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### The Correlation of Participation to Sport, Social Self-efficacy and Social **Anxiety in Adolescents**

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# The Correlation of Participation to Sport, Social Self-efficacy and Social Anxiety in Adolescents

Article Info	Abstract
Article History	Sports participation in adolescents may increase social self-efficacy and decrease
Received: 20 April 2023 Accepted: 10 October 2023	social anxiety with time. Understanding the correlation between social self-efficacy and social anxiety may be useful for developing effective interventions for adolescents with social anxiety. The aim of this study is to examine the relationship between social
	self-efficacy and social anxiety in athlete and non-athlete adolescents through some variables. A moderate negative correlation was determined between the participants' social self-efficacy and social anxiety levels. It was seen that social self-efficacy and
Keywords Sport Social self-efficacy Social anxiety Adolescent	social anxiety levels did not differ statistically according to gender variable. According to the age variable, it was determined that the social self-efficacy level of 16-year-old participants was higher than 15-year-old participants. According to the athletic variable of the study, it was determined that the social self-efficacy level of athlete participants was higher than non-athletes. In the study, it was determined that social anxiety levels did not differ statistically according to athletic status. As a result, it can be said that high social self-efficacy decreases the level of social anxiety in adolescents. Social self-efficacy and social anxiety levels of adolescents do not vary according to gender. While 16 years old participants had higher social self-efficacy than 15 years old participants, their social anxiety levels did not differ according to 15 and 16 years of age. Social self-efficacy of athlete adolescents is higher than non- athletes. In addition, it can be said that there is no statistically significant correlation between participation to sport and social anxiety in adolescents.

#### Turgut Yildirim, Çalik Veli Koçak, Sinem Parlakyildiz

#### Introduction

Sport allows individuals to improve their health and fitness and discover their needs (McMahon et al., 2016). Sport is not only limited to physical activity. It also includes social, psychological and cultural dimensions (Merkel, 2013). Participation in sport has been associated with numerous positive outcomes for adolescents, including psychological and social benefits, improved academic performance, improved general health and better overall quality of life. Participation in sports activities has been linked to psychological and social benefits for children and adolescents, including improved self-esteem, friendship and sense of achievement (Eime et al. 2013). Sport improves the ability to relate and cooperate with people. Sport is a phenomenon that facilitates socialization (Doğan, 2005). Sport is beneficial for people of all ages. However, it can provide higher benefits for adolescents. Sport helps individuals cope with difficulties such as stress and anxiety during adolescence and support their personal development (Rew et al., 2014). Systematic reviews examining the psychological and social benefits of sport participation for adolescents have shown that sport is associated with positive outcomes for adolescents, such as better adjustment, less worry and anxiety, higher energy levels, better body image, and fewer suicide attempts (Eime et al., 2013). In conclusion, the benefits of sport for adolescents are diverse and include physical, psychological and social dimensions. While participation in sport offers numerous advantages for adolescents, it is important that adolescents play sport and explore the benefits associated with sport to ensure that all adolescents have the opportunity to experience the positive outcomes of participating in sport activities.

Adolescence is a very important period in terms of identity development. It is typically defined as the transition phase between childhood and adulthood (Spear, 2000). During this period, individuals undergo significant physical changes (Best & Ban, 2021). Adolescence is the stage of development in which young people face many changes and the influence of their peers. In other words, the environmental experiences in this period, young people urgently need the development of social self-efficacy. Social self-efficacy helps individuals cope with negative peer behaviors and prevent depression and anxiety (Ahmad et al., 2014). The literature suggests that sports participation can significantly contribute to the development of social self-efficacy in adolescents. Building adolescents with high self-efficacy facilitates social independence and creates more assertive young people with an important active role in the social group in which they are immersed (Quiroga-Sánchez et al., 2022). Social self-efficacy has been shown to be a key resource for adolescents' social experiences with peers and a predictor of prosocial behavior among adolescents (Salado et al., 2022). Understanding the scientific aspects of adolescence is crucial for providing appropriate support and interventions to young people during this critical period of development.

Bandura (1977) defined the concept of self-efficacy as an individual's belief in his/her ability to successfully perform certain tasks or behaviours. Social self-efficacy, on the other hand, refers to the individual's belief in their ability to effectively manage social situations, interact with others and achieve desired social outcomes (Bandura, 1978). According to social cognitive theory, individuals with high social self-efficacy are more likely to participate in social interactions, assert themselves and manage social difficulties effectively (Bandura, 1991). In general, social self-efficacy plays an important role in the social functioning and well-being of individuals. It affects how individuals perceive and respond to social situations. It shapes their social interactions and relationships. The literature suggests that sports participation can significantly contribute to the development of social self-efficacy in adolescents with high self-efficacy facilitates social independence and creates more assertive young people with an important active role in the social group in which they are immersed (Velde et al., 2018).

Social anxiety can be defined as the fear and anxiety that individuals are scrutinized and evaluated negatively by others. While social anxiety can negatively affect individuals of all ages, it is stated that individuals in adolescence are more affected (Inglés et al., 2005; Kashdan, 2007). Individuals with high social anxiety may face negative

emotions such as anxiety, shyness, fear, and stress when they are with other people (Ashbaugh et al., 2007). This process involves cognitive, emotional and behavioral processes. It can also be influenced by genetic, environmental and developmental factors. Negative self-beliefs such as fear of negative evaluation and perceived social inadequacy play an important role in maintaining and exacerbating social anxiety symptoms (Hofmann, 2007). Research shows that adolescents with social anxiety have difficulties in communication skills (Akarsu & Demirpençe, 2022). Identifying the scientific causes of social anxiety can lead to the development of effective interventions. In addition, it can support individuals to manage their symptoms of social anxiety and improve their quality of life.

When the studies in the literature on the relationship between sport, social self-efficacy and social anxiety are examined; Eime et al. (2013) concluded that sport participation can lead to a decrease in social anxiety scores over time. Studies investigating the relationship between sport and social self-efficacy (Galarraga et al., 2020; Lei et al., 2020; Rogowska et al., 2022; Yu & Song 2022) show that sport will increase social self-efficacy. It suggests that participation in sport has a positive effect on social self-efficacy, which may help reduce social anxiety. Self-efficacy, which expresses the belief that an individual can succeed in certain situations, has been found to have a strong and direct effect on anxiety levels (Pajares & Miller, 1994). In addition, research has shown that social self-efficacy is negatively related to social anxiety; (Leary & Atherton, 1986; Gaudiano & Herbert's 2006; Thomasson & Psouni 2010; Ulutaş, 2016; Arslan, 2019; Varol, 2020; Kaygas et al., 2023) which means that individuals with high self-efficacy are likely to have lower levels of social anxiety. (Lee & Yeghiazarian, 2021).

In general, the existing literature suggests that there is a negative relationship between social self-efficacy and social anxiety. Participation in sports, especially team sports, may lead to an increase in social self-efficacy and a decrease in social anxiety over time. It is very important to fully understand the mechanisms underlying this relationship and to develop effective interventions for individuals with social anxiety. Although there are studies in the literature that deal with the concepts of social self-efficacy and anxiety separately, there are almost no studies that examine these two different concepts together on athletes. In the literature, there is no research examining the relationship between social self-efficacy and social anxiety in a sample of athlete and non-athlete adolescents. This research is important in terms of its contribution to the literature. The main purpose of this study is to examine the relationship between social self-efficacy and social anxiety in athlete and non-athlete adolescents through some variables.

The research questions to be tested in line with the research aim are as follows:

- Is there a significant relationship between social self-efficacy and social anxiety in athlete and non-athlete adolescents?
- Do social self-efficacy and social anxiety differ significantly according to gender in athlete and nonathlete adolescents?
- Do social self-efficacy and social anxiety differ significantly according to age in athlete and non-athlete adolescents?
- Do social self-efficacy and social anxiety differ significantly in athlete and non-athlete adolescents according to their athletic status?

#### Methods

#### **Research Model**

In this study, the relational survey method, one of the types of quantitative research conducted on a selected sample in order to describe the views or characteristics of a large community on a subject, was used. The relational survey model is a research model that aims to determine the presence and/or degree of change between two or more variables (Karasar, 2019). Exploratory correlational research (Fraenkel & Wallen, 2006), which is used to analyze and understand the relationships between variables, was used in the study. In researches, exploratory correlational model is used in cases where the possible relationship between variables is tried to be analyzed without intervening the variables (Büyüköztürk et al., 2012).

#### Population and Sample / Study Group

For this research sample, 400 participants (female n=200, male n=200) aged 15 and 16, attending high school were reached. Of these participants, 206 had at least 4 years of experience as a licensed athlete in any sport and trained regularly at least 4 days a week. The other 194 participants were those who did not have any athletic experience. The research sample was determined by using convenience sampling (Cohen & Manion, 1998), one of the non-probability sampling methods.

Variables	Categories	Frequency	Percentage %
	Female	200	50%
Gender	Male	200	50%
	Total	400	100%
	15	210	52.5%
Age	16	190	47.5%
	Total	400	100%
	Yes	206	51.5%
Participation to sport	No	194	48.5%
	Total	400	100%

Demographic information of the participants is given in Table 1.

According to Table 1, 50% of the participants are women and 50% are men. It is seen that 52.5% of the participants are 15 years old and 47.5% are 16 years old. While 48.5% of them have licensed sports experience, 51.5% are not athletes.

#### **Data Collection**

The data of the study were obtained by questionnaire method. "Personal Information Form", "Scale of Perceived

Social Self-Efficacy" (PSSE) and "Social Anxiety Scale For Adolescents" (SAS-A) were used as data acquisition tools.

*Personal Information Form:* It was created by the researchers to obtain information about the gender, age and sports participation status of the adolescents participating in the study.

*Scale of Perceived Social Self-Efficacy:* The scale developed by Smith and Betz (2000) was adapted into Turkish by Özbay and Palancı (2001). The scale is 5-point Likert type, consists of 25 items in total and is evaluated as a single dimension.

*Social Anxiety Scale for Adolescents:* It was developed by La Greca and Stone (1993) and adapted into Turkish by Aydın and Tekinsav Sütçü (2007). The scale is 5-point Liker type, SAS-A consists of 22 items divided into 4 subscales: Fear of Negative Evaluation (FNE), General Social Avoidance and Distress (SAD-G) and Social Avoidance and Distress in New Situations (SAD-N).

Cronbach's Alpha values for the internal consistency coefficients of the measurement tools are given in Table 2.

Scale	Dimension	Cronbach's Alfa
Social Self-Efficacy	Total	.89
	Total	.88
<b></b>	FNE	.83
Social Anxiety	SAD-G	.71
	SAD-N	.68

Table 2: Reliability Analysis of Data Collection Tools

According to Table 2, Cronbach's Alpha values of the overall and sub-dimensions of the scales show that they can be used reliably.

#### Data Analysis

SPSS 26 was used for data analysis and significance level was accepted as p<0.01 and p<0.05. The normal distribution of the research data was determined by skewness and kurtosis analyses, histograms and stem-leaf diagrams. Frequency, percentage values, t-Test and Pearson Correlation tests were used in statistical analyses of the data.

The frequency and normality analysis findings of the responses to the scales used in the study are shown in Table 3. According to Table 3, the mean of the responses to the social self-efficacy scale is 3.51. According to these findings, it can be said that the participants have a moderate level of social self-efficacy. The mean of the social anxiety scale is 2.73. Accordingly, it can be said that the participants' social anxiety is also at a moderate level.

Scale	Dimension	n	X	Sd	Med	Min	Max	Skewness	Kurtosis
Social Self-Efficacy	Total	400	3.51	.74	3.60	1.00	5.00	171	453
Social Anxiety	Total	400	2.73	.69	2.93	2.10	5.00	.263	173

Table 3. Frequency, Skewness and Kurtosis Analysis of Data Collection Tools

Skewness and kurtosis analyses were performed to determine the distribution of the research data. In the literature, it is reported that skewness and kurtosis values between +1.5 and -1.5 (Tabachnick, Fidel, & Ullman, 2013) or between +2 and -2 (George & Mallery, 2010) are sufficient for the acceptance of normal distribution of the data. According to Table 3, it was determined that the research data showed normal distribution at the level of scale totals. In addition, it was observed that the histogram and branch and leaf diagrams showed a sequence close to the normal distribution curve and it was accepted that the data set showed normal distribution.

#### Results

In this section, the findings of the statistical procedures performed to determine whether the social self-efficacy and social anxiety levels of the participants differed in terms of different variables are presented.

Pearson Correlation Test was used to examine the relationship between participants' social self-efficacy and social anxiety levels (Table 4).

Variables		PSSE	SAS-A	FNE	SAD-G	SAD-N
	r	1	323**	287**	361**	401**
PSSE	р		.000	.000	.000	.000
	n	400	400	400	400	400
	r	323**	1	.907**	.854**	.851**
SAS-A	р	.000		.000	.000	.000
	n	400	400	400	400	400
	r	287**	.907**	1	.731**	.678**
FNE	р	.000	.000		.000	.000
	n	400	400	400	400	400
	r	361**	.854**	.731**	1	.657**
SAD-G	р	.000	.000	.000		.000
	n	400	400	400	400	400
	r	401**	.851**	.678**	.657**	1
SAD-N	р	.000	.000	.000	.000	
	n	400	400	400	400	400

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

According to Table 4, there is a negative and moderate (r= -.323; p<0.01) relationship between social self-efficacy and social anxiety scale total scores. In addition, it was determined that there was a negative and low level (r= -.287; p<0.01), negative and medium level (r= -.361; p<0.01), and negative and medium level (r= -.401; p<0.01) relationship between social self-efficacy and social anxiety scale FNE sub-dimension, SAD-G dimension, and SAD-N dimension. From this point of view, it can be said that as the participants' social self-efficacy levels decrease, their social anxiety increases.

Independent sample t-test was used to examine the participants' social self-efficacy and social anxiety levels according to gender (Table 5).

Scales	Dimensions	Gender	n	Ā	sd	Std. Err.	t	df	р
PSSE	Total	Female	200	3.571	.717	.050	1.408	398	.160
LOOF	Total	Male	200	3.467	.764	.054	1.408	398	.100
	Total	Female	200	2.674	.725	.051	-1.725	398	.085
		Male	200	2.794	.664	.047	-1.723	570	.085
	FNE	Female	200	2.432	1.014	.071	-1.949	398	.052
SAS-A		Male	200	2.622	.925	.065	-1.949	590	.052
5/15/11	SAD-G	Female	200	2.177	.964	.068	-3.247	398	.001
		Male	200	2.492	.976	.069	-3.247	570	.001
SAD-N	Female	200	2.600	.901	.063	825	398	.410	
	SAD-N	Male	200	2.670	.812	.057	025	590	.+10

Table 5. Examination of Social Self-efficacy and Social Anxiety Level according to Gender

\*p<0.05

According to Table 5, it is seen that the social self-efficacy levels of the participants do not show statistically significant difference according to gender (t=1.408; p=.160).

Likewise, it is seen that social anxiety levels do not show statistically significant difference across the scale according to gender (t=-1.725; p=.085). However, it is seen that male adolescents ( $\bar{X}$ =2.492) have higher levels of fear and uneasiness in general social situations than female adolescents ( $\bar{X}$ =2.177) in the sub-dimension of G-SDKH.

Independent sample t-test was used to examine the participants' social self-efficacy and social anxiety levels according to age (see Table 6). According to Table 6, it is seen that the social self-efficacy levels of the participants show a statistically significant difference according to age (t=-2.199; p=.028). The 16-year-old participants' social self-efficacy levels ( $\bar{X}$ =3.60) were higher than the 15-year-old participants ( $\bar{X}$ =3.438). On the other hand, it is seen that social anxiety levels do not have a statistically significant difference according to age (t=-2.199; p=.028).

Independent sample t-test was used to examine the social self-efficacy and social anxiety levels of the participants according to age (see Table 6).

Scales	Dimensions	Age	n	x	Sd	Std. Err.	t	df	р
PSSE	Total	15	210	3.438	.754	.046	-2.199	398	028
LOOF	10181	16	190	3.600	.722	.052	-2.199	390	.028
		15	210	2.741	.657	.066	.202	398	.840
	Total	16	190	2.727	.736	.071	.202	370	.040
	ENIE	15	210	2.514	.944	.064	271	398	.787
SAS-A	FNE	16	190	2.540	1.006	.073	271		
SAS-A	SAD-G	15	210	2.331	.916	.059	071	398	.943
	SAD-U	16	190	2.338	1.044	.061	071	398	.743
	SAD-N	15	210	2.710	.837	.046	1.743	398	.082
	SAD-N	16	190	2.560	.873	.052	1.743	378	.082

Table 6. Examination of Social Self-efficacy and Social Anxiety Level according to Age

\*p<0.05

According to Table 7, it is seen that the social self-efficacy levels of the participants show a statistically significant difference according to their athletic status (t=2.949; p=.003). Accordingly, social self-efficacy levels of athlete participants ( $\bar{X}$ =3.628) are higher than non-athlete participants ( $\bar{X}$ =3.411). It is seen that the social anxiety levels of the participants do not have a statistically significant difference according to their athletic status (t=.345; p=.730).

Independent sample t-test was used to examine the participants' social self-efficacy and social anxiety levels according to participation to sport (see Table 7).

Scales	Dimensions	Participation to Sport	n	x	Sd	Std. Err.	t	df	р
PSSE		Yes	206	3.628	.758	.053	2.949	398	002
PSSE	Total	No	194	3.411	.711	.050	2.949	398	.003
	Total	Yes	206	2.746	.684	.048	.345	398	720
	Total	No	194	2.722	.711	.050	.545	390	.730
	FNE	Yes	206	2.550	.946	.066	176	208	624
SAS-A		No	194	2.504	1.003	.070	.476	398	.634
SAS-A	SAD-G	Yes	206	2.342	1.014	.071	.153	398	.879
	SAD-G	No	194	2.327	.949	.067	.155	370	.079
	SAD-N	Yes	206	2.569	.845	.059	-1.547	398	122
	SAD-N	No	194	2,701	2,701	2,701	-1.34/	398	.123
*	-0.05								

Table 7. Examination of Social Self-efficacy and Social Anxiety Level according to Participation to Sport

\*p<0.05

#### Discussion

When the research findings were evaluated, a negative moderate relationship was determined between the participants' social self-efficacy and social anxiety levels. This relationship shows that while the level of social self-efficacy increases, the level of social anxiety decreases. When the research results in the literature that are in parallel with the findings of this study are examined, Gaudiano and Herbert (2006) reported that higher levels of negative self-evaluative thoughts were associated with lower ratings of self-efficacy for making a favorable impression, which in turn were predictive of higher levels of subjective anxiety. Yildirim (2020) found a negative correlation between efficacy expectancies and participants' expected social anxiety. This indicates that as efficacy and social anxiety. Again Ulutaş (2016), Varol (2020), and Kaygas et al. (2023) stated that social anxiety is low in adolescents with high social self-efficacy. Leary and Atherton (1986), Thomasson and Psouni (2010), Arslan (2019) also found a significant relationship between social self-efficacy and social anxiety increases.

It was seen that social self-efficacy levels did not differ statistically in the scale totals according to the gender variable of the research. Raza et al. (2022) indicated that the present research results were consistent with those of previous studies, which also found no statistically significant gender differences in self-efficacy. Çalışkan (2023), in his study titled "Investigation of the Relationship between High School Students' Self-Efficacy Levels and Problem-Solving Skills and Perceived Social Support" and Cicognani (2011), Salado (2022) found that there was no significant change according to gender in support of the findings of this research. On the other hand, in the literature, Coleman, 2003; Gaspar, 2018, there are studies in which statistically significant differences were obtained in the scale totals of social self-efficacy and social anxiety levels according to gender variable.

It was seen that social anxiety levels did not differ statistically in the scale totals according to the gender variable of the research. Alruwaili et al. (2018) reported that there was no significance between those with and without social anxiety based on gender. Şar (2018) reported that there was no statistically significant difference between gender and social appearance anxiety levels of university students. Suryaningrum (2021) indicated that sex differences did not affect the level of social anxiety, suggesting that gender did not significantly impact social anxiety levels. Çetin and Ece (2021) found that there was no statistically significant difference according to gender in social appearance anxiety levels among university students. Lowe (2014) reported that there was no statistically significant difference according to gender in social anxiety levels, indicating that gender did not significantly impact social impact social anxiety. In conclusion, the evidence from these references supports assertion that there were no statistically significant differences in social anxiety levels according to the gender variable in the research. On the other hand, there are studies that do not support the results we have obtained (Asher & Aderka, 2018; Koçak & Çakır, 2020).

According to the age variable of the study, it was determined that the social self-efficacy level of 16-year-old participants was higher than 15-year-old participants. According to the research results that are in parallel with

the findings of our research, Caprara et al. (2006), Ren et al. (2020), Salado et al. (2022) have shown that social self-efficacy levels may vary among adolescents depending on age. In the study, it was determined that social anxiety levels did not differ statistically according to age variable. When the research results in the literature that are in parallel with the findings of this research are examined, Koçak and Çakır, (2020) and Ranta et al. (2012) found that social anxiety levels did not differ statistically according to age variable. This shows that social anxiety levels do not differ according to age variable.

According to the participation to sport variable of the study, it was determined that the social self-efficacy level of the athlete participants was higher than the non-athlete participants. Reverdito et al. (2017) reported that in school contexts, youngsters participating in extracurricular sports scored higher in self-efficacy than their peers participating in other organized activities programs or with no participation in these activities. Hikihara et al. (2018) found that participation in organized sports clubs positively influenced self-efficacy, indicating that engagement in sports activities can enhance self-efficacy levels. Jones et al. (2023) conducted a study on 375 adolescents. In the study, it was found that adolescents who regularly do sports have higher levels of social self-efficacy than adolescents who do not do sports. In addition, Ren et al. (2020) and Dağ (2022) reached similar results with this study. These findings emphasize the importance of considering the role of sport participation in increasing social self-efficacy.

In the study, it was determined that social anxiety levels did not differ statistically according to sports participation status. Koçak and Çakır (2020), in their research examining the relationship between sports, social anxiety and school burnout in adolescents, concluded that there is no relationship between athletic and social anxiety. Eime et al. (2013) conducted a study that measured the effects of extracurricular participation in sports on social anxiety. The findings did not show a statistically significant difference in social anxiety levels based on sports participation status. McMahon et al. (2016) reported that more frequent physical activity and participation in sports were found to independently contribute to greater well-being and lower levels of anxiety and depressive symptoms in both sexes. This suggests that sports participation did not significantly impact anxiety levels. Ouyang et al. (2020) indicated that the mediating effect of self-efficacy and self-esteem on body image and sports participation was established, and self-esteem was the key factor related to anxiety levels. On the other hand, Ford et al. (2017) and Sultan (2022) concluded in their research on adolescents that athletes have less anxiety and anxiety about social situations than non-athletes.

#### Conclusions

Considering the findings of this study and the literature, it can be concluded that high social self-efficacy reduces the level of social anxiety in adolescents. Social self-efficacy and social anxiety levels of adolescents do not vary according to gender. While 16-year-old participants had higher social self-efficacy than 15-year-old participants, their social anxiety levels did not differ according to 15 and 16 years of age. Social self-efficacy of athlete adolescents is higher than non-athletes. In addition, it can be said that there is no statistically significant relationship between athletic and social anxiety in adolescents.

Considering the results of the study, social anxiety can be reduced by increasing the level of social self-efficacy in adolescents. It should be ensured to increase the level of social self-efficacy in adolescents who are younger and not athletes. In this way, social anxiety levels can also be reduced indirectly. The most important limitation of the study was that the data were obtained from a single city. In line with this limitation, new studies can be conducted with different variables in a universe and sample where the results can be generalized to a wider population.

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