



## AN EXAMINATION OF THE RELATIONSHIPS BETWEEN THE SOCIAL SKILL LEVELS, SELF CONCEPTS AND AGGRESSIVE BEHAVIOR OF STUDENTS WITH SPECIAL NEEDS IN THE PROCESS OF INCLUSION EDUCATION\*

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### ABSTRACT

The purpose of this study is to examine the relationships between the social skill levels, aggressive behaviors and self concepts of primary school students with autism, intellectual disabilities and hearing disabilities who are continuing inclusion education. The research group consists of a total of 78 primary school students of which 20 have hearing disabilities, 30 have intellectual disabilities and 28 have autism with ages varying between 10 and 14. The questions of the study have been assessed via the Social Skills Evaluation Scale, Aggressiveness Scale and Self-esteem Scale for Children. In this study, the social skills, self esteems and aggressive behaviors of children with autism, intellectual disabilities or hearing disabilities were examined and these diagnostic groups were compared in terms of these three properties. It is observed that students with hearing disabilities have the highest points in aggressiveness whereas students with autism have the lowest. It has also been determined that students with intellectual disabilities have the lowest points in social skills and self concept. The relations between the sub-scales of the scales and the measured properties according to diagnostic groups have been discussed in the light of relevant literature.

**Keywords:** *Inclusion education, students with special needs, social skill.*

### INTRODUCTION

Inclusion is an education model addressing the educational requirements of students with special needs in general education classes parallel to the social and educational cohesion with their peers (Sucuoğlu and Kargin, 2006). Inclusion provides a normalized environment for students with special needs in which there are opportunities for establishing friendships and role models for socialization (Heiman, 2001). As a result, there are studies putting forth that the social behavior, academic skills, self esteem and sense of community of students taking inclusion education are more developed than those of students educated in separated environments (Harrower and Dunlap, 2001; Katz and Mirenda, 2002; Koegel, Koegel, Frea and Fredeen, 2001; Mickey, 2001; Schwartz, 2000). However, these gains may present differences according to the type of inability, the quality of support services during the inclusion and the acceptance levels of teachers and peers (Bakkaloğlu, 2008; Batu and Kırcaılı-İftar, 2006; Çetin, Bibay and Kaymak, 2001; Çolak, 2008; Katz and Mirenda, 2002; Şahbaz, 2004; Vuran, 2005).

It is stated that students with special needs frequently display problematic behavior due to the fact that they do not have enough social skills or they cannot properly use the skills that they have (Çetin et.al. 2001; McIntyre and Phaneuf, 2007). It is also stated that such children face problems especially in participation to group games, establishing new relationships and continuing the relationship that they

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have already established (Koegel et. al. 2001; Sucuoğlu and Kargın, 2006). Weak relationships with their peers may result in their isolation and as a result cause feelings of loneliness (Bauminger, Shulman and Agam, 2003, Heiman and Margalit, 1998). It is known that students who are outside the norms at schools are sometimes made fun of or are subject to verbal abuse and isolation and sometimes even face physical violence (Schrumpf, Crawford and Bodine, 2007). It has been determined that such verbal and physical peer abuse may result in various emotional, behavioral problems and academic problems such as rejecting school. It is stated that these problems may elevate to cause low self esteem, negative self concept, decreased self confidence, introversion, feelings of peer neglect and shyness (Bishop and İnderbitzen, 1995; akt. Güvenir, 2005). Studies that have been carried abroad have obtained results stating that students with learning disabilities are not accepted as those with no learning disabilities and that they experience more loneliness and have less self esteem and are more anxious and depressive (Chamberlain, Kasari and Rotheram-Fuller, 2007; Heiman, 2001; Matsuura, Hoshimoto and Toichi, 2009; Valas, 1999).

Experts who work with students diagnosed with autism emphasize that the relationships of children in this group are adversely affected by autism related problems such as reluctance to establish friendship, inability to properly respond to social interaction, inability to understand social statements, inadequacy in sharing interests and success (Attwood, 2000; Bauminger and Kasari, 2000; Bauminger and Shulman, 2003; Gordon, Feldman and Chiriboga, 2005; Harrover and Dunlap, 2001; Schwartz, 2000). It is also stated that negative approaches by peers towards children with developmental disabilities (Donnelly and Bovee, 2003) and the sense of isolation that students attending inclusion education sometimes feel pose important difficulties for the establishment of friendships (Çetin et.al., 2001; Girli and Atasoy, 2008; Godon et.al., 2005, Hocaoğlu, 2009; MacMillian, Gresham and Foress, 1996; Ocsh, Kremer-Sadlik, Solomon and Gainer Sirota, 2001). Relevant research has put forth that students with autism who do not have friends are more prone to social anxiety and that they are lonelier (Bauminger and Kasari, 2000; Chamberlain, Kasari and Rotheram-Fuller, 2007; Kabasakal, Girli, Sencar, Çelik and Vardarlı, 2008).

Students with intellectual disabilities also have social skill deficiencies just like other children in various deficiency groups. Hence, it is stated that they experience problems in communicating with their peers and in social relations during the inclusion process (Çolak, 2008; Hocaoğlu, 2009; Şahbaz, 2004, Valas, 1999). In a study comparing adolescent students with intellectual disabilities with those that do not have intellectual disabilities, it has been determined that those with intellectual disabilities prefer time alone in the house watching TV, playing computer and video games whereas those without any intellectual disability preferred social relations such as hanging out with their friends, going to the cinema, engaging in various activities (Bramston, Bruggerman and Pretty, 2002). Some studies show children with deficiencies and especially those with mental and learning deficiencies are more prone to feelings of loneliness in comparison to their peers (akt. Bakkaloğlu, 2008; Webster and Carter, 2007). In a study focused on the social acceptance of individuals with intellectual disabilities by their normally developed peers, it has been observed that most normally developed children rejected their peers with intellectual disabilities even though they stated that they would include them to various social activities (Manetti, Schneider and Siperstein, 2001). Vuran (2005) has conducted a research study on the social positions of students in inclusion classes with students who have been listed as candidates for inclusion but who do not have any deficiency. The results have indicated that both inclusion education students and inclusion education candidates are rejected by their peers and that they have low social preference scores. Similar results have been obtained in various other studies (Kabasakal, Girli, Sencar, Çelik and Vardarlı, 2008; Şahbaz, 2004).

It is observed that children with hearing disabilities do not undergo major social difficulties during early childhood; however some studies show that if their language development is not sufficient they experience communication problems in later years with their peers who have no hearing deficiency (Kluwin, Stinson and Colorassi, 2002). Also, it is stated that as the language skill deficiency of students with hearing disabilities increase, their tendency to make friends with other students who also have

hearing disabilities and with similar language development increases (Akçamete, 2005). A study comparing the sociometric status of students with hearing disabilities in inclusion process with those that can hear has indicated that the friendly relations and social interactions of hearing and students with hearing disabilities is insufficient (Akçamete and Ceber, 1999). One of the reasons for this may be the difficulties caused by hearing deficiency in learning social and ethical rules (Luetke- Stahlman and Luckner, 2000; akt.Sarı, 2009). There are researches indicating that students with hearing deficiencies in inclusion environments are excluded by their peers (Sarı, 2009). It is stated that due to the sense of restriction arising from the miscommunication with peers and family, children with hearing deficiency may display emotional or aggressive behavior such as self-anger or social withdrawal (Limaye, 2004). Poyraz-Tüy (1999) state that as the knowledge of students with hearing deficiency related with social and ethical rules increases, these types of problematic behavior decrease.

The concept of self is defined as all the emotions and thoughts related to the individual and is not only affected by the perceptions of the individual but also by the thoughts and behavior of his/her teachers, friends and other people around them (LaBarbera, 2008; Limaye, 2004). The period when the concept of self develops most is the schooling age (Özdoğan, Ak and Soytürk, 2005). The schooling period is when students with special needs feel that they are different from their peers and also the period when these feelings are the strongest. Researches state that students with learning disabilities have lower concepts of self in intellectual, academic and social areas in comparison with their peers without learning difficulties (akt. LaBarbera, 2008). In a study by Koç (2001), the self images of students in inclusion process were determined to be lower than those attending special education schools. Some studies indicate that children with attention deficit have significantly lower self-esteem levels in comparison with their peers, that they experience problems of behavior control and that their social skills such as self-esteem and adaptation to school are insufficient when compared with those of their peers (Shaw-Zirt, Popali-Lehane, Chaplin and Bergman, 2005). Similarly, there are studies stating that as students with autism undergoing inclusion education realize their social inabilities, their concepts of self decrease (akt. Vickerstaff, Heriot, Wong, Lopes, Dossetor, 2007).

It has been determined that self-esteems of individuals in need of special education such as those with a chronic disease, learning deficiency (Kellermen et.al.1980, akt. Kaner, 1995), orthopedic disability (Mayer and Eisenberg, 1982) and hearing deficiency (Moores and Meadow-Orlans 1990) are lower than those of their peers with normal development (akt. Kaner, 1995). Whereas some studies have indicated that individuals with intellectual disabilities, gifted individuals, individuals with speech impairments and learning difficulties have high levels of self-esteem (Crocker and Major 1989; Eckart, 1988; akt. Kaner, 1995). In various studies that compare individuals with deficiencies to those without any deficiency, no difference was determined between the self-esteem levels of these two groups (akt. Kaner, 2000). It is stated that one of the reasons that conflicting data has been obtained in concept of self/self-esteem related studies with inclusion education students is that the self-esteem level of an individual changes with physical features and functions and their perceptions (akt. Kaner, 2000). Another reason may be that the inclusion is a long process and that it includes childhood, adolescence and youth. It has been determined in longitudinal studies carried out abroad that there may be an increase or decrease in self-esteem with age (Montague et. al., 2008). It has been determined in studies examining the relationship between self-esteem and adaptation that students with low concepts of self in success are more aggressive at school and have a more negative approach to studying and school and that low self-esteem is related with anger and hostility (Ledenberg 1993; Odum and Munson, 1996).

When a literature survey is carried out in our country, it is seen that there are studies related with the social skills, social acceptance levels, aggressive behavior or self-esteem (Akçamete and Ceber, 1999; Aktaş, 2001; Avcioğlu, 2005; Civelek,1990; Çolak, 2008; Hocaoğlu, 2009; Girli and Atasoy, 2008; Kabasakal, Girli, Sencar, Çelik & Vardarlı, 2008; Kanay and Girli, 2009; Küçükaksoy, 1993; Saraçoğlu et.al. 1989; Sucuoğlu and Özokçu, 2005; Şahbaz, 2004; Vuran, 2005). However it has been observed that

these studies focus more on social skills, social acceptance and their relations with problematic behavior. It is once again clearly observed that the number of studies on self-esteem is limited. Besides, it is observed that these studies are focused on intellectual and other learning disabilities and that there is not sufficient research conducted about students with autism. It is also observed that the number of studies that examine different diagnostic groups comparatively should be increased. It is hoped that this study will partially meet this requirement and that it will present guiding data for future studies. The purpose of this study is to examine the relationships between the social skill levels, aggressive behaviors and self concepts of primary school students with autism, intellectual disabilities and hearing disabilities who are continuing inclusion education.

## METHOD

### Research Model

This is a descriptive study that examines the relationships between the social skills, concepts of self and aggressive behavior of primary school students with autism, intellectual disabilities and hearing disabilities who are continuing inclusion education. The reason for using the scanning model in this study is that, "Scanning models provide a research approach that aims to describe a condition that either occurred in the past or is still valid as close to reality as possible" (Karasar, 2005: 77). The objective of this study in which general scanning models were used is to determine the variation of two or more variables. Relational descriptions were also included for the analysis of variables obtained via data acquisition tools (Karasar, 2005).

### Participants

The research group consists of a total of 78 primary school students taking special education support from five education institutions giving service in the city of Izmir among which 30 have intellectual disabilities, 20 have hearing disabilities and 28 are diagnosed with autism for whom the special education institution and families have given consent for their participation in this study. The details of the participants have been given in Table 1.

**Table 1.** Properties of the research group

n=78	M (Age)	Gender				Class level			
		Female		Man		Primary 1 stage		Primary 2 stage	
		n=27	%	n=51	%	n=41	%	n=37	%
students with mental disability	11.45	16	59.3	14	27.5	12	29.3	18	48.6
students with autism	11.37	6	22.2	22	43.1	16	39.0	12	32.4
students with hearing disability	11.46	5	18.5	15	29.4	13	31.7	7	18.9

## PROCEDURE

The scales used in the study were applied to the students individually at the institutions where they get special education. The questions were read by the researcher and the students were asked if they understood the question or not and if there is any part they could not understand were explained in detail. During the scale application of students with hearing deficiency, the teacher for students with hearing disabilities tried to explain the questions in sign language. Each application lasted for 30-40 minutes on average and the answers were recorded to the relevant form by the researcher. Data analysis was carried out via SPSS package software version 15.0. Analysis of the data was used one way variance analysis

(ANOVA) and correlation. What is difference between the groups were analyzed by Scheffe test. Level of significance was considered to be .01 and .05.

### **Instruments**

*Information Form:* This form was prepared by the researcher to record the demographical data of students such as age, education level and gender. Reports from the Board of Health were taken into account while grouping the forms according to the diagnosis of the children.

*Aggressiveness Scale:* This scale was enhanced by Şahin (2004) based on social learning and cognitive theory and its validity and reliability study was also carried out. It is prepared for primary school students as a triple rating scale and is composed of 18 items. The children answer the scale items as “I always do”, “I sometimes do” and “I never do”. Factor analysis method was used for the construct validity of the scale and as a result of repeating analyses it was observed that the items were collected under one factor. The obtained factor loads vary between .34 and .79. A single factor explains 28% of the total variance. A 27% sub-main group comparison was carried out in order to determine the item discrimination properties and the obtained t test results were found to be significant at a level of .05. The item-test total correlation values vary between .33 and .65. Cronbach Alfa coefficient which indicates the internal consistency of the scale has been determined as .77, whereas the stability level calculated via test re test method has been determined to be .71. The Cronbach alpha internal consistency coefficient was determined to be .76 in this study.

*Social Skills Evaluation Scale (SSES):* SSES which was developed by Akçamete and Avcıoğlu (1999) includes the social skills that children aged 7 to 12 should have and is composed of 69 items in 7 sub-scales. The sub-scales are named as basic social skills, speaking skills, skills for executing a work with a group, interaction skills, skills for beginning and carrying on a relationship, emotional skills, cognitive skills (Akt. Avcıoğlu, 2005). It has been arranged as a 5-grade rating scale. The Cronbach alpha consistency of the scale was determined to be .97 in total whereas it varied between .59 and .91 for sub-scales.

*Piers–Harris Self Esteem Scale:* It is a scale composed of 80 items developed by Piers–Harris (1964-1969) for children between the ages of 4-18 and for adolescents. It is a tool with high validity and reliability (Öner, 1996). It is composed of 6 sub-groups of happiness/satisfaction, anxiety, popularity/social appreciation, behavior and adaptation, physical appearance, intellectual and school status. In this study, Cronbach alpha value of .89 for total was determined along with sub-scale values varying between .55 and .78.

### **RESULTS**

In this section, first the averages, standard deviations and standard errors (Table 2) of the scores of students with autism, intellectual and hearing disabilities (whole group) obtained from aggressiveness, social skills and concept of self scales have been given. Afterwards the relations between social skill, concept of self and aggressive behavior (Table 3) for the whole group along with the relations between sub-scales for the whole group (Table 4) were examined. Lastly, data analysis for the relationships between social skill, aggressiveness and concept of self has been given (Table 5, 6, 7) for each diagnosis group.

As can be seen in Table 2, the group with the highest aggressiveness score is students with hearing disabilities who are followed by students with intellectual disabilities. It is seen that students with autism have the lowest aggressiveness score.

**Table 2.** The average, standard deviation and standard error values for the scores of students with autism, intellectual and hearing disabilities (whole group) obtained from the social skills evaluation scale and concept of self scale

		n	M	Sd	Se
Aggressiveness	students with intellectual disability	30	29.40	5.062	0.924
	students with autism	28	27.71	5.380	1.016
	students with hearing disability	20	33.05	4.045	0.904
	Total	78	29.73	5.312	0.601
Social skills	students with intellectual disability	30	184.96	46.222	8.439
	students with autism	28	188.67	35.913	6.787
	students with hearing disability	20	225.05	45.802	10.241
	Total	78	196.57	45.391	5.139
Self concept	students with intellectual disability	30	56.70	10.147	1.852
	students with autism	28	61.17	8.915	1.684
	students with hearing disability	20	65.35	10.378	2.320
	Total	78	60.52	10.253	1.160

When the social skill and concept of self scores are examined, it is observed that students with hearing disabilities have the highest scores in both and that students with intellectual disabilities have the lowest scores. It was analyzed via a one way variance analysis (ANOVA) whether the difference of average scores according to diagnosis groups was significant or not and it was determined that there was a statistically significant difference of  $F(2,75)=6.894$ ,  $p<.05$  for aggressiveness,  $F(2,75)=6.039$ ,  $p<.05$  for social skill and  $F(2,75) = 4.787$ ,  $p<.05$  for self-esteem. Using Scheffe test it was examined between which diagnosis groups a difference existed and the difference between the aggressiveness and social skill scores of students with intellectual and hearing disabilities was determined to be statistically significant at a level of  $p<.05$ , whereas a statistically significant difference between the scores of students with autism and intellectual disabilities was not determined. It was observed that the difference between self-esteem scores was statistically significant for students with intellectual and hearing disabilities; however it was also observed that this difference was not statistically significant for students with autism and intellectual disabilities.

Using Pearson Correlation Coefficient analysis it was examined for the Whole Group whether there is a relationship between the scored obtained from the Aggressiveness Scale, Social Skills Evaluation Scale and Concept of Self Scale.

**Table 3.** Pearson correlation coefficients for the relation between the aggressiveness, social skills, concept of self of the whole group

n=78	Aggressiveness	Social skills	Self concept
Aggressiveness	1	-.099	-.142
Social skills	-.099	1	.241(*)
Self concept	-.142	.241(*)	1

\*  $p < 0.05$

When Table 3 is examined, it can be seen from the analysis carried out for the whole group that there is a statistically significant relationship at a level of ( $r = .241$ ,  $p < 0.05$ ) between social skill and concept of self. However, it was determined that there is no relationship between aggressiveness and social skill or aggressiveness and concept of self.

The relationship between aggressiveness score and social skill and concept of self sub-areas have been examined in order to determine whether there is a relationship between sub-scales or not and the results have been given in Table 4.

**Table 4.** Pearson correlation coefficients for the relationship between the whole group aggressiveness, social skill and concept of self sub field scores

n=78	Self concept						
	Aggressiveness	happiness	anxiety	popularity	behavior and adaptation	physical appearance	intellectual functions and school status
Basic skills	-.164	.245(*)	.227(*)	.149	.235(*)	.020	.103
Basic speaking skills	-.044	.233(*)	.196	.129	.180	.087	-.024
Advanced speaking skills	-.056	.277(*)	.140	.116	.222	.087	.093
Starting a relationship	-.051	.241(*)	.116	.015	.147	.122	.083
Working with group	-.023	.201	.124	.098	.189	-.020	.079
Emotional skills	-.131	.080	.115	-.015	.052	-.063	-.015
Self-control	-.048	.252(*)	.110	.015	.142	-.018	.007
Coping with aggressiveness	-.076	.066	.085	.161	.074	-.001	-.016
Accepting the results	.078	.024	-.046	-.107	.065	-.166	-.101
Giving instructions	-.166	.303(**)	.243(*)	.201	.188	.130	.117
Cognitive skills	-.040	.232(*)	.098	.181	.135	.072	.022

\*\* p < 0.01

\* p < 0.05

When Table 4 is examined, it can be seen that there is a statistically significant relationship at a level of (p < 0.05) between the happiness sub-dimension of the concept of self scale and the basic skills r=.24, basic speaking skills, r=.23, advanced speaking skills r= .27, starting a relationship r=.24, self-control r= .25 and cognitive skills r= .23 sub-dimensions; whereas there is a positive statistically significant relationship at a level of r= .30 (p < 0.01) for the giving instructions dimension. A positive statistically significant relationship was determined between the anxiety sub-dimension of the concept of self scale and the basic skills of social skills r= .22 and giving instructions r= .24 sub-dimensions (p < 0.05); as well as between the behavior and compliance sub-scales of the self-concept scale and the basic skills sub-dimension of social skills scale r=.23 (p < 0.05). No statistically significant relation was determined between the aggressiveness scale and the sub-dimensions of social skills.

It was examined whether there is a relationship between the scores obtained from the sub-tests for the three scales. The relationships between the Aggressiveness Scale score and Social Skills Evaluation Scale and Self-Concept Scale sub-scales of children with intellectual disabilities have been examined and are presented in Table 5.

As can be seen from Table 5, a relationship was not determined between the social skills, self-concepts and aggressiveness levels of inclusion education students with intellectual disabilities.

The relationships between the “Aggressiveness Scale” score and “Social Skills Evaluation Scale” and “Self-Concept Scale” sub-scales of students diagnosed with autism have been examined and are presented in Table 6.

**Table 5.** The pearson correlation coefficients between the aggressiveness score and social skill scale and self-concept scores of children with intellectual disabilities

n=30	Self concept						
	Aggressiveness	happiness	anxiety	popularity	behavior and adaptation	physical appearance	intellectual functions and school status
Basic skills	-.314	.111	.009	-.008	.111	-.156	.121
Basic speaking skills	-.206	.306	.127	.258	.249	.095	.132
Advanced speaking skills	-.243	.255	-.002	.031	.147	-.023	.187
Starting a relationship	-.283	-.040	-.162	-.174	.011	-.088	.048
Working with group	-.164	.075	-.077	-.109	.072	-.207	-.002
Emotional skills	-.216	-.038	-.089	-.101	-.018	-.175	.071
Self-control	-.200	.227	-.038	-.025	.087	-.138	.016
Coping with aggressiveness	-.098	-.052	-.100	.175	-.074	.045	-.120
Accepting the results	-.183	-.017	-.102	.038	.078	-.148	.027
Giving instructions	-.223	.115	-.045	.075	.033	-.109	.122
Cognitive skills	.003	.166	-.173	.053	-.151	-.150	-.034

\*\* p < 0.01

\* p < 0.05

When Table 6 is examined, it is observed that there is a negative statistically significant relationship at a level of ( $p < 0.05$ ) between the aggressiveness scale scores and the giving instructions  $r = -0.41$ , basic skills  $r = -0.39$  and cognitive skills  $r = -0.42$  sub-scales of the social skills scale. In other words, it is observed that children with insufficient skills of adaptation to the environment, answering questions, asking questions, using the proper facial gestures have a higher level of aggressiveness.

It was determined that the happiness dimension of self-concept has a positive statistically significant relationship with giving instructions which is a sub-scale of social skills; and that there is a statistically significant relationship between the behavior and adaptation sub-dimensions of self-concept and the basic skills sub-dimension of social skills  $r = .53$  ( $p < .01$ ), along with the sub-skills of emotional skills and giving instructions skills  $r = .41$  ( $p < .05$ ). Positive relationships have been determined between the physical appearance sub-dimension of the self-concept scale and the giving instructions sub-scale of the social skills scale at a level of  $r = .40$  ( $p < .05$ ); and also between the intellectual and school status dimension of self-concept along with the basic skills and  $r = .43$  and the giving instructions dimension  $r = .42$  of social skills at a level of ( $p < .05$ ). In other words, as the basic skills of autistic students such as proper posture, use of mimics and gests, establishing eye contact, establishing a proper physical closeness increase along with emotional skills such as expressing emotions, skills of giving instructions such as asking and answering questions, it can be stated that there is a positive increase in self-concepts arising from the sub-dimensions of self-concept such as happiness, physical appearance, intellectual and school status, behavior and adaptation.



**Table 6.** The pearson correlation coefficients between the aggressiveness score and social skill scale and self-concept scores of children with autism

	n=30	Self concept						
		Aggressiveness	happiness	anxiety	popularity	behavior and adaptation	physical appearance	intellectual functions and school status
Basic skills		-.391(*)	.280	.252	.168	.533(**)	.170	.430(*)
Basic speaking skills		-.262	.187	.224	-.046	.241	.194	.291
Advanced speaking skills		-.320	.220	.146	-.010	.340	.143	.361
Starting a relationship		-.101	.292	.086	-.167	.273	.197	.306
Working with group		-.098	.140	.146	.203	.301	.051	.356
Emotional skills		-.326	.091	.136	.133	.414(*)	.056	.265
Self-control		-.314	.291	.249	.146	.266	.111	.206
Coping with aggressiveness		-.324	.039	.117	.332	.370	.046	.306
Accepting the results		-.079	.155	.109	.134	.132	.096	.228
Giving instructions		-.416(*)	.416(*)	.270	.199	.411(*)	.400(*)	.422(*)
Cognitive skills		-.421(*)	.088	.107	.260	.346	.164	.231

\*\* p &lt; 0.01

\* p &lt; 0.05

Relationships between the “Aggressiveness Scale” score of Students with hearing disabilities with the “Social Skills Evaluation Scale” and the sub-scales of Self Concept have been examined and are presented in Table 7.

As can be seen in Table 7, a statistically significant negative relationship has been determined at a level of  $r = -.45$  ( $p < 0.05$ ) between the aggressiveness scale scores of children with hearing disabilities and their emotional skill scores which is a sub-dimension of social skills. This result indicates that as the emotional skill insufficiencies of students with hearing disabilities increase, their aggressiveness levels tend to increase as well.

Negative relationships have been determined between the social skill dimension of accepting the results and the social appreciation of the self-concept  $r = -.56$  ( $p < 0.01$ ), physical appearance  $r = -.55$  ( $p < 0.05$ ), intellectual and school status dimensions  $r = -.38$  ( $p < 0.05$ ). In other words, as social skill of students with hearing disabilities to accept the result decreases, it is observed that they have a negative self-concept regarding their physical appearance, school status and intellectual functions and in general for social appreciation. A negative relationship has been determined between the emotional skills sub-dimension of social skills scale and the behavior and adaptation sub-dimension of self-concept at a level of  $r = -.53$  ( $p < 0.05$ ). This result indicates that as the insufficiencies of students with hearing disabilities to express positive or negative emotions about themselves or others increases, their behavior and adaptation sub-dimensions of the self-concept is negatively affected.

**Table 7.** The pearson correlation coefficients between the aggressiveness score and social skill scale and self-concept scores of children with hearing disabilities

	n=30	Self concept						
		Aggressiveness	happiness	anxiety	popularity	behavior and adaptation	physical appearance	intellectual functions and school status
Basic skills		-.202	.171	.281	.272	-.203	.092	.020
Basic speaking skills		-.098	-.024	.014	.075	-.340	-.044	-.244
Advanced speaking skills		-.045	.272	.127	.263	.017	.216	.115
Starting a relationship		-.007	.431	.279	.289	-.063	.332	.098
Working with groups		.173	.381	.256	.217	.138	.147	-.012
Emotional skills		-.451(*)	-.089	-.009	-.126	-.534(*)	-.111	-.095
Self-control		-.013	.033	-.189	-.124	-.209	-.025	.086
Coping with aggressiveness		-.123	-.034	-.104	-.083	-.420	-.216	-.073
Accepting the results		.349	-.320	-.438	-.562(**)	-.241	-.551(*)	-.386
Giving instructions		-.117	.184	.279	.230	-.098	.051	-.146
Cognitive skills		-.302	.287	.001	.183	-.057	.208	.266

\* p < 0.05 \*\* p < 0.01

## DISCUSSION

In this study, the social skills, self-esteems and aggressive behavior of inclusive education students with autism, intellectual or hearing impairment and these diagnostic groups were compared in terms of these three properties. It is observed that students with hearing disabilities have the highest scores in aggressiveness whereas autistic children have the lowest scores. It was also determined that students with intellectual disabilities have the lowest score in social skills and self-concept. As a result of an analysis carried out to determine the relationships between the total scores of these three scales, it was determined that there is a statistically significant relationship between social skills and self-concept whereas no relationship was determined between aggressiveness and self-concept.

When the relationships between the sub-fields of all three scales in the whole group are examined, it was observed that there is no relationship between the aggressiveness scale and both social skills and self-concept sub-fields. It has been observed that there are positive statistically significant relationships between the happiness sub-dimension of self-concept and the basic skills, basic speaking skills, advanced speaking skills, starting a relationship, self-control and cognitive skills sub-dimensions of social skills at a level of (p < 0.05) and a positive statistically significant relationship has been observed for the giving instructions dimension at a level of (p < 0.01). This result indicates that as social skills such as speaking, relationship starting, self-control, cognitive skills of students with special needs increase, they feel happier and they have a more positive self-concept. A positive statistically significant relationship was determined at a level of (p < 0.05) between the anxiety sub-dimension of self-concept and the basic skills and giving instructions sub-dimensions of social skills; and a positive statistically significant relationship at a level of (p < 0.05) has been observed between the behavior and adaptation sub-scale of self-concept with the basic skills sub-dimension of social skills scale. In other words, as basic social skills increase, there is a positive increase in the anxiety, behavior and adaptation sub-dimensions of self-concept. These

results are in accordance with various studies that put forth the relationship between social skills and self-concept (Bramston, Bruggerman and Pretty, 2002; Capps, Sigman and Yirmiya, 1995, akt. Vickerstaff, Heriot, Wong, Lopes, Dossetor, 2007; Chamberlain, Kasari and Rotheram-Fuller, 2007; Heiman, 2001; Kanay and Girli, 2009; Kluwin, 2002; Shaw-Zirt, Popali-Lehane, Chaplin and Bergman, 2005; Matsuura, Hoshimoto and Toichi, 2009; Valas, 1999).

When the relationships between the sub-fields of social skills, self-esteem and aggressiveness level are examined, different results are obtained for each diagnostic group.

A statistically significant relationship was not determined between any sub-fields of social skills, self concepts and aggressiveness levels of children with intellectual disabilities. However, when a literature survey is made, various studies indicating that students with intellectual disability are accepted less than their peers who do not have intellectual disability, that they experience more loneliness and that they have a lower self-esteem. (Chamberlain, Kasari and Rotheram-Fuller, 2007; Heiman and Margarit, 1998, Matsuura, Hoshimoto and Toichi, 2009; Valas, 1999). It is stated that one of the reasons of children with disabilities are alone is that *“they experience difficulties in realizing and processing social tips and that they have difficulties in developing social relationships”* and it is also stated that these students are accepted less by their peer groups (akt., Bakkaloğlu, 2008). The research findings indicate that 10-16% of the students without any impairment experience loneliness whereas this ratio is 25% for children with intellectual disabilities (Luftig, 1988, akt., Bakkaloğlu, 2008). It is thought that the reason for children with intellectual disabilities to frequently experience adaptation problems and show problematic behavior is related with the fact that they cannot develop social skills (Hocaoğlu, 2009; Sucuoğlu and Özokçu, 2005).

It has been determined for students with autism that there is a negative relationship ( $p < 0.05$ ) between the social skills of proper behavior, answering questions, asking questions, facial expression skills and aggressive behavior. This result is parallel with other results putting forth that as social skills of autistic children increase, their compatible behavior increases and that they display less problematic behavior (Attwood, 2001; Bauminger and Kasari, 2000; Bauminger et.al., 2003; Gordon et.al. 2005; Schwartz, 2000). A statistically significant relationship at a level of ( $p < .01$ ) is observed between the happiness dimension of self-concept and the giving instructions sub-dimension of social skills and also between the behavior and adaptation dimension of self-concept and the basic skills sub-dimension of social skills; whereas a statistically significant relationship at a level of ( $p < .05$ ) is observed between the sub-skills of emotional skills and giving instructions. Positive relationships have been observed between the physical appearance sub-dimension of self-concept and the giving instructions sub-scale of social skills scale at a level of ( $p < .05$ ); whereas a positive relationship at a level of ( $p < .01$ ) was observed between the intellectual and school status dimension and the basic skills and giving instructions sub-dimensions of social skills. In other words, it can be stated that as the basic skills of autistic students such as proper posture, facial expressions, making eye contact, establishing proper physical closeness along with emotional skills such as expressing emotions and giving instructions skills such as asking questions, answering questions increase; there is a positive increase in their self-concepts composed of sub-dimensions such as happiness, physical appearance, intellectual and school status, behavior and adaptation. These results have similarities with the results of studies indicating that children with sufficient social skills are socially accepted and have positive perceptions of self (Gordon et.al., 2005, Mac Millian, Gresham and Foress, 1996; Ocsh, Kremer-Sadlik, Solomon and Gainer Sirota, 2001; Capps, Sigman and Yirmiya, 1995, akt. Vickerstaff, Heriot, Wong, Lopes and Dossetor, 2007).

It is observed that among the three diagnostic groups, students with hearing disabilities have the highest aggressiveness score and students with intellectual disabilities along with autistic students come after them in order. It is known that children with hearing disabilities are not excluded when they are small, but as they get older the difference in their knowledge regarding social and ethical rules becomes more

distinctive. If the language development of students at older age groups is not sufficient, they experience more difficulties when communicating with their hearing peers (Kluwin, Stinson and Colorassi, 2002). In this regard, the retardation in language development may cause substantial difficulties for students with hearing disabilities when learning social and ethical codes of conduct (Sarı, 2009). Capelli, Daniels, Durieux-Smith, McGrath and Neuss (1995) have stated that students with hearing disabilities may display some problem behavior due to the fact that their limited knowledge of social and ethical codes of conduct (akt. Sarı, 2009).

The results are also compatible with various studies carried out in Turkey indicating the strong relationships between social skills and problem behavior (Çetin and Bilbay, 2001; Erol and Şimşek, 1997; Sucuoğlu and Özokçu, 2005; Tüy, 1999) and that problem behavior has negative effects on social acceptance (Aktaş, 2001; Hocaoğlu, 2009, Kabasakal et.al., 2008; Sarı, 2009; Şahbaz, 2004; Turhan, 2007). Similarly, in this study a statistically significant negative relationship at a level of ( $p < 0.05$ ) between the aggressiveness scale scores of students with hearing disabilities with the scores they received from the emotional skills sub-dimension of social skills. This result indicates that as the insufficiencies of students with hearing disabilities regarding emotional skills increase, their aggressiveness levels also increase. It is also indicated that as the accepting the results skill from among the social skills decrease for students with hearing disabilities, they have a more negative self-concept regarding physical appearance, intellectual and school status and social acceptance in general. This study result has similarities with those of Moores and Meadow-Orlans (1990) and Koç (2001).

In general, it can be stated that students with learning impairment receive negative reactions from their environment due to their aggressive behavior resulting from their lack of social skills and that they have negative emotions and thoughts about themselves because of low academic success (Matsuura, Hoshimoto and Toichi, 2009). However, longitudinal studies carried out abroad draws attention to the fact that adaptational behavior, self-esteem, loneliness, depressive behavior differ among age groups especially during inclusion process (Montague, Enders, Dietz, Dixon and Cavendish, 2008).

It is thought-provoking that even though there is a relationship between the adaptation scale of self-concept and behavior sub-dimension along with various social skills, there is no relationship between aggressiveness scale and social skills and self-concept sub-scales. The expected result is to have consistent scores aggressiveness and behavior and adaptation scores. It is thought that larger sample groups and various other observation, interviews and evaluation methods should be used and a different scaling evaluation should be carried out in order to explain the reason for this. It is observed that there is a growing need for carrying out the longitudinal studies carried out abroad in our country as well and that the results should be discussed. When interpreting and generalizing the results it should be noted that this study is limited to autism, intellectual disabilities and hearing disabilities diagnostic groups and predefined age groups.

In the light of relevant literature and the findings of this study, the following suggestions can be made to the practitioners and researchers:

1. Keeping in mind that one of the most important goals of inclusion applications is to develop the social skills of individuals with special needs by interacting with their peers and also to help increase their levels of social acceptance, social skill studies should be carried out in inclusion education classes.
2. Planned activities along with enactments should be carried out in order to increase the feelings of empathy of students with normal development towards their friends with special needs and to ensure that the requirements of students with special needs are understood.
3. The social status of students with learning impairment should be increased. School guidance teachers-psychologists, special student instructors and teachers should be aware of the effects of various processes. In addition, studies should be carried out to develop the social status of these students. The skills and

abilities of these students should be emphasized and activities that will put forth these skills and abilities should be increased. Families should be included in these activities as well.

4. Researches that will carry out similar studies with a wider range of sampling groups are required in order to examine the factors that affect this process in the school environment which is one of the most important social environments for the development of the self-concept of students with special needs.

5. Aggressive behavior, social skills and social acceptance relationships should be examined in more detail for all diagnostic groups and the similarities and differences among the various groups should be examined.

6. Comparative studies should be carried out for different age groups with wider sampling groups with regard to gender and different diagnostic groups.

7. Studies related to the benefits of inclusion should be increased in the light of the adaptation to school of students with special needs during inclusion education, the effects of this process on social development and self-concept.

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