AJIT-e: Online Academic Journal of Information Technology
2019 Yaz/Summer – Cilt/Vol: 10 - Sayı/Num: 38
DOI: 10.5824/1309-1581.2019.3.001.x
http://www.ajit-e.org/?menu=pages&p=details_of_article&id=429

Received : 22.05.2019 *Editorial Process Begin: 17.06.2019* *Published: 13.08.2019*

Analysis of Social Media Addiction and Usage Purposes Among Secondary-School Students in Turkey

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ABSTRACT *The excessive use of social media has become a social habit in today's world, and social media addiction affects people worldwide. The purpose of this study is to explore social media use and addiction among secondary-school students, according to several personal variables as reported in a personal information form and a survey form asking respondents to disclose their reasons for using social media and to rate their level of social media addiction. Our research sample consisted of 1005 students studying at public schools in Kastamonu city centre, Turkey. The findings from this study indicated that students have an overall tendency to become social media addicts. Students sometimes use social media to prepare for their courses and in interpersonal interactions. The level of social media addiction is higher among males than females. Males use social media more than females for interpersonal communication. Social media addiction increases as the age of the students increases, and older students use social media more than their younger counterparts to communicate and interact with other people. As internet use increases among students, their use of social media for course preparation and interpersonal interactions increases as do their addictions to social media. The degree of addiction increases as the grade level increases, and the use of social media for course preparation decreases with this addiction. The use of social media at home and in transportation systems has more influence on the formation of social media addiction. Students usually use Facebook, Facebook Messenger and YouTube. They mostly use Facebook to communicate with their friends rather than to prepare for their courses. Thus, Facebook contributes little to their academic improvement. Social media addiction among students using Facebook, Facebook Messenger, YouTube, Twitter and Skype is higher. Most students start to use social media in primary school in the third and fourth grades. Thus, their addiction to social media and the use of social media in interpersonal interactions increase.*

Keywords *: social Media; social media addiction, purposes of social media use, secondary-school students, facebook*

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DOI: 10.5824/1309-1581.2019.3.001.x

Ortaokul Öğrencilerinin Sosyal Medya Bağımlığının ve Kullanım Amaçlarının Farklı Değişkenler Açısından İncelenmesi

ÖZ *Günümüzde aşırı sosyal medya kullanımı sosyal bir alışkanlık haline gelmektedir ve gün geçtikçe kullanıcılara sosyal medya bağımlılığı olarak bilinen bağımlılık bulaşacaktır. Bu çalışmanın amacı ortaokul öğrencilerinin sosyal medya bağımlılığı ve sosyal medya kullanım amaçlarını bazı kişisel değişkenlere göre incelemektir. Verilerin toplanmasında kişisel bilgi formu, sosyal medya kullanım amaçları ve sosyal medya bağımlılığı ölçeklerini içeren bir anket formu kullanılmıştır. Araştırmanın örneklemini Kastamonu il merkezindeki devlet okullarında öğrenim görmekte olan 1005 öğrenci oluşturmaktadır. Araştırmadan elde edilen bulgulara göre, öğrencilerin genel eğilimi sosyal medya bağımlısı olmama yönündedir. Öğrenciler sosyal medyayı hem ders hazırlığı hem de kişiler arası etkileşim için ara sıra kullanmaktadırlar. Erkeklerin sosyal medya bağımlılık düzeyi kızlara göre daha fazladır. Erkekler, kızlara göre sosyal medyayı başkalarıyla iletişim kurmak amacıyla daha fazla kullanmaktadırlar. Yaş arttıkça öğrencilerin sosyal medya bağımlılığı artmakta ve sosyal medyayı başka kişiler ile iletişim kurmak ve etkileşim sağlamak için daha fazla kullanmaktadırlar. İnternet kullanım süresi arttıkça öğrencilerin sosyal medyayı ders hazırlığı, kişiler arası etkileşim amacıyla kullanma oranları ve sosyal medya bağımlılıkları artmaktadır. Sınıf arttıkça bağımlılık artmakta ve bu bağımlılıkla beraber sosyal medyanın ders hazırlığı amacıyla kullanılma oranı düşmektedir. Evde ve ulaşım araçlarında sosyal medya kullanımı sosyal medya bağımlılığının oluşmasına daha fazla etki etmektedir. Öğrenciler genellikle Facebook, Messenger ve Youtube kullanmaktadırlar. Facebook öğrenciler tarafından ders hazırlığından ziyade arkadaşlarıyla iletişim kurmak amacıyla kullanılmaktadır. En çok kullanılan sosyal medya türü Facebook olmasına karşın öğrencilerin akademik gelişimine katkısı olmadığı aşikârdır. Facebook, Messenger, YouTube, Twitter, Skype sosyal medyalarını kullanan öğrencilerin sosyal medya bağımlılığı daha fazladır. Öğrencilerin büyük bir çoğunluğu daha ilkokul 3 ve 4. sınıfta sosyal medya kullanmaya başlamaktadırlar. Bu da sosyal medya bağımlılığını ve kişiler arası etkileşim amacıyla kullanımı artırmaktadır. Sosyal medya bağımlılığı arttıkça kişiler arası etkileşim de artmaktadır.*

Anahtar Kelimeler *: sosyal medya, sosyal medya bağımlılığı, sosyal medya kullanım amaçları, ortaokul öğrencileri, facebook*

1. Introduction

Social media platforms on which individuals can freely express their opinions have influenced nearly all ages of people in our day, and these platforms are continuing to influence them (Tuğlu, 2017). Social media sites (SMSs) provide individuals with messaging tools that allow them to communicate and socialise with each other (Özgür, 2013).

The first known social networking site (SNS) was www.sixdegrees.com, which was released in 1997. Users of www.sixdegrees.com could create profiles, have a friends list, and contribute information to their online communities. Even though this site attracted millions of users, it closed in 2000 (Vitkauskaitė, 2011). In 2003, the MySpace site was founded by certain universe employees who had Friendster accounts as an alternative SMS in order to present new social media features. In fact, MySpace enables users to adapt their own opinions to themselves to a significant extent. From 2005 to 2009, MySpace was the most widely used SNS in terms of the number of users in the world (Gillette, 2011). Mark Zuckerberg, who was at that time a student

of computer science at Harvard University, created an SMS with the name FaceMash. This SMS was restructured to meet the academic needs of students at Harvard University, and in 2004 it was launched under the name of Facebook. In 2008, Facebook became more popular than MySpace (Karacı & Piri, 2017; Lim, 2010).

According to social media statistical data from www.socialbakers.com, although the daily number of Facebook users is 1.28 billion worldwide, it is 40–45 million on average in Turkey. Of the users in Turkey, 30–31% consist of 18–24 year olds, 32–33% of 25–34 year olds, 21–22% of 35–44 year olds, 11–12% of 45–54 year olds, and 5% of 55–64 year olds. Thus, most of the users are teenagers. For Twitter, the number of worldwide users is 313 million (Socialbakers, 2017). According to the 'Digital in 2017 Global Overview' report published by We Are Social and Hootsuite, nearly 2.8 billion people worldwide and 80 million in Turkey use social media (Social and Hootsuite, 2017).

This study explored social media addiction and usage among secondary-school students in Turkey. Special risk factors have emerged because virtual social networks have been misused among teenagers. Certain indications may appear before a hobby turns into an addiction. Social media addiction symptoms are similar to those associated with other addictions (Echeburua and de Corral, 2010). Wilson et al. (2010) defined social media addiction as the use of an SNS at a high level at least four times a day. It is important that parents are aware of the nature of SNSs because it is generally believed that these sites are not healthy environments for children and teenagers (O'Keeffe and Clarke-Pearson, 2011). Schill (2011) stated that SMSs cause negative behaviours in students such as wasting time. The symptoms of Facebook addiction are similar to those of drug addiction. Addicted users ignore aspects of personal life, have a strong desire to continuously use Facebook, enjoy the experience of social escape, utilise certain defence mechanisms to hide symptoms of their addiction, lose control and lose interest in entertainment over time (Kuss & Griffiths, 2011). Excessive use of Facebook may damage the psychological and social welfare and character of people (Harzadin, 2012). Karaiskos et al. (2010) demonstrated that the behaviours of adult women using SMSs interfere with their lives significantly. Women who use social media for at least 5 hours a day considerably decrease the diversity in their life spaces. Hosseinmardi et al. (2015) argued that there is a negative relation between an individual's SMS usage and psychological state. Kirschner and Karpinski (2010) assessed the relation between Facebook use and academic performance, and they determined that students who use Facebook have lower academic scores and allocate less time for studying compared with students who do not use SMSs.

The purpose of this study is to analyse social media addiction and usage among secondary-school students according to several personal variables: gender, age, grade, number of years of internet use, duration of daily internet use, number of years of social media use, place of social media use and type of social media used). Given this purpose, the study addressed the following question:

- What are the attitudes of secondary-school students regarding social media addiction and usage?

The study also considered the following sub-questions with respect to secondary-school students:

- What is the level of their social media addiction?

DOI: 10.5824/1309-1581.2019.3.001.x

- What are their purposes for using social media?
- Do social media addiction levels and purposes for social media use vary by gender?
- Do social media addiction levels and purposes for social media use vary by age?
- Do social media addiction levels and purposes for social media use vary by grade?
- Do social media addiction levels and purposes for social media use vary by the number of years of internet use?
- Do social media addiction levels and purposes for social media use vary by hours spent daily on the internet?
- Do social media addiction levels and purposes for social media use vary by the number of years of social media use?
- Do social media addiction levels and purposes for social media use vary by the type of social media used (e.g. Facebook, Twitter)?
- Is there any significant relation between social media addiction levels and purposes for social media use?

2. Method

2.1. The Study Model

This study is based on survey research using quantitative methods. The purpose of survey research is to collect data to determine certain features of a group (Büyüköztürk et al., 2008).

2.2. Population and Sample

The study population comprises secondary-school students who studied in Kastamonu Province in the 2016–2017 academic year. The sample includes 1005 students—495 females and 510 males—from five secondary schools.

2.3. Data Collection Tools

Data were collected in three ways. Students were asked to complete a personal information survey in which they answered questions regarding their gender, school, age, grade, number of years of internet use, duration of daily internet use, duration of weekly internet use, place of social media use, platform for social media use (e.g. mobile phones, computer) and type of social media used. Data were also collected through scales of purposes for social media use and addiction.

A scale of purposes for social media use was developed by Eren (2004). This five-point Likert-type scale consists of 12 positive items comprising two factors: interpersonal interactions and course preparation. The confidence of the scale was calculated concerning the sub-dimensions of scales of purposes for social media use; Cronbach's alpha was 0.847 for the dimension of interpersonal interactions and 0.778 for the dimension of course preparation. According to these values, it is confident with either scale.

A scale of social media addiction was developed by Çam and İşbulan (2012) and adapted by Özgür (2013) to the scale of social media addiction by including 'SNS' instead of 'Facebook'. This six-point Likert-type scale includes 19 positive items comprising one dimension. The confidence of the scale was calculated concerning, and Cronbach's alpha was 0.908. This value indicates that there is a high level of confidence between the items on the scale.

A personal information form designed to collect data, the scale of purposes for social media use, and the scale of social media addiction were applied to the students involved in the study by visiting their classes in person during the fall term of the 2016–2017 academic year.

2.4. Data Analysis

The coefficients of kurtosis and skewness were calculated to determine which statistical tests to use in the data analysis. The coefficient of skewness was 0.07, and the coefficient of kurtosis was 0.123. The coefficients of skewness and kurtosis between the limits of –1 and +1 indicate that the scores show a normal distribution (Huck, 2012; Çaka, Doğan, & Şahin, 2016). For this reason, parametric tests were used in the data analysis. These tests are the unpaired t-test and one-way analysis of variance (ANOVA). Tukey's test was used as a subsidiary post-hoc analysis to determine the reason for the variation in the data obtained after one-way ANOVA. The data were analysed through multiple regressions determining the extent to which the variance in the dependent variables can be explained by the independent variables. In addition, a correlation analysis was carried out to determine the aspect and the extent of the relation between the independent and dependent variables, and the Pearson correlation coefficients (r) were calculated.

According to Yenilmez (2008), score intervals can be categorised as 'never' (1.0–1.80), 'rarely' (1.81–2.60), 'sometimes' (2.61–3.40), 'often' (3.41–4.20) and 'always' (4.21–5.0) on fivepoint Likert scales in order to increase the statistical clarity of the scales. For this reason, intervals specified by Yenilmez (2008) were used as score intervals for the scale of purposes for social media use (SPSMU) in this study (Özyurt, 2015; Yenilmez, 2008).

3. Findings

3.1. Students' Social Media Addiction Levels and Purposes for Social Media Use

The average number of points scored by students on the scale of social media addiction (SSMA) and SPSMU is illustrated in Table 1.

Table 1. Average Points Scored by Students on SSMA and SPSMU

Factor		N	Minimum	Maximum	Average	Standard deviation
SSMA		1005	0	6	2, 26	0, 95
SPSMU	Course preparation	1005	1	5	3, 09	0, 91
	Interpersonal interactions	1004	1	5	2, 77	1, 01

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According to the average number of points listed in Table 1, students gave negative answers to items related to social media addiction. All items on the SSMA are positive for social media addiction. In other words, as the number of points that students scored on the scale increase, increased, the levels of social media addiction increased. When considering the average number of points in this regard, one can see that students have an overall tendency not to be social media addicts because the average number of points scored by the students ($\bar{x}$ = 2.26) is close to the range of scores in the 'rarely' level.

A consideration of Table 1 in terms of the purposes for social media use reveals that both course preparation ($\bar{x}$ = 3.09) and interpersonal interaction ($\bar{x}$ = 2.77) dimensions are at the same levels, and students rarely use social media for these two purposes.

3.2. Social Media Addiction Levels and Usage Purposes by Gender

The sample contains 495 female students (49.3%) and 510 (50.7%) male students. An unpaired t-test was carried out to examine the differences between male and female students, and the results of this test are illustrated in Table 2.

Table 2. Variation by Gender in Social Media Addiction and Usage Purposes

Scale	Gender	N	$\bar{x}$	Ss	t	sd	p
SSMA	Female	495	2,15	,90	–3,74	1003	.000*
	Male	510	2,37	,98			
Course preparation	Female	495	3,14	,90	1,75	1003	.081
	Male	510	3,04	,92			
Interpersonal interactions	Female	495	2,66	1,02	–3,29	1002	.001*
	Male	509	2,87	1,00			

*p < .05

According to Table 2, there is a significant relation between gender and social media addiction ($t_{(1003)}$ = –3.74; p < .05). Considering the average number of points, the levels of social media addiction are higher among males than among females. A detailed examination of the answers given by the males and females to the SSMA revealed that 22.99% of the males and 13.54% of the females are dependent on social media. This rate is 75.44% for independent males, and it is 85.05% for females. Moreover, 1.57% of males are in the risk group, and 1.41% of females are in the risk group.

An examination of Table 2 in terms of the purposes for social media use shows that there is no significant relation between male and female students ($t_{(1003)}$ = –1.75; p > .05). In addition, the average is statistically higher in males than in females for the interpersonal interactions dimension. In other words, men use social media more than women in order to communicate with others.

3.3. Variation by Age Levels Social Media Addiction Levels and Usage Purposes by Age

The age distribution of students participating in the study is illustrated in Table 3.

Table 3. Distribution of Students by Age

Age	N	%
10	3	0.3
11	163	16.2
12	393	39.1
13	292	29.1
14	149	14.8
15	5	0.5

Most of the students are in the age group of 11–14 years. An ANOVA test was used to determine social media addiction levels and usage purposes according to age. Because very few students are between the ages of 10 and 15, these students were included in the closest age groups for the ANOVA test. Table 4 illustrates the average number of points scored by the students according to age and the results of the ANOVA test.

Table 4. Average Number of SSMA and SPSMU Points by Age and Results of the ANOVA Test

Scale	Age	N	$\bar{x}$	Ss	Var. K.	KT	Sd	KO	F	p	Post-hoc analysis
SSMA	11.00	166	2,00	0,85	Between G.	19,228	3	6,409	7,230	.00*	11–12
	12.00	393	2,23	0,93	In G.	885,557	1001	,886			11–13
	13.00	292	2,37	1,01	Total	904,786	1004				11–14
	14.00	154	2,41	0,92							
	Total	1005	2,26	0,95							
Course preparation	11.00	166	3,09	0,94	Between G.	4,992	3	1,664	2,010	.11	
	12.00	393	3,15	0,94	In G.	828,678	1001	,828			
	13.00	292	3,06	0,88	Total	833,669	1004				
	14.00	154	2,95	0,84							
	Total	1005	3,09	0,91							
Interpersonal interactions	11.00	166	2,57	0,98	Between G.	12,353	3	4,118	4,044	.007*	11–13
	12.00	392	2,73	1,03	In G.	1018,219	1000	1,018			11–14
	13.00	292	2,86	1,02	Total	1030,573	1003				
	14.00	154	2,90	0,97							
	Total	1004	2,77	1,01							

*$p < .05$

An examination of the data in Table 4 in the context of social media usage purposes shows that these purposes do not vary by age for course preparation ($F(3–1004) = 2.010$; $p > .05$). However, there is a statistically significant difference between the age groups for interpersonal interactions ($F(3–1004) = 4.044$; $p < .05$). According to the results of Tukey's test, 13 ($\bar{x} = 2.86$) and 14 ($\bar{x} = 2.90$) year-old students use social media more than 11-year-old students ($\bar{x} = 2.57$) for interpersonal interactions. As for the sub-dimension of social media addiction, a significant

DOI: 10.5824/1309-1581.2019.3.001.x

difference by age was found. According to the results of Tukey's test, social media addiction is higher in 12 ($\overline{x}$ = 2.23), 13 ($\overline{x}$ = 2.37) and 14 ($\overline{x}$ = 2.41)-year-old students than in 11-year-old students ($\overline{x}$ = 2.0). As the age of students increases, social media addiction increases. In addition, as age increases, students use social media more in order to communicate and interact with other people.

3.4. Social Media Addiction Levels and Usage Purposes by the Number of Years of Internet Use

The number of years of internet use by students is illustrated in Table 5. Nearly 38% of the students have used the internet for less than 3 years. Nearly 44% of them have used the internet for 4–6 years. Only 18% of them have used the internet for 7 or more years. According to these findings, the number of years of internet use by the students is at a medium level.

Table 5. Distribution of Students According to the Number of Years of Internet Use

Number of years of internet use	N	%
0	15	1.5
1	72	7.2
2	146	14.5
3	148	14.7
4	148	14.7
5	172	17.1
6	123	12.2
7	94	9.4
8	60	6.0
9	12	1.2
10	14	1.4
11	1	0.1

A correlation analysis was conducted to determine the aspect and severity of the relation between the number of years of internet use and social media addiction and usage purposes, and the Pearson correlation coefficients (r) were calculated. It is usually accepted that there is a strong relation if r > 0, 70; a medium level relation if r = 0, 40 and 0, 70; a weak relation if r = 0, 20 and 0, 40; and a negligible relation if r < 0, 20 (Örücü and Kanbur, 2008). The results of the correlation analysis are illustrated in Table 6.

Table 6. Results of the Correlation Analysis on the Number of Years of Internet Use and Social Media Addiction and Usage Purposes

Dimensions of social media	Number of years of internet use
Social media addiction	0.234**
Course preparation	0.032
Interpersonal interactions	0.233**

**p < .01

According to the correlation analysis in Table 6, there is a weak but positive relation between the dimension of social media addiction and the number of years of internet use (r = 0.234; p <

.01). This relation has been found to be significant at a 99% confidence level. In other words, as the number of years of internet use increases, social media addiction also increases.

An examination of Table 6 in terms of social media use purposes reveals that there is no significant relation between the number of years of internet use in the course preparation dimension. Students use the internet for course preparation independently of the number of years of internet use. As for the dimension of interpersonal interactions, there is a weak but positive relation ($r = 0.233$; $p < .01$). As the number of years of internet use increases, students use social media mostly for interpersonal interactions.

3.5. Social Media Addiction Levels and Usage Purposes by Duration of Daily Internet Use

Time The amount of time spent by students on the internet each day is illustrated in Table 7.

Table 7. Daily Internet Use by Students

Hours spent by students on the internet	Group	N	%
Less than 1 hour	a	283	28.3
1–2 hours	b	384	38.5
3–4 hours	c	164	16.4
More than 4 fours	d	103	10.3
Never	e	65	6.5

According to Table 7, most of the students state that they use the internet for more than 1 hour in a day. Only a few students (10.3%) state that they use the internet for more than 4 hours in a day. An ANOVA test was applied to determine social media addiction levels and usage purposes with the number of hours of daily internet use as the variable. The average number of points scored by the students according to the number of hours of daily internet use and the results of the ANOVA test are illustrated in Table 8.

DOI: 10.5824/1309-1581.2019.3.001.x

Table 8. Average SSMA and SPSMU Points by the Number of Hours of Daily Internet Use and Results of the ANOVA Test

Scale	Group	N	$\bar{x}$	ss	Var. K.	KT	Sd	KO	F	p	Post-hoc analysis
SSMA	a	283	1,86	,77	Between G.	210,415	4	52,604	75,856	.000*	a–b, a–c, a–d
	b	384	2,22	,77	In G.	687,924	994	,693			b–c, b–d, b–e
	c	164	2,74	,95	Total	898,340	998				c–d, c–e
	d	103	3,22	1,02							d–e
	e	65	1,55	,78							
	Total	999	2,27	0,95							
Course preparation	a	283	3,09	,94	Between G.	21,486	4	5,371	6,630	.000*	a–e
	b	384	3,15	,85	In G.	805,365	994	,810			b–e
	c	164	3,15	,87	Total	826,851	998				c–e
	d	103	3,04	,99							d–e
	e	65	2,54	,97							
	Total	999	3,08	,91							
Interpersonal interactions	a	282	2,40	,96	Between G.	179,780	4	44,945	52,628	.000*	a–b, a–c, a–d, a–e
	b	384	2,77	,92	In G.	848,038	993	,854			b–c, b–d, b–e
	c	164	3,22	,90	Total	1027,818	997				c–e
	d	103	3,57	,89							d–e
	e	65	1,97	,88							
	Total	998	2,77	1,02							

*p < .05

An examination of the averages in Table 8 shows that, as the duration of daily internet use increases for the dimension of social media addiction, the averages also increase. In other words, when students use the internet for more hours per day, the level of social media addiction increases. Students who do not access the internet have the lowest average social media addiction level, and students who access the internet for more than 4 hours per day have the highest social media addiction level. The average number of points in the dimension of course preparation is similar for all students, excluding those who do not access the internet. Furthermore, as the amount of daily time spent on the internet increases, the average number of points in the interpersonal interactions dimension increases.

An examination of the results from the ANOVA analysis conducted to determine whether these differences are significant shows that there is a significant difference in social media addiction among students according to the daily internet use variable (F(4–998) = 75.856; p <

.05). According to the results of Tukey's test, the level of social media addiction among students who access the internet for less than 1 hour in a day ($\bar{x}$ = 1.86) is less than that of students who access the internet for more than 1–2 hours ($\bar{x}$ = 2.22), 3–4 hours ($\bar{x}$ = 2.74) and 4 hours ($\bar{x}$ = 3.22). Similarly, the level of social media addiction among students who access the internet for more than 1–2 hours ($\bar{x}$ = 2.22) is less than that of students who access the internet for more than 3–4 hours ($\bar{x}$ = 2.74) and 4 hours ($\bar{x}$ = 3.22). Although the level of social media addiction among students who access the internet for more than 3–4 hours ($\bar{x}$ = 2.74) is less than that of students who access the internet for more than 4 hours ($\bar{x}$ = 3.22), it is higher than that of students who never access the internet. Finally, the level of social media addiction among students who access the internet for more than 4 hours ($\bar{x}$ = 3.22) is higher than that of students who never access it ($\bar{x}$ = 1.55). An evaluation of all these findings reveals that the level of social media addiction among students increases as the amount of time they spend per day on the internet increases. In other words, the amount of time dedicated to internet use increases the extent of social media addiction. Students probably use the internet more on a daily basis because of their social media addiction.

An evaluation of Table 8 in terms of social media usage purposes shows that there is a significant difference in the course preparation dimension ($F(4–998) = 6.630$; $p < .05$) and the interpersonal interactions dimension ($F(4–997) = 52.628$; $p < .05$). According to the results of Tukey's test, the levels of social media use are less among students who never use the internet ($\bar{x}$ = 2.54) for course preparation, as compared with students who use the internet for less than 1 hour ($\bar{x}$ = 3.09), for 1–2 hours ($\bar{x}$ = 3.15), for 3–4 hours ($\bar{x}$ = 3.15) and for more than 4 hours ($\bar{x}$ = 3.04). In other words, the level of social media use for course preparation is lower among students who never use the internet on a daily basis compared with that of other students—an expected result. Yet, this result does not mean that the rate of social media use for course preparation increases among students as the duration of daily internet use increases.

As for points of interpersonal interactions, there are significant differences between almost all the groups. Although the level of social media use for interpersonal interactions is lower among students who use the internet for less than 1 hour per day ($\bar{x}$ = 2.40) than among students who use the internet for 1–2 hours ($\bar{x}$ = 2.77), 3–4 hours ($\bar{x}$ = 3.22) and more than 4 hours ($\bar{x}$ = 3.57) in a day, it is higher than that among students who never use the internet ($\bar{x}$ = 1.97). Similarly, although the level of social media use for interpersonal interactions is lower among students who use the internet for 1–2 hours ($\bar{x}$ = 2.77) than among students who use the internet for 3–4 hours ($\bar{x}$ = 3.22) and more than 4 hours ($\bar{x}$ = 3.57) in a day, it is higher than that of students who never use the internet ($\bar{x}$ = 1.97). In addition, the level of social media use for interpersonal interactions is higher among students who use the internet for 3–4 hours ($\bar{x}$ = 3.22) and more than 4 hours ($\bar{x}$ = 3.57) in a day than among students who never use the internet ($\bar{x}$ = 1.97). According to these findings, students use social media mostly for interpersonal interactions as the amount of daily internet use increases. Or, students use social media daily mostly for interpersonal interactions.

3.6. Social Media Addiction Levels and Usage Purposes by Grade Level

Students in the study were in grades 6, 7 and 8 of secondary-school. The distribution of students by grade is illustrated in Table 9. As seen in Table 9, 36% of the students are in grade 6, 37% are in grade 7, and 27% are in grade 8.

DOI: 10.5824/1309-1581.2019.3.001.x

Table 9. Distribution of Students by Grade Level

Grade	N	%
6	362	36.0
7	372	37.0
8	271	27.0

An ANOVA test was used to determine the variance in the level of social media addiction and usage purposes according to the grade level variable. Table 10 presents the average number of points according to the grade level variable and the results of the ANOVA test.

Table 10. Average Number of Points of SSMA and SPSMU by Grade Level and Results of the ANOVA Test

Scale	Grade	N	$\bar{x}$	ss	Var. K.	KT	Sd	KO	F	p	Post-hoc analysis
SSMA	6	362	2,15	,93	Between G.	8,671	2	4,335	4,838	.008*	6–7
	7	372	2,37	,94	In G.	896,115	1000	,896			
	8	271	2,26	,98	Total	904,786	1002				
	Total	1005	2,26	,95							
Course preparation	6	362	3,16	,96	Between G.	9,512	2	4,756	5,782	.003*	6–8
	7	372	3,12	,87	In G.	824,157	1002	,823			7–8
	8	271	2,93	,89	Total	833,669	1004				
	Total	1005	3,09	,91							
Interpersonal interactions	6	361	2,71	1,02	Between G.	2,355	2	1,178	1,146	.318	
	7	372	2,82	1,00	In G.	1028,218	1001	1,027			
	8	271	2,79	1,02	Total	1030,573	1003				
	Total	1004	2,77	1,01							

*p < .05

According to the averages listed in Table 10, the average for grade 7 is the highest ($\bar{x}$ = 2.37) in the dimension of social media addiction. This average is followed by the average for grade 8 ($\bar{x}$ = 2.26) and grade 6 ($\bar{x}$ = 2.15). In the course preparation dimension, the average number of points decreases as the grade increases. In the dimension of interpersonal interactions, the highest rate is for grade 7 ($\bar{x}$ = 2.82), similar to the rate for the dimension of social media addiction. It is followed by the average for grade 8 ($\bar{x}$ = 2.79) and grade 6 ($\bar{x}$ = 2.71). When considering the results of the ANOVA analysis conducted to determine whether these

differences are significant, we found a significant difference according to the grade level variable in the dimension of social media addiction ($F(2–1002) = 4.838$; $p < .05$). According to the results of Tukey's test, social media addiction among sixth-grade students ($\bar{x} = 2.15$) is lower than that among seventh-grade students ($\bar{x} = 2.37$). Without making an absolute generalisation, we can say that social media addiction increases as the grade level increases.

When According to Table 10, in terms of social media usage purposes, there is a significant difference in the course preparation dimension ($F(2–1004) = 5.782$; $p < .05$). However, a significant difference was not present in the dimension of interpersonal interactions ($F(2–1003) = 1.146$; $p > .05$). Tukey's test was applied to determine which groups were involved in the significant difference in the course preparation dimension. According to the results of Tukey's test, the levels of social media use for course preparation are lower among students in grade 8 ($\bar{x} = 2.93$) than among students in grade 6 ($\bar{x} = 3.16$) and grade 7 ($\bar{x} = 3.12$). In other words, final-year secondary students use social media less for course preparation.

3.7. Social Media Addiction Levels and Usage Purposes by the Number of Years of Social Media Use

Table 11 presents the number of years students have been using social media according to their age.

Table 11. Distribution of Students by the Number of Years of Social Media Use

Answer	Group	Age	N	%
Less than 1 year	a	11	44	26,7
		12	84	21,8
		13	50	17,4
		14	19	12,7
		Total	197	19.6
1–2 years	b	11	41	24,8
		12	107	27,8
		13	49	17
		14	33	22
		Total	230	22.9
3–4 years	c	11	56	34
		12	120	31,2
		13	94	32,8
		14	51	34
		Total	321	31.9
More than 5 years	d	11	24	14,5
		12	74	19,2
		13	94	32,8
		14	47	31,3
		Total	239	23.8
No answer	—	Total	18	1.8

According to Table 11, 6% of the students have used social media for less than 1 year, 22.9% for 1–2 years, 31.9% for 3–4 years and 23.8% for more than 5 years. Although more than half of the students have used social media for more than 3 years, nearly 20% of them started to use social media only recently.

DOI: 10.5824/1309-1581.2019.3.001.x

When evaluating the levels of social media use by age, we found that 48.5% of the students who have used social media for 3 or more years are 11 years old, 50.4% are 12 years old, 65.6% are 13 years old and 65.5% are 14 years old. Considering this result in general, we can say that more than half of the students have used social media for many years, and they started to use social media in primary school. In other words, most of the students start to use social media when they are in grades 3 and 4 of primary school (at the age of 8–9 years). This issue of early-age social media use requires further study.

An ANOVA test was applied to determine the variance in the levels of social media addiction and usage purposes according to the number of years of social media use. Table 12 presents the average number of points according to this variable and the results of the ANOVA test.

Table 12. Average Number of Points of SSMA and SPSMU by the Number of Years of Social Media Use and Results of the ANOVA Test

Scale	Group	N	$\bar{x}$	ss	Var. K.	KT	Sd	KO	F	p	Post-hoc analysis
SSMA	a	197	1,77	,82	Between G.	110,721	3	36,907	46,833	.00*	a–b, a–c, a–d
	b	230	2,14	,80	In G.	773,087	983	,788			b–c, b–d
	c	321	2,34	,84	Total	883,807	986				c–d
	d	239	2,75	1,07							
	Total	987	2,28	,95							
Course preparation	a	197	2,93	1,00	Between G.	7,242	3	2,414	2,947	.032*	a–c
	b	230	3,13	,84	In G.	805,319	983	,819			
	c	321	3,16	,85	Total	812,562	986				
	d	239	3,11	,97							
	Total	987	3,09	,91							
Interpersonal interactions	a	197	2,11	,94	Between G.	161,631	3	53,877	63,597	.000*	a–b, a–c, a–d
	b	229	2,63	,94	In G.	831,915	982	,847			b–c, b–d
	c	321	2,98	,88	Total	993,546	985				c–d
	d	239	3,26	,94							
	Total	986	2,79	1,00							

*$p < .05$

When examining the average number of points in Table 12, we found that as the level of social media use increases, the average number of points increases in the dimension of social media addiction. There is a similarity with the dimension of course preparation and interpersonal interactions. When examining the results of the ANOVA analysis conducted to determine whether there is a significant difference, we found that there is a significant difference in the

dimension of social media addiction by the variable of number of years of social media use ($F(3–986) = 46.833$; $p < .05$). According to the results of Tukey's test, social media addiction is lower among students who have used social media for less than 1 year ($\overline{x} = 1.77$) than among students who have used it for 1–2 years ($\overline{x} = 2.14$), 3–4 years ($\overline{x} = 2.34$) and 5 or more years ($\overline{x} = 2.75$). Similarly, social media addiction among students who have used social media for 1–2 years ($\overline{x} = 2.14$) is lower than that of students who have used it for 3–4 years ($\overline{x} = 2.34$) and more than 5 years ($\overline{x} = 2.75$). There is a similarity between students who have used social media for 3–4 years ($\overline{x} = 2.34$) and more than 5 years ($\overline{x} = 2.75$). In other words, social media addiction increases as the number of years of social media use increases.

When evaluating Table 12 in terms of purposes of social media use, we found that there is a significant difference in the course preparation dimension ($F(3–986) = 2.947$; $p < .05$) and the interpersonal interactions dimension ($F(3–985) = 63.597$; $p < .05$). According to the results of Tukey's test, students who have used social media for less than 1 year ($\overline{x} = 2.93$) use it for course preparation less than students who have used it for 3–4 years ($\overline{x} = 3.16$). In other words, the levels of social media use for course preparation do not increase in all groups as the number of years of social media use increases. Hence, it cannot be concluded that students use social media much more for course preparation as the number of years of social media use increases.

As for the interpersonal interactions dimension, students who have used social media for less than 1 year ($\overline{x} = 2.11$) use social media for interpersonal interactions less than students who have used it for 1–2 years ($\overline{x} = 2.63$), 3–4 years ($\overline{x} = 2.98$) and more than 5 years ($\overline{x} = 3.26$). In a similar manner, students who have used social media for 1–2 years ($\overline{x} = 2.63$) use social media for interpersonal interactions less than students who have used it for 3–4 years ($\overline{x} = 2.98$) and more than 5 years ($\overline{x} = 3.26$). There is similarity between students who have used social media for 3–4 years ($\overline{x} = 2.98$) and more than 5 years ($\overline{x} = 3.26$). In other words, the levels of social media use for interpersonal interactions increase as the number of years of social media use increases.

3.8. Social Media Addiction Levels and Usage Purposes by Place of Use

Most of the students (n = 762, 75.8%) use social media at home. The rest of the students use social media both at home and in vehicles (n = 46, 4.6%) or in vehicles (n = 35, 3.5%). As a result, although students prefer mostly to use social media at home and in vehicles, they usually do not prefer to use social media at school. The reason could be because it is forbidden to use mobile phones at school, and there is limited access to SNSs on the internet network of the Ministry of National Education. In addition, students generally prefer spending their time on social media (instead of studying, playing games or resting) at the places where they spend their spare time.

How much of the variance in the dependent variable can be explained by independent variables can be analysed through multiple regression. The partial contributions of each independent variable can be determined by multiple regression analysis (Balcı and Ahi, 2017). For this reason, multiple regression analysis was used to determine the influence of the place of social media use on the variables of course preparation, interpersonal interactions and social media addiction. Table 13 presents a multiple regression analysis performed to determine the

DOI: 10.5824/1309-1581.2019.3.001.x

influence of the places where students use social media on the dependent variable of course preparation.

Table 13. Results of Multiple Regression Analysis Concerning Points of Course Preparation for the Places Where Students Use Social Media

Independent Variable	Non-standardized Coefficients		Standardized Coefficients			
	B	Std. Error	β	Part	t	Significance
(Continuouslv)	2,860	,096			29,819	,000
Home	,230	,098	,085	,074	2,346	,019*
School	,166	,140	,041	,037	1,190	,234
Garden	-,250	,162	-,056	-,048	-1,542	,123
Transportation vehicles	,257	,097	,090	,084	2,658	,008**
Other	-,055	,129	-,014	-,013	-,423	,673
R=0,11 R^2=0,012	F= 2,461*					

*p < .05
**p < .01

According to Table 13, places where students use social media account for 1.2% of the total variance concerning the use of social media for course preparation ($R^2 = 0.012$; $F(5,999) = 2.461$; $p = 0.032$). β values are considered in order to determine the effect of each independent variable (place of social media use) on the dependent variable (course preparation) (Balcı and Ahi, 2017). According to the β values listed in Table 13, the order of importance for the place of social media use variable concerning the use of social media for course preparation is vehicles ($\beta = .090$; $t = 2,658$; $p < .05$), home ($\beta = .085$; $t = 2,346$; $p < .05$), gardens ($\beta = –.056$; $t = –1,542$; $p > .05$), school ($\beta = .041$; $t = 1,190$; $p > .05$) and other ($\beta = –.014$; $t = –.423$; $p > .05$). In other words, the use of social media in vehicles and at home contributes most to the use of social media for course preparation. Although the use of social media in vehicles and at home makes a significant contribution to the estimated use of social media for course preparation, it does not make a significant contribution to the use of social media at school, in gardens and at other places. The part-value square in Table 13 shows the effect of the dependent variable on R2. This value indicates how much of the variance in the dependent variable is explained by this variable (Balcı and Ahi, 2017). Hence, although the use of social media in vehicles accounts for 0.81% of the use of social media, that at home accounts for 0.7% of the variance of the use of social media for course preparation.

Table 14 presents a multiple regression analysis carried out to determine the effect of the place of social media use on the dependent variable of interpersonal interactions.

Table 14. Results of Multiple Regression Analysis Concerning Points of Interpersonal Interactions for the Places Where Students Use Social Media

Independent Variable	Non-standardized Coefficients		Standardized Coefficients			
	B	Std. Error	β	Part	t	Significance
(Always)	2,305	,104	-		22,096	0,000
Home	,413	,106	,137	,119	3,884	0,000**
School	,157	,152	,035	,032	1,033	0,302
Garden	,285	,177	,057	,050	1,612	0,107
Transportation	,534	,105	,169	,156	5,077	0,000**
Other	,353	,141	,083	,077	2,512	0,012*
R=0,236	R^2= 0,056	F= 11,774**				

*p < .05
**p < .01

According to Table 14, places where students use social media account for 5.6% of the total variance concerning the use of social media for interpersonal interactions (R^2 = 0.056; F(5,999) = 11,774; p = .00). According to the β values listed in Table 14, the order of importance for the place of social media use variable concerning the use of social media for interpersonal interactions is vehicles (β = .169; t = 5,077; p < .01), home (β = .137; t = 3,884; p < .01), other (β = .083; t = 2,512; p < .05), gardens (β = .057; t = 1,612; p > .05) and school (β = .035; t = 1,033; p > .05). In other words, the use of social media in vehicles and at home contributes the most to the use of social media for interpersonal interactions. Although the use of social media in vehicles, at home and at other places makes a significant contribution to the estimated use of social media for interpersonal interactions, it does not make a significant contribution to the use of social media at school and in gardens. In addition, considering the square of the part values in Table 14, the use of social media in vehicles accounts for 2.43% of the variance on the use of social media for interpersonal interactions, at home accounts for 1.41%, and at other places accounts for 0.9%.

Table 15 presents the multiple regression analysis carried out to determine the effect of the place of social media use on the dependent variable of social media addiction.

Table 15. Results of Multiple Regression Analysis Concerning Points of Facebook Addiction Scale for the Places Where Students Use Social Media

Independent variable	Non-standardised coefficients		Standardised coefficients			
	B	Std. error	B	Part	t	Significance
(Always)	1,955	,099			19,851	,000
Home	,256	,101	,091	,080	2,547	,011*
School	,158	,143	,038	,035	1,102	,271
Gardens	,367	,167	,078	,069	2,201	,028*
Vehicles	,375	,099	,127	,119	3,780	,000**
Other	,273	,133	,069	,065	2,054	,040*
R = .203	R^2 = 0.041	F = 8,55**				

*p < .05, **p < .01

DOI: 10.5824/1309-1581.2019.3.001.x

According to Table 15, places where students use social media account for 4.1% of total variance concerning social media addiction (R^2 = 0.041; F(5,999) = 8,55; p = .00). According to the β values listed in Table 15, the order of importance for the place of social media use variable concerning social media addiction is vehicles (β = .127; t = 3,780; p < .01), home (β = .091; t = 2,547; p < .05), gardens (β = .078; t = 2,201; p < .05), other (β = .069; t = 2,054; p < .05) and school (β = .038; t = 1,102; p > .05). In other words, the use of social media in vehicles and at home contributes the most to social media addiction. Although the use of social media in vehicles, at home, in gardens and at other places makes a significant contribution to the estimated use of social media for interpersonal interactions, it does not make a significant contribution to the use of social media at school. In addition, considering the square of the part values in Table 15, the use of social media in vehicles accounts for 1.4% of the variance on social media addiction, at home accounts for 0.64%, in gardens accounts for 0.47%, and at other places accounts for 0.42%.

3.9. Social Media Addiction Levels and Usage Purposes by Social Media Type

Table 16 displays the different social media types used by students and the frequency of use. According to these data, students usually use Facebook, Messenger and YouTube. A few students use Wikipedia, Twitter, Skype, blogs, fora and other social media.

Table 16. Types of Social Media Used by Students and Frequency of Use

Social media	Never		Rarely		Sometimes		Often		Always	
	N	%	N	%	N	%	N	%	N	%
Facebook	210	20.9	170	16.9	241	24.0	164	16.3	220	21.9
Facebook Messenger	348	34.6	161	16.0	192	19.1	128	12.7	176	17.5
YouTube	64	6.4	71	7.1	227	22.6	229	22.8	414	41.2
Wikipedia	608	60.5	140	13.9	141	14.0	61	6.1	55	5.5
Twitter	748	74.4	100	10.0	81	8.1	27	2.7	49	4.9
Skype	677	67.4	107	10.6	79	7.9	55	5.5	87	8.7
Blogs	835	83.1	75	7.5	39	3.9	32	3.2	24	2.4
Fora	797	79.3	75	7.5	71	7.1	26	2.6	36	3.6
Other	536	53.3	51	5.1	103	10.2	108	10.7	207	20.6

A correlation analysis was conducted to determine the aspect and severity of the relation among course preparation, interpersonal interactions and social media addiction sub-dimensions, and the Pearson correlation coefficients (r) were calculated. It is usually accepted that there is a strong relation if r > 0, 70; a medium level relation if r = 0, 40 and 0, 70; a weak relation if r = 0, 20 to 0, 40; and a negligible relation if r < 0, 20 (Örücü & Kanbur, 2008). The results of the correlation analysis are illustrated in Table 17.

Table 17. Results of the Correlation Analysis Between Type of Social Media and Dependent Variables

Type of social media	Course preparation	Interpersonal interactions	Social media addiction
Facebook	.179**	.507**	.347**
Messenger	.202**	.514**	.356**
YouTube	.177**	.398**	.314**
Wikipedia	.167**	.180**	.091**
Twitter	.137**	.354**	.248**
Skype	.122**	.344**	.235**
Blogs	.152**	.273**	.134**
Fora	.152**	.263**	.144**
Others	.175**	.349**	.243**

**p < .01

When examining Table 17 in terms of the purposes for social media use, we found a weak but positive relation between the dimension of course preparation and Facebook Messenger. In addition, there is a negligible relation ($r < 0.20$) for all the other social media types. In other words, only users of Facebook Messenger use social media for course preparation. There is a positive and medium level relation, respectively, between the dimension of interpersonal interactions and Facebook ($r = 0.517$; $p < .01$) and Facebook Messenger ($r = 0.514$; $p < .01$). Students who use Facebook and Facebook Messenger use these forms of social media mostly for interpersonal interactions. The determination coefficient is (r^2) 0.267 between the dimension of interpersonal interactions and Facebook. This finding indicates that there is a common variance at 26.7%. The dimension of interpersonal interactions accounts for 26.7% of the variance in Facebook, or Facebook accounts for 26.7% of the variance in interpersonal interactions. The determination coefficient is (r^2) 0.264 between the dimension of interpersonal interactions and Facebook Messenger. Thus, the dimension of interpersonal interactions accounts for 26.4% of the variance in Facebook Messenger, or Facebook Messenger accounts for 26.7% of the variance in interpersonal interactions. In addition, there is a weak but positive relation between interpersonal interactions and YouTube, Twitter, Skype, blogs and fora. Users use these social media types for interpersonal interactions. There is also a negligible relation with Wikipedia. There is a weak but positive relation between social media addiction and Facebook, Facebook Messenger, YouTube, Twitter and Skype. This relation was found to be significant at the 99% confidence level. In other words, social media addiction is higher in users of these social media types. Furthermore, the relation with Wikipedia, blogs and fora is so weak that it should be neglected.

According to these findings, students use most of the social media types to communicate with their peers rather than to prepare for their courses; thus, the use of social media for interpersonal interactions increases the addiction to these SNSs.

3.10. Relationship Between Social Media Addiction and Usage Purposes

A correlation analysis was conducted to determine the aspect and severity of the relation among course preparation, interpersonal interactions and social media addiction sub-

DOI: 10.5824/1309-1581.2019.3.001.x

dimensions, and the Pearson correlation coefficients (r) were calculated. Table 18 illustrates the results of this analysis.

Table 18. Results of the Correlation Analysis Among Course Preparation, Interpersonal Interactions and Social Media Addiction Sub-Dimensions

Scale	Course preparation	Interpersonal interactions
Social media addiction	.064*	.511**
Course preparation		.389**

*p < .05
**p < .01

There is a positive and significant relation at the medium level between the dimensions of interpersonal interactions and social media addiction (r = .511; p < .01). Interpersonal interactions increase as social media addiction increases. The determination coefficient is (r^2) 0.266 between these two variables. This finding indicates a common variance at 26%. Social media addiction accounts for 26% of the variance in interpersonal interactions, or interpersonal interactions account for 26% of the variance in social media addiction. Moreover, there is a significant relation at the positive and weak level between interpersonal interactions and course preparation (r = 0.389; p < .01). The determination coefficient is (r^2) 0.15 between the two variables mentioned. This finding indicates a common variance at 15%. Course preparation accounts for 15% of the variance in interpersonal interactions, or interpersonal interactions account for 15% of the variance in course preparation. In addition, there is a very weak relation (at the level to be neglected) between social media addiction and course preparation (r = 0.064; p < .05). In other words, there is no relationship between the variances in social media addiction and course preparation.

4. Results and Discussion

Social networking sites have become a part of everyone's life because internet access has become widespread. Users of SNSs use these sites to communicate with others, arrange activities and share information. As technology has become more accessible to lower-income and younger people, SNSs have begun to more significantly affect the lifestyles and psychological attitudes of individuals.

According to research carried out by Ohio State University, SNSs affect the success of students. This study determined that the points of students who do not use Facebook are higher than those of students who use it. Others have argued that Facebook can be used efficiently as an instrument to socialise with friends through planning and guiding teachers and parents without affecting students' academic performance (Ashwini and Umesh, 2014). Research on secondary-school and high-school students is required, as the use of social media is becoming more popular in these groups; it is supposed to examine students' attitudes towards the media mentioned and create awareness on the use of these media in the learning–teaching process (Eren, 2004).

In this study, variance in the purposes of social media use among secondary-school students and their levels of social media addiction were examined by various variables. According to the results of the study, students have an overall tendency not to become social media addicts. These results are similar to those from the study carried out by Kırık et al. (2015), who argued that social media addiction among 14-year-old students is low.

Most of the students access social media at home and through mobile phones. They spend most of their time at school, and it is forbidden to use cell phones at school. Hence, they are not able to use social media at school. This inability to use social media at school may have an effect on why social media addiction is low. Furthermore, students sometimes use social media for both course preparation and interpersonal interactions. This result backs up one from a previous study in which the use of social media was found to be at a medium level for both course preparation and interpersonal interactions. These results are similar to those obtained by Tuğlu (2017), who determined that secondary-school students use social media for both course preparation and interpersonal interactions. This result does not jibe with the results of Eren (2014) and Agosto et al. (2012). The reason is that students in these studies use social media mostly to communicate with other people. In a study carried out on secondary-school students in grade 7, Dönmez et al. (2012) determined that students use social media mostly for communication.

According to the findings, the social media addiction level is higher among males than females. These results may be affected by the fact that females are more effective at establishing social relations in person than males, who are slightly more introverted. This result does not jibe with the result obtained by Kırık et al. (2015), who could not find a significant difference between points of social media addiction by age. There are other studies in which social media addiction among male students was found to be higher than that among females at university level (Karacı & Piri, 2017; Çam and İşbulan, 2012). 13.54% of females are addicts, whereas 22.99% of males are addicts. Although the rate of non-addict males is 75.44%, this rate is 85.05% for females. Moreover, whereas 1.57% of males are in the risk group, 1.41% of females are in the risk group. It has been seen that there is no significant relation between male and female students at the dimension of course preparation in terms of the intended purposes. Furthermore, the average of males is statistically higher than that of females for the dimension of interpersonal interactions. In other words, men use social media more than women to communicate with others. These results jibe with the results obtained by Eren (2004). According to Ahn (2011), in contrast to the result obtained in this study, women use social media more actively than men.

Another important variable affecting the purposes for social media use and addiction is age. Most of the students who participated in the study were between the ages of 11 and 14 years. According to the results of this study, social media addiction increases as the age of the students increases. This result jibes with the result obtained by Kırık et al. (2015). Blackwell et al. (2017) and Ho et al. (2017) found a negligible relation between age and social media addiction. Because addiction increases with age, it may be a more serious issue at the high-school and university level. Hence, social media addiction is a problem that requires action to be taken. It has been determined that the purposes for social media use do not vary by age at the dimension of course preparation. As for the dimension of interpersonal interactions, students use social media more to communicate and interact with other people as their age

DOI: 10.5824/1309-1581.2019.3.001.x

increases. Wilson et al. (2010) stated that teenagers use more SNSs such as MySpace and Facebook to interact with other people. Similarly, according to Kuss and Griffiths (2011), teenagers and students take more advantage of SNSs compared with the overall population. Eren (2004) could not find a significant difference in the dimension of interpersonal interactions. However, he found a significant difference in the dimension of course preparation and stated that students use social media more in course preparation as their age decreases.

More than half of the participants have used the internet for 4 or more years. According to the results of the study, social media addiction increases as the number of years of internet use increases. The study by Longstreet and Brooks (2017) supports this result. They determined an average relation between internet addiction and social media addiction. As for the purposes for social media use, there is no significant relation with the number of years of internet use for the dimension of course preparation. As for the dimension of interpersonal interactions, students use social media mostly for interpersonal interactions as the number of years of internet use increases. Although these results jibe with those of Eren (2014) at the dimension of interpersonal interactions, they do not jibe at the dimension of course preparation. Eren (2014) stated that social media is used less in course preparation as the number of years of internet use increases. The internet has become a habit in the life of teenagers as the number of years of internet use increases, and the rates of social media use and addiction increase through this habit. The number of friends on social media will also increase with this addiction. This increase causes students to use social media mostly for interpersonal interactions. Daily social media use by students affects social media addiction and the intended purposes. Social media addiction increases as the duration of daily internet use increases. In other words, spending a great deal of time each day on the internet increases social media addiction. It could be that students use the internet more on a daily and weekly basis because of their social media addiction. This result on addiction jibes with the result obtained by Kırık et al. (2015). Again, this result is similar to that of Longstreet et al. (2017), who obtained an average relation between internet addiction and social media addiction. Students use social media more for interpersonal interactions as the duration of daily internet use increases in terms of the purposes for social media use. The reason is that the rates of social media use for course preparation do not increase for students as the duration of their daily internet use increases. Eren (2014) did not find a significant difference in the dimension of course preparation but did find that the use of social media in interpersonal interactions increases as the duration of daily and weekly internet use increases.

Students who participated in this study were in grades 6, 7 and 8 of secondary-school. According to the findings of the study, social media addiction increases as the grade level increases. Addiction is significantly higher among students in grade 7 than among students in grade 6. This result supports the result obtained for the age variable. In fact, the number of friends that students have on social media and the number of years of social media use increase as the grade level increases. Students become more isolated after adolescent problems have emerged, and this isolation causes an increase in social media addiction. In the study conducted with university students, Özgür (2013) obtained a result similar to that of this study. Again, Karacı and Piri (2017) and Çam and İşbulan (2012) found a similar result. Although a

significant difference was found for the dimension of course preparation in terms of the purposes for social media use, no significant differences were found in the dimension of interpersonal interactions. Students use social media less in course preparation as their grade level increases, and the addiction results in a decrease in social media use for course preparation. The reason for this phenomenon should be studied. According to these results, addiction increases as the grade level increases, and the rate of social media use for course preparation decreases with this addiction. The reason for this should also be studied. One possible reason could be that the responsibility to do homework decreases as students move to the upper grades.

The number of years of social media use by students is another factor that affects social media addiction and the purposes for use. Although more than half of the students have used social media for 3 or more years, nearly 20% of them have started using social media more recently. When evaluating the age at which the use of social media starts, we can say that more than half of the students have used social media for several years, starting when they were in primary school. In other words, most of the students start to use social media in grades 3 and 4 (at 8–9 years) of primary school. This issue should be studied. According to the findings of the study, social media addiction increases as the number of years of social media use increases. This result jibes with the results obtained by Kırık et al. (2015). As for usage purposes, the rates of social media use for course preparation do not increase in all groups as the number of years of social media use increases. For this reason, it cannot be concluded that students use social media more for course preparation as the number of years of social media use increases. However, students use social media more for interpersonal interactions as the number of years of social media use increases. The need for communication with other people may be one of the reasons why the number of years of social media use increases. Although students prefer to use social media at home and in vehicles, they usually do not prefer to use social media at school because it is forbidden to use cell phones at schools and access to SNSs is limited on the internet network of the Ministry of National Education. In addition, students prefer spending time on social media at home instead of activities such as studying, playing games or resting. According to the findings of the study, the use of social media in vehicles and at home contributes the most to the use of social media for course preparation. In other words, although the use of social media in vehicles and at home makes a significant contribution to the estimated use of social media for course preparation, it does not make a significant contribution to the use of social media at school, in gardens, and at other places. The use of social media in vehicles accounts for 0.81% of the variance on the use of social media for course preparation, whereas that at home accounts for 0.7%. The use of social media in vehicles and at home contributes the most to the use of social media for interpersonal interactions. Although the use of social media in vehicles, at home and at other places makes a significant contribution to the estimated use of social media for interpersonal interactions, it does not make a significant contribution to the use of social media at school and in gardens. The use of social media in vehicles accounts for 2.43% of the variance on the use of social media for interpersonal interactions, at home accounts for 1.41%, and at other places accounts for 0.59%. The use of social media in vehicles and at home contributes the most to social media addiction. Although the use of social media in vehicles, at home, in gardens and at other places makes a significant contribution to the estimated use of social media for interpersonal interactions, it does not make a significant contribution to the use of social media at school. The use of social media in vehicles accounts for 1.4% of the variance on social media addiction,

DOI: 10.5824/1309-1581.2019.3.001.x

at home accounts for 0.64%, in gardens accounts for 0.47%, and at other places accounts for 0.42%. When evaluating these results in general, we found that students use social media mostly at home and in vehicles for interpersonal interactions and course preparation. Furthermore, social media use at home and in vehicles does not have more of an effect on the formation of social media addiction.

When making an evaluation in terms of the type of social media used, we found that students usually use Facebook, Facebook Messenger and YouTube. A few students use Wikipedia, Twitter, Skype, blogs, fora and other social media types. Ogaji et al. (2017) determined that Facebook is one of the most used SNSs among students. Only students using Facebook Messenger use social media for course preparation. Other social media types are not used for course preparation. In addition, students using Facebook and Facebook Messenger use these forms of social media mostly for interpersonal interactions. Accordingly, Facebook is used by students for communication with friends rather than for course preparation. Even though Facebook is the most widely used social media type, it does not contribute to the academic development of students. It may be possible to have Facebook contribute to students' academic development once the relevant institutions and organisations evaluate this result and take appropriate action. Students use YouTube, Twitter, Skype, blogs and fora the least for interpersonal interactions. Students use only one social media instrument (Facebook Messenger) for course preparation; however, they use seven social media instruments for interpersonal interactions. The main reason for the increased number of social media types used by students is the need to communicate with people. Social media addiction is higher in students using Facebook, Facebook Messenger, YouTube, Twitter and Skype. Moqbel and Kock (2017) showed that there is a strong relation between social media addiction and attention deficit. The attention deficit of students who use social media and have an addiction problem also affects academic success.

According to the results of the correlation analysis performed to determine the aspect and severity of the relation among course preparation, interpersonal interactions and social media addiction sub-dimensions, there is a positive and significant relation at the medium level between the dimensions of interpersonal interactions and social media addiction. Interpersonal interactions increase as social media addiction increases. The exact opposite situation is correct too. Roblyer et al. (2010) proposed that 92.5% of students use social media to communicate with their peers, and only 4.2% of them use it in project communications and learning. Furthermore, there is a negligible relation between social media addiction and course preparation. In other words, there is no relation between the variances in the dimensions of social media addiction and course preparation. Finally, those who use social media for interpersonal interactions will likely become social media addicts. This is to be expected. There is a positive and significant relation at the weak level between the dimensions of interpersonal interactions and course preparation.

5. Recommendations

According to the results of the study, students use social media for both interpersonal interactions and course preparation. However, students using social media for interpersonal

communication have more social media accounts. The main reason why students are attracted to having social media accounts is the need for interpersonal interactions. Students using social media for interpersonal interactions will more likely become addicts. In addition, social media addiction and usage for interpersonal interactions increase as the age of the students increases. The increase in internet use increases the addiction and use of social media for interpersonal interactions. In addition, most of the students start to use social media as early as grades 3 and 4 of primary school. This early use of social media increases social media addiction and usage for interpersonal interactions. Another factor increasing social media addiction is the use of social media at home on cell phones. Although the use of social media on cell phones contributes to the use of social media for course preparation, it increases social media addiction. Moreover, even though Facebook is the most widely used social media type, it does not contribute to the academic success of students. Facebook is one of the types of social media that affects social media addiction. Furthermore, social media addiction is higher among male students than among female students.

Considering the study results summarised above, we make the following suggestions:

1. Exploration of the internet by teenagers should be controlled by parents and schools.
2. The number of hours per day to use the internet and social media should be limited for younger children.
3. Children should be informed on how to use social media for education instead of exploring social media by themselves. In addition, parents and teachers should be provided with training on the results of social media use by young children and students.
4. Social media addiction should be prevented by providing students with opportunities for social interaction through physical instruments such as activities and games.
5. Students should receive education, attend seminars and participate in other activities in order to prevent the use of social media in their spare time.
6. Schools and parents should take initiative regarding the age at which students start to use social media, especially during the years when students are enrolled in school.
7. Action plans should be prepared at both secondary-school and high-school levels in order to decrease social media addiction.

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