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Determining Awareness Levels of Benefits of Sports in Individuals with Autism with Regards to their Families and Private Education Teachers

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Abstract

The purpose of this study was to determine the levels of awareness by families and private education teachers regarding individual benefits of sportive events realized with the aim to facilitate the lives of individuals with autism. In the research as data gathering tool, “Personal Information Form” that is developed by the researchers and “Awareness Scale aiming for the impacts of sports in individuals with mental disabilities (ZEBSEYFO)” being developed by İlhan and Esentürk (2015) was used. Research population was composed of 187 people living in the cities of Zonguldak, Bartın and Karabük, 74 of which are parents having individuals with autism. According to the findings obtained from SPSS 21 package program in the study, when gender variable is handed with respect to the family, it was determined that difference between the levels of scores obtained by female and male participants (mothers and fathers) from ZEBSEYFO was at a meaningful level in favor of female participants as statistically (U:271,000; $p<0,05$). According to the findings obtained, it was determined that as per the educational status of participants, difference of ZEBSEYFO scores between educational levels was statistically meaningful and a meaningful difference was found in the awareness level of parents who were not literate (0,038) ($p<0,05$). As a result of these findings, it was determined that awareness level of mother in a family having an individual with autism was higher and that awareness level of parent not being literate was higher.

Keywords: Autism, Private Education Teacher, Parent, Sports, Awareness Level

Introduction

Autism is an organic damage that causes perception disorder and it means “Autos” in Greek language. Perceiving in a different way and interpretation of perceptions differently in the brain causes for differences in behaviors which is called autism. (Tufan, 2006).

Autism is an extreme complex developmental disorder which appears in the first three years of children as depending on various reasons, being revealed with insufficiency of communication and social skills, limited interest, obsessive and repeating actions. Most common features of children with autism are not being able to learn language, being introverted, giving extreme reactions to changes, insisting on continuing the same behaviors, not being content with monotony, having difficulty in learning abstract concepts, not being able to learn time concept, not being able to perceive speeches, having limited relations with people, and not being able to have eye contact (Ozbey, 2009).

Today majority of information about autism is based on theory. Meaning that autism event is observed as a result of interpretations of findings being based on observations and experiences but its reasons can only be predicted. It is being tried to help the child with autism and his family as being based on interpretations and not proofs. It can not be stated that it always yields successful outcome but pleasing results can also be reached. Many scientists present their experiences and knowledge accumulation being obtained from different disciplines for the child, family, and the society. Sociologist, psychologist, psychiatrist, and therapists are realizing studies and observations in this area (Tufan, 2006).

Autism is not a problem that can be completely treated with the information and methods that are currently had. However, with a convenient training plan and with medicine, that would be considered as providing support under certain cases, person can reach the maximum possible level with his own capacity. But when treatment is commenced, it is not possible to predict to which point the child can reach. This also depends on professional support obtained and the quality of training, besides the severity of child’s problem and the symptoms being revealed (Vural, 2007).

Individuals with autism can demonstrate skills that can not be normally observed. Although these are skills observed in a specific area, they can show variations. Their puzzle making skills are good. Sometimes, these skills can become extraordinary and out of rules. Among people with autism, ratio of those demonstrating superior talents is significantly high. These skills are mainly in areas relating with art, music, sports, and calculations (Turan, 2005).

Extreme mobility is observed in majority of children with autism. If the energy and physical power of these children is not directed to a positive direction, aggression or extreme mobility could be observed. First way of making these energies of children become useful is to teach them how to play and to provide them the opportunity to continuously play games. Another way is to make them ride horses and to deal with sports. In both of these events, all muscles of child work and reveal regular development. As a result of this, positive developments are observed in motor skills of child and their obsessions are reduced (Özbey, 2005).

Sports help in the development of muscles, improvement and development of hand, eye and balance coordination, and establishment of social relations as being the major problem of autistic children. For example, bilateral activities performed within the scope of socialization program with sports and being present in a different social environment such as small contests as being independent from their families, play an important role in the social relations of autistic children. Children who can communicate or conduct their works with the help and

mediation of a second person, can observe what they can realize on their own with this independent application and they can start communicating by relying on their self-respect and using different ways. They can mainly move with their own skills and confidence without needing someone else and this slowly eliminates lack of socialization which is their biggest disadvantage. Children with autism disorder can not be in the same environment with others apart from their families and they can not take part in certain fundamental social interactions (İlhan, 2010).

Being accepted by the community and establishing good relations in the society are issues regarding which individuals with autism have great difficulty. At this point exercise activities are used and they indirectly eliminate social restrictions. Hence, in these individuals due to their loose muscle structure, considerable slow down in their mental activities, and advancement of age, causes for loss in motor development to increase gradually (Öner, 1997).

Sports is a tool that can enable for autistic children to come together with people whom they did not know beforehand in an environment they did not know, as being away from their limited family environment. In this way, autistic children can communicate with different people and they can participate in exercise activities being accompanied with certain rules. Autistic children restrict their social lives, the borders of which are already limited, with their impatient and stubborn behaviors. By means of sportive events, their behaviors which disturb harmonization are limited and autistic individuals gain the skill to communicate with other people by acting jointly (Özer-Sevimay, 2001).

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Method

Research group

Research population is composed of 187 people living in the cities of Zonguldak, Bartın and Karabük, 74 of which are parents having individuals with autism and 187 of which are private education teachers working with these individuals.

Data gathering tool

In the research as data gathering tool, “Personal Information Form” that is developed by the researchers and “Awareness Scale aiming for the impacts of sports in individuals with mental disabilities (ZEBSEYFO)” being developed by İlhan and Esentürk (2015), have been used. It is specified that the scale is composed of 32 articles and one dimension. Variance being

explained by a single dimension is % 75.083. For the whole scale, Cronbach alpha reliability coefficient is 0.989. Within the scope of scale validation study, corrective factor analysis was conducted and structure being revealed with explanatory factor analysis was validated. With the aim to evaluate the responses given by participants to the articles, 5 Likert type scaling has been used. Choices for positive expressions were listed as “I completely agree”, “I agree”, “I am indecisive”, “I don’t agree”, “I absolutely don’t agree” and they were scored respectively as 5, 4, 3, 2 and 1. Choices for negative expressions were scored reversely as 1, 2, 3, 4 and 5. When it is considered that there are 32 articles in the scale, lowest score that can be obtained from the scale is 47 and the highest score is 235.

Analysis of data

Before starting with the analysis of data, scales being obtained from participants were controlled and those filling them in as missing or wrongly were left outside the evaluation in the statistical analysis regarding validity and reliability of scale. As a result of this process, in accordance with the results coming from 187 participants participating in the research, statistics of research was realized. Data being obtained was analyzed by using SPSS 21.0 package program. In the research to review the distribution of data first of all, Barlett Sphericity test was evaluated. Later on, with the aim to investigate the difference between variables, Man-Whitney U test was applied and to determine score coefficients, Kruskall Wallis test was applied.

Findings

Table 1. Descriptive statistics parents being part of the research group as per ZEBSEYFO

ZEBSEYFO	N	Minimum	Maximum	X	Ss	Skewness		Kurtosis	
Total Score	74	83,00	160,00	139,39	16,55	-1,031	,279	1,550	,552

When Table 1 is reviewed, average of scores obtained by research group from Awareness Scale regarding impact of sports in mentally disabled individuals ‘‘ZEBSEYFO’’ was found out to be X:139,39 and its standard deviation was found as 16,55, while skewness and Kurtosis values were determined as -1,031 ,279 and 1,550 ,552 respectively. Besides, it is found out that the highest score obtained from the general scale was 160, whereas the lowest score was 83.

Table 2. Regarding the scores of parents taking part in the research group relating with ZEBSEYFO, Man-Whitney U test scores as per gender types

Dealing with sports	N	Row average	Row total	U	p
Yes	12	31,67	380,00	302,000	0,303
No	62	38,63	2395,00		
Total	74				

*p<0,05

As Table 2 is examined, row average of awareness levels of participating women and men (mothers and fathers) was determined as 39,56 for women and as 27,85 for men. According to the findings we obtained, it is found out that the difference between the levels of scores obtained by female and male (mothers and fathers) participants from ZEBSEYFO was at a statistically meaningful level in favor of female participants (U:271,000; p<0,05).

Table 3. Kruskal Wallis test scores regarding occupational distribution of parents taking part in the research group as relating with ZEBSEYFO

OCCUPATION	N	Row Total	Sd	X ²	p
STAFF	9	37,44	4	3,788	,435
WORKER	10	27,80			
RETIRED	3	31,33			
SELF-EMPLOYMENT	3	51,33			
NOT WORKING	49	39,02			
Total	74				

*p<0,05

When Table 3 is evaluated, row total values of participants as per their vocations throughout ZEBSEYFO scale were determined as 37,44 for staff, 27,80 for workers, 31,33 for retired people, 51,33 for self-employed people, and 39,02 for those who are not working. However, the score that they obtained from the scale did not have any meaningfulness regarding occupations (p>0,05).

Table 4. Kruskal Wallis test scores of patients taking part in the research group as per vocational distributions relating with ZEBSEYFO

FAMILY EDUCATION	N	Row Total	Sd	X ²	p
ILLITERATE	2	1,50	4	10,123	0,038
ELEMENTARY SCHOOL	31	35,39			
HIGH SCHOOL	29	43,98			
HIGHER EDUCATION	11	35,23			
POST GRADUATION	1	12,00			
Total	74				

*p<0,05

When Table 4 is examined, row total values of parents which they obtained from scale scores as per their education status, were determined to be 1,50 for illiterate, 35,39 for elementary education, 43,98 for high school education, 35,23 for higher education, and 12,00 for post graduation. According to the findings obtained, it is found out that the difference of scores obtained by participants from ZEBSEYFO as per their education status, was statistically meaningful among education levels (p<0,05).

Table 5. Mann-Whitney U test scores of parents taking part in research group as per their dealing with sports regarding ZEBSEYFO

Dealing with sports	N	Row average	Row total	U	p
Yes	12	31,67	380,00	302,000	0,303
No	62	38,63	2395,00		
Total	74				

*p>0,05

When Table 5 is examined, row averages of scale scores of participant families giving the reply of yes or no to the questions about dealing with sports were found out as 31,67 and 38,63 respectively. As a result of Mann-Whitney U test being conducted, a statistically meaningful difference was not observed among the scores obtained by participants who answered as yes or no to the scales depending on dealing regularly with sports or not, as being obtained from ZEBSEYFO (0,303,p>0,05).

Table 6. Descriptive statistics of private education teachers taking part in research group as per ZEBSEYFO

ZEBSEYFO	N	Minimum	Maximum	X	Ss	Skewness	Kurtosis
Total Score	113	42,00	127,00	107,41	11,06	-3,702	,228
							1,750
							,453

When Table 6 is examined, average of scores obtained by research group from Awareness Scale regarding the impacts of sports in mentally disabled individuals was X:107,41 and its standard deviation was 11,06, while Skewness and Kurtosis values were found out to be -3,702, 228 and 1,750, 453 respectively. Besides, it is determined that the highest score obtained from the scale in general was 127,00 and that the lowest score was 42,00.

Table 7. Mann-Whitney U test scores of private education teachers taking part in research

Gender	N	Row Average	Row total	U	p
Women	71	58,46	4151,00	1387,000	0,536
Men	42	54,52	2290,00		
Total	113				

group as per gender type regarding their scores relating with ZEBSEYFO

*p>0,05

When Table 7 is examined, row average of awareness levels of female and male private education teachers as being participants, was found out to be 58,46 for women and as 54,52 for men. According to the findings obtained, it is determined that the difference between the levels of scores obtained by female and male participants from ZEBSEYFO was not statistically meaningful (U:1387,000; p<0,05).

Table 8. Kruskal Wallis test scores of private education teachers participating in research group as relating with their scores according to their vocational experiences regarding ZEBSEYFO

VOCATIONAL EXPERIENCE	N	Row total	Sd	X ²	p
LESS THAN 1 YEAR	13	51,08	3	1,147	,766
1-4 YEARS	41	55,00			
5-9 YEARS	24	61,79			
MORE THAN 10 YEARS	35	58,26			

Total	113
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When Table 8 is examined, Kruskal Wallis test scores of research participants regarding their scores relating with ZEBSEYFO as per their vocational experiences were determined as 51,08 for less than 1 year, 55,00 for periods between 1-4 years, 61,79 for periods between 5-9 years, and 58,26 for periods more than 10 years. A statistically meaningful result could not be obtained between vocational experiences of private education teachers and their awareness levels ($p > 0,05$).

Discussion and Conclusion

As a result of research, row average of awareness levels of participant women and men (mothers and fathers) was determined as 39,56 for women and as 27,85 for men. According to the findings we obtained, it is found out that the difference between levels of scores obtained by female and male (mothers and fathers) participants from ZEBSEYFO was at a statistically meaningful level in favor of female participants ($U:271,000$; $p < 0,05$). When the body of literature is examined and as various attitude studies aiming for disabled individuals are reviewed, it is seen that there are studies in which female participants notified higher attitudes than male participants and it is observed that findings of this study supported the findings of our study. It is seen that the findings of İlhan resulting from the study being conducted in 2010, were in parallel with the outcomes of this study. Ciarrochi et al., 2001, Goldenberg et al., 2006, 2005, Goldberg et al. 1990, have found out in their studies that awareness levels of female participants, meaning those of mothers, were higher than awareness levels of fathers and these outcomes were in parallel with our study.

Row total values of parents as per vocations with which they were involved, throughout ZEBSEYFO scale, were determined as 37,44 for staff, 27,80 for workers, 31,33 for retired people, 51,33 for self-employed people and 39,02 for those who are not working. However, the score obtained from the scale did not have any meaningfulness with respect to vocational status ($p > 0,05$). It is reached to the conclusion that there is no relationship between vocational levels of parents and awareness levels of benefits of sports in individuals with autism.

Row total values obtained by parents as per their education status from scale scores are 1,50 for illiterate, 35,39 for elementary school, 43,98 for high school, 35,23 for higher education and 12,00 for post-graduation. As per the findings obtained, it is found out that difference of scores obtained by participants as per their education status from ZEBSEYFO was statistically meaningful. It was determined that awareness levels of illiterate parents were higher and it is thought that this situation supported the outcome that as education level increased, level of involvement of families with their disabled children got reduced as per the studies being conducted. ($0,038, p < 0,05$).

Row averages of scale scores of participant families who replied as yes or no to the question regarding their involvement with sports, were determined as 31,67 and 38,63 respectively. As a result of Mann-Whitney U test being conducted, a statistically meaningful difference was not found among the scores obtained from ZEBSEYFO by the participants answering as yes or no to the question regarding regularly dealing with sports ($0,303, p > 0,05$).

Row averages of awareness levels of female and male private education teachers as being participants, were determined as 58,46 for women and as 54,52 for men. According to the findings obtained, it is found out that the difference between the levels of scores obtained

from ZEBSEYFO by female and male participants was not statistically meaningful (U:1387,000 ; $p<0,05$).

Kruskall Wallis test scores of research participants as per their vocational experiences regarding their scores relating with ZEBSEYFO, were found out to be 51,08 for less than 1 year, 55,00 for periods between 1-4 years, 61,79 for periods between 5-9 years, 58,26 for periods more than 10 years. A statistically meaningful outcome could not be found between vocational experiences of private education teachers and their awareness levels ($,766 p>0,05$). When the body of literature is examined, it is seen that there are no other studies being conducted with the aim to determine the relationship of vocational experiences and awareness levels and it is being recommended for this type of studies to be increased and for them to be extended by being implemented in other cities as well.

Conflicts of Interest

The authors have no conflicts of interest to acknowledge.

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