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Investigation of Peer Relationships of Gifted and Non-Gifted High School Students

Özel Yetenek Tanısı Almış ve Normal Gelişim Gösteren Lise Öğrencilerinin Akran İlişkilerinin İncelenmesi¹

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- 1.Talented
- 2.Giftedness
- 3.High school students
- 4.Peer relationships
- 5.Adolescent

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- 1.Özel yetenek
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Abstract

Gifted individuals has an important role in the progress of societies, it would be beneficial to better identify these individuals and understand their needs and differences. For that reason, the peer relationships of gifted and non-gifted (showing normal development) high school students were examined in this study. The study was carried out as survey model. The study group consisted of 156 students in total, including 60 students registered to Şahinbey Science and Art Center (BİLSEM) in Gaziantep, and 96 students who were not identified as gifted. All students were in the same classes as those with talented, where secondary education was received. In the study, the "Personal Information Form" and "Peer Relationship Scale" that was developed by Atik, Çok, Çoban & Doğan (2014) were used as data collection tools. According to the results of the research, no significant difference was observed in terms of peer relationships between high school students, who were and were not identified as gifted. When peer relationships of male high school students who were and non-gifted are examined in terms of sub-dimensions, it is seen that there is a significant difference between the sub-dimensions of "companionship", "protection" and "closeness" in favor of gifted male students. There is no significant difference in peer relationship mean scores of non-gifted female students. It can be said that there is greater differentiation in peer relationship sub-dimensions in terms of being identified as gifted in the students of 16-18 age group, compared to the 13-15 age group. The findings were discussed in the light of the relevant literature.

Öz

Özel yetenekli bireylerin toplumların ilerlemesinde önemli bir rolü vardır. Bu bireylerin daha iyi tanınabilmesi, farklılıklarının ve ihtiyaçlarının belirlenmesi faydalı olacaktır. Bu nedenle bu çalışmada, özel yetenekli tanısı almış ve almamış (normal gelişim gösteren) lise öğrencilerinin akran ilişkileri incelenmiştir. Araştırma tarama modelinde yürütülmüştür. Çalışma grubu, Gaziantep ilindeki Şahinbey Bilim ve Sanat Merkezi (BİLSEM)'ne kayıtlı 60 özel yetenekli öğrenci ile bu öğrencilerin ortaöğretimine devam ettiği sınıflarda bulunan özel yetenekli tanısı almamış 96 öğrenci olmak üzere toplam 156 öğrenciden oluşmaktadır. Araştırmada veri toplama araçları olarak "Kişisel Bilgi Formu" ve Atik, Çok, Çoban ve Doğan (2014) tarafından geliştirilen "Akran İlişkileri Ölçeği" kullanılmıştır. Araştırma sonucuna göre, akran ilişkileri açısından özel yetenekli tanısı almış ve almamış lise öğrencileri arasında anlamlı bir farklılık görülmemiştir. Özel yetenek tanısı almış ve almamış "erkek" lise öğrencilerinin akran ilişkileri alt boyutlar açısından incelendiğinde ise "birliktelik", "koruma", "yakınlık" alt boyutları arasında özel yetenek tanısı almış erkeklerin lehine anlamlı bir farklılaşma olduğu görülmektedir. Özel yetenek tanısı almış ve almamış kız öğrencilerin akran ilişkileri puan ortalamaları arasında anlamlı farklılaşma görülmemektedir. Özel yetenek tanısı alıp almamanın 16-18 yaş grubundaki öğrencilerde 13-15 yaş grubuna göre akran ilişkileri alt boyutlarında daha fazla ayrışma oluşturduğu belirlenmiştir. Bulgular ilgili literatür ışığında tartışılmıştır.

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INTRODUCTION

When considering human development, it can be said that it involves successive developmental circles with the end of one period starting another. This process starts with conception, and the conceived human being, which is a unique being, becomes an embryo that is attached to the mother (Kılıç, 2013). After completing its development in the womb, the baby finds itself in the outer world (Kılıç, 2016, p.21). After emerging from the mother's womb into the outside world, the baby has to adjust itself to a new environment in order to survive, in other words, to adapt (Kılıç, 2016). Since its existence, humankind has been a social being and maintains almost all of its life by establishing social relationships. This process is thought to encompass the period from conception, to death of the human (Goleman, 2016). According to Klein (2013), a psychodynamic theorist who discussed the first years of human and created the basis of many theories, the first six years are very critical while Feist (1994) adopts a psychodynamic approach and claims that experiences until the age of 12 shape personality. In the initial stages of life, there is complete dependency on the mother and other primary caregivers. The first area of socialization for the baby consists of people who interact with them. It is thought that a social environment enables communication with the external life outside the baby's autistic world, while contacting the outside world, which facilitates mental and emotional adjustment (Gökler, 2014). Socialization starts at birth and the baby establishes relationships with its environment (Gençtan, 2012). In this relationship, the mother and father are "primary socialization" sources (Kılıç, 2016).

This social environment constitutes a discovery area for the child. When the life outside the mother's womb starts, children tend to separate themselves and orient their circles outwards (Kılıç, 2016). With increasing age, a child can develop meaningful relationships with strangers around apart from the mother and father (primary caregivers). In the beginning, the environment is complex and also the child might have problems in making sense of their behaviors. They interpret their behaviors by eventually comparing themselves to those of strangers, and thus develop a social understanding (Bronfenbrenner, 1979). Putting forward some ideas on the relationship between the mother, child or other caregivers, Bowlby (1969) states that the foundation of solid relationships can be established with a secure relationship of the baby with primary caregivers during these stages. The attachment types of children might be related to the types of differentiation. Particularly, the first three years of life might be considered an important period being the first period of separation (as cited: Mahler, Pine & Bergman, 2003).

The pre-school period, which is referred as initial childhood, early childhood or play age, covers the ages between 2-6. In this period, the child starts to have a more balanced and adaptable disposition. Symbolic and language development is complete. Play, which is at the center of children's discovery process, is a means of relationship for a child in this period (Kılıç, 2016). Play helps a child develop a sense of friendship, sharing, love, compassion, trust, helpfulness, independently acting, freedom, self-expression and self-confidence (Schaefer, 2013). The subsequent school age is a period in which children open up from the family to the external world and join a social environment (Kılıç, 2016). Relationships with the environment also shape the peer relationships of a child with his/her friends in the same age group. Peer relationships during the pre-school period might bring about new skills in children such as seeing individual differences, identifying genders, developing speaking skills (language development), contributing to social-emotional development, etc. (Gülay, 2010).

When stages of life are examined, it can be seen that an orientation to one's own age group is more frequent in the case of having a relationship with the environment in every period, whether it be childhood or adolescence, adulthood or old-age (Kılıç, 2013). While orientation to one's peer group is very intense in some periods of life, sometimes it can be replaced with new areas such as family, business circle, or a political environment. The cultural dimension should not be ignored in such changes (Kağıtçıbaşı, 2006). According to the review of the relevant literature, there are two important periods of individuation, in other words, the separation process of a child while moving out of the family and caregiver circle. The first period in this separation process is the period between the ages 0-3 (Mahler et al., 2003). Another period is adolescence when a child establishes a distance from objects related to the attachment elements in the infancy period and orients towards their own peer groups (Blos, 1989). In the adolescence period, individuals need to not feel alienated, staying within groups, sharing, and spending time with people who are close to them in emotional and conceptual terms. An individual creates a social atom within the group of friends they have relationships with, and this social atom includes confidants, best friends, close friends, familiar friends, acquaintances, friends known in the group, passive group acquaintances, etc. of the adolescent according to closeness to them (Kılıç, 2016).

An individual establishes many relationships at school, work, among peers and in other areas starting from the family. The intensity and significance of these relationships change depending on the periods of life; however, the relationship with peers is a form of relationship which exists from the beginning to the end of life, affects the individual socially, emotionally and psychologically and has a multidimensional structure (Atik et al., 2014). In this sense, the entire interaction between individuals who are of the same age or developmental level and share similar life experiences is called peer relationships (Gülay, 2009).

Adolescents and Peer Relationships

Although relationships and interactions are significant throughout the life of every individual, adolescence is a period when friendships have an undeniable importance, and is different from other development periods. According to Cüceloğlu (1991), the most important source of confidence for an individual during adolescence is friendship. Moreover, Delagrave (2016) stated that friendship for adolescents, is as vital as light is for plants. Individuals in this period feel the need for independence from parents and seek emotional satisfaction with social relationships. In this sense, emotional support which was previously taken from

parents is given through friends in this period. Friendships in this period have important functions for adolescents, such as learning social skills, getting to know oneself, building relationships with the opposite sex and building an identity (İnanç, Bilgin & Atıcı, 2011). Friendships in the adolescence period play a role in enabling individuals to experience justice, confidentiality and resistance to oppression by other people, feeling oneself as an individual, controlling their social functions and envisaging their social image (Delagrave, 2016). In brief, peer relationships in adolescence period might be a significant factor for an individual in developing a healthy and consistent personality (Köse, 2015).

An adolescent needs a peer group to ensure individuation; however, peer groups do not meet all needs of a young person. An individual has their own inner and outer limits. The inner limit covers the area where it is more difficult for others to perceive the individual. The outer limit refers to the sense of developing of self-concept in the adolescent and young individual. Strengthening of the adolescent's outer limits refers to a freer existence of the individual in peer environments, making free decisions about their own decisions. The adolescent finds the characteristics such as strengthened limits, sense of self-sufficiency, etc. in the relationships with the group of friends and gains this emotion thanks to the developed self-concept (Geldrad & Geldrad, 2013, p.70). Friendship plays a central role in the adolescent's learning of social skills, self-awareness, building relationships with the opposite sex and approving of their own identity. In addition, problems with making friendships and having conflicts might be the predictor of psychological problems of the adolescent. Friends are significant people in terms of companionship, trust, sharing ideas, protection, togetherness and adaptation in stressful situations (Lempers & Clark-Lempers, 1993). As young people move out of the family circle, they develop different relationships with their families and family members (Geldrad & Geldrad, 2013, p.70).

The friendships of adolescents encompass an area which is deeper, with a special sense of sharing differently from the family and relative circle, and other individuals of the society. Adolescents feel the need for acting with their peers against the authority of parents at home, the teachers and school administration at school, institutions and people steering their social life. When they are not understood by the adults around them, they share the same idea that expectations and behaviors of adults are inconsistent and unjust. They believe they will never copy their parents when they become adults. Parents of adolescents however, think that their children will understand them in time as they are young and inexperienced at the moment, and they share this idea at length with their children as a reaction. When they come together with their peers, adolescents try to understand each other by discussing that the parenting attitudes of their mothers and fathers are completely the same with the parents of their peers. This situation paves the way for distancing themselves from their parents and spending more time together. The terms "Daddy, Mommy" in the childhood period are replaced with the terms such as "old man, my folks, pops" etc. However, adolescents call each other more possessive and intimate terms like "*brother, sister, dude, buddy, BFF, etc.*". While the time spent and the things shared with family decrease, the adolescents become more generous with the time and things that they share with their peers. For an adolescent, a friend is the only person that can understand their world. The adolescent feels more accepted and special in their group of peers. Peers support them when they need without any condition, giving advice or preaching continuously. An adolescent rush to help their friends especially in case of trouble, does everything for them and makes sacrifices for them. At this stage, adolescents attach to each other more. Having friends who make sacrifices, spare time for them, give financial and emotional support and having such a group of peers make the adolescent feel a unique sense of self-confidence and worthiness. All these summarize the transition of an adolescent from "egoism" to "altruism" (Kılıç, 2013). Based on the opinions of the investigators and the review of the literature, it is understood that peer relationships of adolescents are very significant and comprise a great part of their lives. Accordingly, studies on peer relationships of adolescents have been reviewed and the following results have been obtained.

A study investigating the relationships of adolescents with peers and family conducted a study with 89 adolescents. It was found that the adolescents who had a high perception of peer and family relationships had more friends, greater family togetherness, lower tendency for depression and substance use and higher levels of success (Field, Diego & Sanders, 2002). A study investigating the overall connection of peer relationships with social anxiety and depression carried out a study with a total of 421 adolescents aged 14-19, 57% and 53% of whom were females and males, respectively. The study found that variables such as one's status in peer affiliation, positive feelings towards best friendship, and positive emotional signs to peers were properties that decrease social anxiety. On the contrary, it was seen that victimization in peer relationships and negative feelings towards the best peer friend positively predicted social anxiety. Popularity in peer relationships, having a romantic relationship or having a positive romantic partner had effects that decreased depressive emotions. In addition, victimization in peer relationships, negative romantic relationship and negative approaches to best friendship predicted depressive feelings in a positive sense (La Greca & Harrison, 2005, p.54-56).

Gifted Individuals and Peer Relationships

Peer relationships and friendships constitute a significant source in shaping social-emotional development, physical development, cognitive development, achievement of identity and the concept of self. With respect to understanding this pattern and gaining a scientific perspective on the world of adolescents, the reflection of the intelligence and talent factors, which are significant elements in education, on friendships are among matters that arouse curiosity. Intelligence level is considered a significant variable that has an influence on the student profile in education system. Giftedness not only reflects the cognitive potential but also is associated with affective, behavioral, physical and social development areas (Kanlı, 2011).

The lexical meaning of the word “talent” is the ability to do something correctly, a skilled competence, and having a special capability. In some cases, some people have more advanced skills than others. Gifted children are individuals who deliver outstanding intelligence performance in one or more skills; demonstrate a higher level of motivation, performance and duty responsibility in creative, art and academic areas; and need opportunities suitable for advancing in such skills, when compared to their peers (Kuzucu, 2014, p.471).

In Turkey, gifted students are supported with dedicated programs at Science and Art Centers (BILSEM) of the Ministry of National Education so that they can improve their abilities. The diagnosis process is conducted with group surveys followed by individual assessments during the primary school period. All group and individual assessments are performed only by the Ministry of National Education. Group survey tests are carried out as electronic central exams using tablets. Students who get a certain passing grade in the group survey test according to the skill area are assessed individually. An “Intelligence test” and practical exams are held for those who are assessed in the mental areas, music and art areas, respectively, and students who get a score above “130” in the intelligence test and those who do well in the practical music and painting exams are deemed eligible to receive education at BILSEM. Individual intelligence tests are held in Counseling and Research Centers and individual assessments in music and art areas are held in the BILSEM, respectively (Ministry of Education [MEB], 2018).

Over the last 25-30 years, there has been increasing interest in studies on emotional characteristics of gifted children. However, in previous periods, certain prejudices and stereotyped opinions regarding gifts (talents) were dominant (Kelly & Jordan, 1990; Winner, 1997). Characteristics attributed to gifted (talented) individuals included being physically weak, unhealthy and introverted. Furthermore, students with high IQ levels were considered less popular groups with more problems in peer relationships compared to their peers showing normal development (Austin and Draper, 1981; Feldman & Goldsmith, 1986; Ross and Parker, 1980). On the contrary, according to Silverman (1993), gifted (talented) children have an extroverted maturity level, are sensitive to social problems, care about the needs, wishes and opinions of others and try to find solutions accordingly. When Sak (2004: p.75) synthesized 19 studies on gifted children, 49% of the subjects in the study identified themselves as introverted and 35% as extroverted. Cross (2015) reported that some gifted children generally perceived themselves as good at outward-looking friendship relationships, but did not generalize to all studies. Austin and Draper (1981) emphasize that it is not possible to make a universally accepted remark with respect to opposing thoughts on gifted individuals.

When searching for studies on gifted (talented) individuals, studies focusing on how gifted students perceive their own characteristics were found. According to Kerr, Colangelo & Gaeth (1988), gifted individuals consider giftedness as a personal advantage, while it can also be a disadvantage in social terms. Bain & Bell (2004, p.172-173) discovered that gifted individuals had significantly more positive perceptions in the variables of physical appearance, perception of skills, peer relationships, and overall self-concept compared to non-gifted individuals. Mueller (2009, p. 9-10) found that gifted and non-gifted students had similar mean values in terms of self-concept, parent-family connectedness and school belonging. Studies on self-perceptions of the gifted individuals and their perception of their abilities were examined. In a meta-analysis study, 40 studies were examined and according to the findings of this study, gifted children had significantly higher scores in terms of academic self-concept, perceived competence and global self-concept than non-gifted children (Litster & Roberts, 2011: p.130). In a study by Ağyar & Gündoğdu (2017), it is seen that gifted students have higher level of self-esteem than non-gifted students.

In a review of the literature, it is seen that peer relationships of gifted (talented) adolescents have been examined in terms of different dimensions. Among these studies, a study by Kline & Meckstroth (1985) reported that highly gifted (talented) individuals had difficulty in making friends while moderately gifted individuals were popular in their group of friends. Janos, Fung & Robinson (2015, p.78–80) found that 37% of gifted participants reported feeling different in terms of peer relationships and this group had lower self-esteem scores than the group who did not report feeling different. Additionally, friendship expectations of gifted children differ from the expectations of their peers showing normal development (Gross, 2002).

Since the existence of humankind, individual differences have been present and every community has had groups which create difference, are talented and might be considered superior in terms of common intelligence level and abilities (Çağlar, 2004, p.95). The contribution of gifted individuals to the development and advancement of societies in areas such as art, education, science, literature and technology is an undeniable truth (Cığerci, 2006). One of the most important missions of modern education is to discover gifted children and contribute to social improvement by educating these individuals in line with their abilities (Koçak & İçmenoğlu, 2012, p.74). One of the topics which has drawn the attention of society and science is to understand the differences and needs of gifted individuals who constitute such a significant part of the society. There are many questions regarding gifted individuals just as every individual who is seeking an identity and propriate striving particularly in the adolescence period. What are the developmental characteristics of gifted adolescents? What difficulties do they face in adolescence? How are their friendships? What is their level of relationships with peer groups showing normal development? What are the differences in friendships and peer relationships compared to peer groups showing normal development? It is thought that such questions are among the topics that draw the interest of educators, psychologists, psychological counselors, parents and others in humanity-related fields. In this regard, this study aimed to examine peer relationships of adolescents in high schools according to being identified as gifted (talented). It is foreseen that this study, which was conducted with this stated purpose, might give an idea to parents, educators, psychologists, psychological counselors and school counseling services

to know adolescents better. In accordance with this general purpose, answers to the following questions are sought in the study:

1. In terms of peer relationship levels;
 - a. Mean score of male high school students with and without gifted,
 - b. Mean score of female high school students with and without gifted,
 - c. Mean scores of gifted students by gender,
 - d. Mean score of high school students with and without gifted,
 - e. Mean scores of high school students with and without gifted according to the “age” variable,
 - f. Mean scores of high school students with and without gifted according to the variable of “science high school”.

Is there a significant difference between?

METHOD/MATERIALS

Study Design

Descriptive studies serving the description purpose of science, aim at putting forth an existing situation (Erkuş, 2013, p.107-108). This study is a descriptive study that aims to examine peer relationships of students who are identified as gifted.

Population and Sample

The study population is comprised of high school students at the Science and Art Center in Gaziantep, and the 9th, 10th, 11th and 12th grade students of Science, Anatolian and Private high schools where these students study, in Gaziantep. Convenience sampling method was used to identify the sample from the study population. The study sample is comprised in a total of 156 students, including 60 students who were identified as gifted at Gaziantep Science and Art Center and 96 students who were not identified as gifted and studied where the first group of students received formal education.

Convenience sampling is “a (voluntary) type of sampling on individuals who are in the immediate circle, easy to access, readily available and want to participate in the study” (Erkuş, 2013, p.122). The technique of sampling convenient ones was used in this study and the study group is comprised of 156 students in total including 60 students who were identified as gifted at Gaziantep Science and Art Center and 96 students who were not identified as gifted and studied where the first group of students received formal education. Given the time that high school students spend receiving formal education at school, it was thought that taking the possibility that school and classroom environment could cause certain changes in peer relationships into consideration might decrease potential differences in terms of social context. In this regard, the underlying reason why students not identified as gifted were chosen from classrooms of the schools at which gifted students received their formal education was to minimize the above-mentioned differences as much as possible. The demographic information of the participants is provided in Table 1 in a detailed manner.

Table 1. Participants’ demographic information

	Frequency	%
School		
Science High Schools	133	85.3
Other (Anatolian and Private High Schools)	23	14.7
Grade		
9th Grade	49	31.4
10th Grade	41	26.3
11th Grade	34	21.8
12th Grade	32	20.5
Talent Status		
Showing Normal Development (Not Identified as Gifted)	96	61.5
Identified as Gifted	60	38.5
Gender		
Male	72	46.2
Female	84	53.8
Age Interval		
Aged 13-15	73	46.8
Aged 16-18	83	53.2
Number of Siblings		

Only Child and Two Children	63	40.4
Three or More Children	93	59.6
Birth Order		
First-born	91	58.3
Middle Child	40	25.6
Last-born	25	16.0
Education Status of Mother		
Not literate or Primary education	49	31.4
Secondary education (high school)	43	27.6
Higher Education (Graduate, Post-graduate)	64	41.0
Education Status of Father		
Not literate or Primary education	24	15.4
Secondary education (high school)	44	28.2
Higher Education (Graduate, Post-graduate)	88	56.4
Total	156	100

Data Collection Tools

This section provides the assessment tools that were used for the purpose of study. The scale used in the study is comprised of two parts. The first part of the scale is the Personal Information Form created by the researcher and the second part is “Peer Relationship Scale” adapted to Turkish by Atik et al. (2014).

Personal Information Form: Personal information form is comprised of two parts. In the first part, questions about demographic information such as age, gender, educational status of mother and father were asked of the participants of the study. In the second part, questions about academic information such as the school at which they studied, skill areas (general cognitive skills, painting, music) were asked of the participants.

Peer Relationship Scale: The Peer Relationship Scale (PRS) was prepared with draft items to assess relationships of children and adolescents with their closest friends through the interview method by Berndt and Perry. The tool was scaled by Bukowski, Hoza & Boivin (1994), adapted to Turkish by Atik et al. (2014) and validity and reliability studies were conducted. The scale is made up of 23 items and five sub-dimensions. The scale is answered on the basis a five-point Likert-type grading design (1= Not Correct, 5= Completely Correct). The participants are asked to concentrate on each item and answer by thinking of their currently closest friends while grading their friendships. The scale can be not only assessed based on dimensions but also used by adding up the scores to totalize. Confirmatory Factor Analysis was run to test the structural validity of the scale and the five-factor construct was supported ($\chi^2 /sd=19.83/12$, $p=0.08$, $NNFI=0.98$). The coefficients of internal consistency of sub-dimensions of PRS vary from $\alpha=0.71$ to $\alpha=0.86$ (Bukowski et al., 1994). The scores of the entire scale or sub-dimensions are calculated with arithmetic mean of responses to relevant items. An increase of the scores in the assessment tool indicates an increase in the quality of peer relationships. The extent of “companionship” is indicated the rate of time that the individual volunteers with his/her peer. The “conflict” sub-dimension is about the frequency of disagreements in friendships and “help” dimension is about the size to defend another against injustices and help each other mutually. The “protection” dimension points to the trust they have in dealing with the problems together, and lastly, “closeness” dimension is indicated the emotional attachment to each other (Atik et al., 2014).

Data Collection

The study data was obtained from 60 high school students who were identified as gifted and studied in the 9th, 10th, 11th, and 12th grades at Gaziantep Şahinbey BİLSEM in 2017-2018 academic year. Except this, 96 students who were not identified as gifted and studied at Science High School of the Ministry of National Education in Gaziantep, where most of BİLSEM students studied. The application time of the scale is seven minutes. Scale data were collected from the participants via paper and pencils.

Data Analysis

Table 2. Skewness and Kurtosis values

	N	Skewness	Kurtosis
Companionship	156	.068	-.498
Conflict	156	-.707	-.212
Help	156	-2.125	6.340
Protection	156	-.362	-.580
Closeness	156	-.799	.328
Peer Relationship (Total)	156	-.806	.956

In this study, Skewness and Kurtosis values were examined to determine whether the data were normally distributed or not. When Table 2 is examined, skewness values between -3 and +3 and kurtosis values between -10 and +10 indicate that the data are suitable for normal distribution (Kline, 2011).

Sample sizes, which are the data sources of the research, affect the statistical choices in the data analysis. In groups with a sample size of 30 or more, the data are considered to be close to the normal distribution. In this study, when analyzing the data, parametric statistics are used in cases where 30 or more samples are formed in the selection of statistical analysis between two or more groups, and non-parametric statistics are used in the sample numbers below 30 (Büyüköztürk, 2016, p.8; Ural & Kılıç, 2013, p.81).

The T-test was used in the study for the variables of gender, being identified as gifted or not and, Mann-Whitney U test was used in cases without normal distribution, for the variable age, respectively.

FINDINGS

This section provides data obtained from the study as well as results and comments related to such data.

Table 3. Statistics on education status of mothers and fathers of high school students who were and were not identified as gifted

Level of Education		Those Identified as Gifted		Those Not Identified as Gifted	
		N	%	N	%
Mother	Not Literate or Primary Education	6	10	43	44.8
	Secondary Education (High School)	19	31.7	24	25
	Higher Education	35	58.3	29	30.2
Father	Not Literate or Primary Education	5	8.3	19	19.8
	Secondary Education (High School)	12	20	32	33.3
	Higher Education	43	71.7	45	46.9
Total		60	100	96	100

When Table 3 is examined, it is seen that the most common educational statuses of mothers and fathers of high school students showing normal development are “not literate or with primary education” with 44.8% and “higher education (graduate or post-graduate)” with 46.9%, respectively. The most common educational statuses of mothers and fathers of high school students identified as gifted are “higher education (graduate or post-graduate)” with 58.3% and “higher education (graduate or post-graduate)” with 71.7%, respectively.

Table 4. T-Test table comparing the mean score of peer relationships scale of male high school students with and without gifted

Sub-Dimensions	Male Individuals Not Identified as Gifted		Male Individuals Identified as Gifted		t	p
	X	S _x	X	S _x		
Companionship	12.31	2.796	14.00	3.096	-2.394	0.019*
Conflict	15.21	2.832	15.06	3.685	0.198	0.844
Help	22.24	3.638	23.10	2.509	-1.173	0.245
Protection	14.21	3.275	15.96	3.134	-2.261	0.027*
Closeness	18.12	4.523	20.80	2.940	-3.018	0.004**
Total	82.12	13.06	88.93	9.698	-2.409	0.019*

*p<0.05, **p<0.01

When Table 4 is examined, it is seen that there is a significant difference between the mean value of total peer relationship scores of male high school students who were and were not identified as gifted (p<0.05). When examined in terms of sub-

dimensions, a significant difference is seen between the sub-dimensions of “companionship”, “protection” and “closeness” in favor of male students who were identified as gifted. It was found that male high school students who were identified as gifted were more qualified in terms of peer relationships, spent more time with their peers, had more trust in their peers to overcome problems and to attach each other more emotionally compared to those who were not identified as gifted.

Table 5. T-Test table comparing the mean score of peer relationships scale of female high school students with and without gifted

Sub-Dimensions	Female Individuals Not Identified as Gifted		Female Individuals Identified as Gifted		t	p
	X	S _x	X	S _x		
Companionship	12.56	3.270	12.83	3.464	-0.352	0.726
Conflict	15.18	3.416	14.90	4.245	0.313	0.756
Help	23.03	2.617	22.80	4.063	0.326	0.745
Protection	15.05	3.460	15.53	3.775	-0.590	0.557
Closeness	20.58	4.085	20.63	4.097	-0.055	0.956
Total	86.42	12.918	86.70	12.23	-0.097	0.923

*p<0.05, **p<0.01

When Table 5 is examined, no significant difference is seen between the mean values of peer relationship sub-dimensions and the total scores of female individuals who were and were not identified as gifted (p>0.05).

Table 6. T-Test table comparing the mean scores of gifted students from the peer relations scale by gender.

Sub-Dimensions	Male individuals identified as gifted		Female individuals identified as gifted		t	p
	X	S _x	X	S _x		
Companionship	14.00	3.096	12.83	3.464	1.375	0.174
Conflict	15.06	3.685	14.90	4.245	0.162	0.872
Help	23.10	2.509	22.80	4.063	0.344	0.732
Protection	15.96	3.134	15.53	3.775	0.484	0.630
Closeness	20.80	2.940	20.63	4.097	0.181	0.857
Total	88.93	9.698	86.70	12.230	0.784	0.436

*p<0.05, **p<0.01

When Table 6 is examined, no significant difference is seen between the mean values of peer relationship sub-dimensions and the total scores of gifted male high school students and gifted female high school students, in terms of gender (p>0.05).

Table 7. T Test table comparing the mean score of peer relationships scale of high school students with and without gifted

Sub-Dimensions	High School Students Not Identified as Gifted		High School Students Identified as Gifted		t	p
	X	S _x	X	S _x		
Companionship	12.46	3.064	13.41	3.310	-1.806	0.073
Conflict	15.19	3.164	14.98	3.942	0.356	0.723
Help	22.69	3.102	22.95	3.351	-0.470	0.639
Protection	14.69	3.390	15.75	3.447	-1.866	0.064
Closeness	19.53	4.427	20.71	3.537	-1.845	0.067
Total	84.58	13.087	87.81	11.001	-1.657	0.100

*p<0.05, **p<0.01

When Table 7 is examined, no significant difference is seen between the mean values of peer relationship sub-dimensions and the total scores of high school students in terms of the variable of being identified as gifted or non-gifted (p>0.05).

Table 8. T-Test table comparing the mean score of peer relationships scale of 13-15 years high school students with and without gifted

Sub-Dimensions	Not Identified as Gifted, Aged 13-15		Identified as Gifted, Aged 13-15		t	p
	X	S _x	X	S _x		
Companionship	12.90	3.348	12.95	3.515	-0.051	0.960
Conflict	16.72	2.295	15.15	3.826	2.175	0.033*
Help	23.72	2.125	22.37	3.814	1.816	0.074
Protection	16.21	2.966	15.07	3.604	1.451	0.151
Closeness	21.33	3.424	20.17	3.734	1.369	0.175
Total	90.90	10.852	85.72	11.834	1.933	0.057

*p<0.05, **p<0.01

When Table 8 is examined, a significant difference is seen in the peer relationship sub-dimension of “conflict” between individuals who were and were not identified as gifted in the 13-15 age group ($p<0.05$).

When peer relationships of students aged 13-15 who were or were not identified as gifted were compared, it was found that the frequency of conflicts in friendships was higher in students who were identified as gifted.

Table 9. Mann Whitney U table comparing the mean score of peer relationships scale of 16-18 years high school students with and without gifted

	Age Level	(N)	Mean Value of Rank	Total of Rank	U	p
Companionship	Not identified as Gifted Aged 16-18	63	37.91	2388.50	372.500	0.006**
	Identified as Gifted, Aged 16-18	20	54.88	1097.50		
Conflict	Not identified as Gifted, Aged 16-18	63	41.20	2595.50	579.500	0.589
	Identified as Gifted, Aged 16-18	20	44.53	890.50		
Help	Not identified as Gifted, Aged 16-18	63	38.22	2408.00	392.000	0.008**
	Identified as Gifted, Aged 16-18	20	53.90	1078.00		
Protection	Not identified as Gifted, Aged 16-18	63	36.72	2313.50	297.500	0.000**
	Identified as Gifted, Aged 16-18	20	58.63	1172.50		
Closeness	Not identified as Gifted, Aged 16-18	63	37.78	2380.00	364.000	0.004**
	Identified as Gifted, Aged 16-18	20	55.30	1106.00		
Total	Not identified as Gifted, Aged 16-18	63	36.67	2310.00	294.000	0.000**
	Identified as Gifted, Aged 16-18	20	58.80	1176.00		

*p<0.05, **p<0.01

When Table 9, based on the results of Mann-Whitney U test which was conducted to find out whether there was a significant difference between 63 individuals showing normal development and 20 gifted individuals in the 16-18 age group is examined, a statistically significant difference is seen in the mean values of “companionship, help, protection, closeness” sub-dimensions and the total peer relationship scores of gifted individuals aged 16-18 ($p<0.05$).

It was found that male high school students aged 16-18 who were identified as gifted were more qualified in terms of peer relationships, spent more time with their peers, advocated others against injustice and helped each other more, had more trust in their peers regarding overcoming problems and were attached to each other more emotionally compared to those who were not identified as gifted.

Table 10. T-Test Table comparing the score of peer relations scale of “science high school” students with and without gifted talent.

Sub-Dimensions	Not Identified as Gifted, Science High School		Identified as Gifted, Science High School		t	p
	X	S _x	X	S _x		
Companionship	12.46	3.064	13.45	2.930	-1.706	0.090
Conflict	15.19	3.164	14.75	4.051	0.596	0.554
Help	22.69	3.102	22.72	3.819	-0.050	0.961
Protection	14.69	3.390	16.05	3.357	-2.072	0.040*
Closeness	19.53	4.427	20.75	3.788	-1.593	0.115
Total	84.58	13.087	87.75	11.089	-1.304	0.195

*p<0.05, **p<0.01

When Table 10 is examined, a significant difference is only seen in the sub-dimension of “protection” between the mean values of peer relationship sub-dimensions and the total scores of science high school students who were or were not identified as gifted ($p<0.05$).

In the comparison of peer relationships of science high school students in the same environment who were or were not identified as gifted, it was found that students who were identified as gifted had more trust than those who were not identified as gifted regarding overcoming problems together.

CONCLUSION AND DISCUSSION

Conclusion and Discussion of Peer Relationships of High School Students with Gifted and Normal Development According to Gender

Results obtained in this study by gender can be explained as follows. When peer relationships of male high school students who were and were not identified as gifted are examined in terms of sub-dimensions, it is seen that there is a significant difference between the sub-dimensions of “companionship”, “protection” and “closeness” in favor of male students who were identified as gifted. There is no significant difference in mean peer relationship scores of female individuals who were and were not identified as gifted. No significant difference is seen between the mean values of peer relationship sub-dimensions and the total scores of gifted male high school students and gifted female high school students in terms of gender.

In the literature, there are some notable results in studies examining gifted high school students by the variable of gender. A study investigating opinions on close friendships and attachment types included 28 (male: 14, female: 14) gifted students and 28 (male: 14, female: 14) students showing normal development in the 9th grade. According to the study results, gifted high school students of both genders have lower perceptions of close relationships with their friends of same sex compared to high school students showing normal development. Moreover, they reported to have lower levels of sincerity and spontaneity, sensitivity and ability of knowing the qualities of the other party, attachment, exclusiveness (private closeness), sharing and generosity, trust and loyalty, and common activities in their close friendships than the group of peers showing normal development. The difference between the scores of scale items including the above-mentioned qualities seemed to be significant (Mayseless, 1993, p.139–142). In another study investigating the impact of gender of 496 students in total including 64 gifted individuals and 432 individuals showing normal development, a 2x2 sociometric plan was created to see the distribution in peer relationships. According to sociometric distribution, non-gifted students were rejected more than the gifted students in terms of peer relationships. Girls were selected more than boys in both groups. According to analyses, gifted girls represented the least popular group while gifted boys were the most popular group. No such difference was seen in the non-gifted group; however, non-gifted girls were considered more popular than gifted girls (Luftig & Nichols, 1990: 113). In a study about emotional intelligence and giftedness, the students who were gifted and showed high level of achievement were studied. In terms of interpersonal relationships and stress control, girls scored higher than boys, whereas males scored higher in terms of adjustment than girls (Prieto, Ferrándiz, Ferrando, Sánchez & Bermejo, 2016: s.36). The mediating role of gender in social adaptation to giftedness of gifted students group divided into two groups according to intelligence test and teacher assessment criteria was examined. While there was no significant difference in the selection of positive characteristics in sociometric measurements between gifted and non-gifted individuals, gifted individuals reported their academic and general self-concept at a high level but peer relationships self-perception at a low level. In addition, a significant relationship was found between peer relationships self-perception and gender in gifted students (Košir, Horvat, Aram & Jurinec, 2015).

Conclusion and Discussion of the Peer Relationships of High School Students with Gifted and Normal Development According to Age Variable

When the data is examined according to age groups, it can be said that there is a greater differentiation in peer relation sub-dimensions in terms of being identified as gifted in the students of the 16-18 age group compared to the 13-15 age group. In the assessment of this result, the length of time spent might affect the status of friendship in adolescents and they can build closer relationships in time (Kılıç, 2016, p.134). Adolescents are influenced by their friendships to a great extent. Personality is shaped with age; particularly the age of 18 is considered significant in terms of personality formation and the quality of friendships increases as the individual approaches to this age (Yörükoğlu, 2013). A study of a total of 305 students including 162 boys and 143 girls aged 9-17 investigated the acceptance of the gifted label, perception of abilities and skills, struggle for educational opportunities and perceived social links as compared to non-gifted peers. According to the study results, gifted individuals in the 15-17 and 12-14 age groups accepted the gifted label less than the 9-11 age group. There was no significant difference in the variables of perception of abilities and struggling against educational difficulties. The study also found a positive significant correlation between accepting the gifted label and perception of abilities as incremental and struggling for educational opportunities. It was found that, with increasing age, there occurred a tendency to neglect the perceived social links to non-gifted peers (peers not gifted) when 9-11 age group was compared to the 12-14 and 15-17 age groups (Feldhusen & Dai, 1997).

While giftedness is seen as a popular situation in primary education, it may be more common in adolescence to be excluded from peer groups. Having differences, having different characteristics from the group of friends can lead the individual to loneliness (Bishop, Bishop, Gelbwaser, Green, Peterson & Zuckerman, 2004). The gifted paradigm is a bit more frightening and unknown in this adolescence (Swiatek, 2012). In another study examining the peer relationship in adolescence, it was stated that gifted individuals adopted an egalitarian, reciprocal peer relationship in peer relationships (Peairs, 2010). According to age periods, the subjects that gifted students give importance in peer relationship may change. According to Kiefer & Ryans (2010), while 6th grade gifted children give importance to sincerity and responsibility in peer relations, dominant character and physical

appearance are important in 7th grade children. When the results obtained are examined, it is seen that the findings vary according to the characteristics of the research groups, age groups and the variables subject to the research.

Conclusion and Discussion of the Peer Relationships of High School Students with Gifted and Normal Development According to Variable Diagnosis

One of the most important results of this study is as follows. No significant difference was seen between the mean values of peer relationship sub-dimensions and the total scores of high school students in terms of the variable of being identified as gifted or non-gifted.

Studies on the characteristics, diagnosis, programs and educational models of gifted children have provided some ideas about the social, emotional and academic fields of these children (Sak, 2014). While being positively influenced by the characteristics such as self-esteem, self-esteem, increase in environmental expectations, social contribution, there may be negative sides such as social exclusion, unreal self-confidence, esteem anxiety, normalization efforts, excessive expectations, and excessive expectations of adults (Sak, 2014: p. 322-330). Gifted individuals can be aware of the negative effects of being gifted. Especially in adolescence, they may prefer to share with other people in order to strengthen their self-esteem (Yılmaz, 2015, p.97).

In the literature review, there are some studies investigating peer relationships of gifted and non-gifted adolescents. In a study examining personality factors, social support, emotional well-being and academic achievement, teachers assessed gifted students as being well-adjusted and reported that they were less likely to have behavioral or emotional problems than non-gifted students (students that are not gifted). The gifted students reported feeling more upset and being unsatisfied with social support from their environment than the non-gifted group (group without gifted). It was seen that being identified as gifted (special talented) or not had no significant effect on the variables such as self-esteem, hope levels, problem orientation or attitudes towards education (Vialle, Heaven & Ciarrochi, 2007, p.577-579). In this study, it is seen that being directly unrelated to peer relationship dimension and identified as gifted or not does not constitute a significant difference in attitude, orientation and personality traits towards certain psychological qualities. The friendship of gifted adolescents and those showing normal development has been investigated in various studies in terms of the attitudes perceived by others. Gallagher & Crowder (1957) examined peer relationships of 20 male and 10 female gifted students who scored 150 and above in the Stanford-Binet test. A sociometric test including the students showing normal development was applied, and the study concluded that gifted students were more popular and were embraced more by both students and teachers due to their achievements in lessons and projects. Another study compared gifted students to regular adolescents in terms of peer acceptance, participation in group activities and personality traits. The study included 300 gifted students and 111 students showing normal development. According to these study results, students showing normal development were more agile, independent, uninhibited, socially adept, dominant, radical, creative, emotionally stable, extroverted, popular, athletic, socially attractive, and socially active than the gifted students, and they had greater sense of being part of a group. When differences were examined, it was seen that differences between personality traits, such as being socially more adept, uninhibited and extroverted were significant (Dauber & Benbow, 1990, p.12).

According to other studies in this field, adolescents who were identified as gifted perceived themselves to be more successful in friendships and skills in other social areas than the adolescents who were not identified as gifted. Interpersonal competence and peer relationships of 1,526 talented adolescents who had previously participated in a program at the Center for Talent Development were examined by using an online survey. When gifted students were compared to the non-gifted peer group having similar mean academic values had generally positive perceptions regarding their abilities to initiate, develop and maintain relationships with other people. The gifted students perceived themselves more positively in terms of interpersonal competence and peer relationships compared to non-gifted students in the same class. The gifted) students did not consider giftedness as an obstacle affecting their interpersonal relationships but perceived their academic self-concept more positively than their social self-concept. The results obtained also showed that the students who were gifted in verbal-linguistic area were more likely to face difficulties in peer relationships than the students who were gifted) in mathematics, life sciences and social sciences (Lee, Olszewski-Kubilius and Thomson, 2012). In another study comparing gifted high school students (n= 62) and those showing normal development (n= 162), intimacy with family and friends, social support, family responsibilities, self-esteem, depression and risk-taking behaviors were assessed. The gifted students perceived themselves as being more intimate in friendships, assuming family responsibilities occasionally and taking more risks (risks related to sports and danger). In contrast to the literature suggesting delays in social development of the gifted individuals, this study showed that the gifted students perceived themselves socially better compared to students showing normal development. According to data from their teachers, the gifted students perceived themselves to be better than the non-gifted group in terms of their academic skills and social peer relationships. However, teachers of the gifted students attributed lower levels of happiness to the gifted students than the perception of happiness of the gifted students themselves (Field, Harding, Yando, Gonzalez, Lasko, Bendell & Marks, 1998).

RECOMMENDATIONS

From the results of this study, the following recommendations can be made for future studies.

- Variables by which gifted students and non-gifted students are compared in this study are generally sociodemographic and more extensive comparisons can be made by using different variables in future studies.
- Given the fact that friendships in this period have important functions for adolescents such as learning social skills, getting to know oneself, building relationships with the opposite sex and forming an identity, an explanation of similar situations in terms of friendships for gifted and non-gifted individuals would contribute to the relevant literature.
- Studies might be conducted for the effectiveness of BILSEM, where the gifted students receive education, on peer relationships.
- Adolescent individuals orient to their peer groups by moving out of the circle of parents and family. Studies can be designed on how parents of gifted students regard peer relationships.
- Group counseling studies can be carried out by schools or BILSEM counseling services to increase the quality of peer relationships of the gifted individuals. Group counseling events can be organized. Additionally, psychoeducation on the inner world, developmental properties and needs of the gifted children can be organized for teachers and parents of the gifted students.
- Although studies on gifted students have been showing an increase lately, studies are still limited in Turkey. It is predicted that increasing studies on this group, both qualitatively and quantitatively, would enhance the future plans for these students. Investigating different abilities of these students in joint studies with other disciplines is significant in terms of ensuring integration in emotional, cognitive and social developments of this group of students.

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Statements of publication ethics

We hereby declare that the study has not unethical issues and that research and publication ethics have been observed carefully.

Ethics Committee Approval Information

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