

# Digital Media in Sports Organizations: The Mediator Role of Social Media Addiction in FoMO and Compulsive Online Shopping

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## Abstract

The impact of communication on individuals and the masses is undeniable. Now, every domain of daily life is influenced by the power of communication thanks to developing technology. The present study aimed to explore the relationship between fear of missing out (FoMO) and compulsive online shopping and investigate the mediator role of social media addiction on this relationship. The sample consisted of randomly selected 205 sports volunteers, 77 females (37.6%) and 128 males (62.4%), taking part in the 16<sup>th</sup> NKolay Istanbul Half Marathon on April 4, 2021. We collected the data using the “Fear of Missing Out” scale (FoMOS) consisting of 10 items within a subscale, the “Social Media Addiction” scale (SMAS) composed of 20 items within two subscales, and the “Compulsive Online Shopping” scale (COSS) consisting of 28 items within five subscales. We sought answers for seven hypotheses in the study employing a correlational design. The results confirmed our three hypotheses, partially confirmed two hypotheses, rejected the other two hypotheses. We determined that the SMAS were positively correlated with the FoMOS and the COSS. In addition, the FoMOS was positively correlated with the COSS. On the other hand, we concluded that social media addiction partially mediated the relationship between fear of missing out (FoMO) and compulsive online shopping among our participants. While virtual communication had a mediating effect on this relationship, it was not the case for virtual tolerance.

**Keywords:** Social media addiction, FoMO, Compulsive online shopping, Sports volunteers

## 1. Introduction

In the global context, the spread of the internet since the 1990s has allowed the digital culture to begin dominating. Digital media also has emerged in this period, especially at the beginning of the 2000s, and gained noteworthy momentum. While communication used to be interpersonal, it has started to appear more in mass communication today. The impact of communication on individuals and the masses is undeniable. Now, every domain of daily life is influenced by the power of communication thanks to developing technology.

Internet-related technologies have introduced digital media to be among the most significant innovations in communication. Thus, such sites allow any shared information to instantly spread to the whole world (Palmer & Lewis, 2009), informing the masses about the events around the globe. From its very introduction, digital media has manifested itself in a different place; thanks to the mutual communication opportunities it offers, people have started to use digital media more intensively. Besides, digital media mechanisms have features such as creating a perception against discrimination, spreading the perception, and setting the agenda (Eraslan, 2016).

There are many definitions of the internet, which is derived from the combination of the English words ‘network’ and ‘international.’ The internet can be defined as a tool where information produced and compiled by individuals, institutions, organizations, and businesses can be published and which enables easy and quick access to any needed information 24/7 (Tsai & Lin, 2003). Since the internet brings with it new forms of addiction, it may be needed to lay a theoretical ground for internet addiction. The prevalence of internet addiction is deemed essential for understanding the contemporary order, digital media, FoMO, and novel marketing practices.

The reason why we used social media addiction as a mediating factor between FoMO (fear of missing out) and compulsive online shopping is that digital media is always human-oriented, although it is digital in essence. Understanding how FoMO affects individuals, especially the young, who use digital media more frequently, should build another comprehension of compulsive online shopping. Nowadays, corporate strategies are the major determiners of personal preferences and direct individuals to purchasing behavior out of necessity. Compulsive online shopping practice creates a perceived sense of obligation and compels individuals to consume products and services based on fear of missing out.

Human is the primary factor at the center of any communication means. Human is also prioritized as the one using these means and perceives the message from the means. Consequently, starting with the traditional and digital media discussion and shifting such a discussion to the field of public relations, this study was designed to analyze the impacts of FoMO on compulsive online shopping and the mediating effect of social media addiction. In this context, this study aimed to uncover the current importance, position, and role of sports volunteers and the impacts of FoMO on compulsive online shopping considering the mediating role of social media addiction.

## 2. Method

Based on study hypotheses, this section presents the methodological approach to reveal the relationships between the data collected through the scales measuring FoMO (fear of missing out), social media addiction, and compulsive online shopping.

### 2.1 Design

The present research employed a correlational design to examine the mediating role of social media addiction in the relationship between FoMO and compulsive online shopping. The correlational studies are those exploring the degree of relationships between two or more variables while at the same time examining the effects of variables on each other and their co-changes (Karasar, 2009; Creswell, 2014).

### 2.2 Hypotheses

We identified FoMO as the independent variable while compulsive shopping was the dependent variable, and social media addiction was the mediator variable. Accordingly, the study hypotheses are given below:

H1: FoMO is positively associated with compulsive online shopping.

H2: Social media addiction has a mediating effect on the relationship between FoMO and compulsive online shopping.

H3: FoMO has a positive impact on social media addiction.

H4: Social media addiction has a positive impact on compulsive online shopping.

H5: FoMO significantly differs among volunteers by their demographic characteristics (age, educational attainment, marital status).

H6: Social media addiction significantly differs among volunteers by their demographic characteristics (age, educational attainment, marital status).

H7: Compulsive online shopping significantly differs among volunteers by their demographic characteristics (age, educational attainment, marital status).

### 2.3 Population and Sample

The research population consisted of the volunteers taking part in the 16<sup>th</sup> NKolay Istanbul Half Marathon on April 4, 2021. On the other hand, the sample was composed of a total of randomly selected 205 volunteers, 77 females (37.6%) and 128 males (62.4%), among these volunteers.

### 2.4 Data Collection Tools

In this study, we administered an online survey covering several scales to the participants. While the first part of the survey included a demographic information form, the second part included the “Fear of Missing Out” scale (FoMOS). Przybylski et al. (2013) developed the scale, and Gökler et al. (2016) adapted it into Turkish. The single-factor FoMOS consists of a

total of 10 items. In the third part, we used the “Social Media Addiction” scale (SMAS). Young (1998), Griffiths (1995), and Andreassen et al. (2015) developed different versions of the scale. In the Turkish context, Şahin and Yağcı (2017) conducted its validity and reliability studies. It consists of 20 items within two subscales: virtual tolerance (items 1-11) and virtual communication (items 12-20). Finally, in the fourth part of the survey, we utilized the “Compulsive Online Shopping” scale (COSS). The subscales of the 28-item scale developed by Andreassen et al. (2015) and adapted into Turkish by Bozdağ and Alkar (2018) include five subscales reflecting compulsive shopping processes: mood modification, conflict-relapse, preoccupation, withdrawal, and tolerance. All the measures used in this study are 5-point Likert-type scales.

### *2.5 Data Analysis*

We checked the normality of distribution using a Kolmogorov-Smirnov test. In the study, we explored the mediating effect of social media addiction on the relationship between FoMO and compulsive online shopping through a structural equation model. Besides, an independent samples T-test and one-way ANOVA helped us investigate whether the participants differed in their scores on the scales by their demographic characteristics. Finally, we calculated Pearson’s correlation coefficients to reveal the relationships between the variables. We performed all analyses on SPSS 20.0 at a 95% confidence interval.

### 3. Findings

Table 1. Distribution of the participants by their demographic characteristics

		n	%
Gender	Male	128	62.4
	Female	77	37.6
	Total	205	100.0
Marital status	Single	28	19.7
	Married	114	80.3
	Total	142	100.0
Age	18-20 years	7	3.4
	21-23 years	13	6.3
	24-25 years	6	2.9
	≥ 26 years	179	87.3
	Total	205	100.0
Educational attainment	High school	10	4.9
	Associate degree	16	7.8
	Undergraduate degree	139	67.8
	Postgraduate degree	40	19.5
	Total	205	100.0

Table 1 presents the distribution of the participants by their demographic characteristics. Accordingly, 62.4% of the participants were males, while the majority of them were married (80.3%). We discovered that most of the participants were aged 26 years and over (87%). Finally, when it comes to educational attainment, more than half of the participants (67.8%) held an undergraduate degree.

#### *3.1 The Mediating Effect of Social Media Addiction on the Relationship Between FoMO and Compulsive Online Shopping*

We adopted Baron and Kenny's (1986) approach to investigate the mediating role of social media addiction. Accordingly, four steps must be fulfilled in determining the mediating role of a variable: 1) independent variable predicting the dependent variable, 2) the mediator variable predicting the dependent variable, 3) the independent variable predicting the mediator variable, and 4) the independent and mediator variables predicting the dependent

variable together. The realization of these assumptions reveals the mediating effect of the variable, and the Sobel test is used to determine the significance of such a mediating effect.

In the first step, we sought how significantly the independent variable predicted the dependent variable. Accordingly, we found that FoMO significantly predicted compulsive online shopping ( $p < 0.05$ ).

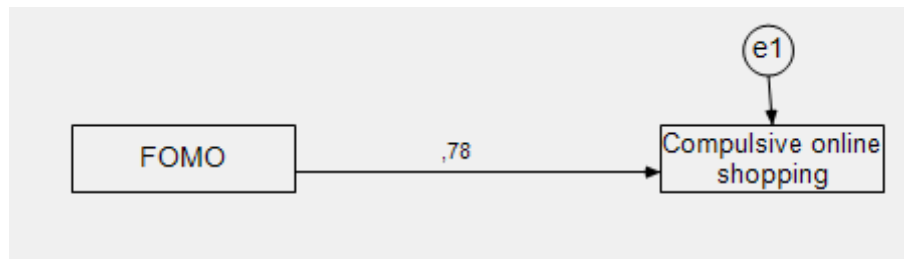


Figure 1. Path diagram of the FoMOS

In the second step, the regression model tested for whether the mediator variable predicted the dependent variable revealed that virtual communication significantly predicted compulsive online shopping, while it was not the case for virtual tolerance.

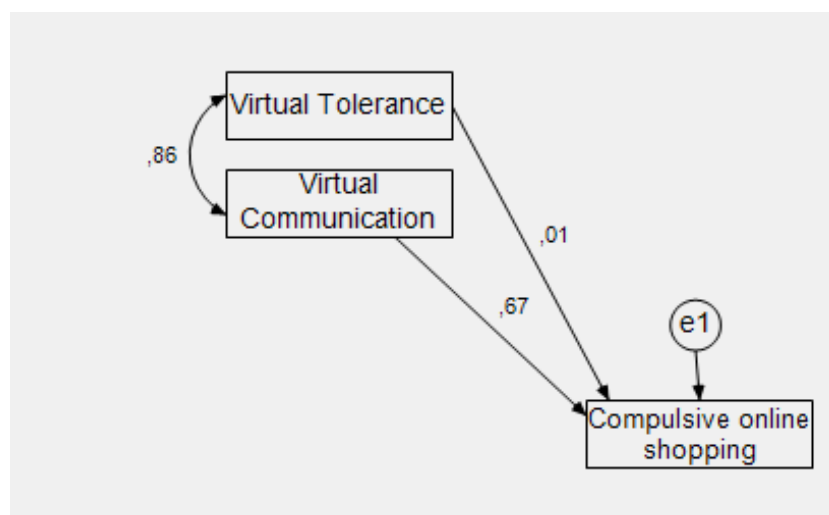


Figure 2. Path diagram of the COSS

In the third step, we built a regression model to test whether the independent variable (FoMO) predicted the mediator variable (social media addiction). We found the model to be significant for both subscales of the mediator variable. In other words, there were moderate and significant relationships between FoMO and virtual tolerance and virtual communication.

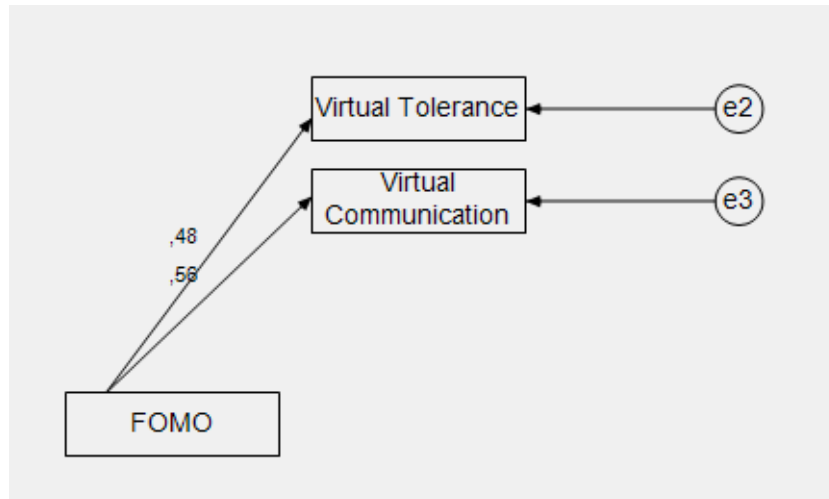


Figure 3. Path diagram of the FoMOS

In the final step, we tested a model where both independent and mediator variables were assumed as predictors of compulsive online shopping. The results showed that FoMO and virtual communication (social media addiction) significantly predicted compulsive online shopping. Yet, the effect of virtual tolerance on the dependent variable was not significant. The predictive impact of FoMO decreased in the final model, and virtual tolerance did not significantly predict compulsive online shopping. Thus, we can assert that only the virtual communication subscale of the SMAS mediated the effect of FoMO on compulsive online shopping.

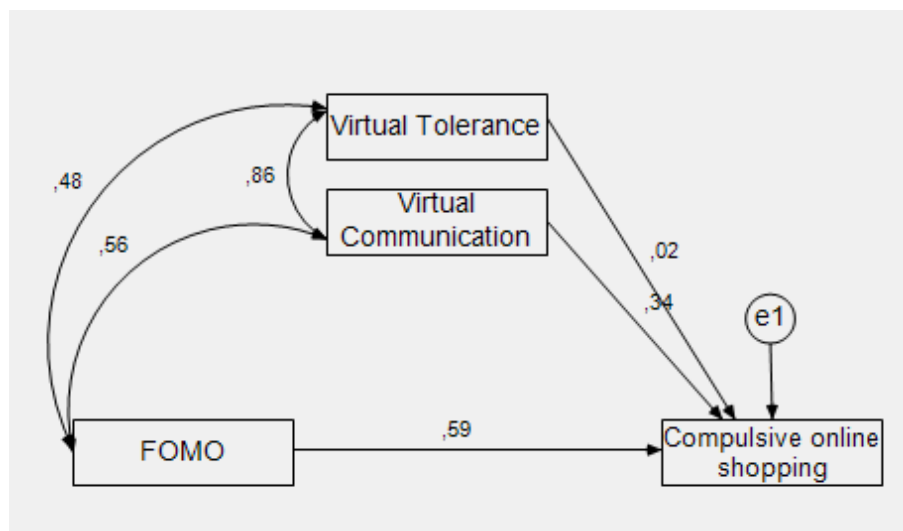


Figure 4. Path diagram of the FoMOS and COSS

We also calculated good fit indices for the models created to test our hypotheses.

Table 2. Goodness-of-fit indices of the regression models

Reference fit indices	Model 1	Model 2	Model 3	Model 4
$\chi^2/sd < 5$	3.736	2.555	4.120	0.256
GFI > 0.90	0.922	0.901	0.911	0.920
AGFI > 0.90	0.909	0.912	0.900	0.905
CFI > 0.90	0.904	0.889	0.897	0.901
TLI > 0.90	0.914	0.905	0.936	0.904
RMSEA < 0.08	0.062	0.071	0.041	0.062
RMR < 0.08	0.041	0.055	0.071	0.056

### 3.2 Comparisons of the Participants' Scores by Marital Status

This section presents the participants' mean scores on the mentioned scales and the results of the Independent Samples T-test to reveal whether these scores differed by their marital status.

Table 3. Scores on the FoMOS by marital status

		N	M	SD	t	p
FoMOS	Single	28	29.64	10.03	3.340	0.070
	Married	114	33.34	9.49		
	Total	142	32.61	9.68		

We could not find significant differences in the participants' scores on the FoMOS by marital status ( $p > 0.05$ ). In other words, the single and married participants got similar FoMOS scores.



Table 4. Scores on the SMAS by marital status

		N	M	SD	t	p
SMAS Total	Single	28	71.64	15.45	0.487	0.487
	Married	114	74.00	16.16		
	Total	142	73.54	15.99		
Virtual Tolerance	Single	28	36.68	8.23	0.428	0.514
	Married	114	37.85	8.56		
	Total	142	37.62	8.48		
Virtual Communication	Single	28	34.96	8.54	0.442	0.507
	Married	114	36.15	8.43		
	Total	142	35.92	8.43		

As in Table 4, the participants did not differ significantly in their SMAS total and subscale scores by their marital status ( $p > 0.05$ ). Namely, the social media addiction levels of the single and married participants were relatively similar.

Table 5. Scores on the COSS by marital status

		N	M	SD	t	p
COSS Total	Single	28	94.29	22.11	0.057	0.811
	Married	114	95.38	21.53		
	Total	142	95.16	21.57		
Conflict-Relapse	Single	28	41.11	9.71	0.108	0.743
	Married	114	40.47	9.00		
	Total	142	40.60	9.11		
Preoccupation	Single	28	10.18	2.97	1.410	0.237
	Married	114	10.93	3.01		
	Total	142	10.78	3.00		
Mood modification	Single	28	13.93	3.60	2.093	0.150
	Married	114	15.04	3.67		
	Total	142	14.82	3.67		
Withdrawal	Single	28	12.54	4.08	0.003	0.953
	Married	114	12.58	3.35		
	Total	142	12.57	3.49		
Tolerance	Single	28	16.79	5.59	0.000	0.986
	Married	114	16.81	5.70		
	Total	142	16.80	5.66		

We did not find any significant differences between the participants in their COSS total and subscale scores by their marital status ( $p > 0.05$ ); the single and married participants demonstrated similar levels of compulsive online shopping.

### *3.3 Comparisons of the Participants' Scores by Age*

We run a one-way ANOVA to determine the differences among the participants' scores on the mentioned scales by their ages. The results are given below.

Table 6. Scores on the FoMOS by age

		N	M	SD	F	p
FoMOS	18-20 years	7	33.29	10.58	0.385	0.764
	21-23 years	13	31.00	7.91		
	24-25 years	6	35.83	8.98		
	26 years ve over	179	32.04	9.85		
	Total	205	32.13	9.70		

The results revealed no significant differences between the participants' scores by their ages ( $p > 0.05$ ). That is, FoMO levels were the same for our participants in different age groups.

Table 7. Scores on the SMAS by age

		N	M	SD	F	p
SMAS Total	18-20 years	7	52.14	16.71	8.457	0.000*
	21-23 years	13	48.69	14.43		
	24-25 years	6	45.17	9.06		
	26 years and over	179	67.91	18.71		
	Total	205	65.49	19.22		
Virtual Tolerance	18-20 years	7	27.00	10.15	8.373	0.000*
	21-23 years	13	24.62	8.43		
	24-25 years	6	22.67	4.72		
	26 years and over	179	34.79	9.77		
	Total	205	33.52	10.12		
Virtual Communication	18-20 years	7	25.14	7.22	7.236	0.000*
	21-23 years	13	24.08	6.55		
	24-25 years	6	22.50	4.81		
	26 years and over	179	33.12	9.70		
	Total	205	31.97	9.81		

As in Table 7, the participants' SMAS total and subscale scores significantly differed by their ages ( $p < 0.05$ ).

Table 8. Scores on the COSS by age

		N	M	SD	F	p
COSS Total	18-20 years	7	89.29	15.18	0.054	0.983
	21-23 years	13	92.46	18.55		
	24-25 years	6	93.50	13.94		
	26 years and over	179	92.32	21.66		
	Total	205	92.26	21.01		
Conflict-Relapse	18-20 years	7	40.00	6.24	0.058	0.982
	21-23 years	13	39.38	7.53		
	24-25 years	6	40.83	6.97		
	26 years and over	179	39.42	9.07		
	Total	205	39.48	8.80		
Preoccupation	18-20 years	7	10.57	3.26	0.557	0.644
	21-23 years	13	10.92	2.47		
	24-25 years	6	12.17	2.86		
	26 years and over	179	10.59	3.08		
	Total	205	10.65	3.04		
Mood Modification	18-20 years	7	14.71	3.45	0.348	0.791
	21-23 years	13	15.31	3.25		
	24-25 years	6	15.67	3.72		
	26 years and over	179	14.51	3.80		
	Total	205	14.60	3.74		
Withdrawal	18-20 years	7	8.71	3.40	2.606	0.053
	21-23 years	13	9.85	3.95		
	24-25 years	6	10.83	5.19		
	26 years and over	179	11.80	3.67		
	Total	205	11.55	3.77		
Tolerance	18-20 years	7	15.57	6.75	0.327	0.806
	21-23 years	13	17.31	5.51		
	24-25 years	6	14.67	6.62		
	26 years and over	179	16.44	5.84		
	Total	205	16.41	5.84		

We found that the participants did not significantly differ in their COSS total and subscale scores by their ages ( $p > 0.05$ ). Namely, different age groups adopted similar compulsive online shopping behaviors.

### *3.4 Comparisons of the Participants' Scores by Educational Attainment*

The below are the results of the one-way analysis of variance to reveal whether the participants significantly differed in their scores on the FoMOS, SMAS, and COSS by their educational attainments.

Table 9. Scores on the FoMOS by educational attainment

		N	M	SD	F	p
FoMOS	High school	10	36.50	5.30	0.863	0.461
	Associate degree	16	30.44	11.37		
	Undergraduate degree	139	31.94	9.76		
	Postgraduate degree	40	32.38	9.63		
	Total	205	32.13	9.70		

The results demonstrated that the participants did not significantly differ in their FoMOS scores by educational attainment ( $p > 0.05$ ). Therefore, the participants with different educational backgrounds had similar levels of FoMO.

Table 10. Scores on the SMAS by educational attainment

		N	M	SD	F	p
SMAS Total	High school	10	78.30	8.87	6.059	0.001*
	Associate degree	16	48.75	20.33		
	Undergraduate degree	139	66.12	18.61		
	Postgraduate degree	40	66.80	19.19		
	Total	205	65.49	19.22		
Virtual Tolerance	High school	10	39.20	5.18	5.979	0.001*
	Associate degree	16	24.38	10.74		
	Undergraduate degree	139	34.13	9.78		
	Postgraduate degree	40	33.65	10.15		
	Total	205	33.52	10.12		
Virtual Communication	High school	10	39.10	5.02	5.495	0.001*
	Associate degree	16	24.38	10.08		
	Undergraduate degree	139	31.99	9.53		
	Postgraduate degree	40	33.15	9.95		
	Total	205	31.97	9.81		

Note. \*  $p < 0.05$ .

The one-way ANOVA resulted in no significant difference in the SMAS total and subscale scores by educational attainment ( $p < 0.05$ ).

Table 11. Scores on the COSS by educational attainment

		N	Ortalama	Std. Sapma	F
COSS Total	High school	10	101.80	16.30	0.896
	Associate degree	16	88.88	23.09	
	Undergraduate degree	139	91.66	20.85	
	Postgraduate degree	40	93.33	21.75	
	Total	205	92.26	21.01	
Conflict-Relapse	High school	10	43.10	6.62	0.861
	Associate degree	16	38.31	10.06	
	Undergraduate degree	139	39.11	8.64	
	Postgraduate degree	40	40.33	9.32	
	Total	205	39.48	8.80	
Preoccupation	High school	10	12.00	2.21	0.829
	Associate degree	16	10.19	3.73	
	Undergraduate degree	139	10.58	3.04	
	Postgraduate degree	40	10.78	2.94	
	Total	205	10.65	3.04	
Mood Modification	High school	10	15.80	2.53	0.650
	Associate degree	16	14.63	4.59	
	Undergraduate degree	139	14.40	3.80	
	Postgraduate degree	40	15.03	3.43	
	Total	205	14.60	3.74	
Withdrawal	High school	10	13.10	2.92	1.438
	Associate degree	16	10.13	3.72	
	Undergraduate degree	139	11.67	3.74	
	Postgraduate degree	40	11.30	4.01	
	Total	205	11.55	3.77	
Tolerance	High school	10	18.80	3.74	0.595
	Associate degree	16	16.06	6.77	
	Undergraduate degree	139	16.29	5.73	
	Postgraduate degree	40	16.38	6.31	
	Total	205	16.41	5.84	

Table 11 shows that there were no significant differences among the scores on the COSS and its subscales by educational attainment ( $p > 0.05$ ). That is, the participants with different educational backgrounds had similar levels of compulsive online shopping behaviors.

### 3.5 Relationships Between the Scales

Table 12. Relationships between the scales

		SMAS	Virtual Tolerance	Virtual Communication	FoMOS	COSS	Conflict-Relapse	Preoccupation	Mood Modification	Withdrawal	Tolerance
SMAS	r	1	.965**	.963**	.537**	.656**	.634**	.495**	.530**	.588**	.445**
	p		.000	.000	.000	.000	.000	.000	.000	.000	.000
Virtual Tolerance	r	.965**	1	.859**	.478**	.588**	.577**	.427**	.476**	.567**	.356**
	p	.000		.000	.000	.000	.000	.000	.000	.000	.000
Virtual Communication	r	.963**	.859**	1	.559**	.679**	.645**	.530**	.547**	.568**	.504**
	p	.000	.000		.000	.000	.000	.000	.000	.000	.000
FoMOS	r	.537**	.478**	.559**	1	.782**	.758**	.833**	.808**	.256**	.660**
	p	.000	.000	.000		.000	.000	.000	.000	.000	.000
COSS	r	.656**	.588**	.679**	.782**	1	.970**	.854**	.871**	.581**	.810**
	p	.000	.000	.000	.000		.000	.000	.000	.000	.000
Conflict-Relapse	r	.634**	.577**	.645**	.758**	.970**	1	.811**	.826**	.546**	.734**
	p	.000	.000	.000	.000	.000		.000	.000	.000	.000
Preoccupation	r	.495**	.427**	.530**	.833**	.854**	.811**	1	.852**	.270**	.700**
	p	.000	.000	.000	.000	.000	.000		.000	.000	.000
Mood Modification	r	.530**	.476**	.547**	.808**	.871**	.826**	.852**	1	.305**	.679**
	p	.000	.000	.000	.000	.000	.000	.000		.000	.000
Withdrawal	r	.588**	.567**	.568**	.256**	.581**	.546**	.270**	.305**	1	.215**
	p	.000	.000	.000	.000	.000	.000	.000	.000		.002
Tolerance	r	.445**	.356**	.504**	.660**	.810**	.734**	.700**	.679**	.215**	1
	p	.000	.000	.000	.000	.000	.000	.000	.000	.002	



We found that the SMAS had positive and significant relationships with the FoMOS ( $r = 0.537, p = 0.00$ ) the COSS ( $r = 0.656, p = 0.00$ ), conflict-relapse ( $r = 0.634, p = 0.00$ ), preoccupation ( $r = 0.495, p = 0.00$ ), mood modification ( $r = 0.530, p = 0.00$ ), withdrawal ( $r = 0.588, p = 0.00$ ), and tolerance ( $r = 0.445, p = 0.00$ ). Besides, virtual tolerance was positively and significantly correlated with the FoMOS ( $r = 0.478, p = 0.00$ ), the COSS ( $r = 0.588, p = 0.00$ ), conflict-relapse ( $r = 0.577, p = 0.00$ ), preoccupation ( $r = 0.427, p = 0.00$ ), mood modification ( $r = 0.476, p = 0.00$ ), withdrawal ( $r = 0.567, p = 0.00$ ), and tolerance ( $r = 0.356, p = 0.00$ ). Finally, there were positive and significant relationships between virtual communication and the FoMOS ( $r = 0.559, p = 0.00$ ) the COSS ( $r = 0.679, p = 0.00$ ), conflict-relapse ( $r = 0.645, p = 0.00$ ), preoccupation ( $r = 0.530, p = 0.00$ ), mood modification ( $r = 0.547, p = 0.00$ ), withdrawal ( $r = 0.568, p = 0.00$ ), and tolerance ( $r = 0.504, p = 0.00$ ).

When it comes to the FoMOS, it was positively and significantly correlated with the COSS ( $r = 0.782, p = 0.00$ ), conflict-relapse ( $r = 0.758, p = 0.00$ ), preoccupation ( $r = 0.833, p = 0.00$ ), mood modification ( $r = 0.808, p = 0.00$ ), withdrawal ( $r = 0.256, p = 0.00$ ), and tolerance ( $r = 0.660, p = 0.00$ ).

#### 4. Discussion

The present study scrutinized the relationship between FoMO and compulsive online shopping among sports volunteers and explored the mediating effect of social media addiction on this relationship. Accordingly, we administered a demographic information form, the FoMOS, the SMAS, and the COSS to a total of 205 volunteers taking part in the 16<sup>th</sup> NKolay Istanbul Half Marathon on April 4, 2021. In the study, we sought answers for seven hypotheses employing a correlational design.

Regarding the demographic characteristics of the participants, we found that 62.4% were males, while the majority of them were married (80.3%). We also discovered that most of the participants were aged 26 years and over (87%). Finally, when it comes to educational attainment, more than half of the participants (67.8%) held an undergraduate degree.

Our results confirmed the first hypothesis, “FoMO is positively associated with compulsive online shopping.” In parallel with this finding, Bekman (2020) previously determined a positive link between FoMO and compulsive online shopping behaviors. In another study, Aydın et al. (2019) investigated the relationships between compulsive online shopping and biological rhythm, impulsivity, and FoMO among consumers and concluded a significant association between compulsive online shopping behaviors and FoMO and that impulsivity and biological rhythm mediated such a relationship. Accordingly, FoMO is often used as an impulsive tool in marketing and communication activities aimed at boosting the online shopping behaviors of consumers. Especially in social networking sites, it can be thought that marketing and communication practices designed with impulsive messages for FoMO play a role in triggering compulsive shopping behaviors. In this context, we can claim that the relationship between FoMO and compulsive online shopping makes a noteworthy contribution to marketing and communication literature.

Then, we could partially confirm our second hypothesis, “Social media addiction has a

mediating effect on the relationship between FoMO and compulsive online shopping.” The relationship between FoMO and compulsive online shopping was significantly mediated by virtual communication, while it was not the case for virtual tolerance. Yet, (Bekman, 2020, p.219) determined that social media addiction had the full mediation in this relationship.

The third hypothesis, “FoMO has a positive impact on social media addiction,” was also confirmed. We determined that FoMO had a positive and moderate impact on social media addiction (both virtual communication and virtual tolerance). Many studies in the literature showed that FoMO positively influences social media addiction, supporting our findings (Blackwell et al., 2017; Fuster et al., 2017; Casale et al., 2018; Tunç-Aksan & Akbay, 2019; Bekman, 2020; Fabris et al., 2020; Hishan et al., 2020; Kargin et al., 2020; Weaver & Swank, 2021). It would be useful for further research to consider FoMO an important variable contributing to social media use and addiction and explore its relationship with other relevant variables using more comprehensive measures. For example, one’s attachment style with their parents may influence the extent to which one fears social exclusion. Also, other aspects of personality, such as narcissism and loneliness, and other Big Five components, such as conscientiousness or agreeableness, may contribute to such dynamics. In this context, it may be possible to identify the components affecting FoMO and adopt appropriate measures against the factors triggering social media addiction among growing generations.

Moreover, the results confirmed our fourth hypothesis, “Social media addiction has a positive impact on compulsive online shopping.” We determined that social media addiction (both virtual communication and virtual tolerance) had a positive and moderate impact on compulsive online shopping. The findings of Bekman (2020) also support our results. The literature hosts studies reporting that excessive use (implying a probable addiction) of social media triggers compulsive online shopping behaviors among people (Pahlevan et al., 2021; She, 2021; Sultan, 2021). Ultimately, it would not be wrong to assert that such a relationship may arise due to user information on social network sites, allowing companies to continuously flash various product and service advertisements suitable for users’ characteristics.

Nevertheless, we could not confirm our fifth hypothesis, “FoMO significantly differ among volunteers by their demographic characteristics (age, educational attainment, marital status).” We did not find significant differences between FoMO and marital status, age, and educational attainment. Previously, Bekman (2020) also examined relationships between FoMO and age and educational attainment. She found that the participants’ FoMO scores significantly differed by their ages, but it was not the case for educational attainment, similar to our study. We think that the discrepancy between the studies may have arisen due to the sample size differences. While we recruited 205 volunteers in this study, Bekman (2020) carried out her study with 590 people. Furthermore, unlike this study where most of the participants were aged 26 and over, the age groups distributed relatively homogenous in her study. In another study, Özcan and Koç (2019) determined significant differences between FoMO and age and educational attainment. What may have led to such a result is thought to be sample difference. (Özcan & Koç, 2019) studied bank employees, whereas this study included sports volunteers. On the other hand, the participating bank employees may have

more desirable educational backgrounds and occupy important positions in their business lives, which may imply that these people may have received better education, have higher self-esteem, and not experience the feeling of deprivation, which is one of the underlying components of FoMO. Yet, parallel to this study, Özcan and Koç (2019) found no significant difference between marital status and FoMO. Regarding the relationship between age and FoMO, many other studies suggested a reversed association between these two variables (Przybylski et al., 2013; Abel et al., 2016; Blackwell et al., 2017; Gezgin, 2017). This situation is often interpreted as that the young are more sensitive to what is happening around them and have a greater sense of curiosity, which may drive them to spend more time on social media. Accordingly, it is not surprising that they have higher FoMO levels (Özcan & Koç, 2019). However, as mentioned earlier, the age group of 26 and over constituted 87.3% of the participants, which may be a reason for no relationship between age and FoMO in this study.

In the present study, our sixth hypothesis, “Social media addiction significantly differs among volunteers by their demographic characteristics (age, educational attainment, marital status),” was partially confirmed. While there was no significant difference between social media addiction and marital status, it was the case for age and educational attainment. In parallel with these findings, (Bekman, 2020) also discovered significant differences between social media addiction and age and educational background. Yet, Ateş (2018) could not find significant differences between social media addiction and the above demographic characteristics. On the other hand, unlike this study, there are studies reporting a significant difference only between social media addiction and marital status (Tiryaki, 2015; Tutgun-Ünal, 2015; Andreassen et al., 2016; Azizi et al., 2019; Sağar, 2019). In general, this situation is explained as that being in a relationship helps reduce social media addiction; yet, situations, such as divorce and being alone, trigger the addiction. We think that there was no significant difference between social media addiction and marital status because married participants constituted a large part of the sample (80.3%). On the other hand, the literature findings suggest that age is not a factor affecting social media addiction among adults. In this study, most of the participants were aged 26 and over, which may have led us to get different results from the literature.

Finally, the results rejected our seventh hypothesis, “Compulsive online shopping among volunteers significantly differs by their demographic characteristics (age, educational attainment, marital status).” We could not reach significant differences between compulsive online shopping and marital status, age, and educational attainment. The findings of Türker (2019) and Bekman (2020) also support our results. Besides, the relevant literature suggests mixed results (Lejoyeux et al., 2007; Otero-Lopez & Villardefrancos, 2014; Türker, 2019; Bekman, 2020). The studies reaching significant differences between compulsive online shopping and marital status uncovered that individuals reporting their marital status to be “Other” had more compulsive online shopping behaviors than married and single individuals between whom there were no differences. Considering that those in the “Other” category were widowed or divorced in those studies, we can assert that these people, under stress and uncertainty, consoled themselves more often with such compulsive behaviors. When it comes

to our study, the insignificant difference by marital status may be explained by the difference in the number of single and married participants. In this context, it may be helpful to replicate the study where participants' marital status is evenly distributed. By the way, the literature fully supports our findings between educational attainment and compulsive online shopping (Lejoveux et al., 2007; Manchiraju et al., 2016; Türker, 2019; Bekman, 2020).

Overall, our results confirmed three of the seven hypotheses, partially confirmed two, and rejected two of them. We found out that social media addiction had a positive relationship with FoMO ( $r = 0.537$ ) and compulsive online shopping ( $r = 0.656$ ), while FoMO was positively correlated with compulsive online shopping ( $r = 0.782$ ). In general, Bekman's (2020) findings also overlap ours. She previously reached similar correlation values with this study; social media addiction was positively related to FoMO ( $r = 0.624$ ) and compulsive online shopping ( $r = 0.549$ ), while FoMO had a positive link with compulsive online shopping ( $r = 0.608$ ).

We detected social media addiction to partially mediate sports volunteers' FoMO and compulsive online shopping; the mediation was originated from virtual communication. Previously, Berkman (2020) discussed the same topic in her doctoral dissertation titled "The Use of Digital Media in Public Relations Practices: The Mediating Role of Social Media Addiction in FoMO and Compulsive Online Shopping." Her results showed that social media addiction has a full mediating effect on the relationship between dependent and independent variables. While we evaluated the mediating effect through the dimensions of social media addiction, Bekman (2020) considered it directly through social media addiction, which may have caused some differences between the findings. On the other hand, no other studies did not juxtapose the variables in this study; therefore, our research can be considered among the pioneering studies in the literature.

Further studies may discuss social media addiction, FoMO, and compulsive shopping behaviors separately, as well as exploring their relationships and mediating situations on each other. On the other hand, the national literature hosts studies on FoMO (Aydın, 2018; Çetinkaya, 2019; Göksun, 2019; Bekman, 2020; Kartol & Peker, 2020; Özdemir, 2021), but only a few of them associated FoMO with compulsive online shopping (Bekman, 2020). Hence, we recommend performing further studies to identify the association between these variables.

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