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ORIGINAL RESEARCH

Investigating the relationship between social media addiction and fair play behaviors among middle school students

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Abstract. The aim of this study is to examine the relationship between social media addiction and fair play behaviors among middle school students. The research population consists of students studying in schools affiliated with the Ministry of National Education during the 2023–2024 academic year, and the sample includes 686 volunteer middle school students (357 female, 329 male) in the province of Batman. A quantitative survey design was employed in the study. Data were collected using a personal information form, the "Social Media Addiction Scale for Adolescents" developed by Özgenel et al. (2019), and the "Frequency of Exhibiting Fair Play Behaviors Scale," originally developed by Efe (2006) and updated by Temel et al. (2021) in accordance with the current curriculum. Descriptive statistics such as arithmetic mean, standard deviation, frequency, and percentage distributions were analyzed. Normality tests indicated that the data were normally distributed. Accordingly, independent samples t-tests were applied for binary comparisons, and one-way ANOVA was used for comparisons involving three or more groups. Depending on variance homogeneity, Tamhane's or Scheffe's tests were utilized as Post-Hoc procedures. Additionally, correlation and regression analyses were performed to investigate relational patterns. The analysis results revealed a significant difference in social media addiction levels according to gender, with male students showing higher scores. No significant differences were identified based on grade level, parental education, type of sport, or the presence of an athlete license. For fair play behaviors, significant differences emerged according to gender, grade level, sport type, and athlete license variables. Although parental education level showed no significant difference in total fair play scores, significant differences were found in the negative behavior and rival sub-dimensions. Correlation results showed no significant relationship between social media addiction and fair play behaviors. Overall, middle school students demonstrated low levels of social media addiction and moderate levels of fair play behavior.

Introduction

Sport is recognized today as an educational tool and is widely utilized by various segments of society. To enhance the long-standing effectiveness of sports throughout history, it is essential to adhere to sports ethics, philosophical principles, and established norms (Şahin, 1998). As the popularity of sports has increased, the desire to win has become more pronounced. When the urge to win overshadows everything else, athletes and those involved in sports may be driven toward unethical behaviors, which leads to a deviation from the true essence of sports (Sezen & Yıldıran, 2007). Fair Play, as a concept, is crucial in maintaining the integrity of sports and ensuring that the competitive spirit does not compromise ethical standards (Donuk & Şenduran, 2006). It has been considered in three main aspects. The first refers to "good play." The second describes "the mindset and behavior appropriate for an athlete to demonstrate good play." Finally, it is defined as "the set of behaviors and attitudes that participants must uphold for good play to emerge." Fair play is a way of life that naturally evolves as an integral part of sports (Donuk & Şenduran, 2006). Fair play requires athletes to adhere to the norms of the game with patience, consistency, and awareness, even under challenging conditions. Furthermore, athletes must reject unfair advantages and refrain from exploiting opponents' unfavorable situations. One

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of the key aspects of fair play is recognizing opponents not as enemies but as individuals with equal rights. This approach encourages athletes to adopt and practice ethical values in sports (Yıldıran, 2004).

In recent years, the rise of social media has transformed communication and interaction, particularly among youth (Kaplan & Haenlein, 2010). Social media is a set of applications that enable users to create content and share it with others (Kaplan & Haenlein, 2010). Individuals can create their own profiles on these platforms, post texts, photos, and similar content, and interact with others' posts (Aichner et al., 2021). However, social media addiction can be defined as excessive time spent on social media, an uncontrollable urge to use it, overuse of these platforms, and the deterioration of interpersonal relationships to the point where individuals feel unable to live without the internet (Hou et al., 2019; Özgenel et al., 2019). The rise in social media addiction has shown negative effects in various areas. Excessive social media use can harm individuals' interpersonal relationships, personal and social lives, as well as their mental and physical health. The inability to disconnect from social media and the fear of missing out on current events lead to disruptions in both individual and social life (Öztürk et al., 2007; Bilgin, 2018).

Given the potential influence of social media on athletes' behaviors, it is essential to explore how social media addiction may impact fair play principles (Sato, 2006). While the internet has facilitated various aspects of life, uncontrolled usage has led to physical problems and social relationship issues (Sato, 2006). Studies indicate that excessive internet users experience difficulties in interpersonal relationships, with their social interactions gradually declining (Welsh, 1999). Young (2004) identified adolescents as the highest-risk group for internet addiction. Excessive use, particularly among school-aged youth, negatively impacts their physical and mental development, disrupts social relationships, and lowers academic performance.

This study is significant as it not only examines the social media addiction levels of middle school students but also evaluates the extent to which they apply fair play principles in their sports activities and investigates whether social media addiction influences these behaviors (Cengizhan, 2003). Scientifically analyzing the relationship between social media addiction levels and fair play behaviors among middle school students, who are considered a high-risk group, is expected to provide positive contributions to the resolution of social and psychological issues. The research aims to answer the following questions: What is the level of social media addiction among middle school students? How do these students demonstrate fair play behaviors in sports? Is there a significant relationship between social media addiction and fair play behaviors? By addressing these questions, this study seeks to clarify the connection between social media usage and ethical sports conduct, thereby contributing to the existing literature on sports ethics and youth behavior.

Method

Research Model

In the study designed using a quantitative method, the survey pattern was employed. These are research approaches that aim to describe a past or present situation as it is. The individuals or objects studied are defined within their own conditions and in their natural state. The goal is not to alter or influence variables in any way. In a universe composed of a large number of elements, survey studies are conducted on either the entire population or a sample group drawn from it, to reach general conclusions about the population (Karasar, 2012).

Population and Sample

The study population consists of students continuing their education in middle schools affiliated with the Ministry of National Education during the 2023-2024 academic year. The sample group includes 686 students—357 female and 329 male—selected using the convenient sampling method from middle school students enrolled in public schools in Batman province during the same academic year.

Data Collection Tools

In the study, three forms were used as data collection tools: a personal information form, the Social Media Addiction Scale for Adolescents, and the Fair Play Behavior Frequency Scale. A questionnaire was administered to participants who voluntarily joined the research to gather information about their gender, age, grade level, mother's education level, father's education level, type of sport they practice, and whether they hold a license in any sport discipline.

The Social Media Addiction Scale for Adolescents (SMASA) was developed by Özgenel and colleagues in 2019 based on APA DSM-5 criteria. The scale is structured using a five-point Likert rating system. Its Cronbach's alpha reliability coefficient has been calculated as 0.904, indicating high internal consistency. There are no reverse-scored items in the scale. Since the scale consists of nine items, a participant can obtain a minimum score of 9 and a maximum score of 45. The total score is calculated by summing the responses to all items. Additionally, the arithmetic mean can be determined by dividing the total score by the number of items. A higher total score or arithmetic mean signifies a higher level of social media addiction, whereas a lower score indicates a lower level of addiction.

A validity and reliability study was conducted by Temel et al. In 2021 to test the suitability of the items in the 29-item Fair Play Behavior Frequency Scale developed by Efe (2006) for today's curriculum. The scale consists of 4 sub-dimensions and 14 items. The team sub-dimension includes items 1-2, the audience sub-dimension includes items 3-4, the negative behavior sub-dimension includes items 5-10, and the opponent sub-dimension includes items 11-14. Cronbach Alpha (α) internal consistency coefficients were calculated as .61 for the whole scale, and as .65 for team, .65 for audience, .65 for negative behavior, .66 for opponent, .71 for the sub-dimensions. The overall scale and all sub-dimensions have an accepted level of reliability. The score that can be obtained from the scale varies between 14 and 42 points. The scale (items 5-10) is reverse coded.

Data Analysis

SPSS 27.0 package programs were used in the analysis of the data. In order to test the normality of the distribution of the data, parametric tests should be performed when the skewness and kurtosis values of the obtained data are within the range of ±1.5 (Büyüköztürk et al., 2008). After determining that the data were normally distributed, standard deviation, arithmetic mean, frequency and percentage distributions were examined for the descriptive statistics of the students. Levene Test was applied to look at the homogeneity status in the analysis of the data. T test for independent samples was used in the analysis of paired groups, one-way analysis of variance (ANOVA) was used in the comparative analysis of three or more groups; Tamhane's and Scheffe tests from Post-Hoc tests were used according to the homogeneity status to determine the differences. The confidence level was accepted as 0.05 in the statistical operations to be performed. Correlation and regression analyses were applied for relational analyses.

Findings

Table 1. Frequency and percentage distributions related to the demographic characteristics of students.

Variables	Groups	n	%
Gender	Female	357	52.0
	Male	329	48.0
Grade level	5th grade	173	25.2
	6th grade	177	25.8
	7th grade	165	24.1
	8th grade	171	24.9
Mother's educational level	Primary school	224	32.7
	Middle school	217	31.6
	High school	135	19.7
	University and higher education	110	16.0
Father's educational level	Primary school	97	14.1
	Middle school	168	24.5
	High school	236	34.4
	University and higher education	185	27.0
What type of sports do you do?	Individual	169	24.6
	Team	392	57.1
	I don't do sports.	125	18.2
Do you have a license in any sport?	Yes	192	28.0
	No	494	72.0
	Total	686	100

Table 2. Distribution of the mean scores obtained by participating students from scales and sub-dimensions.

Scales and Sub-Dimensions	N	x̄	sd
Total score of the social media addiction scale for adolescents	686	2.18	0.75
Total score of the fair play behavior frequency scale	686	3.18	0.48
Team sub-dimension of the fair play behavior frequency scale	686	4.36	0.95
Spectator sub-dimension of the fair play behavior frequency scale	686	3.34	1.31
Negative behavior sub-dimension of the fair play behavior frequency scale	686	3.73	0.79
Opponent sub-dimension of the fair play behavior frequency scale	686	3.86	1.10

Table 3. T-test results regarding significant differences in students' EİSMBÖ, FPDSSÖ, and FPDSSÖ sub-dimensions based on gender.

Scales and Sub-Dimensions	Gender	n	x̄	sd	T	df	p
Social Media Addiction Scale for Adolescents (SMASA)	Female	357	2.12	0.72	-2.29	684	0.02*
	Male	329	2.25	0.78			
Frequency of Fair Play Behavior Scale (FFPBS)	Female	357	3.14	0.45	-1.95	684	0.05*
	Male	329	3.21	0.52			
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	Female	357	4.38	0.95	-0.62	684	0.54
	Male	329	4.33	0.96			
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	Female	357	3.37	1.34	0.70	684	0.49
	Male	329	3.30	1.29			
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	Female	357	3.85	0.73	4.33	684	0.00*
	Male	329	3.60	0.82			
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	Female	357	3.90	1.03	0.97	684	0.33
	Male	329	3.82	1.07			

*(p<0,05)

Table 4. T-test results regarding significant differences in students' SMASA, FFPBS, and FFPBS sub-dimensions based on the variable of whether they hold a license in any sport.

Scales and Sub-Dimensions	Do you have a license in any sport?	n	x̄	sd	T	df	p
Social Media Addiction Scale for Adolescents (SMASA)	Yes	192	2.24	0.77	1.22	684	0.23
	No	494	2.16	0.75			
Frequency of Fair Play Behavior Scale (FFPBS)	Yes	192	3.27	0.47	3.37	684	0.00*
	No	494	3.14	0.48			
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	Yes	192	4.48	0.88	2.11	684	0.02*
	No	494	4.31	0.98			
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	Yes	192	3.54	1.31	2.53	684	0.01*
	No	494	3.26	1.31			
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	Yes	192	3.69	0.81	-0.94	684	0.36
	No	494	3.75	0.78			
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	Yes	192	3.98	1.00	1.83	684	0.06
	No	494	3.82	1.07			

*(p<0.05)

Table 5. One-Way ANOVA results regarding significant differences in participants' SMASA, FFPBS, and FFPBS sub-dimensions based on their grade level.

Scales and Sub-Dimensions	Grade Level	n	x̄	sd	Levene Test		F	p	Tamhane
					Statistics	p			
Social Media Addiction Scale for Adolescents (SMASA)	5th grade(1)	173	2.18	0.75	0.45	0.72	2.10	0.09	-
	6th grade(2)	177	2.11	0.73					
	7th grade(3)	165	2.14	0.78					
	8th grade(4)	171	2.30	0.75					
Frequency of Fair Play Behavior Scale (FFPBS)	5th grade(1)	173	3.10	0.44	0.48	0.70	3.78	0.01*	1-4
	6th grade(2)	177	3.16	0.49					
	7th grade(3)	165	3.18	0.50					
	8th grade(4)	171	3.27	0.50					
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	5th grade(1)	173	4.27	0.91	0.60	0.61	0.93	0.43	-
	6th grade(2)	177	4.34	0.99					
	7th grade(3)	165	4.41	0.97					
	8th grade(4)	171	4.42	0.94					
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	5th grade(1)	173	3.05	1.26	1.68	0.17	5.06	0.00*	1-4
	6th grade(2)	177	3.41	1.37					
	7th grade(3)	165	3.32	1.33					
	8th grade(4)	171	3.58	1.25					
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	5th grade(1)	173	3.72	0.77	0.89	0.45	0.32	0.81	-
	6th grade(2)	177	3.78	0.80					
	7th grade(3)	165	3.73	0.79					
	8th grade(4)	171	3.70	0.79					
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	5th grade(1)	173	3.76	1.05	2.31	0.08	1.41	0.23	-
	6th grade(2)	177	3.87	1.04					
	7th grade(3)	165	3.84	1.10					
	8th grade(4)	171	3.99	1.01					

*(p<0.05)

Table 6. One-Way ANOVA results regarding significant differences in students' SMASA, FFPBS, and FFPBS sub-dimensions based on their mothers' education level.

Scales and Sub-Dimensions	Mothers' education level	n	x̄	sd	Levene Test Statistics	Levene Test p	F	p	Tamhane Scheffe
Social Media Addiction Scale for Adolescents (SMASA)	Primary school(1)	224	2.17	0.76	0.53	0.66	1.05	0.37	-
	Middle school(2)	217	2.23	0.73					
	High school(3)	135	2.22	0.75					
	Uni. And higher edu.(4)	110	2.08	0.78					
Frequency of Fair Play Behavior Scale (FFPBS)	Primary school(1)	224	3.16	0.46	1.83	0.14	0.96	0.41	-
	Middle school(2)	217	3.14	0.52					
	High school(3)	135	3.22	0.43					
	Uni. And higher edu.(4)	110	3.21	0.50					
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	Primary school(1)	224	4.31	1.01	5.35	0.00	2.40	0.07	-
	Middle school(2)	217	4.27	1.04					
	High school(3)	135	4.40	0.79					
	Uni. And higher edu.(4)	110	4.55	0.81					
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	Primary school(1)	224	3.32	1.29	3.06	0.03	1.58	0.19	-
	Middle school(2)	217	3.23	1.38					
	High school(3)	135	3.38	1.17					
	Uni. And higher edu.(4)	110	3.55	1.38					
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	Primary school(1)	224	3.73	0.86	3.18	0.02	2.76	0.04*	2-4
	Middle school(2)	217	3.64	0.79					
	High school(3)	135	3.74	0.72					
	Uni. And higher edu.(4)	110	3.91	0.66					
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	Primary school(1)	224	3.85	1.06	3.33	0.07	3.27	0.02*	2-4
	Middle school(2)	217	3.71	1.07					
	High school(3)	135	3.99	0.94					
	Uni. And higher edu.(4)	110	4.04	1.09					

*(p<0.05)

Table 7. One-Way ANOVA results regarding significant differences in students' SMASA, FFPBS, and FFPBS sub-dimensions based on their fathers' education level.

Scales and Sub-Dimensions	Fathers' education level	n	x̄	sd	Levene Test Statistics	Levene Test p	F	p	Scheffe
Social Media Addiction Scale for Adolescents (SMASA)	Primary school(1)	97	2.27	0.79	0.34	0.80	0.91	0.44	-
	Middle school(2)	168	2.21	0.74					
	High school(3)	236	2.18	0.74					
	Uni. And higher edu.(4)	185	2.12	0.77					
Frequency of Fair Play Behavior Scale (FFPBS)	Primary school(1)	97	3.14	0.46	0.44	0.73	0.45	0.72	-
	Middle school(2)	168	3.20	0.48					
	High school(3)	236	3.16	0.48					
	Uni. And higher edu.(4)	185	3.19	0.50					
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	Primary school(1)	97	4.00	1.21	4.87	0.00	6.24	0.00*	1-3 1-4
	Middle school(2)	168	4.34	0.92					
	High school(3)	236	4.41	0.90					
	Uni. And higher edu.(4)	185	4.50	0.86					
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	Primary school(1)	97	3.12	1.28	0.37	0.78	1.78	0.15	-
	Middle school(2)	168	3.50	1.34					
	High school(3)	236	3.31	1.32					
	Uni. And higher edu.(4)	185	3.34	1.30					
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	Primary school(1)	97	3.63	0.80	2.58	0.05	3.36	0.06	-
	Middle school(2)	168	3.60	0.89					
	High school(3)	236	3.81	0.76					
	Uni. And higher edu.(4)	185	3.80	0.70					
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	Primary school(1)	97	3.86	1.01	1.97	0.12	2.53	0.07	-
	Middle school(2)	168	3.68	1.12					
	High school(3)	236	3.93	1.01					
	Uni. And higher edu.(4)	185	3.95	1.04					

*(p<0.05)

Table 8. One-Way ANOVA results regarding significant differences in students' SMASA, FFPBS, and FFPBS sub-dimensions based on the type of sport they participate in.

Scales and Sub-Dimensions	Type of sport	n	x̄	sd	Levene Test		F	p	Tamhane Scheffe
					Statistics	p			
Social Media Addiction Scale for Adolescents (SMASA)	Individual(1)	169	2.11	0.71	1.37	0.25	2.22	0.11	-
	Team(2)	392	2.18	0.75					
	No sports(3)	125	2.30	0.81					
Frequency of Fair Play Behavior Scale (FFPBS)	Individual(1)	169	3.11	0.47	0.03	0.97	11.91	0.00*	1-2 2-3
	Team(2)	392	3.25	0.48					
	No sports(3)	125	3.03	0.48					
Frequency of Fair Play Behavior Scale – Team Sub-Dimension	Individual(1)	169	4.40	0.87	22.93	0.00	14.00	0.00*	1-3 2-3
	Team(2)	392	4.47	0.83					
	No sports(3)	125	3.96	1.28					
Frequency of Fair Play Behavior Scale – Spectator Sub-Dimension	Individual(1)	169	3.27	1.32	0.07	0.93	2.31	0.10	-
	Team(2)	392	3.43	1.29					
	No sports(3)	125	3.16	1.38					
Frequency of Fair Play Behavior Scale – Negative Behavior Sub-Dimension	Individual(1)	169	3.84	0.75	0.05	0.95	3.22	0.04*	1-2
	Team(2)	392	3.67	0.80					
	No sports(3)	125	3.78	0.79					
Frequency of Fair Play Behavior Scale – Opponent Sub-Dimension	Individual(1)	169	3.83	1.02	2.76	0.06	1.93	0.15	-
	Team(2)	392	3.92	1.03					
	No sports(3)	125	3.72	1.15					

*(p<0.05)

Table 9. Correlation test results showing the relationship between social media addiction and the frequency of exhibiting fair play behavior.

Variable	F1	F2	F3	F4	FFPBS TS	SMASA
Team (F1)	1					
Spectator (F2)	0.316*	1				
Negative Behavior (F3)	0.168*	0.118*	1			
Opponent (F4)	0.310*	0.373*	0.379*	1		
FFPBS Total Score (Frequency of Fair Play Behavior Scale)	0.479*	0.627*	-0.369*	0.588*	1	
SMASA (Social Media Addiction Scale for Adolescents)	-0.148*	-0.124*	-0.408*	-0.225*	0.055	1

*The correlation is significant at the p<0.01 level.

When Table 1 is examined, it is seen that 52% (n=357) of the students are female and 48% (n=329) are male, according to the gender variable. Regarding the grade level variable, 25.2% (n=173) of the participants are 5th-grade students, 25.8% (n=177) are in 6th grade, 24.1% (n=165) are in 7th grade, and 24.9% (n=171) are in 8th grade. According to the mother's educational level, 32.7% (n=224) are primary school graduates, 31.6% (n=217) middle school, 19.7% (n=135) high school, and 16% (n=110) are university graduates or above. Based on the father's educational level, 14.1% (n=97) are primary school graduates, 24.5% (n=168) middle school, 34.4% (n=236) high school, and 27% (n=185) university graduates or higher. According to the variable "What type of sport do you do?", 24.6% (n=169) reported individual sports, 57.1% (n=392) team sports, and 18.2% (n=125) reported not participating in any sports. Regarding the variable "Do you have a license in any sport?", 28% (n=192) answered yes, while 72% (n=494) answered no.

When Table 2 is examined, it is observed that students scored at a low level on the EISMBO scale, with a mean score of x̄=2.18, whereas their mean score on the FPDSSO scale was x̄=3.18, indicating a moderate level. Looking at the sub-dimensions of the FPDSSO administered to students, the "spectator" sub-dimension had a moderate mean score of x̄=3.34. It was observed that the students' mean scores in the "team," "spectator," and "negative behavior" sub-dimensions were at a high level, with the highest mean score among the FPDSSO sub-dimensions found in the "team" sub-dimension (x̄=4.36).

When Table 3 is examined, the analysis of whether there is a significant difference in the total mean scores of the Social Media Addiction Scale for Adolescents (SMASA) based on students' gender reveals that there is a statistically significant difference according to the gender variable (t=-2.29, p=0.02, p<0.05). This significant difference is due to the fact that male students' mean total scores on the SMASA (x̄=2.25) are higher than those of female students (x̄=2.12). Regarding the mean total scores of the Frequency of Fair Play Behavior Scale (FFPBS), it was found that there is also a statistically significant difference based on gender (t=-1.95, p=0.05, p<0.05). This difference is attributed to male students having higher mean total scores (x̄=3.21) compared to female students (x̄=3.14).

In the Negative Behavior sub-dimension of the FFPBS, a statistically significant difference was observed according to the gender variable (t=4.33, p=0.00, p<0.05). This difference is due to female students having higher mean scores ($\bar{x}$=3.85) than male students ($\bar{x}$=3.60). However, no statistically significant gender-based differences were found in the Team (t=0.62, p=0.54, p>0.05), Spectator (t=0.70, p=0.49, p>0.05), and Opponent (t=0.97, p=0.33, p>0.05) sub-dimensions of the FFPBS.

When Table 4 is examined, no statistically significant difference was found in students' total mean scores on the Social Media Addiction Scale for Adolescents (SMASA) based on whether they answered yes or no to holding a license in any sport (t=1.22, p=0.23, p>0.05). However, when considering the total mean scores of the Frequency of Fair Play Behavior Scale (FFPBS), a statistically significant difference was found based on this variable (t=3.37, p=0.00, p<0.05). This significant difference stems from students who answered yes having higher total mean scores ($\bar{x}$=3.27) than those who answered no ($\bar{x}$=3.14). In the Team sub-dimension of the FFPBS, a significant difference was also identified (t=2.11, p=0.02, p<0.05) based on whether students held a license in any sport. This difference is due to students who answered yes having higher mean scores ($\bar{x}$=4.48) than those who answered no ($\bar{x}$=4.31). Similarly, a statistically significant difference was found in the Spectator sub-dimension (t=2.53, p=0.01, p<0.05), with students who answered yes having a higher mean score ($\bar{x}$=3.54) compared to those who answered no ($\bar{x}$=3.26). However, no statistically significant differences were found in the Negative Behavior sub-dimension (t=-0.94, p=0.36, p>0.05) or the Opponent sub-dimension (t=1.83, p=0.06, p>0.05) based on the variable of holding a license in any sport.

When Table 5 is examined, no statistically significant difference was found in students' SMASA mean scores based on their grade level (F=2.10, p=0.09, p>0.05). However, the analysis of FFPBS mean scores revealed a statistically significant difference across grade levels (F=3.78, p=0.01, p<0.05,). Due to the lack of homogeneity of variances, a Tamhane's T2 post hoc test was conducted to determine the source of the difference. The results showed a significant difference between 5th-grade students (Group 1) and 8th-grade students (Group 4), where 5th-grade students ($\bar{x}$=3.10) had lower FFPBS scores compared to 8th-grade students ($\bar{x}$=3.27). Regarding the Team sub-dimension of FFPBS, no significant difference was found based on grade level (F=0.93, p=0.43, p>0.05). However, a statistically significant difference was found in the Spectator sub-dimension (F=5.06, p=0.00, p<0.05). Again, a Tamhane's T2 test was performed due to variance heterogeneity, and it was found that students in 5th grade (Group 1) and those in 8th grade (Group 4) differed significantly. The mean score of 5th-grade students ($\bar{x}$=3.05) in this sub-dimension was lower than that of 8th-grade students ($\bar{x}$=3.58). No statistically significant differences were found in the Negative Behavior sub-dimension (F=0.32, p=0.81, p>0.05) or the Opponent sub-dimension (F=1.41, p=0.23, p>0.05) of the FFPBS based on grade level.

When Table 6 is examined, no statistically significant difference was found in students' SMASA mean scores based on their mothers' education level (F=1.05, p=0.37, p>0.05). Similarly, no significant difference was detected in students' FFPBS mean scores according to the same variable (F=0.96, p=0.41, p>0.05). Furthermore, there were no significant differences in the mean scores for the Team sub-dimension (F=2.40, p=0.07, p>0.05) and the Spectator sub-dimension (F=1.58, p=0.19, p>0.05) of the FFPBS based on mothers' education level. However, a statistically significant difference was found in the Negative Behavior sub-dimension of the FFPBS (F=2.76, p=0.04, p<0.05). Since the variances were homogeneous, the Scheffé test was conducted to identify the source of the difference. According to the Scheffé test results, a significant difference was observed between students whose mothers had a "middle school" education (Group 2) and those whose mothers had a "university or higher" education (Group 4). The mean score of students whose mothers had a middle school education ($\bar{x}$=3.64) was lower than those whose mothers had a university or higher education ($\bar{x}$=3.91). In addition, a statistically significant difference was found in the Opponent sub-dimension of the FFPBS based on mothers' education level (F=3.27, p=0.02, p<0.05). Due to the lack of variance homogeneity, the Tamhane's T2 test was applied. According to the Tamhane's T2 test results, a significant difference was identified between students whose mothers had a middle school education (Group 2) and those whose mothers had a university or higher education (Group 4).

The students in the middle school group had lower mean scores ($\bar{x}$=3.71) in this sub-dimension compared to those in the university or higher group ($\bar{x}$=4.04).

When Table 7 is examined, no statistically significant difference was found in students' SMASA mean scores based on their fathers' education level (F=0.91, p=0.44, p>0.05). Similarly, no significant difference was found in FFPBS total mean scores according to fathers' education level (F=0.45, p=0.72, p>0.05). However, a statistically significant difference was identified in the mean scores of the Team sub-dimension of the FFPBS (F=6.24, p=0.00, p<0.05). Since the variances were homogeneous, a Scheffé test was conducted to determine the source of the difference. According to the Scheffé test results, a significant difference was observed between students whose fathers had a primary school education (Group 1) and those whose fathers had a high school education (Group 3). Students whose fathers had a primary school education ($\bar{x}$=4.00) scored lower than those whose fathers had a high school education ($\bar{x}$=4.41). Additionally, the Scheffé test indicated a significant difference between students whose fathers had a primary school education (Group 1) and those whose fathers had a university degree or higher (Group 4). Students in the primary school group ($\bar{x}$=4.00) scored lower than students in the university and above group ($\bar{x}$=4.50).

No statistically significant differences were found in the Spectator sub-dimension (F=1.78, p=0.15, p>0.05), the Negative Behavior sub-dimension (F=3.36, p=0.06, p>0.05), or the Opponent sub-dimension (F=2.53, p=0.07, p>0.05) of the FFPBS based on the fathers' education level.

When Table 8 is examined, no statistically significant difference was found in students' SMASA mean scores based on the type of sport they participate in (F=2.22, p=0.11, p>0.05). However, a statistically significant difference was found in their FFPBS mean scores (F=11.91, p=0.00, p<0.05). Since the variances were not homogeneous, a Tamhane's T2 post hoc test was performed to determine the source of the difference. According to the test results, significant differences were found between Group 1 (individual sports) and Group 2 (team sports), and between Group 2 (team sports) and Group 3 (no sports). The mean score of students in the individual sports group ($\bar{x}$=3.11) was lower than that of the team sports group ($\bar{x}$=3.25), and the team sports group also scored higher than those who do not participate in sports ($\bar{x}$=3.03). A significant difference was also found in the Team sub-dimension of the FFPBS based on the type of sport (F=14.00, p=0.00, p<0.05). Since the variances were homogeneous, a Scheffé test was conducted. According to the results, significant differences were identified between students who selected "individual" (Group 1) and those who selected "no sports" (Group 3), and between students who selected "team" (Group 2) and "no sports" (Group 3). Students in the individual sports group ($\bar{x}$=4.40) had higher mean scores than those in the no sports group ($\bar{x}$=3.96), and the team sports group ($\bar{x}$=4.47) also had higher scores than the no sports group. No significant difference was found in the Spectator sub-dimension of the FFPBS based on sport type (F=2.31, p=0.10, p>0.05). However, a statistically significant difference was found in the Negative Behavior sub-dimension (F=3.22, p=0.04, p<0.05). Due to unequal variances, Tamhane's T2 test was applied, and a significant difference was found between Group 1 (individual sports) and Group 2 (team sports). Students in the individual sports group ($\bar{x}$=3.84) scored higher in this sub-dimension than students in the team sports group ($\bar{x}$=3.67). Finally, no statistically significant difference was found in the Opponent sub-dimension based on type of sport (F=1.93, p=0.15, p>0.05).

When Table 9 is examined, the highest positive correlation (r=0.627) is observed between the Spectator sub-dimension and the total mean scores of the FFPBS. The highest negative correlation (r=-0.408) is found between the Negative Behavior sub-dimension and the mean scores of the SMASA. The lowest positive correlation (r=0.118) is observed between the mean scores of the Negative Behavior and Spectator sub-dimensions of the FFPBS. The lowest negative correlation (r=-0.124) is between the mean scores of the SMASA and the Spectator sub-dimension.

Discussion and Conclusion

The aim of this study is to examine the relationship between middle school students' social media addiction and their fair play behaviors. Based on the results of our study, it was determined that middle school students exhibited a low level of social media addiction, as reflected in their total scores. The low levels of

social media addiction observed among middle school students are believed to be due to factors such as parental control over social media use, limited access to the internet and digital devices, and the presence of academic responsibilities like studying and completing homework. In a thesis study using the same scale, Kurt (2024) concluded that students attending sports high schools in the province of Konya also exhibited low levels of social media addiction. Based on the results of our study, it was determined that middle school students exhibit a moderate level of fair play behavior according to their total scores. When analyzing the sub-dimensions of the Frequency of Fair Play Behavior Scale (FFPBS), the Spectator sub-dimension was found to be at a moderate level, while the Team, Negative Behavior, and Opponent sub-dimensions were at a high level. In conclusion, it was observed that students demonstrate fair play behaviors at a moderate level in sports activities. This moderate level of fair play behavior may be interpreted as a positive indicator for the future and suggests that continued engagement in sports and further awareness-raising efforts regarding fair play could contribute to the development of these behaviors. In a thesis study, Erbil (2022) also reported that secondary school students participating in the research exhibited a moderate level of sportsmanship orientation. According to the findings of our study, a statistically significant difference was identified in middle school students' levels of social media addiction based on the gender variable. It was found that male students exhibited higher levels of social media addiction compared to female students. Possible reasons for the higher addiction levels among males may include a greater interest in online games, the desire to access current news, videos, and other entertainment content, and a strong urge to stay informed in these areas. Similarly, Batıgün-Durak and Kılıç (2011), as well as Yukay-Yüksel et al. (2020), reported in their studies that male students exhibited higher levels of social media addiction than their female counterparts. The variations in findings across studies related to social media addiction in terms of gender may be attributed to sample characteristics such as age, number of participants, and personality traits, which may influence the diversity of research results. According to the findings of our study, a statistically significant difference was observed in middle school students' frequency of fair play behavior based on gender. It was determined that male students demonstrated a higher frequency of fair play behaviors compared to female students. This result may be explained by societal expectations and the fact that participation in sports is more prevalent among males. In a study examining the relationship between sportsmanship behaviors and empathic tendencies among individuals practicing combat sports, Duygu (2022) found that the mean scores of male participants were significantly higher than those of female participants. Similarly, in a study conducted with middle school students, Karafil et al. (2017) reported that male students had higher total scores in displaying sportsmanship behaviors compared to female students. According to the findings of our study, no statistically significant difference was found in middle school students' levels of social media addiction based on grade level. However, a statistically significant difference was observed in their frequency of exhibiting fair play behaviors across grade levels. It was determined that 8th-grade students demonstrated a higher frequency of fair play behaviors compared to 5th-grade students. The findings also revealed that as students' grade levels increased, their frequency of exhibiting fair play behaviors increased accordingly. As grade level progresses, students are believed to become more conscious of ethical values and social norms. This growing awareness may contribute to a better understanding of concepts such as fair play and sports ethics. Additionally, it is thought that increased experience in sports and social interactions facilitates students' adoption of fair play behaviors. According to the findings of our study, a statistically significant difference was observed in the total fair play behavior scores and in the Team and Negative Behavior sub-dimensions of middle school students based on the type of sport they participate in. Students who played team sports exhibited a higher frequency of fair play behaviors compared to those who engaged in individual sports or did not participate in any sports. This may be due to the fact that team-based sports activities enhance cooperation and teamwork skills, help develop strong social bonds among teammates, and foster a sense of responsibility toward others—factors that are more prominent in team sports than in individual ones and may influence fair play behavior. In a study conducted on university students, Boz (2023) also reported that students who engaged in team sports had higher levels of adherence to social norms and sportsmanship orientation than

those who participated in individual sports. Similarly, Karafil et al. (2017), in their research with middle school students, stated that students involved in team sports demonstrated higher levels of sportsmanship behaviors than those involved in individual sports or who were not engaged in sports activities. In the Team sub-dimension, it was determined that students who participated in either team or individual sports exhibited higher levels of fair play behavior compared to those who did not engage in any sports. In their study with sports high school students, Gök and Sarıkol (2023) found that students who participated in sports had higher mean scores in the "respect for teammates" sub-dimension than those who did not participate. In the Negative Behavior sub-dimension, it was found that students participating in individual sports exhibited a higher frequency of fair play behaviors compared to those engaged in team sports. This may be attributed to the fact that individual athletes assume full responsibility for their performance and often compete in high-pressure environments, which may encourage them to embrace the principles of fair play in their efforts. In a study conducted with secondary school students, Duman (2023) also reported that participants who engaged in individual sports had significantly higher mean scores in the “respect for rules and authority” sub-dimension of fair play orientation compared to those who played team sports. According to the findings of our study, no statistically significant difference was identified in middle school students’ levels of social media addiction based on whether they held a license in any sport. This may be due to factors such as personal interests, peer influence, the increasing ease of access to social media, and the diversity of its content. Similarly, in their research, Karagün and Tapşın (2024) stated that no significant difference was found between having a sports license and social media addiction. According to the findings of our study, a statistically significant difference was identified in middle school students’ frequency of fair play behavior in the total scores and in the Team and Spectator sub-dimensions based on whether they held a license in any sport. It was determined that licensed students had higher total scores on the FFPBS, as well as higher scores in the Team and Spectator sub-dimensions, compared to unlicensed students. This may be explained by the fact that licensed students participate in competitions and matches, train regularly, work in coordination with coaches, possess a strong sense of responsibility, and follow established rules—all of which may contribute to their increased demonstration of fair play behaviors. In their study conducted with sports high school students, Gül and Bingöl (2022) also found that licensed students were more sportsmanlike compared to their unlicensed peers. According to the findings of this study, middle school students were found to have low levels of social media addiction and a moderate frequency of engaging in fair play behaviors. Demographic variables such as gender, grade level, type of sport, and having a sports license were found to have statistically significant effects on fair play behaviors, whereas the positive correlation between social media addiction and fair play behaviors was not statistically significant. These results suggest that students' ethical behavior tendencies may vary depending on factors such as age, level of engagement with sports, and socio-cultural environment. It has been determined that students engaged in individual sports exhibit a higher frequency of fair play behaviors in the team dimension compared to students who do not participate in sports. Furthermore, it has been concluded that students involved in individual sports demonstrate a higher frequency of fair play behaviors in the negative behavior dimension compared to those participating in team sports. Additionally, it has been found that students with a sports license display a higher level of fair play behaviors than those without a license. However, no significant positive relationship was found between social media addiction and the frequency of exhibiting fair play behaviors.

The recommendations of this study are as follows; Future studies on fair play and social media addiction should consider a broader sample to contribute to the understanding of these issues.

It is essential for all teachers and administrators, particularly physical education and sports teachers, to recognize, adopt, and serve as role models for the philosophy of fair play. Within the framework of values education, topics such as fair play and sports ethics should be addressed more actively, and students should be encouraged to behave in accordance with these norms. Awareness-raising activities against social media addiction should be conducted, and seminars should be organized. Parents should be informed about monitoring and guiding their children's social media usage. It is recommended

to organize more sports events and tournaments in schools, allowing students to learn the concepts of fair play and team spirit through experience. The dissemination of public service announcements regarding the conscious use of technological devices and the promotion of responsible internet usage is advised. To enhance digital literacy education, digital literacy courses can be integrated into school curricula, and training programs can be organized for teachers. It is suggested that families be informed to guide their children in responsible internet usage, and awareness campaigns targeting the community should be conducted, along with the creation of online training modules.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding this article.

Ethics Committee Report

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Authors' Contribution

Study Design: ABG, SÖ

Data Collection: ABG, SÖ

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