretest Realizing others	Negative Rank	2	2,00	4,00	,966	,334
	Positive Rank	3	3,67	11,00		
		7				
Posttest Interaction with the others Pretest Interaction with the others	Negative Rank	0	,00	,00	2,26	,024*
	Positive Rank	6	3,50	21,00		
		6				

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Posttest Attending group activities	Negative Rank	0	,00	,00	2,56	,010*
Pretest Attending group activities	Positive Rank	8	4,50	36,00		
		4				
Posttest Selfishness	Negative Rank	0	,00	,00	1,73	,083
Pretest Selfishness	Positive Rank	3	2,00	6,00		
		9				
Posttest Social Maturity	Negative Rank	0	,00	,00	2,41	,016*
Pretest Social Maturity	Positive Rank	7	4,00	28,00		
		5				

It shows that there is a significant difference between the pretest posttest points of the children which they get from the Interaction with the others ($z=2.26$, $p<0.05$), Attending group activities ($z=2.56$, $p<0.05$) and Social Maturity ($z=2.41$, $p<0.05$) sub-dimensions ($p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 12. The Wilcoxon Signed Rank Test Results According to the parents' pretest posttest socialization test total points

Pretest-posttest	n	Rank mean	Rank total	z	p
Negative Rank	0	,00	,00	2,94	,003*
Positive Rank	11	6,00	66,00		
	1	-	-		

It is observed that there is a significant difference between the pretest posttest points of the children which they get from the socializing dimension ($z=-2.94$, $p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 13. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest behavior problem level test

Pretest-posttest	n	Rank mean	Rank total	z	P
Negative Rank	10	5,50	55,00	2,81	,005*
Positive Rank	0	,00	,00		
	2	-	-		

It is observed that there is a significant difference between the pretest posttest points of the children which they get from the behavior problem dimension ($z=-2.81$, $p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

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Table 14. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest neurotic problem level test

Pretest-posttest	n	Rank mean	Rank total	z	P
Negative Rank	12	6,50	78,00	3,06	,002*
Positive Rank	0	,00	,00		
	0	-	-		

It is observed that there is a significant difference between the pretest posttest points of the children which they get from the neurotic problem dimension ($z=-3,06$ $p<.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 15. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest self-management test

	Pretest-Posttest	n	Rank mean	Rank total	z	p
Posttest Initiative Pretest Initiative	Negative Rank	0	,00	,00	2,64	,008*
	Positive Rank	7	4,00	28,00		
		5				
Posttest Passivity Pretest Passivity	Negative Rank	1	2,00	2,00	2,05	,040*
	Positive Rank	6	4,33	26,00		
		5				
Posttest Attention Pretest Attention	Negative Rank	1	4,00	4,00	2,48	,013*
	Positive Rank	9	5,67	51,00		
		2				
Posttest Patience Pretest Patience	Negative Rank	0	,00	,00	2,71	,007*
	Positive Rank	9	5,00	45,00		
		3				
Posttest Leisure Pretest Leisure	Negative Rank	0	,00	,00	2,53	,011*
	Positive Rank	7	4,00	28,00		
		5				

It is observed that there is a statistically significant difference between the pretest posttest points of the children which they get from the sub-dimensions of the self-management title ($p<.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 16. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest self management test

Pretest-posttest	n	Rank mean	Rank total	z	p
Negative Rank	0	,00	,00	2,94	,003*
Positive Rank	11	6,00	66,00		
	1	-	-		

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It is observed that there is a significant difference between the pretest posttest points of the children which they get from the self-management dimension ($z=-2.94$, $p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

Table 17. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest socializing test

	Pretest-Posttest	n	Rank mean	Rank total	z	P
Posttest Cooperation Pretest Cooperation	Negative Rank	1	2,00	2,00	,577	,564
	Positive Rank	2	2,00	4,00		
		9				
Posttest Considering others Pretest Considering others	Negative Rank	1	7,00	7,00	1,26	,206
	Positive Rank	6	3,50	21,00		
		5				
Posttest Realizing others Pretest Realizing others	Negative Rank	2	2,00	4,00	,966	,334
	Positive Rank	3	3,67	11,00		
		7				
Posttest Interaction with the others Pretest Interaction with the others	Negative Rank	0	,00	,00	2,71	,007*
	Positive Rank	8	4,50	36,00		
		4				
Posttest Attending group activities Pretest Attending group activities	Negative Rank	0	,00	,00	2,59	,009*
	Positive Rank	8	4,50	36,00		
		4				
Posttest Selfishness Pretest Selfishness	Negative Rank	0	,00	,00	1,41	,157
	Positive Rank	2	1,50	3,00		
		10				
Posttest Social Maturity Pretest Social Maturity	Negative Rank	0	,00	,00	2,63	,008*
	Positive Rank	8	4,50	36,00		
		4				

It shows that there is a significant difference between the pretest posttest points of the children which they get from the Interaction with the others ($z=2.71$, $p<0.05$), Attending group activities ($z=2.59$, $p<0.05$) and Social Maturity ($z=2.63$, $p<0.05$) sub dimensions ($p<0.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

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Table 18. The Wilcoxon Signed Rank Test Results According to the teachers' pretest posttest socializing test total points

Pretest-posttest	n	Rank mean	Rank total	z	P
Negative Rank	0	,00	,00		
Positive Rank	11	6,00	66,00	2,94	,003*
	1	-	-		

It is observed that there is a significant difference between the pretest posttest points of the children which they get from the socializing dimension ($z=-2,94$, $p<.05$). When we consider the rank averages of the difference points and the total, it is observed that this difference is on behalf of negative ranks in other words posttest.

4. Discussion

When we look at the findings of the study which investigated the effect of adapted physical activities over the emotional adjustment, self-management and socializing levels of the intellectual disability students;

According to the parents and teachers of the students attended to the research, as we consider the emotional adjustment and socialization pretest-posttest averages; it is determined that there is a decrease in the neurotic problems and behavioral problems pretest-posttest average points. Self-management total point and socialization total point pretest-posttest average points have increased on behalf of posttest. Accordingly, application of adapted physical activities can be told as providing positive effects over the emotional adjustment level, neurotic problems, behavior problems and also self-management and socialization environments of the intellectual disability children.

According to the parents and the teachers of the students attended to the research, it has been observed that there is a significantly difference on behalf of the posttest in the pretest posttest points of neurotic and behavior problems. In other saying, the neurotic and behavior problems have decreased in the intellectual disability students. İlhan (2007) has indicated that there is a decreasing difference in the neurotic and behavior problems of the children attending in the physical education and sport activities according to the control group and also stated that this difference is significant on behalf of application group. Banu (2010) has observed that there is a significant difference between the pretest and posttest of neurotic and behavioral problems which are the sub-dimensions of the emotional adjustment scale of the educable intellectual disability children taking part in the experimental group and attending the sportive recreation activities regularly. Also it is observed that this difference is a decreasing difference according to the control group and there is no difference between the other behavior problems dimensions. And it is concluded that there is a positive development in their socialization. İlhan and friends (2013) have achieved the result as, there is an increasing difference in the quality of living general scores and all sub-dimensions of the children taking part in the application group and attending the sportive recreation activities regularly according to the control group. Eratay (2013) has indicated that the leisure activities program is relatively effective on decreasing the behavioral and emotional problems and developing the social abilities of the intellectual disability individuals. It is observed that the results of the literature review made according to this, have supported our research results.

According to the parents of the students attended to the research, it is observed that there is a significant difference on behalf of the posttest point in self-management, leisure, initiative, patience sub-dimensions and self-management total points. Likewise, according to the counselors of the students, it is determined that there is a significant difference on behalf of the posttest

point in the points from the self-management sub-dimension and total points of the children attended to the research. It can be considered that, the attendance of the children to the physical activities has become better discernibly and this reflected on their school lives. Visual-motor integration skills are important due to their contribution to the normal development of manual dexterity, coordination, speed, balance, and writing. For example, the intervention through Bocce game would enhance the visual motor skills which would in turn help them to meet their unique educational and personal needs. This will include ability to walk and run with proper gait, improvement in legibility and speed of hand writing as well as the ability to complete tasks effectively. If training of bocce game is given to individuals with intellectual disability, it would definitely help them in developing their visual motor integration skills (Sood and friends 2017). Budak and friends (2012) have indicated that the recreative activities of the intellectual disability children are united as a whole and affected positively on developing their motion abilities in each passing week. In a research made by İlhan and friends (2015) there is an increasing difference in self care total points and personal care and cleanliness and taking off and wearing the clothes which are the sub-dimensions of the self care abilities, and also this difference is significant on behalf of the application group. Another study Çevik (2013), has determined if mentally disabled children are interested in sport, they can develop some of their abilities with the help of the sportive activities and also these children have lost their shy attitude in the beginning of activities and became more social. According to Irandoust (2015) the physical and motoric educations have increased the dynamic balance levels of the female mentally disabled students. It has also lower effects on static balance. Besides the opportunities provided in the schools can increase the students' quality of living. In the research made by Savucu and friends (2006) it is observed that the positive effects of the physical activities over the human body have provided important advantages for the handicapped people. It is seen that the physical convenience levels and motion behavior of the handicapped people attended in basketball application have developed. In the result of the study made by Aktekin and friends (2014) the developments according to the abilities of children taking someone as a model and doing the activities with verbal help or independently have been determined. And as a conclusion, it is observed that they have positive effects in all of the activities aimed at developing the manual dexterities of the handicapped children. Giagazoglou and friends (2013) has found the following results about the subject. Trampoline training can be an effective intervention for improving functional outcomes and can be recommended as an alternative mode of physical activity programming for improving balance and motor performance. Individuals with intellectual disability require enjoyable and interesting intervention programs such as the trampoline program so as to remain active and consequently to facilitate their overall development and promote a more active and healthier way of life. Hemayattalab and Movahedi (2010) in their study which they examine the effects of the physical and mental applications about teaching the intellectual disability teenagers on different variations, had the conclusion that, all of the training types have increased performance but the mental exercises afterwards the physical exercises have resulted better. Many activities made alongside sportive activities can effect the development levels of the intellectual disability children. For example: Erim and Caferoğlu (2012) have determined that most of the teachers who attended to the research think that the visual arts education is important on development of the intellectual disability children. And they added that this lesson has supported the self improvement and developed the hand-eye coordination of the students.

According to the result of the literature review, it is seen that the physical activities have positive effects on self-management abilities of the intellectual disability people.

According to the parents and the counselors of the students attended to the research, it is observed that there is a significant difference on behalf of the posttest points in interaction with the others, attending in the group activities and social maturity sub-dimensions of the socializing title and the socializing total points. Accordingly, it can be told that the attendance of the

intellectual disability children to the sport activities increase their socializing level. Correspondingly without research findings, Yaman (2015) has achieved the result as, the physical education and game applications are effective in many personal spaces like feeling themselves precious, being tolerant, sense of competition, teamwork, group membership and self confidence while socializing the intellectual disability children. İlhan (2008) has determined that, the special physical education program has positive effect on the socializing level of the intellectual disability children and this effect particularly caused development in interaction with others, attending the group activities and sharing. According to study conducted by Yilmaz and friends (2017) toward the physical education, they described it in a way that includes positive qualifications as a good lecture, a mean of freedom, a source of life, an educating activity, a competition area and a natural event. It was determined that generally the students' perception towards physical education teachers are positive and they are described as a mentor, compassionate, fun, capable, knowing, hard-working and strong. It can be said that the students see the physical education more as a mean to have fun, to have great time and to move freely. The physical education teacher is also described as a mentor, compassionate and fun person. According to Çevik (2013) sport has positive effects on the socializing process of intellectual disability people. According to study conducted by İlhan and friends (2017) sports activities might have a positive effect on the awareness levels of mothers having children with ID towards the effects of sports. Parents have also observed that their children have felt the sense of success, developed their abilities of doing something and their communication have become stronger and they gained acceptance in society. In the study made by Duman and friends (2016) the parents who complain about their children being hyperactive or motionless, have considered that they observed a positive change in their children after attending the sport activities. And this change increased the level of happiness and they can make time for themselves. Parents have also observed that their children have felt the sense of success, developed their abilities of doing something and their communication have become stronger and they gained acceptance in society. In the research that Avcioglu made in (2012); it is determined that, intellectual and physically handicapped children can earn the ability of introducing themselves, after the application process they can use this ability in first, second, third and fourth weeks and they can generalize what they learnt in free game activities to their friends in school.

5. Conclusions

As a conclusion, in our study, it can be told that adapted physical activities applied over the intellectual disability students effect the emotional adjustment, self-management and socializing levels in a positive way and increases self-management and socializing points while decreasing the social adaptation problems.

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