

The Effect of Sports on Adolescents' Self-Esteem and Self-Sufficiency

Spor Yapmanın Ergenlerin Benlik Saygısı ve Öz Yeterliliklerine Etkisi

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ABSTRACT Objective: The purpose of the research was to define the self-esteem and self-sufficiency of adolescents who engage in sports. **Material and Methods:** The research population consists of 6496 students, attending 13 schools of Mersin Provincial Directorate of National Education in 2013-2014 academic year. The samples were selected after detecting the students engaged in sports (520) and the same number of students (520) as the comparison group by stratified random sampling method. Data was collected using "Personal Information Form", "General Self-Efficacy Scale" and "Coopersmith Self-Esteem Scale". As statistical methods in data analysis; number, percentage, chi square tests were used. For comparison of the groups, independent groups t tests was used. **Results:** In the study, it was found that adolescents who do sports have higher self-esteem score (82.8) than non-sports (65.8) adolescents. Adolescents' Overall Self-Efficacy Score average was also found to be higher in adolescents engaged in sports (32.3) than non-sports (27.0). The proportion of boys doing sports (53.3%) is higher than girls. **Conclusion:** The self-esteem and self-efficacy score average (SEAS) of boys and girls who do sports is higher than the self-esteem and self-efficacy score average of boys and girls who do not do sports. As seen in the research, adolescents do sports, when examined separately from all kinds of variables, have important effects on "General Self-Efficacy Scale Average Score" (GSEAS) and "Coopersmith Self-Esteem Scale Average Score". Attempts should be made to ensure that the health professionals who provide primary care (doctors, nurses, psychologists, dieticians) are aware of the impact of sports on school health, and to continue sports throughout life. In order to make sports a habit during adolescence, appropriate environment should be provided in schools.

Keywords: Self-esteem; adolescence; nursing

ÖZET Amaç: Bu araştırmada, spor yapmanın ergenlerin benlik saygısı ve öz-yeterliliklerine etkisini incelemek amaçlanmaktadır. **Gereç ve Yöntemler:** Araştırmanın evrenini 2013-2014 eğitim öğretim yılında Mersin İl Millî Eğitim Müdürlüğü'nün 13 okulunda okuyan 6496 öğrenci oluşturmaktadır. Örneklem tabakalı rastgele örnekleme yöntemi ile spor yapan öğrencilerin (520) ve karşılaştırma grubuyla aynı sayıda öğrenci (520) tespit edildikten sonra seçilmiştir. Veriler "Kişisel Bilgi Formu", "Genel Öz-Yeterlilik Ölçeği" ve "Coopersmith Benlik Saygısı Ölçeği" kullanılarak toplanmıştır. Verilerin analizinde; sayı, yüzde, ki-kare testi kullanıldı. Grupların karşılaştırılmasında bağımsız gruplar t testi kullanıldı. **Bulgular:** Araştırmada spor yapan ergenlerin benlik saygısı puan ortalaması (82,8) spor yapmayan (65,8) ergenlerden daha yüksek olduğu bulunmuştur. Ergenlerin genel öz yeterlilik puan ortalamasının spor yapan ergenlerde (32,3) spor yapmayanlara (27,0) göre daha yüksek olduğu ortaya çıkmıştır. Spor yapan erkeklerin oranı (%53,3), kızlardan daha yüksektir. **Sonuç:** Spor yapan erkek ve kız ergenlerin benlik saygısı ve öz yeterlilik puan ortalaması, spor yapmayan kız ve erkek ergenlerin benlik saygısı ve öz yeterlilik puan ortalamasından yüksektir. Araştırmanın bulgularında da görüldüğü gibi; ergenlerin spor yapmanın, her türlü değişkenlerden ayrı incelendiğinde benlik saygısı puan ortalaması ve genel öz yeterlilik puan ortalamasına önemli etkileri bulunmaktadır. Birinci basamak sağlık hizmeti sunan uzman kişiler (doktor, hemşire, psikolog, diyetisyen) okul sağlığında sporun etkisinin bilincinde olarak, sporu yaşam boyu sürdürmeleri için girişimlerde bulunmalıdır. Ergenlik yıllarında sporun alışkanlık haline getirmesi için okullarda uygun ortam sağlanmalıdır.

Anahtar Kelimeler: Benlik saygısı; ergenlik dönemi; hemşirelik

Adolescence is defined as a period which growth, sexual development and psychosocial maturation occur and includes the transition from childhood to youth.^{1,2} Biological, social, emotional and

intellectual development for each adolescent can be at different speeds. Therefore, it is important to know the population in terms of identifying and evaluating the psychosocial development of adolescents and

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identifying the problems they face and creating a solution suggestion.³

According to data population of Turkey at the end of 2018 was determined to include 22 million 920 thousand 422. I children. Children make up 28% of the country's population.^{4,5}

With the development of technology, excessive industrialization and mechanization in the societies cause the young people to adopt a nonstop single life way of life. When the organism is inactive during this period of growth; muscle weakness, loss of joint function, growth, growth retardation or excessive weight gain occurs.⁶

In addition, immobility prevents the development of basic skills that are in collaboration with muscle-nerve and it causes the emergence of a young population with passive, self-confidence and asocial personality characteristics.⁷

The concept of ego is a spiritual, social, and partly physical phenomenon that continues to develop until the adulthood, which starts to develop by birth, and which is affected by life events in adulthood and later periods.⁸

The level of self-esteem can help determine the strategies that the child will face of difficulties in school life.^{9,10}

Tiggerman and Williason stated a relationship in their research that 16-year-old 143 women and 109 men (a total of 252 people) there was a positive, correlation between exercise and self esteem for men and a negative correlation for girls there a negative significant.¹¹

Aşçı et al. compared self-concept of 174 male athletes and 174 non-athletes in high school and showed that there were statistically significant differences in athletic competence, social acceptance and physical appearance scores among high school male athletes and non-athletes.¹²

Adolescence causes physical changes and affects the perception of body image and being satisfied with own body. In recent studies conducted with adolescents, it has been found that period is related to perception and self-esteem about bodily

image because behaviors affecting developmental period and effects on body development can affect the self-esteem.¹³⁻¹⁵

In adolescence, sports are important in terms of social development as well as the development of body perception. With the help of sports, it is easier to recognize and communicate with the adolescent environment. Positive developments in these areas can help the adolescents to develop well emotionally and psychological symptoms are less common.^{16,17}

Türkbay et al. carried out a study investigating. The effects of identity confusion on the psychiatric symptoms and self-esteem of adolescents. As a result of this study using the Rosenberg self-esteem scale; adolescents with identity complexity had more frequent psychiatric symptoms and lower self-esteem.¹⁸

The perception of self-efficacy is known as one of the determinants of people's behavior that affect their behavior positively. Self-efficacy beliefs play a key role in shaping life by affecting the environment and activities of the person they want to enter.^{19,20}

Understanding the academic, social, emotional and general self-efficacy of adolescents can contribute positively to self-efficacy and depression, anxiety and negative self-perception.^{21,22} It is thought that individuals with high self-efficacy level can solve any problems they face in life more successfully and their life satisfaction level is high.²³ Individuals with low level of general self-efficacy have a hard time finding solutions to the problems they face.²⁴

Peter et al. conducted a study in UK with participation of 31 students between the ages of 13-18 in 2011, they stated that the students who participated in the activities had higher academic, social and emotional self-efficacy levels than those who did not participate in the physical activities.²⁵

In the study conducted by Bülent, Telef and Rengin, adolescents' academic, social, emotional and general self-efficacy, depression, anxiety, negative self-perception were significantly correlated with the self-efficacy of adolescents. In addition, significant differences were observed in the self-efficacy of adolescents according to gender, age and school success.²⁶

Sports activities are known as the most effective way to develop in the physical, emotional and social development of adolescents, team work, to achieve mutual solidarity, to gain the membership of society and self-esteem necessary for the development of self-esteem.^{27,28}

The most prominent patterns of personality development during adolescence arise in the intellectual, mental, emotional, physiological and social relations and behaviors of young people. With this feature, the development of appropriate sportive activities in the school environment will contribute to the development of adolescents in order to develop their ability to use their positive perceptions and emotional skills related to the individuals who are in search of identity during the transition to adulthood.²⁹

Schools are the institutions that provide the individual with the necessary knowledge, skills and insights through education and have positive contributions to the development of personality. While schools constitute such an important place in the life of the individual, the sport, which is thought to increase the quality of the individual's life, necessitated the examination of the contribution of the students to the development of personality of the students as in-school and out-of-school sports activities. The creation of opportunities for regular sporting activities in the later stages of life through the acquisition of positive experiences related to sports and the motivation resulting from it at school, will contribute greatly to the protection and development of psychological and physical health.³⁰

The school health nurse is defined as the most important person to apply health education to protect and raise children's health at school.³¹ Health promotion in a school setting is defined as any activity that monitors the health of all those who are connected to the school. Individual health skills is defined as the students' knowledge, understanding, skills and experience are appropriate for their age. Through regular sporting activities in schools, adolescents will be aware of their own strengths and weaknesses, competencies and inadequacies and will increase their self-esteem and self-sufficiency. School health nurses will contribute to the development of

self-esteem and self-efficacy by gaining the ability to perform the actions that will lead to the health and well-being of others and their health.^{32,33}

The aim of this study is to examine the effect of sports on self-esteem and self-efficacy of adolescents.

MATERIAL AND METHODS

DESIGN OF RESEARCH

This study was conducted as a cross-sectional and comparative study. In the region where the study is carried out, there are 95 general high schools in total, 31 in the Akdeniz Municipality, 31 in the Toroslar Municipality, 22 in the Municipality of Yenişehir and 13 in the Mezitli Municipality within the borders of the Ministry of National Education.

The study was carried out in 13 high schools (Anatolian-Science high schools) in four different regions (Akdeniz Toroslar, Yenişehir, Mezitli) of Mersin province.

The total number of students enrolled in these schools is 6496. Among these students, the total number of students who are doing sports regularly is 550. The number of the students in a class varies between 22 and 30. There are at least two physical education teachers in each school. There are three physical education teachers in high schools where sportive activities are performed more intensively. In addition to physical education classes in these high schools, the team sports activities (football, basketball, volleyball, boccia, badminton, handball) are done regularly three days a week and it lasts two hours. Students, interested in individual sports (dart, archery, wrestling) are trained under the supervision of physical education teachers in the lesson breaks. It is aimed to reach all of the students who have regular sports from selected high schools.

In the 2013-2014 academic year, 550 students who participated in the second and third grades of high school, engaged in sports and participated in the research voluntarily were selected according to the research selection criteria. Then, to compare the self-esteem and self-efficacy of the students engaged in sports to the comparison group of the study; the stu-

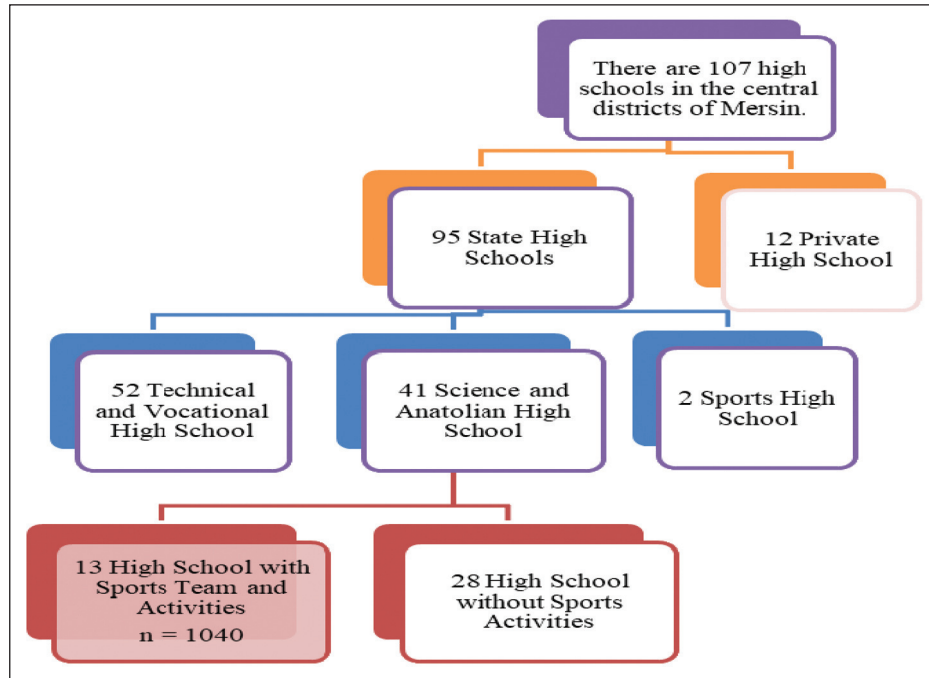


FIGURE 1: Flow Chart of Sampling Selection from Research Universe.

dents who did not participate in the study during the research as much as 550 students (550) who wanted to participate in the study voluntarily were determined by stratified random sampling method. Thus, 1100 adolescents aged 15-17 years were selected for the study group, 550 of them constituted the research group and 550 non-sporting comparison group (Figure 1).

While collecting the research data of the students engaged in sports, 15 students who did not want to participate in the study, 5 students who could not be reached due to absenteeism and 10 students who were surveyed in Mehmet Serttaş Anatolian High School during the pre-application of the research could not be included in the study. Thus, the research group included 520 adolescents. The control group was composed of 520 adolescents.

COLLECTION OF DATA

In order to collect the data of the study, Personal Information Form, General Self-Efficacy Scale developed by Mathias Jerusalem and Ralf Schawazzer to determine self-efficacy of adolescents, and Coopersmith Self-Esteem Inventory were used.³⁴⁻³⁶

PERSONAL INFORMATION FORM

The personal information form, includes introductory features, socio-demographic data and questions about the sports activities in and outside the school.

COOPERSMITH SELF-ESTEEM SCALE

The Coopersmith Self-Esteem Scale was developed by Stanley Coopersmith in 1986.

Analytical studies on the scale revealed that the scale has a versatile heterogeneous structure. In its new form, the scale has the flexibility to measure personal attitudes about the family as well as personal judgments such as being a leader, self-proof, and seeing down. Turan and Tufan made the reliability study conducted by a group of 56 people, 15 days apart in practice correlation of $r=76$ ($p<0.05$) was found.

The original reliability coefficient of the scale was $r = 0.90$, the validity coefficient was $r = 0.55$ and $r = 0.70$ with an interval of 3 years.^{34,35} In the validity study, the Self-Esteem Scale of Coopersmith and the Self-Esteem Scale of Rosenberg were applied to 200 groups and its correlation was found to be $r=0.62$ ($p<0.05$). Coopersmith's Self-Esteem Scale consists of 25 sentences that can be marked as "Like me" or

“Not like me”. These sentences contain statements about the person’s perspective on life, family relationships, social relationships, and stamina. The scores obtained from the scale are multiplied by 4 and are scored between 0-100 points. Higher score indicate high self-esteem. The application time of the scale is 10 minutes.³⁵

SELF-EFFICACY SCALE

The General Self-efficacy Scale was developed by Ralf Schwarzer and Matthias Jerusalem in German in 1979. The scale was designed to make a general assessment of perceived self-efficacy. The validity and reliability study of this scale was conducted in 2010 by Aypay on students. According to Aypay’s work; a alpha internal consistency coefficients for scale components are $\alpha=0.79$ and $\alpha=0.63$. Alpha coefficient calculated in total is 0.83. The test-retest reliability coefficient of the scale is ($r=80$, $p<001$). In line with the results, it is reported that the Turkish version of the scale is valid and reliable. This scale is applied to individuals 11 and older and consists of 10 items.

Each self-efficacy scale score ranging from 1 to 4 are obtained. In personal evaluations, the lowest score obtained from the scale is accepted as 10 and the highest score as 40. The high score obtained from the self-efficacy scale indicates that the self-efficacy level is high. The application time of the scale is 5 minutes.³⁶

EVALUATION OF THE DATA

For statistical analysis of the data, mean and standard deviation were given as descriptive statistics for continuous variables and number and percentage were given as descriptive statistics for categorical variables. Chi-square test was used to investigate the relationship between categorical variables. In order to compare the ratios of the variables determined to be related, the difference between the two means was tested for significance. In the further analysis of variables, covariance (ANCOVA) was performed. The Kruskal-Wallis test was used for nonparametric tests to compare more than two group averages when the assumption of normal distribution was not provided. The statistical significance level (p) was set at 0.05. The correlation between the self-esteem score and the general self-efficacy scores of the adolescents who

did not do sports with the adolescents who did sports did not correlate.

APPLICATION OF SURVEYS

The data of the study was collected between 10.02.2014 and 1.04.2014. The aim of the research was explained to the students by going to the schools where the research data will be collected and the family consent was distributed. Questionnaires and scale questions were obtained to the students who gave family informed consent for a second time. The researcher waited for the questionnaires to be filled (45 min.) and the required explanations were made.

ETHICAL CONSIDERATIONS

The study was carried out in accordance with the Helsinki Declaration principles. Ethics committee approval was obtained, before the data were collected, necessary permissions (approval number: 2013-397) was obtained from Mersin University Clinical Research Ethics Committee and from the Provincial Directorate of National Education of Mersin Governorship prior to the study where the schools to which the study will be applied.

RESULTS

Among the adolescents in the study, 47.7% are females and 52.3% are males. Adolescents in the study group were between the ages of 15-17 and the mean age was 16.26 ± 0.74 years. 40.2% of the adolescents are in the range of 161-170 cm, and 51.3% of their weight is between 56-75 kg. 90.0% of the adolescents live in the city and 84.5% of them come from a nuclear family.

According to the reasons why adolescences do sports, 69.9% of the adolescents want to stay healthy, 68.1% of them to stay away from the harmful habits, 60.6% of them to enjoy the life, 60.2% of them do sports to be fit. Among the reasons for doing sports, respectively; liking sports (55%), playing sports habit (49%), leisure time activity (43.8%), being with friends (29.4%), increasing academic achievement (28.1%) and making new friends (14.6%).

There is a statistically significant relationship between the sports of adolescents who do sports in the

study and gender ($p=0.025$). Among the adolescents who do sports, the rate of male adolescents who do sports (%53.3) is higher than that of female adolescents (%46.6). No statistically significant relationship was found between adolescents who do sports, with regard to family type, and number of siblings.

Table 1 shows the distribution of self-esteem score averages and general self-efficacy score averages of adolescents who do sports and who do not do sports. SEAS of the adolescents included in the study was determined as 74.32 ± 17.51 . The scores of adolescents were 29.70 ± 6.64 . These scores were evaluated in a total of 1040 adolescent who play and who do not play sports. It was noticed that adolescents engaged in sports were higher than Self-Efficacy Score Average (SEAS) (82.8) (65.8) adolescents. Adolescents in adolescents who performed sports in Coopersmith Self-Esteem Scale Average Score (GSEAS) (32.3) were found to be higher than those who did not do sports (27,0) (Table 1).

Table 2 shows the self-esteem point averages of adolescents who do sports and who do not do and the

distribution of general self-efficacy averages according to gender. The self-esteem mean score of the male adolescents (SEAS: 83.4) is higher than the non-sporting (65.4). This is seen in SEAS (SEAS: 82.0, non-sporting SEAS: 66.2). A similar situation was found in the self-efficacy score of the adolescents who engaged in sports (GSEAS) (sports men who do not make GSEAS: 32.5 ± 4.98 . of those who did not do sports: 27.1 ± 6.82). In the statistical evaluation of SEAS and GSEAS performed between male and female adolescents who didn't, the significance test of the difference between the two means (Independent t test) was used. The difference between the groups was significant (Table 2, $p < 0.001$).

Table 3 shows the self-esteem point averages of adolescents who do and do not do sports and the general self-efficacy average scores according to the physical disability. According to the schedule, the adolescents in the group with physical disabilities who do not and do not have SEAS are not significant; The difference between the two groups was significant ($p < 0.001$). At the same time, SEAS (82.9 ± 12.7) of the adolescents with physical disabilities who have

TABLE 1: Distribution of self-esteem score average and general self-efficacy score averages of adolescents who do sports and do not.

	Who Do Sports					Who Do Not Do Sports				
	n	$\bar{X} \pm S$	95% confidence interval	S \bar{X}	Min-max	n	$\bar{X} \pm S$	95% confidence interval	S \bar{X}	Min-max
Self-Esteem Score Average	520	82.8 ± 12.7	81.71-83.90	0.55	20-100	520	65.8 ± 17.53	64.33-67.35	0.7688	16-100
Self-Efficacy Score Averages	520	32.3 ± 5.10	31.91-32.78	0.22	16-40	520	27.0 ± 6.94	26.45-27.64	0.3047	10-40

\bar{X} : Mean Score, S: Standard deviation, S \bar{X} : Standard error Min.: Minimum Score, Max.: Maximum Score.

TABLE 2: Gender distribution of self-esteem score average and general self-efficacy score averages of adolescents who do sports and do not.

Gender	Self-esteem Score Average									Self-efficacy Score Averages								
	Who Do Sports				Who Do Not Do Sports					Who Do Sports				Who Do Not Do Sports				
	n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min-max	t, p	n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min-max	t, p
Male	290	83.4 ± 12.4	0.72	36-100	254	65.4 ± 17.6	1.10	16-100	$t=1.26$ $p < 0.0001$	290	32.5 ± 4.98	0.29	18-40	254	26.9 ± 7.08	0.44	10-40	$t=10.0558$ $p < 0.001$
Female	230	82.0 ± 13.1	0.86	20-100	266	66.2 ± 17.4	1.06	16-100	$t=11.491$ $p < 0.001$	230	32.0 ± 5.24	0.34	16-40	266	27.1 ± 6.82	0.41	10-40	$t=9.062$ $p < 0.0001$
		$t=1.26$ $p=0.20$				$t=-0.0505$ $p=0.614$					$t=1.23$ $p=0.21$				$t=0.236$ $p=0.814$			

\bar{X} : Mean Score, S: Standard deviation, S \bar{X} : Standard error Min.: Minimum Score, Max.: Maximum Score, t: t value, p: p value.

TABLE 3: Distribution of self-esteem score average and general self-efficacy score averages of adolescents who do sports and do not by physical disability.

Physical Disability	Self-esteem Score Average									Self-efficacy Score Averages								
	Who Do Sports				Who Do Not Do Sports				t, p	Who Do Sports				Who Do Not Do Sports				t, p
	n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min-max		n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min-max	
Yes	28	80.1±12.0	2.27	60-100	35	67.0±18.0	3.05	20-92	t= 3.28 p=0.119	28	32.4±4.68	0.88	20-40	35	27.6±6.54	1.10	10-40	t= 3.28 p<0.080
No	492	82.9±12.7	0.57	20-100	485	65.7±17.5	0.79	16-100	t=17.25 p<0.001	492	32.3±5.12	0.23	16-40	485	27.0±6.98	0.31	10-40	t=23.61 p<0.001
t = -1.138 p=0.255				t= 0.433 p=0.665				t= 0.084 p=0.933				t= 0.560 p=0.576						

\bar{X} : Mean Score, S: Standard deviation, S \bar{X} : Standard error, Min.: Minimum Score, Max.: Maximum Score, t: t value, p: p value.

sports disabilities is higher than SEAS (65.7±17.5) of adolescents with physical disabilities. The adolescents with physical disabilities who have sports are overdose of BIPP (32.3±5.12), and those with physical disabilities who have physical disabilities (27.0±6.98). The difference between the groups was statistically significant (p <0.001). When the self-esteem score averages and general self-efficacy scores of the adolescents who do sports and who do not do sports are investigated, the difference between the SEAS and GSEAS is not significant (p > 0.05). At the same time, SEAS (82.8±12.8) of the adolescents who did not have any chronic illness were more than the SEAS (65.8±17.8) of the adolescents who do not have any sports. The adolescents who do not have any chronic illnesses have a higher rate of GSEAS

(32.3±5.11) than those without adolescents who do not. The difference between the statistical analysis was significant (p <0.001).

In Table 4, the self-esteem point averages and general self-efficacy point averages of adolescents who do sports and do not do sports are evaluated. According to this, the difference between SEAS (85.3±12.1) adolescents and adolescents who do not do sports with SEAS (59.5±17.7) were statistically significant (t= 8.25, p <0.001). SEAS (82.3±12.1) and GSEAS (32.2±5.14) in adolescents with protective behaviors of adolescents and adolescents who are in a protective way to the adolescents who do sports are adolescents with SEAS (66.8±16.9) and GSEAS (26.6±6.83). The difference between the groups was statistically significant (p <0.001). The same applies to adolescents who have

TABLE 4: Distribution of self-esteem score average and general self-efficacy score averages of adolescents who do sports and do not by the evaluation of behavior of the family to the adolescent.

Behavior of the family to the adolescent	Self-esteem Score Average									Self-Efficacy Score Averages								
	Who Do Sports				Who Do Not Do Sports				t, p	Who Do Sports				Who Do Not Do Sports				t, p
	n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min-max		n	$\bar{X} \pm S$	S \bar{X}	Min-max	n	$\bar{X} \pm S$	S \bar{X}	Min- Max	
Democratic	190	85.3±12.1	0.88	20-100	111	70.4±16.5	1.56	20-100	t= 8.25 p<0.001	190	32.6±5.006	0.36	20-40	111	28.5±6.95	0.66	10-40	t= 5.97 p<0.001
Authoritarian	72	78.4±13.8	1.63	40-100	91	59.5±17.7	1.85	24-92	t= 7.43 p<0.001	72	31.5±5.34	0.62	16-40	91	27.1±7.09	0.74	10-40	t= 4.30 p<0.001
Guardian	241	82.3±12.1	0.78	36-100	302	66.8±16.9	0.97	16-100	t= 12.37 p<0.001	241	32.2±5.14	0.33	18-40	302	26.6±6.83	0.39	10-40	t= 11.02 p<0.001
Irrelevant	16	78.5±16.1	4.04	40-100	16	50.7±17.1	4.28	20-84	t= 4.70 p<0.058	16	33.6±4.24	1.06	24-40	16	24.5±7.05	1.76	10-36	t= 4.36 p<0.081
F=6.221 P=0.000				F=11.486 p=0.000				F=1.197 P=0.310				F=2.820 p=0.038						

\bar{X} : Mean Score, S: Standard deviation, S \bar{X} : Standard error, Min.: Minimum Score, Max.: Maximum Score, t: t value, F: one-way analysis of variance (anova), p: p value.

TABLE 5: The correlation between self-esteem score average and general self-efficacy score average of adolescents who do and do not sports.

Evaluation Areas	Correlation							
	Who Do Sports				Who Do Not Do Sports			
	Self-esteem Score		Self-efficacy Score		Self-esteem Score		Self-efficacy Score	
	r	p	r	p	r	p	r	p
Self-esteem Score			0.245	<0.001			0.309	<0.0001
Self-efficacy Score	0.245	<0.001			0.309	<0.0001		

p: p value, r: correlation coefficient ($-1 \leq r \leq 1$).

an unrelated behavior to the adolescent who do sports and who do not. According to the table, the difference between SEAS and GSEAS, the adolescents who have an athletic behavior and who do not have an athletic behavior is significant, while the difference between SEAS and GSEAS in adolescents who do not have a sports behavior is not significant ($p > 0.05$).

When the self-esteem score averages and general self-efficacy average scores of adolescents who do and do not do sports are investigated; SEAS (83.5 ± 12.8) among adolescents who were engaged in sports and who were academically successful, were also higher than SEAS (70.9 ± 13.5) among adolescents who did not engage in sports and who were academically successful. In the statistical evaluation, the difference between the groups was significant. At the same time, the difference between GSEAS (32.5 ± 5.00) of adolescents who are sporting and academically successful and GSEAS (28.0 ± 7.28) of adolescents who do not sport and succeed academically is statistically significant ($p < 0.001$). SEAS (81.9 ± 12.5) and GSEAS (32.1 ± 5.24) adolescents who evaluated their academic achievement as having a moderate sports performance, and SEAS (66.0 ± 17.5) among adolescents who evaluated their non-sporting academic achievement as a medium and the difference between GSEAS (26.9 ± 7.02) was statistically significant ($p < 0.001$). Finally, it was found that the difference between SEAS and GSEAS was not significant in the statistical analysis ($p > 0.05$).

The distribution of self-esteem score averages and general self-efficacy averages were evaluated according to the presence of sportsmen in the family. The difference between self-esteem mean scores of adolescents who regularly do sports in their family

and adolescents who do not exercise regularly in their family is statistically significant ($t = 2.302$, $p < 0.022$). At the same time, the difference between self-efficacy average scores of adolescents who do sports regularly and their adolescents were found to be statistically significant ($t = 3.217$, $p < 0.001$). Table 5 shows the correlation between self-esteem and general self-efficacy score averages of adolescents who do sports and do not do sports. Among sports self-esteem points, self-efficacy score was 24.5% weak, strong, linear, and the same (with one increasing and the other with increasing) and statistically significant relationship ($p < 0.001$). Self-esteem score and self-efficacy score of 30.95% were weak, strong, linear, and the same direction (one increased and the other increased) between the self-esteem score and the self-efficacy score ($p < 0.001$).

The self-esteem and self-efficacy score average of boys and girls adolescents who do sports is higher than the self-esteem and self-efficacy score average of boys and girls who do not do sports. As seen in the findings of the research, when adolescents do sports, when examined separately from all kinds of variables, they have important effects on "General Self-Efficacy Scale Average Score" and "Coopersmith Self-Esteem Scale Average Score".

DISCUSSION

The proportion of male adolescents (53.3%) was higher than the female adolescents (46.6%). Saygılı et al., conducted a research on the effect of education on self-esteem in 2015. In study of the Saygılı et al.; Coopersmith self-esteem scale was used. Their sample included adolescents aged 18-23 years. Of these,

41.1% were male and 58.9% were female. 68.8% of males and 31.2% of females in the sample were determined to perform sports.³³ In the same study, it was found that there was a significant relationship between sex and sports. This study conducted with adolescents engaged in sports is in line with the results of the research.³⁷

SEAS (83.4) among the male adolescents engaged in sports is higher than male adolescents (65.4) who do not. The SEAS (82.0) of girls who do sports is higher than girls (66.2) who do not do sports. At the same time, the number of male adolescents who are engaged in sports (32.5) is higher than that of male adolescents (26.9). The number of female adolescents who perform sports is higher than that of GSEAS (32.0), female adolescent (27.1). It was found that there was a positive relationship between sports and self-esteem, and it was determined that doing sports was beneficial in raising self-esteem. According to these results, it can be said that doing sports in adolescents has provided positive self-esteem and self-efficacy.

69.9% of adolescents do sports to keep their health, 68.1% of them stay away from harmful habits, %60.6 of them enjoy sports, 60.2% of them do sports to lose weight and to be fit. Half of the adolescents (55%) stated that they like sports. At the same time, 23.8% of adolescents found positive contributions of sports to health. In this way, adolescents stay away from bad habits and lose weight and have a more positive self image by losing weight. Kirkcaldy et al. in Germany with the participation of 1000 high school students aged 14-18 who do sports and do not; sportsmen have a more positive self image than non-athletes, who have less smoking ($F=5.37$, $p < 0.001$), alcohol and substance use ($F=4.35$, $p < 0.001$), and lower found that they had depression ($F=3.37$, $p < 0.001$) and anxiety scores ($F=2.95$, $p < 0.001$).³⁸ In a study by Morrison et al., it stated about half of the reasons for doing sports during adolescence (51%) as being healthy and losing weight.³⁹ In a study by McVeigh et al., the reasons for sports participation in adolescence include losing weight (63%) and looking athletic.⁴⁰

The physical measurements of the adolescents who do sports were found to be normal (50-75 per-

centile) according to their age compared to WHO growth standards and growth curves. According to the results; adolescents engaged in sports have normal growth.⁴¹ SEAS (3.0 ± 12.6) and GSEAS (32.3 ± 5.14) of adolescents with a nuclear family structure, BSPO (66.0 ± 17.2) and GOYPO (27.0 of adolescents with a nuclear family structure) is higher than 0 ± 6.73). The difference between the groups is statistically significant ($p < 0.001$).

It was found that adolescents (31.7 ± 0.16) who have sports with nuclear family have higher self-esteem scores compared to adolescents without sports (28.4 ± 0.17). These findings support the findings of the study. Similar findings were found in the study of Karaman et al. the self-esteem of adolescents in the 12-14 age group of who did sports and did not do sports.⁴²

SEAS of adolescents with physical disabilities who had sports was higher than those of adolescents who did not do sports. At the same time, GSEAS of the adolescents with physical disabilities who do sports are higher than the adolescents who do not do sports. The difference between the groups was significant. According to research findings, SEAS of adolescents who do not have a chronic illness is more likely than adolescents who do not. At the same time, the adolescents who do not have a chronic illness do not have sports. Coopersmith Self-Esteem Scale Average Score (GSEAS). adolescents who do not do sports do not have more than GSEAS. It can be said that sports and chronic diseases can be seen less.

Exercise and stagnant lifestyle, which cannot be made enough, is one of the most important factors that causes the occurrence of obesity in childhood and adolescence. Regular exercise can create significant differences in the healthy growth and development of adolescents, away from unwanted bad habits, socialization, protection of adults from various chronic diseases, or in improving the quality of life in the treatment of these diseases.^{43,44}

Baltacı et al. stated that positive results were obtained with the aerobic exercise program to be given with low calorie diet in the treatment of obesity in adolescents. Sports and exercise are important habits

for healthy living.⁴⁵ As in the study of Baltacı the fact that adolescents engaged in sports have less chronic diseases, reveals the vital importance of sports. In a study by YUN et al. (2019), it was stated that positive results were obtained with the exercise program in adolescents. It has been shown that from adolescence to late adolescence, it is healthier with sports and exercise. It has been reported that chronic disease of adolescents doing sports is oaz.⁴⁶

CONCLUSION AND RECOMMENDATIONS

The self-esteem and self-efficacy score of the male and female adolescents who performed sports was higher than the self-esteem and self-efficacy score of the male and female non-sports adolescents. Because adolescents like to enjoy sports and their contribution to the health of the sport is positive; in order to do sports a habit in adolescence, appropriate physical conditions should be provided in which sportive and social activities can be done in and around the school.

Because the adolescents who regularly practice sports in their family are higher than the adolescents who do not regularly play sports in the family of General Self-Efficacy Scale Average Score (GSEAS); person who can be role models for adolescents such as parents, relatives and teachers should also be directed to the sports habits.

Because of the increasing rate of doing sports in adolescents with mothers and fathers of high school and university graduates, the inclusion of families in school health education and further efforts should be made to increase their interest in the sport by allocating more detailed time to their adolescents and their families.

In order to inform the family members, teachers and peer groups that will be effective in general self-efficacy and self-esteem of adolescents, training should be provided to increase awareness of the relevant institutions and organizations.

Since SEAS and GSEAS are higher in the adolescents who are engaged in sports are higher than those who do not do sports, it is thought that these adolescents may be more qualified to develop health and take responsibility for their own lives. Since this issue is re-

lated to the areas of school health and child health nurses who are responsible for the development of community health, attempts should be made to improve the health of the adolescents' close circles (peers, family members and individuals with a role model that can influence them) for lifelong life.

Since adolescents who exercise sports in a democratic manner, SEAS and GSEAS are high and statistically significant, nurses dealing with children and adolescents should support them to develop democratic behavior in their work with families. As seen in the findings of the study; when the adolescents are examined separately from all variables, SEAS and GSEAS have important effects in terms of causing better results. This feature of sports revealed how important it is for adolescents to be directed to sports. In this period, directing adolescents to regular sports activities is primarily the task of the families and then the educational institutions. In terms of gaining sports awareness of adolescents, organizations that will carry out free time activities should be disseminated in the immediate surroundings of adolescents and sports environments should be improved in schools.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Emel Yürük Bal, Hacer Çetin; **Design:** Emel Yürük Bal, Hacer Çetin; **Control/Supervision:** Hacer Çetin; **Data Collection and/or Processing:** Emel Yürük Bal, Hacer Çetin; **Analysis and/or Interpretation:** Emel Yürük Bal, Hacer Çetin; **Literature Review:** Emel Yürük Bal, Hacer Çetin; **Writing the Article:** Emel Yürük Bal, Hacer Çetin; **Critical Review:** Emel Yürük Bal, Hacer Çetin; **References and Fundings:** Emel Yürük Bal, Hacer Çetin.

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