Research Article

What Would You Do Without Your Smartphone? Adolescents' Social Media Usage, Locus of Control, and Loneliness as a Predictor of Nomophobia

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Abstract

Smartphones, with their constantly evolving features, facilitate instant communication and help individuals stay connected with the world at all times. This can lead people to become addicted to their smartphones. In particular, behaviors that indicate smartphone addiction in adolescents have become increasingly prevalent. The most important of these behaviors is nomophobic behavior. This study aims to determine adolescents' smartphone usage and levels of nomophobia, and to examine the variables related to nomophobia. The study group of this research, which uses the relational survey model, consisted of 786 students studying in the 7th and 8th grades of a middle school in the fall semester of 2016. A personal information form and four data collection tools were used in this study. Frequency, percentage, mean, standard deviation, correlation, and multiple linear regression analyses were used to analyze the quantitative data. In this study, social media addiction was found to most positively correlate with adolescents' nomophobic behavior levels, and locus of control was found to have the lowest positive correlation with nomophobic behavior levels. In the conclusion of the study, further recommendations have been made.

Keywords

Smartphone usage • Nomophobia • Social media addiction • Loneliness • Locus of control • Adolescents

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Today's smartphones are a part of everyday life and have even become a necessity (Salehan & Negahban, 2013; Oulasvirta, Rattenbury, Ma, & Raita, 2012). Internet applications can be rapidly accessed with smartphones, enabling them to be used quickly and simply (Kwon, Kim, Cho, & Yang, 2013). However, the intensive use of smartphones has resulted in psychological, social (loneliness, social anxiety, interpersonal relations), and academic issues as well as addictive behaviors (Augner & Hacker, 2012; Bian & Leung, 2015; Choliz, 2012). Among adolescents in particular, stress, anxiety, and insomnia, as well as mental and physical developmental disorders, can lead to various problems (Thomee, Harenstam, & Hagberg, 2011).

Smartphone addiction can be seen to resemble other technology-based addictions such as internet, gaming, and computer addictions (Kim, 2013). However, smartphones, being more mobile, can be argued to be more dangerous in that they include the risk of these other technology-based addictions (Demirci, Orhan, Demirdas, Akpınar, & Sert, 2014). On the other hand, no specific criteria exist for determining smartphone addiction (Park & Lee, 2012). Fear of being away from a smartphone and anxiety about losing access (i.e., nomophobia (Yıldırım, Sumuer, Adnan, & Yıldırım, 2015) can be seen as the primary manifestations of the addiction. On this basis, this study considers the level of nomophobic behaviors that manifest as indicators of smartphone addiction. From this perspective, adolescents who are at risk of smartphone addiction are more likely to be afraid of being away from their smartphones and worried about not being able to access them.

The concept of nomophobia in clinical psychology refers to an individual's fear that they will be unable to access and communicate with mobile devices (King et al., 2013). Nomophobia is an abbreviation of "no-mobile-phone phobia". Individuals with nomophobic behaviors experience psychosocial, behavior, and anxiety disorders that affect their lives when they are away from their mobile devices (Dixit et al., 2010). If the frequency of an individual's nomophobic behavior increases, this negatively affects their academic performance, their level of motivation in the learning process, and their relations with family and peers.

King, Valença, and Nardi (2010) defined nomophobia as a contemporary type of phobia, a product of the interaction between people and new technologies. However, no consensus exists on what kind of addiction nomophobia is (Argumosa-Villar, Boada-Grau, & Vigil-Colet, 2017). According to King et al. (2013), it is a situational phobia, while Salehan and Negahban (2013) define it as a behavioral addiction to mobile phones that manifests as symptoms of psychological and physical addiction. On the other hand, most definitions of nomophobia have been developed based on the criteria for behavioral addiction.

Pavithra and Madhukumar (2015) found the prevalence of this disorder to increase as a result of traumas such as immigration, loneliness, and social phobia in

adolescents' lives. Research conducted by Gezer and Çakır (2016) found demographic characteristics, the family's education level, and the duration of mobile phone and internet usage to affect nomophobic behaviors.

Research conducted on determining the causes and associated variables of nomophobic behavior is limited (King et al., 2013). At this point in time there appears to be a gap in the literature. This study examines nomophobic behaviors related to the use of smartphones and related variables in order to address this. In addition, insufficient research exists on demonstrating how the use of social media, personal features (locus of control), and loneliness affect nomophobia. In this context, the study examines the variables of social media usage, locus of control, and loneliness, which are thought to be directly related to nomophobia (an indicator of smartphone addiction). In addition, in order to determine how to manage the risks related to the use of smartphones in Turkey, studies need to first determine the variables that determine addiction. This work is believed to be able to contribute to the wider field because it has been completed in line with this need.

Nomophobia and Social Media Usage

Nowadays, smartphones function both as mobile phones and as personal computers. These features allow one to interact with a smartphone in daily life by making calls, instant messaging/chat, surfing the web, tagging news, sending emails, viewing/sharing photos/videos, and playing games, especially on social media (Samaha & Hawi, 2016). These features have also rapidly increased smartphone usage (Zheng & Lionel, 2010). Examining data from the Turkish Statistical Institute (TURKSTAT, 2016), 96.9% of individuals in Turkey are found to have mobile/ smartphones; the most common activities individuals engage in while using the internet on these devices are for social media, a total of 82.4%. Adolescents are seen to have a relatively high percentage of social media and smartphone usage. This usage has some positive effects on adolescents but also involves adverse effects, such as antisocial behavior, changes in cultural values and familial relationships, decreased social interactions, sleep disturbances, stress, anxiety, decreased academic performance, and decreased physical activity (Adnan & Gezgin, 2016; Thomee et al., 2011). As a result, adolescents' fear of losing smartphone access can be assumed to be related to their use of social media and social media addiction. Losing, forgetting, or not being able to access one's smartphone causes an individual to lose contact with their social-media environment and miss out on what is happening. Instead of the pleasure and excitement they usually derive from using social media, they are faced with so-called nomophobia due to the fear and anxiety of having lost their smartphone (Gezgin, Şahin, & Yıldırım, 2017).

Nomophobia and Locus of Control

Locus of control is a predictor of an individual's own values, expectations, and characteristics. As a concept, it indicates how an individual perceives their own responsibility for various experiences. Individuals who see their own behaviors as being responsible for what happens to them have an internal locus of control, while those who see external factors and events as most influential have an externally directed locus of control (Yeşilyaprak, 2004). Intensive smartphone use among adolescents and the audiovisual aspects of smartphone use are believed to play an important role in the adverse effects that occur.

When examining the literature on locus of control with regard to internet addiction (Ceyhan & Ceyhan, 2008; İskender & Akin, 2010), game addiction (Kim, Namkoong, & Kim, 2008), and addiction to social-media environments (Jafarkarimi, Sim, Saadatdoost, & Hee, 2016), no study is found to have addressed the relation of locus of control to nomophobia. Thus, investigating the types and levels of the main loci of control in relation to nomophobic behaviors is important in terms of preventing these behaviors.

Nomophobia and Loneliness

Loneliness is the emotional outcome of not being able to meet social and emotional expectations in human relationships (Russell, Cutrona, McRae, & Gomez, 2012). Loneliness can be caused by lacks in social communication, belonging to a social group, or close emotional attachment, and adolescence is probably the stage where feelings of loneliness are most felt (Duy, 2003).

Mobile phones have become much more easily accessible with the development of smartphones and their various features and applications, and adolescents' use in particular has gone beyond providing communication between individuals (Gezgin et al., 2017). Nowadays, adolescents are constantly present in online environments with a multitude of activities and features. They are moving away from the physical world through their use of smartphones and increasing their presence in digital media (Yılmaz, Şar, & Civan, 2015). This has led to a strong connection between smartphones and adolescents, and results in them feeling anxiety about losing access to their smartphones. A relationship can thus be said to exist between nomophobia and the feeling of loneliness.

Purpose of the Study

This study aimed to determine adolescents' nomophobia levels, to reveal the variables related to nomophobia levels, and to predict the levels of nomophobic behavior. The following sub-problems were formulated to achieve this goal:

1. What are the levels of smartphone usage (duration and frequency of use) among adolescents using smartphones?

2. What are the nomophobia levels of adolescents who use smartphones?

3. What are adolescents' social media usage, locus of control, and loneliness levels?

4. What is the relationship of social media usage, locus of control, and loneliness to the nomophobic behavior of adolescents who use smartphones?

5. Does adolescents' use of smartphones significantly predict their social-media usage, locus of control, and loneliness levels in relation to their nomophobic behavior?

Method

This study uses the relational survey model because it examines the relationship of nomophobia to social media usage, social media addiction, perception of locus of control, and loneliness. The relational screening model aims to determine the degree and/or extent of interchanges between two or more variables (Karasar, 2005).

Study Group

This research was conducted with 7th and 8th grade students from a secondary school affiliated with the Ministry of National Education during the 2016 fall semester and was completed with the participation of 786 students. The study group was formed on a voluntary basis using the appropriate sampling method at the school where the researcher was based. Of the students who participated in the study, 47.8% are female and 52.8% are male.

Data Collection Tools

This study uses a personal information form and four data collection tools.

Personal information form. The personal information form was developed by the researcher and aims to collect data about the study group's personal information as well as smartphone and social-media usage. This questionnaire consists of 19 items.

Nomophobia Scale. The Nomophobia Scale (NMP-Q), developed by Yildirim and Correia (2015) and adapted to Turkish by Yildirim, Şumuer, Adnan, and Yildirim (2015), was used as a data collection tool in the study. The scale is composed of a total of 20 five-point Likert-type items with four subscales: wisdom warming (four items), link loss (five items), communication failure (six items), and comfortable disability (five items). The reliability coefficient for the study is .97. The reliability coefficients of the subscales are found as .89, .90, .94, and .94, respectively. In addition, this data collection tool has been used in various other studies. The Cronbach's alpha values obtained from some of these studies have been presented in Table 1.

Table 1
Nomophobia Scale Cronbach's Alpha Value

Study	N	Nomophobia Scale
Gezgin et al. (2017)	1151	.92
Yildirim et al. (2015)	-	.92

Social Media Disorder Scale. The Social Media Disorder Scale, developed by Van Den Eijnden, Lemmens, and Valkenburg (2016) and adapted to Turkish by Savci (2016), was used in this study. This scale consists of nine items and one dimension. It is a five-point Likert-type scale with answers in the form of "Never," "Rarely," "Sometimes," "Often," and "Always." The Cronbach's alpha reliability coefficient calculated for this study is .95. In addition, this data collection tool has also been used in various studies. The Cronbach's alpha value obtained from one of these studies is presented in Table 2.

Table 2
Social Media Disorder Scale Cronbach's Alpha Value

Study	N	Social Media Disorder
Savci (2016)	553	Above 0.70

UCLA Loneliness Scale. Russell, Peplau, and Cotrana re-examined all the materials in the UCLA Loneliness Scale developed by Russell, Peplau and Ferguson (1978) to measure individuals' levels of loneliness with the assumption that this leads to systematic bias in negative statements. Half of the items were transformed into negative expressions (Demir, 1989). Ten of the 20 items that make up the UCLA Loneliness Scale are reverse-coded. In each of the scale's items, feelings and thoughts about social relations are presented, and individuals are asked to mark the Likert-type scale on how often they experience these expressions. The answers "Never" (4), "Rarely" (3), "Sometimes" (2), "Often" (1) are possible, sometimes reverse-scored. The total scores that individuals receive from all the items give their overall loneliness score. The highest score that can be gained in the scale is 80 and the lowest score is 20. A high score indicates a high level of loneliness. In addition, the Cronbach's alpha value for this scale is 0.88.

This data collection tool has also been used in various studies. Cronbach's alpha values as obtained from some of these studies are presented in Table 3.

Table 3
UCLA Loneliness Scale Cronbach's Alpha Value

Study	N	UCLA Loneliness Scale
Eni (2017)	200	.94
Yildiz and Duy (2014)	293	.74
Doğan, Çötok, and Tekin (2011)	553	.94
Güloğlu and Karaırmak (2010)	410	.82

Locus of Control Scale. The Nowicki-Strickland Internal-External Control Scale is a 40-item measure developed by Nowicki and Strickland (1973). The Turkish validity

and reliability study of the scale was conducted by Öngen (2003), and the Turkish form is composed of 29 items. The scale is a four-point Likert-type scale consisting of five sub-dimensions: locus of control for family relationships, locus of control for success, locus of control for peer relationships, locus of control for superstition, and locus of control for fate. In the subscales, eight items are for locus of control for families, seven items are for locus of control for success, eight items are for locus of control for superstition, and four items are for locus of control for fate. The scales are scored as "Strongly agree" (1), "Agree" (2), "Do not agree" (3), and "Strongly disagree" (4). A minimum of 29 points and a maximum of 126 points can be achieved for the whole scale. Seventeen items are reverse-scored. A high score from the scale indicates that the individual has an internal locus of control, and a low score indicates they have an external locus of control (Öngen, 2003). The Cronbach's alpha value of the scale is 0.73. In addition, this data collection tool has been used in various studies. Cronbach's alpha values obtained from some of these studies are presented in Table 4.

Table 4
Locus of Control Scale: Cronbach's Alpha Value

Study	N	Locus of Control
Öngen (2003)	337	.72

Data Collection

The data collection tools that were used in the research were applied to the study group in an online environment using printed questionnaire forms. The participants took part on a voluntary basis.

Data Analysis

Descriptive analyses and parametric tests were used to analyze the data obtained in the research. Frequency, percentage, arithmetic mean, standard deviation, correlation, and regression analyses were performed on the quantitative data, which was transferred to SPSS.

In the data analysis, multiple linear regression analysis was used from among the multivariate regression analytical methods. Prior to analysis, the research's dependent variable (nomophobia) and independent variables (social media usage status, perception of locus of control, and loneliness) were evaluated according to the assumptions of multivariate regression analysis. The number of participants in the area gives the number of assumptions that must be met in multivariate analyses. In stepwise-regression analysis, 40 participants are required for each independent variable (Tabachnick & Fidell, 2007).

Further assumptions of the data that are expected to be met in multivariate analyses are univariate and highly variable normality and linearity (Tabachnick & Fidell, 2007).

The Kolmogorov-Smirnov Test, in which univariate normality is examined, and the homogeneity test of variances were used in evaluating univariate homogeneity. The data are normally distributed. Another assumption that must be met in multivariate analyses is to have extreme values extracted from the data set. One-way extreme values for dependent and independent variables were examined according to their z scores. A z score greater than 3.29 is considered an extreme value (Tabachnick & Fidell, 2007). According to this criterion, one-way extreme values were not found.

Another assumption that is expected to be met in multivariate analysis is multicollinearity. The correlation values between variables is expected to not be above .80 where the Variance Inflation Factor (*VIF*) value for the independent variables is less than 10 and the tolerance values are greater than .10 (Field, 2009). For this reason, the relationship between dependent and independent variables was examined using Pearson correlation analysis. The relationships between variables are from .063 to .792, and no multicollinearity was found between the variables. When the *VIF* values are examined, no multicollinearity can be said to exist (see Table 5).

Table 5
Collinearity Statistics

Variables	Tolerance	*VIF*
Duration of social media usage (daily)	.838	1.192
Social Media Addiction	.348	2.869
Locus of control	.974	1.026
Loneliness	.370	2.701

Findings

This Section Contains the Findings and Researcher's Comments. Smartphone Usage Patterns of Students

Frequency and percentages have been calculated to determine students' smartphone usage. The distribution of the relevant data is presented in Figure 1.

In Figure 1, 39.3% of students who participated in the study reported using smartphones for less than 1 hour each day. Looking at the frequency of participants' daily checking of their smartphones, 31.0% of the participants used their smartphones for a maximum of 2-3 hours.

Nomophobia Levels of Adolescents Using Smartphones

The descriptive values obtained from the adolescents on the Nomophobia Scale are presented in Table 6.
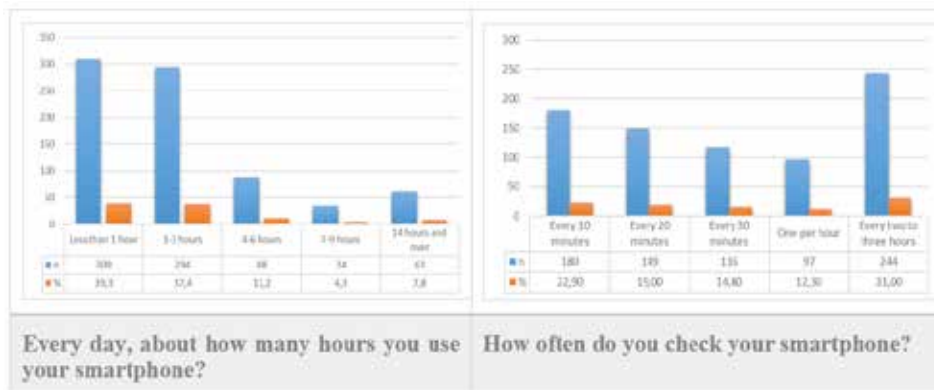
Figure 1. Adolescents' smartphone usage status.

Table 6
Descriptive Statistics of Students' Nomophobia Levels

Scales	Minimum score	Maximum score	$\overline{X}$	$\overline{X}/k$	SD
Nomophobia	20.00	100.00	51.8	2.59	1.29
Not being able to access information	4.00	20.00	10.55	2.63	1.40
Losing connectedness	5	25.00	13.29	2.66	1.41
Not being able to communicate	6	30.00	16.22	2.70	1.43
Giving up convenience	5.00	25.00	11.88	2.38	1.44

*k- number of items.

According to Table 6, the participant students' scores for the Nomophobia Scale in this study ranged from 20 to 100 The highest attainable subscale score mean is for non-communication (χ = 16.22, *SD* = 1.43). The lowest subscale mean is for uncomfortable (χ = 11.88, *SD* = 1.44).

Social Media Usage, Locus of Control and Loneliness Levels of Adolescents

Descriptive values obtained from the adolescents' social media usage, locus of control, and loneliness scales are presented in Table 7.

Table 7
Descriptive Statistics of Students' Social Network Usage, Locus of Control and Loneliness Levels

Scales	Minimum score	Maximum score	$\overline{X}$	$\overline{X}/k$	SD
Duration of social media usage (daily)	0	16	2.93	-	3.58
Social Media Addiction	9.00	45.00	21.92	2.43	1.29
Locus of control	60.03	127.89	82.94	2.86	.37
Locus of control for family relationships	13.00	32.00	23.00	2.87	.55
Locus of control for success	15.00	32.00	21.71	2.71	.44
Locus of control on peer relations	11.00	34.00	20.36	2.90	.61
Locus of control for superstition	2.00	10.00	5.95	2.97	1.01
Locus of control for destiny	6.00	20.00	12.03	3.01	.76
Loneliness	26.00	80.00	49.70	2.49	.66

When Table 7 is examined, the adolescents' average locus-of-control score are seen to be higher than those from other scales, followed by the average scores

for loneliness and social media addiction. The average time adolescents spent using social media was 2.93 hours a day.

Relationship between Nomophobic Behavior Levels of Various Adolescents Using Smartphones

The Pearson Moments Multiplication Correlation coefficients were calculated to investigate the relationship between students' nomophobic behavior levels and various variables. The coefficients and descriptive statistics for the correlation analysis are presented in Table 8.

Table 8

Correlation Coefficients' Relationship among Adolescents' Nomophobia, Social Media Usage, Locus of Control, and Loneliness Levels

Variables	Nomophobia	Duration of Social Media Usage	Social Media Addiction	Locus of Control	Loneliness
1. Nomophobia	-				
2. Duration of Social Media Usage (Daily)	.399**	-			
3. Social Media Addiction	.761**	.401**	-		
4.Locus of Control	.071*	.063	.142**	-	
5.Loneliness	.643**	.323**	.792**	.158**	-

*$p < .05$; **$p < .01$.

As seen in Table 8, the correlation coefficients between the variables are observed to vary between .063 and .792. Social media addiction ($r = .761$, $p < .01$) is the independent variable with the highest correlation coefficient, whereas the variable of locus of control has the lowest correlation coefficient ($r = .071$, $p < .05$).

A high-level relationship exists between social media addiction and nomophobia. That is, as an individual's social media addiction increases, their level of nomophobic behavior also increases. Similarly, a moderately positive relationship exists for nomophobia with loneliness and the time spent using social media each day. Therefore, as an individual's level of loneliness increases, so does the level of nomophobic behavior. Similarly, as an individual's duration of daily social-media use increases, so does the nomophobic behavior. In short, individuals exhibit nomophobic behaviors, social media usage, social media addiction, and loneliness.

Duration of Social Media Usage, Locus of Control, and Loneliness Levels for Predicting Nomophobia

Variables have been modeled at the same time the regression analysis was performed. The results of the multiple-regression analysis carried out in this context are given in Table 9.

Table 9

Results of Linear Multiple Regression Analysis on the Probability of Social Media Use Status, Locus of Control, and Loneliness Levels on Adolescents' Nomophobia

Variables	B	Standard Error B	β	T	p	Binary r	Partial r
Constant	.829	.249		3.332	.001		
Duration of Social Media Usage (daily)	.040	.009	.112	4.497	.000	.102	.159
Social Media Addiction	.636	.039	.634	16.461	.000	.374	.508
Locus of Control	-.154	.081	-.044	-1.902	.057	-.043	-.068
Loneliness	.218	.073	.112	2.988	.003	.068	.106

$r = .772$; $R^2 = .594$; $F_{(4, 781)} = 288.100$; $p = .000$.

Table 9 shows the model to be statistically significant ($p < .000$). Together, the variables of duration of social media use, social media addiction, locus of control, and loneliness account for 59% of the total variance in nomophobic behavior ($R^2 = .594$, $p < .001$). According to the standardized regression coefficients (β), when examining the predictive variables, nomophobic behavior levels for social media addiction are found to be the most important (strongest) predictor. Therefore, an increase in the score for social media dependency points to an increase in nomophobic behavior. This variable is followed by the variables of duration of daily social-media usage, loneliness, and locus of control. A negative relationship between the locus of control and nomophobia can therefore be seen to exist. In other words, one can say that an increase in the level of locus of control reduces the level of nomophobic behavior. When the *t*-test results on the significance of the regression coefficients and except for locus of control are examined, the other variables are seen to be significant (meaningful) predictors of nomophobia.

Discussion

This study aimed to determine the nomophobia levels of adolescents and reveal the variables that predict nomophobic behavior levels. A relational model related to nomophobia was designed by considering the works in the literature related to smartphone usage.

In this study, a statistically significant relationship was found between nomophobia and the duration of daily social media use and social media addiction. In this regard, adolescents' attraction to social media environments is thought to be important in their intensive use of smartphones. One can also say that adolescents are worried about losing access to their smartphones because they are afraid of missing out on sharing and the developments that occur on social media. No studies have been found in the literature on the relationship between these variables. However, the nomophobia levels of young people, as examined by Gezer, Şahin, and Yıldırım (2017) with the aim of determining the nomophobia levels of social media users, were above average. On

this basis, being a social media user can be said to have an effect on the manifestation of nomophobia behaviors. In other words, as time spent in social media environments increases, these media environments are expected to become a part of life and anxiety from not being able to access them is expected to increase (Darcin, Noyan, Nurmedov, Yilmaz, & Dilbaz, 2015). A study of adolescents by Oberst, Wegmann, Stodt, Brand, and Chamarro (2017) found that addiction caused by the attractive features of social media leads to many psychological problems, internet addiction, and problematic mobile phone usage. Managing these factors today is important when considering the rapid increase of social media usage among adolescents.

A significant relationship between nomophobia and loneliness was found in the current study. Individuals who are unable to make one-to-one connections are constantly present in the online environment using their smartphones (Yılmaz et al., 2015). This may mean a turning away from the physical world. For this reason, a sense of loneliness may occur. This situation can be seen as triggering adverse effects in adolescents, such as negative emotions, a distancing of themselves from their social environments, a decreased interest in learning, and a lack of communication with family members. In addition, Spitzer's (2015) study on the role of smartphones in the context of mobile learning highlighted that the problematic long-term use of smartphones could lead to academic failure, emphasizing that it is important that this situation be taken into account, especially by educators.

No statistically significant relationship between nomophobia and locus of control was found in this study. The findings of this study are thus dissimilar to the findings of other studies (Ceyhan & Ceyhan, 2008; Iskender & Akin, 2010; Jafarkarimi, Sim, Saadatdoost, & Hee, 2016; Kim, Namkoong, & Kim, 2008). The reason for this may be related to the way in which students perceive their responsibility for various events and experiences. In short, it can be argued that the participants believe that the factors related to addictive behaviors are out of their control.

Conclusion, Suggestions, and Limitations

This study determined adolescents' nomophobia levels to be at an average level. Non-communication, one of the sub-dimensions of the nomophobia scale, was also found at the highest level. The variable of social media addiction most positively correlates with adolescents' nomophobic behavior levels. Locus of control was found to have the lowest positive correlation with nomophobic behavior levels. Moreover, in the research model dealing with nomophobic variables, the variables related to nomophobic behavior, especially social media addiction, were the duration of daily use, loneliness, and locus of control of social media. No significant relationship was found between the levels of nomophobia and locus of control. Studies focusing on the most important effects that cause nomophobic behaviors and attempts to combat and reduce the effects of smartphone addiction will be

effective. Moreover, future research can further examine through qualitative studies the nature of the relationship between nomophobia and social media addiction. On the other hand, smartphones also clearly have a high level of potential usage, and there may be an opportunity to use social media environments for educational purposes.

Intervention programs should be designed and implemented in schools for adolescents in the most vulnerable populations facing the adverse effects of smartphone use, particularly nomophobic behavior. This study collected quantitative data from adolescents. Yet there are limitations in explaining the reasons for the relationship of nomophobic behavior with social media addiction, social media usage, and loneliness. Qualitative studies should be conducted on this subject. The accuracy of personally reported data depends on the honesty of the participant. For this reason, different data collection methods should be developed in future research.

In addition, developing an awareness of social media usage, especially as related to young people, as well as using the features that are attractive in these environments for educational purposes, will be important both in combating social media addiction and in preventing nomophobic behavior. At this juncture, policy makers are advised to place importance on the human factor before supporting the development and dissemination of preventive or security systems at a technical level, which can only be achieved through enormous expenditure. It is necessary to introduce education and training to create or increase conscious awareness about the use of information technologies.

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