

## Original Article

## The Correlation Between the Perceived Social Support of Nursing Students and Smartphone Addiction

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### Abstract

**Aim** This descriptive correlation study was conducted to show the connection between social support and smartphone addiction.

**Method** The population of the study consisted of the students from the Nursing Faculty in The University located in city center. Questionnaire, Smartphone Addiction Scale, and Multidimensional Scale of Perceived Social Support were used to collect the data of the study.

**Results** In the study, a statistically significant negative correlation was found between the Smartphone addiction scale score and the Multidimensional Scale of Perceived Social Support score and all subscale scores in nursing students ( $p < 0.05$ )

**Conclusions** It was determined that the frequency of smartphone use among nursing students was very high. High scores of smartphone addiction scale (increased addiction levels) affect personal, academic and social lives negatively.

**Keywords:** Smartphone, Addiction, Nursing, Multidimensional Scale of Perceived Social Support

### Introduction

Smartphone addiction is defined as uncontrolled and excessive use of the phone (Takao, Takahashi, & Kitamura 2009). It is known that the increasing use of smartphones leads to negative effects on interpersonal relationships, physical and mental health, and daily life. Repetitive behaviors that affect daily life and interpersonal relationships need to be assessed for addiction (Lee, Chang, Lin, & Cheng, 2014). Considering that there are about 1.91 billion Smartphone users in the world and there are about 72 million mobile phone users in Turkey, the benefit of considering the subject within the frame of addiction and excessive time spent will be understood better (Bulduklu, & Ozer, 2016).

As the tolerance for smartphone use develops or its usage is prevented, tension, restlessness, and deprivation symptoms are seen in the person as

in the case of other addiction types (Yayan, Arıkan, Saban, Bas, & Ozcan, 2016). In the study conducted by Kwon et al., with the students it was found that 35% of the students consider themselves as smartphone addicts (Kwon et al. 2013). It was determined in the study by Momcilovic that 52% of the university students spent 2 hours a day on the internet (Momcilovic, 2017). In the study conducted by Afroz with university students it was found that 60% of the students were internet addicts (Afroz 2016).

The perceived social support is the cognitive perception of an individual that he/she has reliable bonds with others and receive the support given by them. In one sense, interpreting supportive interactions of a person is a subjective assessment based on giving personal meaning to the people they are connected. It is the amount of

social support obtained from support resources over a certain period of time (Kef, 1997).

Studies conducted with university students on perceived social support reveal that perceived support levels affect the ability to cope with stress, academic performances, psychological resiliency, life satisfaction, loneliness and hopelessness levels of the students (Topkaya, & Kavas, 2015; Bas, & Kabasakal, 2013; Haskan, & Yildirim, 2014).

Nursing students constitute a group of university students. In addition to the changes and stressors as a result being a university student, nursing students also experience additional stressors caused by working with individuals with health problems and with their families. In a study conducted recently with the nursing students, it was shown that students' coping with stress is significantly affected by social support systems and social support affect the general health status of the students positively (Yildirim, Karaca, Cangur, Acıkgöz, & Akkus, 2017). In other studies, nursing students also noted that social support systems and interpersonal processes are important for their optimal academic achievement and positive mental health status. This makes it important to determine the social support of nursing students and the factors associated with this support (Ferrell, & DeCrane, 2016; Gu, Hu, Hu, & Wang, 2016; Dil, & Aykanat, 2016).

For this reason, the aim of this study was to determine the correlation between the perceived social support level by nursing students and their smartphone addiction.

## Method

**Type of the study:** The study was conducted as correlational descriptive study.

**Population and Sample of the Study:** The population of the study consisted of students in the Nursing Faculty affiliated with The University located in the city center. There are a total of 1.200 students in the Faculty. Sample selection was not performed in the study and the whole population was included in the sample. 1149 students were reached since some of the students wanted to use their absenteeism and some of them did not want to participate in the study on the dates when the study was conducted.

Exclusion criteria of the study; any mental disorder that would disrupt communication

Dependent Variables of the study; perceived social support and smartphone addiction. Independent Variables of the Study; age, gender, class, success level, etc **Measurement Tools:** Questionnaire, Smartphone Addiction Scale, and Multidimensional Scale of Perceived Social Support were used to collect data of the study.

**Questionnaire:** The questionnaire prepared by the researchers by reviewing the literature consisted of a total of 16 questions including the socio-demographic characteristics of the students (age, gender, etc.).

## **Brief Form of Smartphone Addiction Scale:**

The first Smartphone Addiction Scale was developed by Kwon own based on the items about Young's Internet Addiction and the future of Smartphones. It is a scale adapted into Turkish by Demirci et al., (2014). Validity and reliability study of the brief form of the scale in Turkey was conducted in 2015 by Noyan et al., (Noyan, Darçın, Nurmedov, Yilmaz, & Dilbaz, 2016). The Cronbach's alpha coefficient of the scale was found as 0.92. The Cronbach's Alpha coefficient of the scale was found as 0.91 in the study. The Smartphone Addiction Scale is a 6-item Likert-type self-report scale consisting of 10 items. The high scores taken from the scale indicate the highness of the smartphone addiction risk. The total score in the scale can range from 10 to 60.

## **Multidimensional Scale of Perceived Social Support:**

Turkish validity and reliability study of the scale developed by Smith et al., was conducted by Eker and Arkar (Eker, Arkar, & Yaldiz, 2001). The scale consisting of a total of 12 items is a 7-point Likert-type scale that varies from "absolutely no" to "absolutely yes". The scale includes a total score and scores of three subscale that measure perceived social support from the family, the friends, and significant other. While the lowest score to be obtained from the subscales is 4, the highest score is 28. While the lowest score to be obtained from the overall scale is 12, the highest one is 84. The increase in the obtained score indicates the increase in perceived social support. In the reliability results, it was observed that the internal consistency coefficient was between 0.80-0.95 and showed acceptable level of internal consistency for the scale and the subscales. In this study, Cronbach's alpha coefficient was determined as 0.86 for Multidimensional Scale of Perceived Social Support, 0.86 for Family subscale, 0.89 for

Friend subscale, and 0.91 for significant other subscale.

**Data Collection:** The data were collected between January 2017 and June 2017. Data collection forms were applied by the researcher to the university students in the classrooms at the times approved by the school management. The students filled the data collection form themselves. It took approximately 15-20 minutes to apply the data collection form. Questions that students did not understand were explained without making any interpretation.

**Ethical Considerations of the Study:**

In order to conduct the study, approval from the University Health Sciences Scientific Research and Publication Ethics Committee (2017 / 3-4) and legal permission from the institutions in which the study would be conducted were obtained. Nursing students were informed about the purpose of the research and their verbal approvals were taken. It is stated to the students that the information they give would be kept confidential and they can withdraw from the study anytime they want.

**Data Assessment:** The (SPSS) 21.0 package program was used to analyze the data. Mean, percentage distribution, independent samples t test, analysis of variance and correlation were applied to assess the data.

**Results**

In the present study, 48.6% of nursing students were in the age range of 21–23 years, 28.4% were third-year students, 62.7% were female, 48.7% had a moderate level of academic success, and 92.4% had parents who were alive. With respect to parents' highest level of education, 45.9% of the students' mothers were primary school graduates, and 32.7% of the students' fathers were primary school graduates. Notably, 90.7% of students' mothers were unemployed, whereas 84.3% of students' fathers were employed. With respect to the household, 84.8% had a nuclear family, 44.8% had 1–3 children in their household, and 67.3% had a middle level of income. With respect to technology usage, 51.6% of nursing students connected to the internet at home, 50.3% used a smartphone for more than 4 hours a day, 83.9% used the internet through their mobile phone, and 29.4% used a smartphone for chatting (Table 1).

**Table 1. Descriptive Characteristics of Students**

Characteristics	Nursing Students	
	n	%
<b>Age</b>		
18-20 age	350	33.4
21-23 age	510	48.6
24 age and above	189	18.0
<b>Class</b>		
1.class	266	25.4
2.class	222	21.2
3.class	299	28.4
4. class	262	25.0
<b>Gender</b>		
Female	658	62.7
Male	391	37.3
<b>Perceived success status</b>		
Weak	88	8.4
Modarete	511	48.7
Good	373	35.6
Honors	77	7.3
<b>Your parents live status</b>		
My parents live	969	92.4
Mohter is not live	43	4.1
Farher is not live	28	2.7
My parents are not live	9	0.9

<b>Maternal education level</b>		
Illiterate	167	15.9
primary school	481	45.9
Middle school	181	17.3
High school	179	17.1
Univesity	41	3.9
<b>Father education level</b>		
Illiterate	23	2.2
primary school	343	32.7
Middle school	222	21.2
High school	313	29.8
Univesity	148	14.1
<b>Maternal employment status</b>		
Employed	98	9.3
Unemployed	951	90.7
<b>Father employment status</b>		
Employed	884	84.3
Unemployed	165	15.7
<b>Family structure</b>		
Nuclear family	890	84.8
Wide family	126	12.0
Shattered family	33	3.1
<b>Number of children in the family</b>		
1-3 children	470	44.8
4-6 children	454	43.3
7 children and above	125	11.9
<b>Perceived income situation</b>		
Very good	37	3.5
Good	379	36.1
Middle	603	57.5
Bad	30	2.9
<b>Connected to the internet</b>		
Home	541	51.6
School	141	13.4
Internet Cafe	48	4.6
Other	319	30.4
<b>Smartphone Usage Time</b>		
1 less than an hour	207	19.7
1-3 hour	315	30.0
4 hour and above	527	50.3
<b>Using the Internet Device</b>		
Computer	83	7.9
Mobile phone	880	83.9
Tablet	86	8.2
<b>The Purpose of Using Smart Phone</b>		
Game	104	9.9
Entertainment	248	23.6
Research	265	25.3
News	92	8.8
Conversation	308	29.4
Others	32	3.1

**Table 2. Comparison of Demographic Characteristics, Total Mean Scores on the Multidimensional Scale of Perceived Social Support and its Subscales, and Smartphone Addiction among Nursing Students**

Descriptive Features	n	Smartphone Addiction Scale Total		Family Support		Friends Support		Others Support		Multidimensional Scale of Perceived Social Support Subscale Total	
		Mean±SD	p	Mean ±SD	p	Mean ±SD	p	Mean ±SD	p	Mean ±SD	p
<b>Age</b>											
18-20 age	350	29.77±11.7	F=7.648	22.76±5.5	F=6.159	21.68±5.6	F=7.093	16.27±8.4	F=6.637	60.73±14.2	F=11.764
21-23 age	510	28.28±11.7	<b>p=0.001</b>	21.28±6.4	<b>p=0.002</b>	20.27±6.7	<b>p=0.001</b>	14.13±8.4	<b>p=0.001</b>	55.69±15.6	<b>p=0.000</b>
24 age and above	189	25.56±12.5		21.61±6.4		19.75±7.2		15.00±8.6		56.37±16.4	
<b>Class</b>											
1.class	266	30.30±10.7	F=4.119	22.49±5.8	F=5.710	21.34±5.6	F=4.993	16.32±8.0	F=5.312	60.15±14.1	F=9.716
2.class	222	26.77±12.4	<b>p=0.006</b>	22.76±5.5	<b>p=0.001</b>	21.60±6.3	<b>p=0.002</b>	15.59±8.8	<b>p=0.001</b>	59.96±15.0	<b>p=0.000</b>
3.class	299	27.52±12.1		20.78±6.5		19.74±7.2		13.60±8.2		54.12±16.4	
4. class	262	28.39±11.9		21.58±6.5		20.17±6.5		17.76±8.8		56.53±15.4	
<b>Gender</b>											
Female	658	28.35±12.1	t=4.235	30.81±6.3	t=4.133	20.98±6.3	t=2.118	15.49±7.8	t=-1.444	58.13±15.3	t=1.742
Male	391	25.45±11.8	<b>p=0.000</b>	22.44±6.0	<b>p=0.000</b>	20.09±6.7	<b>p=0.034</b>	14.71±8.8	p=0.149	56.41±15.8	p=0.082
<b>Perceived success status</b>											
Weak	88	30.03±12.4	F=3.320	19.68±7.5	F=6.019	19.77±7.2	F=1.111	14.75±8.9	F=0.275	54.20±17.4	F=2.283
Modarete	511	29.05±11.9	<b>p=0.019</b>	21.73±6.0	<b>p=0.000</b>	20.90±6.4	p=0.344	14.86±8.2	p=0.843	55.76±15.9	p=0.077
Good	373	26.77±11.2		22.63±5.9		20.65±6.4		15.32±8.7		58.61±15.1	
Honors	77	27.15±14.5		21.14±6.6		19.92±6.4		14.70±8.4		57.50±15.3	
<b>Your parents live status</b>											
My parents live	969	28.13±12.0	KW=2.751	22.00±8.4	KW=4.1	21.78±6.4	KW=8.760	19.55±7.4	KW=2.470	61.55±18.8	KW=2.298
Mohter is not live	43	31.09±12.3	p=0.432	21.82±6.1	p=0.249	20.73±6.5	<b>p=0.033</b>	14.97±8.5	p=0.481	57.53±15.5	p=0.073
Farher is not live	28	29.42±10.3		22.82±7.7		20.00±6.5		15.04±8.4		59.28±14.0	
My parents are not live	9	28.00±13.5		21.34±6.1		18.25±6.3		14.67±8.8		54.65±16.0	
<b>Maternal education level</b>											
	167	29.70±11.6	F=3.504	21.77±6.2	F=0.674	20.47±6.1	F=1.078	15.59±8.1	F=1.339	57.85±15.0	F=1.657

Illiterate	481	27.72±11.9	p=0.320	21.83±6.2	p=0.610	20.60±6.3	p=0.336	14.54±8.3	p=0.473	56.99±14.8	p=0.158
primary school	181	28.30±12.5		21.59±6.4		20.50±7.1		14.98±8.8		57.08±17.6	
Middle school	179	28.18±11.9		22.36±5.7		21.38±6.5		15.98±8.7		59.73±15.1	
High school	41	29.56±11.6				19.26±7.4		13.82±8.4		53.90±16.9	
Univesity											
<b>Father education level</b>	23	28.13±12.0		21.97±5.9	KW=9.2	21.78±5.9	KW=12.49	14.52±8.6	KW=2.536	56.37±15.3	KW=4.190
Illiterate	343	28.73±11.8	KW=1.803	21.57±6.2	62	20.09±6.1	9	14.70±8.2	p=0.469	56.64±16.3	p=0.242
primary school	222	27.90±11.9	p=0.614	21.12±6.8	p=0.098	20.21±6.9	p=0.126	15.30±8.5		58.35±15.2	
Middle school	313	27.46±12.0		22.38±5.8		21.45±6.4		16.43±8.6		58.78±15.3	
High school	148	29.58±12.4		22.17±5.3		20.74±6.8		16.06±8.7		62.39±14.1	
Univesity											
<b>Maternal employment status</b>				21.70±6.3	t=-0.222	21.01±6.9	t=0.571	16.01±9.0	t=1.226	58.72±16.4	t=0.823
Employed	98	28.35±12.1	t=0.067	21.85±6.1	p=0.824	20.61±6.5	p=0.568	14.90±8.4	p=0.221	57.36±15.4	p=0.411
Unemployed	951	25.45±11.8	p=0.946								
<b>Father employment status</b>				21.68±6.2	t=-1.856	20.60±6.5	t=-0.526	14.90±8.5	t=-0.895	57.19±15.6	t=-1.456
Employed	884	27.00±12.1	p=0.436	22.66±6.1	p=0.064	20.89±6.2	p=0.599	15.55±8.4	p=0.371	59.10±15.0	p=0.146
Unemployed	165	28.33±11.7									
<b>Family stcture</b>				21.95±6.2	F=1.627	20.60±6.6	F=0.407	15.08±8.6	F=0.377	57.65±15.6	F=0.422
Nuclear family	890	28.34±12.0	F=0.217	21.44±5.7	p=0.197	21.09±5.8	p=0.666	14.38±7.7	p=0.686	56.92±13.7	p=0.656
Wide family	126	27.71±11.8	p=0.805	20.15±7.2		20.15±7.1		15.12±8.6		55.42±19.2	
Shattered family	33	29.03±11.4									
<b>Number of children in the family</b>	470	28.20±12.1		21.40±6.6	F=3.414	20.73±6.8	F=0.572	15.30±8.7	F=0.564	57.43±16.6	F=0.399
1-3 children	454	27.91±11.7	F=1.459	21.98±5.7	p=0.233	20.72±6.2	p=0.565	14.70±8.2	p=0.569	57.84±14.6	p=0.671
4-6 children	125	29.96±12.2	p=0.233	21.40±5.9		20.06±6.3		14.98±8.4		56.44±14.4	
7 children and above											
<b>Perceived income situation</b>	37	23.94±12.1	F=4.419	22.62±6.4	F=4343	20.18±7.9	F=3.253	15.30±9.0	F=0.976	58.10±17.1	F=3.404
Very good	379	28.79±12.7	p=0.004	22.61±5.8	p=0.005	21.27±6.3	p=0.021	15.46±8.6	p=0.043	59.35±15.7	p=0.017
Good	603	27.94±11.3		21.40±6.3		20.42±6.5		14.81±8.3		56.64±15.1	
Middle	30	34.13±12.0		19.70±7.3		17.90±6.2		13.29±9.0		52.90±17.4	
Bad											

<b>Connected to the internet</b>			F=0.461 p=0.710		F=5.457 p=0.001		F=4.352 p=0.005		F=2.808 p=0.039		F=6.075 p=0.000
Home	541	28.42±12.2		22.37±5.8		21.27±6.5		15.35±8.8		59.01±15.7	
School	141	27.21±12.1		21.60±6.5		20.24±6.1		13.49±8.2		55.34±14.3	
Internet Cafe	48	28.95±11.6		18.89±7.0		18.54±6.4		13.08±7.3		50.52±14.5	
Other	319	28.43±11.5		21.46±6.3		20.08±6.6		15.36±8.1		56.91±15.4	
<b>Smartphone Usage Time</b>		19.17±10.5	F=128.631 p=0.000		F=0.320 p=0.726		F=1.714 p=0.181	16.70±8.3	F=26.912 p=0.000	59.58±14.8	F=12.690 p=0.000
1 less than an hour	207	26.45±10.8		21.93±5.8		20.94±6.1		14.20±8.2		56.69±15.3	
1-3 hour	315	32.96±10.8		21.87±6.1		20.61±6.6		11.90±8.2		53.39±16.6	
4 hour and above	527			21.53±7.0		19.95±7.1					
<b>Using the Internet Device</b>			F=42.595 p=0.000	21.61±6.2	F=2.276 p=0.059	19.03±7.0	F=2.805 p=0.061		F=5.878 p=0.223	55.71±16.8	F=2.143 p=0.118
Computer	83	22.65±12.2		21.85±6.1		20.76±6.4		15.06±8.6		57.92±15.3	
Mobile phone	880	27.70±11.5		21.82±6.8		21.00±6.8		15.29±8.4		54.83±15.9	
Tablet	86	19.29±10.6						16.01±8.7			
<b>The Purpose of Using Smart Phone</b>			F=16.744 p=0.000	22.24±5.8	F=0.537 p=0.748	20.66±6.6	F=0.432 p=0.826	15.00±7.7	F=3.692 p=0.343	57.90±13.9	F=0.953 p=0.446
Game	104	27.10±11.4		21.72±6.0		21.06±6.3		14.94±8.5		57.73±15.6	
Entertainment	248	31.03±12.0		22.25±6.0		20.30±6.6		13.57±8.4		56.13±15.1	
Research	265	23.36±11.4		21.40±6.7		20.23±7.2		15.88±8.4		57.52±16.2	
News	92	26.81±10.6		21.59±6.4		20.72±6.4		15.57±8.7		57.88±16.0	
Conversation	308	30.60±11.4		21.56±5.1		20.81±5.7		16.37±7.9		61.75±16.0	
Others	32	33.59±12.2									

**Table 3. The Correlation Between Total Scores of the Smartphone Addiction Scale and Multidimensional Scale of Perceived Social Support Scale**

Multidimensional Scale of Perceived Social Support Scale		Smartphone Addiction Scale
Family Subscale	r	-.096
	p	<b>.002</b>
Friends Subscale	r	-.470
	p	<b>.000</b>
Significant Other Subscale	r	-.115
	p	<b>.000</b>
<b>Total Scale</b>	r	-.111
	p	<b>.000</b>

Statistically significant differences were found between the total mean scores of smartphone addiction and the age, class, gender, success level, income status, smartphone use duration, and smartphone internet usage ( $p < 0.05$ ) of the nursing students participating in the study. In addition, the mean scores on the family subscale of the Multidimensional Scale of Perceived Social Support significantly differed according to age, grade, gender, success level, place of internet connection, and income status ( $p < 0.05$ ). The mean scores on the friend subscale of the nursing students also differed according to age, grade, gender, status of parents (alive or dead), income status, and place of internet connection ( $p < 0.05$ ). The mean scores on the significant other subscale of the nursing students differed according to age, grade, gender, income status, place of internet connection, and smartphone use duration ( $p < 0.05$ ). Finally, the total mean scores of the nursing students significantly varied according to age, grade, income status, place of internet connection, and smartphone use duration ( $p < 0.05$ ).

Furthermore, a negative and significant correlation was found between the nursing students' scores on the smartphone addiction scale and their scores on the family, friend, and

significant other subscales of the Multidimensional Scale of Perceived Social Support ( $p < 0.05$ ).

### Discussion

The present correlational and descriptive study aimed to compare the relationships between smartphone addiction in nursing students and their perceived level of social support. The findings are discussed at following in accordance with the literature.

The majority of the students were female, third-year students, and had a moderate level of academic success and a middle level of income. In addition, the majority had an internet connection at home, used a smartphone for more than 4 hours a day, and also used a smartphone for chatting. These results are compatible with those reported in the literature (Jenaro, Flores, Gomez-Vela, Gonzalez-Gil, & Caballo, 2007; Beranuy, Oberst, Carbonell, & Chamarro, 2009; Chung, 2011; Hakoama, & Hakoyama, 2011; Chiu, 2014; Aljomaa, Ismael, Salaheldin, Bakhiet, & Abduljabbar, 2016). In the present study, when smartphone addiction was explored with respect to age, the students in the age group of 18–20 were more addicted to smartphones. Notably, Kahyaoglu Sut et al. (year) also found a

significant correlation between age and smartphone addiction, wherein smartphone addiction was found to be higher in individuals who were 20 years old and younger (Kahyaoglu, Kurt, Uzal, & Ozdilek, 2016). On the other hand, Kuyuca (2017) did not find a significant correlation between age and smartphone addiction, but addiction was found to be higher in young people, similar to the present study.

Female students were more addicted to smartphones, similar to the results of other studies (Jenaro, Flores, Gomez-Vela, Gonzalez-Gil, & Caballo, 2007; Beranuy, Oberst, Carbonell, & Chamarro, 2009; Chung, 2011; Hakoama, & Hakoyama, 2011; Chiu, 2014; Aljomaa, Ismael, Salaheldin, Bakhiet, & Abduljabbar, 2016; Taylan, & Isik, 2015).

According to the success of nursing students participating in the study, the difference between smartphone addiction is statistically significant ( $p < 0.05$ ). Students with lower success showed increased smartphone addiction, similar to the results in the literature (Samaha, & Hawi, 2017; Bianchi, & Phillips, 2004; Monk, Carroll, Parker, & Blythe, 2004).

Nursing students with a low income level were also more likely to be addicted to smartphones. Similar to the present study, a couple of studies found higher smartphone addiction in students with a low income level (Brown & Kef, 2005; Rice & Katz, 2003). Additionally, in the latter studies, students with a low income level more frequently used a smartphone with free wireless connections because they did not have access to a PC or tablet, which require a high income level. Unlike the present study, a couple of additional studies revealed a high level of smartphone addiction in students with a high income level (Kayri & Gunuc, 2016; Zulkefly & Baharudin, 2009).

Smartphone addiction was also significantly higher ( $p < 0.05$ ) in those who used smartphones more during the day, which is compatible with the results of previous studies (Yilmaz, Sar, & Civan, 2015; Taylan & Isik, 2015). Similarly, smartphone addiction was significantly higher ( $p < 0.05$ ) in those who connected to the internet through their mobile phones, as reported in the literature (Yilmaz, Sar, & Civan, 2015; Taylan, & Isik, 2015).

With respect to the Multidimensional Scale of Perceived Social Support, significant differences were found in the scores of the overall scale and the family, friend, and significant other Support subscales among the nursing students with respect to age. Students in the age group of 18–20 years had higher social support scores. Similar to the present study, in some studies in the literature, a significant correlation was found between age and the subscale scores of the Multidimensional Scale of Perceived Social Support (Kozakli, 2006; Sertbas, Cuhadar, & Demirli, 2004). However, other studies found no significant correlations (Baran, Kucukakca, & Ayran, 2014; Kahriman & Yesilcicek, 2007).

Grades also significantly varied with respect to the scores on the overall scale and on the family, friend, and significant other subscales, similar to other studies in the literature (Dikmen, Yilmaz, & Usta, 2017; Unsar, Sadirli, Demir, Zafer, & Erol, 2013; Park et al., 2015). However, Baran, Kucukakca, & Ayran (2014) found no significant differences.

Gender significantly varied with respect to the scores of the overall scale and the family and friend subscales. Female students had higher scores than male students, similar to other studies in the literature (Dikmen, Yilmaz, & Usta, 2017). The female students in the present study might have had higher perceived social support from their surroundings because they share their problems more than boys and attach more importance to family relationships.

Success in school was related with scores on the overall scale and the family, friend, and significant other Support subscales. Kahriman and Yesilcicek (2007) determined that students who were academically successful had higher family and friend support scores. In other studies conducted with medical students in the literature, low social support was found to decrease academic perceptions and also cause mental health problems (Haldorsen, Bak, Dissing, & Petersson, 2014; Jeong et al., 2010; Silva, Cerqueira, & Lima, 2014).

Interestingly, the status of parents (alive or dead) was related with nursing students' scores on the friend subscale. Students whose parents were not alive had lower scores on the different subscales. This is an expected result for adolescents who are deprived of love and support from their parents.

The income level of nursing students was also correlated with the scores on the overall scale and on the family, friend, and significant other subscales. Students with a high income level had lower scores on the subscales similar to other the studies in the literature (Baran, Kucukakca, & Ayran, 2014; Dikmen, Yilmaz, & Usta, 2017).

The place where nursing students connected to the internet was related to the scores on the overall scale and on the family, friend, and significant other subscales. Specifically, students who connected to the internet in internet cafes had lower scores on the subscales. These results are important since they are the first in the literature. Connecting to the internet in internet cafes rather than at home or at school may mean that adolescents experience decreased support perceptions because they spend more time away from family and friends. Students who connected to the internet for less than one hour had lower scores on the overall scale and the significant other subscale. These results are important since they are the first in the literature (Naseri, Mohamadi, Sayermiri, & Azizpoor, 2015).

Notably, the scores on the smartphone addiction scale were related to the overall scores on the Multidimensional Scale of Perceived Social Support and its subscales. Accordingly, it was determined that, as the perceived social support of nursing students decreases, smartphone addiction increases. This result is consistent with the results of previous studies. Naseri, Mohamadi, Sayermiri, and Azizpoor (2015) found a negative significant correlation between internet addiction among nursing students and the scores on the Multidimensional Scale of Perceived Social Support and its subscales.

These findings have important implications for the well-being of nursing students. Kim and Kim (2004) found that addicted students had fewer social relations and that internet addiction weakened social, personal, family, and friend relations in university students. Importantly, depression and suicide levels were found to be the highest among internet addicts (Kim & Kim 2004). Furthermore Caplan (2002) found that internet addicts had few social relations compared to the others. According to Davis' (2001) theoretical model, loneliness caused by social isolation or the lack of social support prepares individuals to become smartphone addicts.

## Conclusion and Recommendations

The frequency of smartphone use among nursing students is very high. High scores of smartphone addiction scale (increased addiction levels) affect personal, academic and social lives negatively. Studies aiming to prevent smartphone addiction of students are important in terms of mental health of the community. In this context, it is recommended to organize comprehensive education programs for the students, increase the social supports given to the students, and increase the time families spent with their children.

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