

The Effects of Peer Relationships on Smartphone Addiction among Adolescents

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ABSTRACT

Purpose: The aim of this study is to determine the effect of peer relationships on smartphone addiction among adolescents.

Methods: Population of this cross-sectional study was composed of students in the high schools of the Directorate of National Education in the city center of Batman province. The sample consisted of three high schools (3000 students) which were selected from the Provincial Directorate for National Education by using the method of drawing lots. The sample size was calculated as 707 students based on the power analysis. "Introductory Information Form", "Peer Relationship Scale", and "Smartphone Addiction Scale" were utilized to gather data between May 2018 and June 2018. Percentage distribution, mean, independent samples t-test, analysis of variance, Kruskal-Wallis test and regression analysis were employed to assess the data.

Results: The participants' total mean scores were 45.61 ± 11.93 in Peer Relationship Scale and 28.93 ± 12.61 in Smartphone Addiction Scale. Peer relationships of the adolescents influenced their smartphone addiction at the rate of 38% ($p = 0.05$).

Conclusion: It was concluded that the adolescents had moderate level of peer relationships and smartphone addictions. Their peer relationships affected their smartphone addition. In the study, it is recommended for psychiatric nurses to inform the students and organize trainings in order to increase the peer relationships of adolescents and decrease their smartphone addiction.

Keywords: Addiction; Adolescents; Peer Relationships; Smartphone

Ergenlerin Akran İlişkilerinin Akıllı Telefon Bağımlılığına Etkisi

ÖZET

Amaç: Bu araştırmanın amacı, ergenlerin akran ilişkilerinin akıllı telefon bağımlılığına etkisini belirlemektir.

Yöntem: Kesitsel çalışmanın evrenini Batman il merkezinde Milli Eğitim Müdürlüğü'ne bağlı liselerde okuyan öğrenciler oluşturmaktadır. Araştırmanın örneklemini için İl Milli Eğitim Müdürlüğünden öğrenci yoğunluğuna göre kura çekme yöntemi kullanılarak üç lise (3000 öğrenci) seçilmiştir. Araştırmanın örneklemini güç analizi ile 707 öğrenci olarak belirlenmiştir. Araştırmada "Tanıtıcı Bilgi Formu", "Akran İlişkileri Ölçeği" ve "Akıllı Telefon Bağımlılığı Ölçeği" kullanılmıştır. Veriler Mayıs 2018 ile Haziran 2018 arasında toplanmıştır. Verilerin değerlendirilmesinde yüzde dağılım, ortalama, bağımsız örneklem t-testi, varyans analizi, Kruskal-Wallis ve regresyon analizi kullanılmıştır.

Bulgular: Araştırmada ergenlerin akran ilişkileri toplam puan ortalamasının 45.61 ± 11.93 ve akıllı telefon bağımlılığı toplam puan ortalamalarının 28.93 ± 12.61 olduğu belirlenmiştir. Araştırmada ergenlerin akran ilişkilerinin akıllı telefon bağımlılığını % 38 oranında etkilediği bulunmuştur ($p < 0.05$).

Sonuç: Araştırmada ergenlerin akran ilişkileri ve akıllı telefon bağımlılığının orta düzeyde olduğu saptanmıştır. Ergenlerin akran ilişkilerinin akıllı telefon bağımlılığını etkilediği tespit edilmiştir. Araştırmada ergenlerin akran ilişkilerini arttırmak ve akıllı telefon bağımlılıklarını azaltmak için psikiyatri hemşireleri tarafından öğrencilerin bilgilendirilmesi ve eğitimler düzenlenmesi önerilmektedir.

Anahtar Kelimeler: Akıllı telefon; Akran ilişkileri; Ergenler; Bağımlılık

Today's world is rapidly developing, thus leading to many new problems. These problems affect people of all age groups, resulting them in encountering new ones (1,2). Especially the adolescents among the age groups undergo a very rapid change and transformation and are more affected by these new problems (2). Adolescence period is a period in which individuals undergo social, emotional, developmental and mental changes very rapidly (1).

One of the technological tools that negatively affect the adolescents is undoubtedly mobile phones (3). Adolescents use smartphones for most of their lives on these days. The number of users has increased considerably in recent years in Turkey especially in terms of smartphone sales figures (2,3). A previous study reported that adolescents possessed a mobile phone by 76% and also 40% of them had a second mobile phone (2).

It can be asserted that the use of smartphone in world and in Turkey has gone beyond its basic function, instead has turned addiction that causes various physical and mental disorders (3). Kim (4) found that smartphone addiction led to serious abuse problems in young students. It can be asserted that the smartphone addiction plays a major role in peer relationships since it consumes much of the adolescents' time.

Adolescents often spent most of their time with their peers at or outside the school and have the tendency to exhibit common behaviors with their peers (5). During the adolescence period, young people tend towards friend groups rather than their families. Being popular among friends and being liked and accepted by them are considered as an important condition of self-esteem of adolescents (4,5). Therefore, peer relationships become more prominent and important in adolescence. Changes occur in terms of social context and social norms in the period from childhood to adolescence, which thus also increase the importance of peers (5,6). Adolescents begin to spend more time with their peers, act autonomously from their parents and thus spend more time with their peers (7,8).

Effective use of the Internet can positively help adolescents improve their relationships with friends. However, uncontrolled use and overuse of the internet can also lead them to feel lonely and isolated by preventing them from socializing (9). Young and Case (10) determined in their study that adolescents who used the internet too much had poorer relationships with their families and peers.

The number of the related studies is limited. We think that the results of the current study would make contribution to the practices in the psychiatric nursing field and identify the problems experienced by adolescents. This study is aimed to determine the effect of peer relationships on smartphone addiction among the adolescents.

METHOD

Type of the Study

The present study was conducted with cross-sectional design to evaluate the effect of peer relationships of the adolescents on their smartphone addiction.

Study Place and Time

The study was conducted with the students studying in three high schools affiliated to Batman Provincial Directorate of National Education between May and November 2018.

Population and Sample

The population consisted of the students (42.000 students) studying in 41 high schools within the body of Provincial Directorate of National Education in the city center of Batman province. The sample consisted of students (3000 students) studying in three high schools which were selected from the population by drawing lots. The sample size was calculated to be 707 based on power analysis at significance level of 0.05, confidence interval of 0.95, effect size of 0.3 and the power to represent the population of 0.95. School numbers of the students were listed and then selected based on simple random sampling method.

Inclusion Criteria

- Being aged between 13-18 years
- Being open to communication

Exclusion Criteria

- Having no mental or physical problem preventing communication.

Data Collection Tools

Introductory Information Form

Introductory Information Form has 8 questions about socio-demographic characteristics of the students (age, gender, mother's educational level and profession,

father's educational level and profession, income level, grade level).

Peer Relationship Scale (PRS)

Kaner (2002) developed PRS based on Social Control and Social Learning Theories to investigate peer relationships (11). Its Cronbach's alpha coefficient was determined as 0.93. PRS has 18 items and 4 subscales; Commitment (1,4,10,11,12,13,15,16), Confidence and Identification (2,8,9,18), Self-Disclosure (6,7,14), and Loyalty (3,5,17) subscales. Its items are rated between 1 (always) and 5 (never) points. Total score ranges between 1 and 90. High scores signify adolescents' perceptions of positive relationships with their peers. In this study, its Cronbach's alpha coefficient was determined as .89.

Smartphone Addiction Scale Short Version (SAS)

SAS is a self-report scale developed by Kwon et al. (12). based on Young's items on the internet addiction and the future of smartphones. Demirci et al., adapted the scale into Turkish (13). In 2015, Noyan et al., conducted Turkish validity and reliability study of its short version (3). The Cronbach's alpha coefficient of the scale is 0.92. It has 10 items rated with 6-point Likert type ranging between 1 (strongly disagree) and 6 (strongly agree). It has a single factor and no subscales. Total score ranges between 10 and 60. High scores signify a high risk of smartphone addiction. In this study, its Cronbach's alpha coefficient was determined as .90.

Data Collection

The data were gathered from three high schools within the body of Batman Provincial Directorate of National Education between May 2018 and June 2018. "Introductory Information Form", PRS, and SAS were employed to collect data. The first researcher applied the data collection forms to students studying in these schools in their classrooms at the times deemed appropriate by the school administration. It took averagely 15-20 minutes for the students to complete these forms. Incomprehensible questions explained to students without any interpretation.

Data Analysis

The data were analyzed by utilizing SPSS 21.0 packaged software. Percentage for comparing descriptive characteristics of the adolescents, mean for calculating their scale mean scores, independent samples t test for comparing their scale mean scores with age groups and gender,

analysis of variance for comparing their scale mean scores with the grade level, father's educational level, mother's profession, father's profession, and income level, Kruskal-Wallis test for comparing their scale mean scores with mother's educational level, post-hoc test for determining which group causing the difference and regression analysis for determining how the scales affected each other were used in the data assessment. In the study, $p < 0.05$ was accepted as significant.

Ethical Considerations

Approval from Inonu University Health Sciences Scientific Research and Publication Ethics Committee (APPROV NO: 2018/9-8 and legal permission was obtained from the institution on 09.11.2017. In the study, the high school students were under 18 years of age; therefore, they and their parents were informed about the purpose of the study and the opportunity of withdrawing the study at any time and their written and verbal consents were obtained.

This study was carried out based on the Principles of the Declaration of Helsinki.

Limitations

- The study is limited to students randomly selected from high school students in a city center located in the Southeastern Turkey.
- The adolescents aged between 13-19 years who were attending institutions in the study.

RESULTS

It was determined that 69% of the participants were aged between 16-18 years, 30.8% were twelfth graders, and 70.6% were female. The mothers of 39.6% of the adolescents were primary school graduates, the fathers of 29.9% were secondary school graduates, their mothers were unemployed 91.9%, their fathers were self-employed at the rate of 47.1%, and 84.9% of the adolescents had a good income status (Table 1).

It was found that the mean scores of the adolescents were 15.62 ± 5.84 for the commitment subscale, 10.41 ± 4.19 for the subscale of confidence and identification, 9.04 ± 3.18 for the subscale of self-disclosure, and 10.52 ± 3.14 for the subscale of loyalty and their total mean score was 45.61 ± 11.93 for the peer relationship scale. PRS total mean score of the adolescents was moderate. Their SAS total mean score was 28.93 ± 12.61 . This score was moderate (Table 2).

Table 1. Distribution of the Adolescents in terms of their Descriptive Characteristics (n=707)		
Descriptive Characteristics	n	%
Age Groups		
13-15	219	31
16-18	488	69
Grade		
9	160	22.6
10	141	19.9
11	188	26.6
12	218	30.8
Gender		
Male	208	29.4
Female	499	70.6
Mother's Educational Level		
Illiterate	188	26.6
Primary School	280	39.6
Secondary School	121	17.1
High School	99	14.0
Associate-Bachelor's Degree	10	1.4
Master's degree and higher	9	1.3
Father's Educational Level		
Illiterate	57	8.1
Primary School	171	24.2
Secondary School	207	29.3
High School	164	23.2
Associate-Bachelor's Degree	76	10.7
Master's degree and higher	32	4.5
Mother's Profession		
Unemployed	650	91.9
Civil servant	23	3.3
Worker	12	1.7
Self-employed	22	3.1
Father's Profession		
Unemployed	93	13.2
Civil servant	139	19.7
Worker	142	20.1
Self-employed	333	47.1
Income Status		
Very good	28	4.0
Good	600	84.9
Bad	60	8.5
Very Bad	19	2.7
TOTAL	707	100.0

Table 2. Total Mean Scores of Peer Relationship Scale and Smartphone Addiction Scale		
Scale	Min-Max Point	Mean.±SD
Addiction	8-38	15.62±5.84
Confidence and Identification	4-50	10.41±4.19
Self-Disclosure	3-15	9.04±3.18
Loyalty	3-17	10.52±3.14
Peer Relationships Total Score	18-120	45.61±11.93
Smartphone Addiction Total Score	10-60	28.93±12.61

PRS total score and loyalty and self-disclosure subscales total mean scores of the participants in terms of their age groups were statistically significant ($p < 0.05$). The difference between the groups was associated with the age groups of 13-15 years. The difference between the grade level and total mean scores of commitment, self-disclosure, loyalty subscales and overall PRS was statistically significant ($p < 0.05$). The advanced analysis revealed that the difference between the groups was associated with the tenth-graders. A significant correlation was found between the gender variable and self-opening and loyalty subscales of PRS ($p < 0.05$). The difference between the groups was caused by female students. There was a statistically significant difference between the mother's educational level and commitment, self-disclosure, and loyalty subscales of PRS and its total mean score ($p < 0.05$). The advanced analysis revealed that the difference between the groups was caused by the post graduate and higher educational level. The difference between the father's educational level and commitment, confidence and identification and self-disclosure subscales of PRS was statistically significant ($p < 0.05$). The advanced analysis revealed that the reason for the difference between the groups was the post graduate and higher educational level. A significant correlation was found between the mother's profession and total scores of confidence and identification subscales and PRS ($p < 0.05$). The advanced analysis revealed that the reason for the difference between the groups was the unemployed mothers. There was a statistically significant correlation between the father's profession variable and confidence and identification subscales of PRS ($p < 0.05$). The advanced analysis revealed that the reason for the difference between the groups was the unemployed fathers. A significant correlation was found between the variable of income level and commitment, self-disclosure, confidence and identification and loyalty subscales and PRS total score ($p < 0.05$). The advanced analysis revealed that the difference between the groups was caused by those with very high income level.

Table 3. Comparison of Peer Relationships Scale Subscale Total Mean scores and Smartphone Addiction Scale Total Mean scores of the Adolescents in terms of their Socio-Demographic Characteristics

Sociodemographic Characteristics			Commitment	Confidence and Identification	Self-disclosure	Loyalty	Peer Relationships Total Score	Smartphone Addiction Total Score	
	n	%							
Age Groups	13-15	219	31.0	15.85±5.94	10.76±3.86	9.79±3.24	10.88±3.16	47.30±12.09	28.43±12.41
	16-18	488	69.0	15.52±5.80	10.25±4.33	8.71±3.10	10.36±3.12	44.85±11.79	29.16±12.71
	Test Value Significance			t=0.710 p=0.482	t=1.496 p=0.135	t=4.250 p=0.000	t=2.028 p=0.043	t=0.715 p=0.002	t=0.713 p=0.476
Grade Level	9	160	22.6	15.36±5.34	10.50±3.58	9.80±3.33	10.80±3.36	46.46±11.90	27.04±11.36
	10	141	19.9	16.02±5.75	10.97±4.11	9.41±2.99	11.10±3.16	47.52±11.93	27.40±12.30
	11	188	26.6	14.54±5.34	10.40±4.69	9.09±3.15	10.29±3.09	44.34±11.76	30.23±13.97
	12	218	30.8	16.49±6.51	9.97±4.19	8.21±3.05	10.15±2.93	44.83±11.96	30.20±12.25
	Test Value Significance			F=3.357 p=0.019	F=2.025 p=0.109	F=9.183 p=0.000	F=3.398 p=0.018	F=4.247 p=0.005	F=3.324 p=0.019
Gender	Male	208	29.4	15.43±5.39	10.02±4.74	9.48±3.06	9.84±3.51	44.78±11.75	29.72±12.85
	Female	499	70.6	15.70±6.02	10.57±3.94	8.86±3.22	10.81±2.92	45.95±11.99	28.61±12.51
	Test Value Significance			t=0.551 p=0.582	t=-1.580 p=0.115	t=2.339 p=0.020	t=-3.766 p=0.000	t=-1.279 p=0.201	t=1.070 p=0.285
Mother's Educational Level	Illiterate	188	26.6	15.40±5.85	10.05±3.60	9.16±3.23	10.37±3.33	45.00±11.90	26.31±12.93
	Primary School	280	39.6	16.75±6.29	10.81±4.70	9.38 ±2.88	10.73±3.17	47.68±12.57	28.06±11.52
	Secondary School	121	17.1	15.39±5.39	10.54±4.02	8.42±3.60	10.36±2.96	44.72±11.08	31.66±12.08
	High School	99	14.0	13.19±4.10	9.74±3.89	8.86±3.25	10.88±2.61	42.69±10.13	31.46±14.11
	Higher education	10	1.4	17.00±6.42	10.40±5.42	7.90±2.64	9.50±3.02	44.80±13.98	34.70±12.64
	and more	9	1.3	13.55 ±4.44	10.77±2.22	7.66±3.96	6.77±3.34	38.77±9.05	40.22±11.57
	Test Value Significance			KW=6.142 p=0.000	KW=1.164 p=0.325	KW=2.312 p=0.043	KW=3.491 p=0.004	F=2.976 p=0.011	KW=20.889 p=0.000
Father's Educational Level	Illiterate	57	8.1	17.01±5.58	11.78±3.93	10.35±6.8	10.59 ±2.73	49.75±9.90	26.78±10.30
	Primary School	171	24.2	15.60±6.23	10.45±4.05	8.93±3.31	10.70±3.57	45.69±12.84	28.05±12.80
	Secondary School	207	29.3	15.97±5.54	10.39±3.65	8.95±2.90	10.52±3.10	45.84±11.06	27.80±12.50
	High School	164	23.2	16.15±6.25	9.78±4.26	9.12±3.24	10.32±2.96	45.38±13.21	30.76±13.05
	Higher education	76	10.7	13.56±4.83	10.94±5.91	8.46±3.60	10.85±2.58	43.82±10.98	28.85±12.41
	and more	32	4.5	13.21±4.57	9.78±2.75	8.93±3.31	9.78±3.72	41.71±9.04	35.68±11.84
	Test Value Significance			F=4.116 p=0.001	F=2.421 p=0.034	F=2.554 p=0.027	F=0.767 p=0.574	F=2.056 p=0.068	KW=6.298 p=0.005
Mother's Profession	Unemployed	650	91.9	15.58±5.97	10.30±4.19	9.02±3.22	10.47±3.17	52.38±12.10	29.09±12.71
	Civil servant	23	3.3	16.52±3.65	13.82±4.04	10.04±2.61	11.69±2.42	45.08±7.92	31.86±10.30
	Worker	12	1.7	13.16±1.99	9.33±1.61	7.41±1.92	9.25±2.63	39.16±4.46	22.75±14.17
	Self-employed	22	3.1	17.09±4.70	10.63±4.04	9.68±2.81	11.59±2.44	49.00±9.90	24.59±9.52
	Test Value Significance			F=1.241 p=0.294	F=5.702 p=0.001	F=1.740 p=0.158	F=2.261 p=0.080	F=3.977 p=0.008	KW=8.189 p=0.077

Father's Profession	Unemployed	93	13.2	16.34±6.75	11.92±4.42	8.91±3.95	10.41±0.25	47.60±14.03	29.89±13.93
	Civil servant	139	19.7	14.75±5.12	9.69±3.14	9.02±3.14	10.38±2.77	43.85±9.00	29.12±11.79
	Worker	142	20.1	15.38±5.69	10.10±5.38	8.73±2.91	10.88±3.31	45.10±12.63	32.04±13.50
	Self-employed	333	47.1	15.89±5.90	10.41±3.84	9.22±3.07	10.46±3.18	46.00±11.99	27.27±11.93
	Test Value Significance			F=1.675 p=0.171	F=7.384 p=0.000	F=0.887 p=0.447	F=0.851 p=0.466	F=1.481 p=0.219	F=5.078 p=0.002
Income status	Very high	28	4.0	12.35±4.00	10.60±3.72	7.10±3.14	8.53±3.56	38.60±9.38	32.10±13.28
	High	600	84.9	15.72±5.91	10.26±4.23	9.01±3.16	10.51±3.09	45.51±12.06	28.95±12.68
	Low	60	8.5	16.30±5.98	11.15±3.89	10.01±2.90	10.93±3.28	48.40±11.30	27.28±12.14
	Very low	19	2.7	15.31±3.98	12.36±4.07	9.89±3.60	12.57±1.46	50.15±48.06	28.89±10.80
	Test Value Significance			F=3.283 p=0.020	F=2.843 p=0.037	F=5.903 p=0.001	F=6.962 p=0.000	F=6.614 p=0.000	KW=2.883 p=0.424

When the socio-demographic characteristics and smartphone addiction scale total mean scores of the adolescents were compared, a statistically significant difference was found between SAS total mean score and grade, mother's educational level, father's educational level, and father's profession ($p < 0.05$, Table 3). The advanced analysis revealed that the reason for the difference between the groups in terms of the grade level was the tenth-graders. Also the difference in terms of the educational levels of the mother and father was associated with the post graduate and higher educational level.

In the study, peer relationships of the adolescents were statistically significant in explaining smartphone addiction ($p < 0.05$). Their peer relationships accounted for their smartphone addiction at the rate of 38% (Table 4).

DISCUSSION

The findings of the present study indicated that the adolescents had moderate level of peer relationships. In their study, Argon and Yılmaz (9) reported that peer relationships of the adolescents studying at high school were at moderate level. The moderate peer relationships of the adolescents might be associated with the regional differences and cultural changes. In their study Çiçek and Aslan (14) found that the peer relations scores of high school students were moderate. They found similar results.

Smartphone addiction level of the adolescents was found to be moderate. Aktürk et al. (15) carried out a study with high school and university students and determined that their smartphone addiction level was moderate. In their study, Çalışkan et al. (16) reported that the smartphone addiction level of university students was moderate. The literature is compatible with the results of the study.

In the present study, a statistically significant difference was determined between the age groups and peer relationships of the adolescents. Peer relationships were more significant in those from the age group of 13-15 years. In the study conducted by Levpušček (17) it was determined that peer relationships were higher in the younger age group. A statistically significant difference was determined between the grade level and peer relationships of the adolescents in the study. Peer relationships of the tenth-graders were more significant. Levpušček (17) carried out a study on adolescents and found that their peer relationships decreased with increasing grade level. Erden and Yılmaz (7) reported a significant difference between the grade levels and peer relationships of the students studying in an Imam Hatip high school. In their study, Günaydin and Yöndem (18) determined a significant difference between the grade level and peer relationships of adolescents.

Table 4. Explanation of the Effect of Peer Relationships on Smartphone Addiction with Regression Analysis

		Smartphone Addiction							
		R	R ²	ΔR ²	ΔF	β	t	p	
Peer Relationships	Total Score	0.74	0.38	0.02	0.45	-0.01	-0.16	0.00	
	Commitment	0.05	0.01	0.00	2.08	0.06	1.32	0.00	
	Confidence and Identification	0.03	0.00	0.00	0.88	0.07	1.09	0.27	
	Self-disclosure	0.15	0.08	0.03	0.75	-0.17	-3.02	0.00	
	Loyalty	0.08	0.00	0.00	5.02	-0.04	-1.10	0.07	

In addition, Çiçek and Aslan (14) found in their study that peer relations scores of high school students differed significantly based on grade level. The difference between the mother's educational levels and peer relationships of the adolescents was statistically significant. Peer relationships of adolescents whose mother had post graduate or higher educational level were more significant. Çevik and Çelikkaleli (19) determined in their study that friendship relations were higher in adolescents whose mother had high educational level. Erden and Yılmaz (7) determined in their study that peer relationships of the Imam Hatip high school students increased as the educational levels of their mothers increased. The difference between the income level and peer relationships of the adolescents was statistically significant. Peer relationships of those with very high income level were more significant. In their study, Bayraktar and Gün (20) determined that as socio-economic level of adolescent students increased, they used internet at higher rates. Increased use of internet suggests that peer relationships may decrease. Batıgün and Kılıç (21) found that adolescents with high income level had worse peer relationships. The results of the study are compatible with those in the literature.

A statistically significant difference was found between the mother's educational levels and smartphone addiction of the adolescents. Smartphone addiction of the mothers with post graduate and higher educational level was more significant. Çevik and Çelikkaleli (19) determined in their study that internet addiction mean scores of the adolescents whose mothers were "high school" graduates were significantly higher than those of the adolescents whose mothers were "illiterate" and "primary school graduates". In addition, Çiçek, Tanriverdi, Şanlı, & Buluş (22) did not reveal a significant difference between smartphone addiction and mother's education level in their study on university students. The difference between the fathers' educational levels and smartphone addiction of the adolescents was statistically significant. Smartphone addiction was more significant among fathers with post graduate and higher educational levels. In their study, Çevik and Çelikkaleli (19) reported that internet addiction was higher in children of fathers with high educational level. This difference may be associated with high educational level of the fathers. The results revealed that the difference between the grade level and smartphone addiction of the participants was statistically significant. Smartphone addiction of the tenth-grade students was more significant. In their study, Yılmaz et al. (23) determined a statistically significant difference between the grade levels of the high school students and their internet addiction scores.

The results of the study are compatible with those of the literature.

In the present study, peer relationships of the adolescents affected the smartphone addiction. Smahel et al. (24) found in their study that peer relationships of adolescents were adversely affected by more time spent on the internet. Chou and Hsiao (25) determined that as adolescents use internet excessively, they became socially isolated and their peer relationships reduced. Savcı and Aysan (26) found in their study that peer relationships of adolescents were effective on internet addiction. Milani et al. (27) determined that weak interpersonal relationships were risk factors for increasing internet addiction.

CONCLUSION

In the present study, it was found that the peer relationship and smartphone addiction levels of the adolescents were moderate and their peer relationships affected the smartphone addiction. Based on these results, it is recommended to investigate smartphone addiction with other variables, conduct studies about the smartphone addiction levels for the parents, and organize seminars at schools by the psychiatric nurses about the common psychiatric problems during the adolescence.

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Conflicts of Interest

The author declares no conflict of interest.

Ethics Approval

Not applicable.

Availability of Data and Material

Not applicable.

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