

*Extended Abstract*

## Examining the Relationships between Facebook Intensity, Fear of Missing Out, and Smartphone Addiction\*

Zeliha Traş<sup>1</sup>  
Necmettin Erbakan University

Kemal Öztemel<sup>2</sup>  
Gazi University

### Abstract

This study aims to investigate the relationship between Facebook intensity and both the fear of missing out and smartphone addiction. It was carried out with 608 (437 female, 171 male) participating university students who were asked to complete the Facebook Intensity Scale, the Fear of Missing out Scale, and the Smart Phone Addiction Scale. The data were analyzed by Pearson correlation analysis and hierarchical regression analysis. The results of the correlation analyses indicated significant positive correlations between Facebook intensity and both fear of missing out and smartphone addiction. When categorical variables were taken into consideration, significant relationships were found between Facebook intensity and duration of Facebook use, age, and duration of internet use. Facebook intensity was significantly predicted by the duration Facebook use in the first block. In the second block, all variables explained 36% of the variance in the scores obtained from the Facebook Intensity Scale. In the second step, the most powerful predictor of Facebook intensity was duration of Facebook use, followed by the fear of missing out, and smartphone addiction. This study concluded that Facebook intensity could be predicted by the fear of missing out and smart phone addiction. It is suggested that this finding be taken into consideration for further research. Possible explanations of the findings and the implications and limitations of the study were discussed.

### Key Words

Facebook intensity • Fear of missing out (FoMO) • Smart phone addiction • Social media use • Young adult

\* This is an extended abstract of the paper entitled “Facebook yoğunluğu, gelişmeleri kaçırma korkusu ve akıllı telefon bağımlılığı arasındaki ilişkinin incelenmesi” published in *Addicta: The Turkish Journal on Addictions*.

**Manuscript Received:** October 16, 2018 / **Accepted:** October 25, 2018 / **OnlineFirst:** February 25, 2019

**1 Correspondence to:** Zeliha Traş (PhD), Department of Guidance and Psychological Counseling, Ahmet Keleşoğlu Faculty of Education, Necmettin Erbakan University, Meram, Konya Turkey. Email: ztras@konya.edu.tr

**2** Department of Psychological Counseling, Faculty of Education, Gazi University, Beşevler, Ankara Turkey.  
Email: koztemel@gmail.com

**To cite this article:** Traş, Z., & Öztemel, K. (2019). Examining the relationships between Facebook intensity, fear of missing out, and smartphone addiction. *Addicta: The Turkish Journal on Addictions* 6, 91–113. <http://dx.doi.org/10.15805/addicta.2019.6.1.0063>

Internet use in the social and public sphere has increased considerably in the last few years. Facebook, with its 1.04 billion active daily users was the most widely accessed website after Google and YouTube in 2015 (Ryan, Chester, Reece, & Xenos, 2016). According to “Digital in 2017- Global Overview” statistics concerning Turkey published by We Are Social 2017, the percentage 2016 witnessed a 10% increase (compromising 58% of Turkey’s total population) compared to 2015, reaching 60% in 2017 (We Are Social, 2017). It can therefore be argued that social media is one of the major reasons behind this increase in internet.

Boyd and Ellison (2007) define social media as a platform where individuals create private or public online profiles and use them to interact with other users. The use of social media is a complex subject related not only to how and why people use it but also to the feelings they associate with it in their relation to others (Hetz, Dawson, & Cullen, 2015). It is also worth mentioning that people all over the world spend increasingly greater amounts of time on social media each passing year. People around the world spend more than two hours a day on social media (We Are Social, 2017). For this reason, social media platforms and social media users have attracted the attention of researchers, encouraging them to understand the personality traits and behavioral patterns of people who use social media.

Additionally, it is argued that the basic motivation leading typical users to use Facebook is the feeling of bonding they experience with others (Cheung, Chiu, & Lee, 2010; Raacke & Bonds-Raacke, 2008; Rauch & Schanz, 2013). The use of social media can also strengthen links with others and communication between remote family members and close friends (Zhang, Chen, & Lee, 2014). When the literature is examined, it is understood that those who use social media in general and Facebook in specific attribute more importance to positive social interactions and have a greater need for social approval (Lai, Altavila, Ronconi, & Aceto, 2016).

As mentioned above, the addictive use of social media has given rise to an increased interest in the topic. In this respect, Facebook addiction is defined as a sub-type of internet addiction (Andreassen & Pallesen, 2014). Over the past few years, an increasing number of studies have been conducted on Facebook use. These studies have examined the relationship of internet and Facebook usage to various factors, including the personality traits of conscientiousness and extroversion (Blachnio, Przepiorka, Senol-Durak, Durak, & Sherstyuk, 2017), neuroticism, attachment styles (Blackwell, Leaman, Tramosch, Osborne, & Liss, 2017), academic failure (Kirschner, & Karpinski, 2010; Lepp, Barkley, & Karpinski, 2014), Facebook addiction, anxiety, depression, body image and eating disorders, alcohol consumption and mental health problems (Frost & Rickwood, 2017), the fear of missing out (Blachnio & Przepiorka, 2018), and smartphone addiction (Wu, Cheung, Ku, & Hung, 2013).

Facebook and the use of social media in general have caused social media addiction to emerge, which has been becoming more and more widespread in the recent years (Blackwell et al., 2017). One concept that has recently been observed in Turkey and that is considered to be associated with social media is the fear of missing out (Fear of Missing Out, FoMO) (Przybylski, Murayama, Dehaan, & Gladwell, 2013). FoMO, which is the desire to remain informed of what others are doing (Przybylski et al., 2013), draws attention to the cause or the effect of such widespread social media use and includes the fear of missing important social events or of being socially isolated (Andreassen, Pallesen, & Griffiths, 2017).

Recent technological developments have become increasingly pervasive in social life. With the transformation of cell phones into smart phones the number of the areas in which they are used has only risen. Smartphones are used by a massive amount of people for a range of purposes, such as making calls, text-messaging, internet, navigation, gaming, and social networks (Fidan, 2016). The excessive use of may lead to a number of problems as a result of their ability to allow near ubiquitous access to these features. An examination of the literature reveals that smartphone addiction is not only positively influenced by the pleasure associated with its use, emotion regulation, and entertainment (Zhang et al., 2014) but also related to academic achievement, life satisfaction (Samaha & Hawi, 2016), and general emotional distress (Chiu, 2014). Researchers also examined the relationship between smart phone addiction and FoMO, social and non-social use of smart phones, negative and positive appraisals, age, and gender (Wolniewicz, Tihamiyu, Weeks, & Elhai, 2017). The literature also contains evidence on the relationship between smartphone addiction and overall self-efficacy, social self-efficacy and life stress (Chiu, 2014), sleep disorders, stress, anxiety, withdrawal from social settings, decreases in academic achievement and physical activity (Thomé, Hårenstam, & Hagberg, 2011), excessive assurance seeking, impulsivity, and extroversion (Billieux, Maurage, Lopez-Fernandez, Kuss, & Griffiths, 2015). Additionally, the use of smart phones has adverse effects on interpersonal relationships, potentially influencing individuals' lives negatively by weakening communication skills, rendering it difficult to establish eye contact while simultaneously dealing with others and one's smartphone, failing to fully understand what is being conveyed, and blinding oneself to what is happening around him (Karadağ et al., 2016).

The above-mentioned studies suggest that individuals who use Facebook intensively may experience FoMO as a result of overusing their smartphones. This study therefore aims to investigate the relationship between smartphone addiction and both intensive Facebook use and FoMO.

## Method

Since it examines the relationship between variables, this quantitative research study was conducted as a descriptive correlational study (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2017).

**Study group:** The study group consisted of 608 university students studying in two different universities in Turkey's Central Anatolian region. Of the total participants, 437 (72%) were females and 171 (28%) were males. Participants' ages ranged from 18 to 37 with a mean of 21.34 (SD = 2.00). Whereas 80% of the participants (n = 490) stated that they between 1 to 100 Facebook friends, 16% (n = 96) stated that they had up to 200 friends. In addition, 62% of the participants (n = 374) stated that they spend at least 30 minutes a day on Facebook, 21% (n = 128) 60 minutes, 11% (n = 68) 90 minutes, 4% (n = 25) 120 minutes, and 2% (n = 13) of the participants stated that they spend more than 120 minutes a day on Facebook.

### Data Collection Instruments

**Facebook Intensity Scale.** The Facebook Intensity Scale was developed by Ellison, Steinfield, and Lampe (2007) and adapted to Turkish by Öztemel and Traş (2017). It is a 5-point Likert-type scale (1= strongly disagree, 5= strongly agree) consisting of a total of 6 items (e.g., Facebook is a part of my daily activities). An exploratory factor analysis (EFA), Monte Carlo parallel analysis, and confirmatory factor analysis (CFA) were performed to assess the validity of the scale. The EFA revealed that the scale was a single-factor scale just like its original form and that this single factor explained 57% of the total variance. The result of the Monte Carlo parallel analysis test confirmed the single-factor structure of the scale. Regarding the scale's validity, the goodness of fit coefficients obtained from the CFA were  $\chi^2=27,241$ ,  $df=9$ ,  $\chi^2/df =3.027$ ,  $GFI=.99$ ,  $CFI=.95$ ,  $AGFI=.96$ ,  $NFI=.93$ ,  $RMSEA=.075$  ( $CI=.042-.110$ ). The single-factor structure of the scale was also confirmed by CFA. Higher scores obtained from the scale indicate more intensive Facebook use. Cronbach's alpha internal consistency coefficient for the original scale was .85. and  $\alpha = .84$  for the adapted version used in the current study.

**Fear of Missing Out Scale (FoMO Scale).** Developed by Przybylski et al., (2013), the scale was adapted to Turkish by Gökler, Aydın, Ünal, and Metintaş (2016). It is a 5-point Likert-type scale consisting of 10 items. The scale includes participants' assessment of their own lives. According to the factor analysis, the factor loadings of a one-dimensional structure with 10 items ranged between 0.36 and 0.77. Both Cronbach's alpha coefficient and the test-retest reliability coefficient for the scale were 0.81. Each item in the scale was scored from 1 to 5 (1= not at all true for me, 5= extremely true for me). Possible scores ranged from 10 to 50 and the scale had no cut-off point. Higher scores indicated a higher likelihood of FoMO.

**Smart Phone Addiction Scale.** This 10-item Likert-type scale was developed by Kwon, Kim, Cho, and Yang (2013) to measure adolescents' risk of smartphone addiction and was adapted to Turkish by Noyan, Enez Darçın, Nurmedov, Yılmaz, and Dilbaz (2015). It was one-factorial and had no subscales. Chronbach's alpha coefficient for the scale was 0.87 and had high reliability. The test-retest reliability coefficient was found to be 0.93. Items on the scale were scored from 1 to 6 with a possible minimum and maximum score of 10 and 60, respectively. Higher scores translate into a higher risk for addiction.

**Personal Information Form.** The personal information form prepared by the researchers was used to gather participants' demographic information, such as gender and age, and data on which social media accounts they have, which one they use the most, duration of internet use, and duration of Facebook use.

## Procedure

Data were collected face-to-face using a paper-and-pen form in classrooms with student volunteers. Prior to distributing the data collection instruments, the students were informed that participation in the study was voluntary. Data were collected from students who verbally stated that would volunteer. It took approximately 25 minutes for the students to complete the form.

## Data Analysis

It was first investigated as to whether there existed any missing data, and it was determined that all the data were present in the variable set. After testing for univariate and multivariate outliers, 2 observations were excluded from the data set, leaving a total of 608 participants whose data were analyzed using SPSS 21.00. We further used the Pearson Product-Moment Correlation technique to determine the relationship between participants' intensity of Facebook use and the remaining variables. In addition, whether Facebook intensity could be predicted by age, duration of internet use, duration of Facebook use, FoMO, and smartphone addiction scores was examined using a hierarchical regression analysis.

## Findings

### Descriptive Statistics the Relationship among Variables

Descriptive statistics and correlation coefficients regarding Facebook intensity, FoMO, and smartphone addiction variables are presented in Table 1.

Table 1  
Descriptive statistics and the relationship among variables (N = 608)

Variables	1	2	3	4	5	6
1. Facebook Intensity	-					
2. Fear of Missing Out	.269**	-				
3. Smart Phone Addiction	.276**	.440**	-			
4. Age	.148**	-.133**	-.096*	-		
5. Duration of Facebook use	.514**	.042	.109**	.190**	-	
6. Duration of Internet use	.083*	.220**	.384**	-.065	.124**	-
M	13.24	27.87	31.11	21.34	1.64	3.80
SD	5.07	6.91	10.81	2.00	.97	1.23

\*\* $p < .01$ , \* $p < .05$

As Table 1 indicates, Facebook intensity scores are significantly and positively correlated to FoMO scores ( $r=.27$ ) and smart phone addiction scores ( $r=.28$ ) ( $p < .01$ ). Similarly, there are significant positive correlations between Facebook intensity scores and age ( $r=.15$ ;  $p < .01$ ), duration of Facebook use ( $r=.51$ ;  $p < .01$ ), and duration of internet use ( $r=.08$ ;  $p < .05$ ).

### Prediction of Facebook Intensity

In order to determine whether the independent variables in the study were able to predict the outcome variable (i.e., Facebook intensity), the researchers performed a hierarchical regression analysis, the results of which are presented in Table 2.

Table 2  
Results of the hierarchical regression analysis regarding the prediction of Facebook intensity

	Predictor	B	SE	$\beta$	t
Block 1	Constant	5.621	2.015		2.790
	Age	.139	.090	.055	1.541
	Duration of internet use per day	.099	.144	.024	.688
	Duration of Facebook use per day	2.598	.186	.501	13.995***
Block 2	Constant	-1.466	2.062		-.711
	Age	.244	.086	.096	2.845**
	Duration of internet use per day	-.337	.146	-.082	-2.310*
	Duration of Facebook use per day	2.483	.175	.479	14.195***
	Fear of Missing Out	.149	.027	.203	5.527***
	Smart Phone Addiction	.082	.018	.176	4.545***

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ ; As for Block 1  $R=.52$ ,  $R^2=.27$ ,  $F(3,604)=73.695$ ,  $p < .001$ ; As for Block 2  $R=.60$ ,  $R^2=.36$ ,  $F(5,602)=66.776$ ,  $p < .001$ .

As Table 2 suggests, age, duration of internet use, and duration of Facebook use variables were entered into the first block of the hierarchical regression analysis. FoMO and smart phone addiction were included in the second block during analysis.

The analysis revealed that among the variables in the first block, only duration of Facebook use ( $\beta=.50$ ,  $t=13.995$ ,  $p < .001$ ) predicted Facebook intensity at a significant level ( $F(3,604)=73.695$ ,  $R=.52$ ,  $R^2=.27$ ,  $p < .001$ ). Continuous variables were added to

the second block during the analysis. The variables as a whole explained 36% of the variance in participants' Facebook intensity scores ( $F(5.602)=66.776$ ,  $R=60$ ,  $R^2=.36$ ,  $p<.001$ ). It was concluded that the strongest predictor of Facebook intensity in the second step was duration of Facebook use ( $\beta=.48$ ,  $t=14.142$ ,  $p<.001$ ), followed by FoMO ( $\beta=.20$ ,  $t=5.481$ ,  $p<.001$ ), and smart phone addiction ( $\beta=.18$ ,  $t=4.627$ ,  $p<.001$ ).

### Discussion

This study aimed to investigate the relationship between university students' intensity of Facebook use and both FoMO and smart phone addiction. According to the study's findings, significant positive correlations exist between Facebook intensity, age, duration of Internet use, duration of Facebook use, FoMO and smart phone addiction. The findings indicate that among the variables entered into the first block of the regression analysis, only duration of Facebook use proved to be a significant predictor whereas following the inclusion of the two variables FoMO and smartphone addiction in the second block, the variable set was able to significantly predict participants' intensity of Facebook use.

One of the study's more noteworthy findings is the relationship between Facebook intensity and both FoMO and smartphone addiction. This finding is consistent with similar studies finding a significant relationship between Facebook use and Facebook addiction among young adults who are in greater need of close relationships (Rosen, 2015) and who also use social media, internet, and smart phones frequently (Hong, Huang, Lin, & Chiu, 2014). Furthermore, Wolniewicz et al. (2017) found in their study that there existed significant relationships between problematic smartphone use and both FoMO and the fear of negative and positive appraisals, which could be related to the current study's findings. Wolniewicz et al. (2017) further found that the most important variable predicting problematic use of smartphones is FoMO. Defined as the need to be aware of others' activities in social life and the fear of not being able to keep abreast, FoMO is observed in individuals who care a lot about social relations and who have a high need for belonging (Przybylski et al., 2013). People see positive emotional content when they are online, and when they are offline they think that their friends are happier, more successful, and more positive (Chou & Edge, 2012). Additionally, the fact that individuals' fear of missing out and their excessive use of the internet are negatively related to their subjective well-being levels (Stead & Bibby, 2017) could be counted as one of the adverse affects of their fear of not being able to follow developments in social life. According to research by Buglass, Binder, Betts, and Underwood (2017), the frequent use of social media platforms is related to FoMO, the desire to make friends, and self-promotion.

Another noteworthy finding of the current study is the significant relationship between Facebook intensity and smartphone addiction. It is observed that individuals

use social media/smart phones to communicate with distant/close family members or friends in addition to business purposes. One of the main reasons behind intense Facebook use is people's sense of social belonging (Seidman, 2013). Facebook use was found to be significantly associated with depressive characteristics, particularly self-deficiency (Hong et al., 2014). Moreover, problematic use of smartphones has been associated with high anxiety, compulsion to touch things, and FoMO (Elhai, Levine, Dvorak, & Hall, 2016). Similarly, the most important predictors for smartphone addiction in university students were found to be emotional stress, family stress, interpersonal stress, social self-efficacy, and academic stress, respectively (Chiu, 2014). Evaluation of the current study's findings reveal, similar to previous findings in the literature, there to be a significant relationship between smartphone addiction and Facebook intensity, with Facebook being used as a way to meet participants' needs for social belonging.

Another of the study's finding is the relationship between Facebook intensity and age, duration of internet use, and duration of Facebook use. Participants' age was one of the predictors of Facebook intensity. According to the findings, Facebook intensity scores are, not surprisingly, higher for older users. Approximately 97% of the participants of the study were between 18-24 years of age. According to the report on internet use comparing different countries (e.g. We Are Social, 2017), 18-24 year olds use the internet most frequently of all age groups. In this respect, the young adults participating in this research study may be using Facebook more intensively simply because they use the internet more. In addition, considering the developmental characteristics of the individuals in this age group, the need to satisfy their sense of belonging (Arnett, 2000; 2001) may be deemed a potential reason for their intensive use of Facebook.

The findings of this study may be beneficial in several ways. Very little is known about the psychodynamic mechanisms that initiate and maintain the excessive use of social media, FoMO, and smartphone addiction examined under the umbrella of Facebook intensity. In order to find the optimum solution, it is better to look for solutions with scientific principles instead of being prejudiced about these variables, which concern individuals from every society in today's world. Based on the findings, it is understood that FoMO and smart phone addiction have negative consequences, and it is of great scientific, social, educational, and psychological importance to make new discoveries through a preventive and developmental approach (Korkut, 2004). Many studies are being conducted on (i) Facebook, which helps expand one's online and offline network of social relations, (ii) FoMO, which contributes to individuals' social development by allowing them to remain aware of what other people are doing, and (iii) smart phone addiction, which draws attention to the harmful use of mobile devices. It seems that such studies will continue to serve humanity in finding solutions thanks to their number, quality, and content and in understanding how the findings of these studies can be used more positively in social life.



The study group in the current study consisted of university students. Thus, the findings are limited to a specific age range. No evidence has been found on how intensively individuals of different ages and marital status use Facebook. It is suggested that since the findings of this study revealed that Facebook intensity could be predicted by FoMO and smartphone addiction, they be taken into consideration in other studies regarding Facebook to better understand what the dynamics of Facebook use may be. According to the results of this study, Facebook intensity may partially explain the emergence of FoMO and smartphone addiction. When the current study is evaluated in its entirety, it can contribute to raising individuals able to establish healthier communication practices by drawing attention to the psychological, cognitive, and social reasons underlying the emergence of the variables in question.

### Kaynakça/References

- Alt, D. (2015). College students' academic motivation, media engagement and fear of missing out. *Computers in Human Behavior, 49*, 111–119.
- Andreassen, C. S., & Pallesen, S. (2014). Social network site addiction-An overview. *Current Pharmaceutical Design, 20*(25), 4053–4061.
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism and self esteem: Findings from a large national survey. *Addictive Behaviors, 64*, 287–293.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*, 469–480.
- Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development, 8*(2), 133–143.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529.
- Blachnio, A., & Przepiórka, A. (2018). Facebook intrusion, fear of missing out, narcissism, and life satisfaction: A cross-sectional study. *Psychiatry Research, 259*, 514–519.
- Blachnio, A., Przepiórka, A., Senol-Durak, E., Durak, M. & Sherstyuk, L. (2017). The role of personality traits in Facebook and Internet addictions: A study on Polish, Turkish, and Ukrainian samples. *Computers in Human Behavior, 68*, 269–275.
- Blackwell, D., Leaman, C., Trampusch, R., Osborne, C., & Liss, M. (2017). Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences, 116*, 69–72.
- Billieux, J., Maurage, P., Lopez-Fernandez, O., Kuss, D.J., & Griffiths, M.D. (2015). Can disordered mobile phone use be considered a behavioral addiction? An update on current evidence and a comprehensive model for future research. *Current Addiction Reports, 2*(2), 156–162.
- Boyd, D., & Ellison, N. B. (2007). Social network sites: Definition, history and scholarship. *Journal of Computer-mediated Communication, 13*(1), 210–230.
- Buglass, S. L., Binder, J. F., Betts, L. R., & Underwood, J. D. M. (2017). Motivators of online vulnerability: The impact of social network site use and FoMO. *Computers in Human Behavior, 66*, 248–255.

- Büyüköztürk, Ş., Çakmak, Ş. K., Akgün, Ö. E., Karadeniz, Ş. & Demirel, F. (2017). *Bilimsel araştırma yöntemleri*. Ankara: Pegem Yayınları.
- Cheung, C. M. K., Chiu, P. Y., & Lee, M. K. O. (2010). Online social networks: Why do students use facebook? *Computers in Human Behavior*, 27, 1337–1343.
- Chiu, S.I. (2014). The relationship between life stress and smartphone addiction on taiwanese university student: A mediation model of learning self-Efficacy and social self-Efficacy. *Computers in Human Behavior*, 34, 49–57.
- Chotpitayasunondh, V., & Douglas, K.M. (2016). How “phubbing” becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior*, 63, 9–18.
- Chou, H. G., & Edge, N. (2012). They are happier and having better lives than I am: The impact of using Facebook on perceptions of others’ lives. *Cyberpsychology Behavior and Social Networking*, 15(2), 117–121.
- Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, 63, 509–516.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer–Mediated Communication*, 12(4), 1143–1168.
- Fidan, H. (2016). Mobil Bağımlılık Ölçeği’nin geliştirilmesi ve geçerliliği: Bileşenler Modeli Yaklaşımı. *Addicta: The Turkish Journal on Addictions*, 3, 433–469. <http://dx.doi.org/10.15805/addicta.2016.3.0118>
- Frost, R. L., & Rickwood, D. J. (2017). A systematic review of the mental health outcomes associated with Facebook use. *Computers in Human Behavior*, 76, 576–600.
- Gökler, M. E., Aydın, R., Ünal, E. & Metintaş, S.(2016). Sosyal ortamlarda gelişmeleri kaçırma korkusu ölçeğinin Türkçe sürümünün geçerlilik ve güvenilirliğinin değerlendirilmesi. *Anadolu Psikiyatri Dergisi*, 17(1), 73–81. <http://dx.doi.org/10.5455/apd.195843>
- Hetz, P. R., Dawson, C. L., & Cullen, T. A. (2015). Social media use and the Fear of Missing Out (FoMO) while studying abroad. *Journal of Research on Technology in Education*, 47(4), 259–272, <http://dx.doi.org/10.1080/15391523.2015.1080585>
- Hong, F. Y., Huang, D. H., Lin, H. Y., & Chiu, S. L. (2014). Analysis of the psychological traits, Facebook usage and Facebook addiction model of Taiwanese university students. *Telematics and Informatics*, 31, 597–606.
- Karadağ, E., Tosuntaş, Ş. B., Erzen, E., Duru, P., Bostan, N., Mızrak Şahin, B. ... Babadağ, B. (2016). Sanal dünyanın kronolojik bağımlılığı: Sosyotelizm (phubbing). *Addicta: The Turkish Journal on Addiction*, 3, 223–269. <http://dx.doi.org/10.15805/addicta.2016.3.0013>
- Kemp, S. (2016). *Digital in 2016. We are social’s compendium of global digital, social, and mobile data trend and statistics [Global report]*. Retrieved from <http://wearesocial.com/uk/specialreports/digital-in-2016>
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. *Computers in Human Behavior*, 26(6), 1237–1245.
- Korkut, F. (2004). *Önleyici rehberlik*. Ankara: Anı Yayıncılık.

- Kuss, J. D., Griffiths, D. M., Karila, L., & Billieux, J. (2014). Internet Addiction: A Systematic Review of Epidemiological Research for the Last Decade. *Current Pharmaceutical Design*, 20(25), 4026–4052.
- Kwon, M., Kim, D. J., Cho, H., & Yang, S. (2013). The smartphone addiction scale: Development and validation of a short version for adolescents. *PloS one*, 8(12), e83558.
- Lai, C., Altavilla, D., Ronconi, A., & Aceto, P. (2016). Fear of missing out is associated with activation of the right middle temporal gyrus during inclusion social cue. *Computers in Human Behavior*, 61, 516–521.
- Lepp, A., Barkley, J. E., & Karpinski, A. C. (2014). The relationship between cell phone use, academic performance, anxiety and satisfaction with life in college students. *Computers in Human Behavior*, 31, 343–350.
- McKenna, K. Y. A., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, 4(1), 57–75.
- Noyan, C. O., Enez Darçın, A., Nurmedov, S., Yılmaz, O. & Dilbaz, N. (2015). Akıllı Telefon Bağımlılığı Ölçeğinin kısa formunun üniversite öğrencilerinde Türkçe geçerlilik ve güvenilirlik çalışması. *Anadolu Psikiyatri Dergisi*, 16(1), 53–59. <http://dx.doi.org/10.5455/apd.176101>
- Öztemel, K. & Traş, Z. (2017). Facebook Yoğunluğu Ölçeği'nin (FYÖ) Türkçe'ye uyarlanması: Faktör yapısı ve güvenilirliğinin incelenmesi. *Türk Eğitim Bilimleri Dergisi*, 15(2), 91–101.
- Przybylski, A. K., Murayama, K., Dehaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29, 1841–1848.
- Raacke, J., & Raacke, J.B. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology ve Behavior*, 11 (1), 169–174.
- Rauch, S. M., & Schanz, K. (2013). Advancing racism with Facebook: Frequency and purpose of Facebook use and the acceptance of prejudiced and egalitarian messages. *Computers in Human Behavior*, 29(3), 610–615.
- Reagle, J. M. (2015). *Reading the comments: Likers, haters, and manipulators at the bottom of the web*. Retrieved from [books.google.com](http://books.google.com)
- Rosen, G. (2015). *A history of public health*. Baltimore, MA: John Hopkins University Press.
- Ryan, T., Chester, C., Reece, J., & Xenos, S. (2016). A qualitative exploration of Facebook addiction: Working toward construct validity. *Addicta: The Turkish Journal On Addictions*, 3(1), 55–76. <http://dx.doi.org/10.15805/addicta.2016.3.0004>
- Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321–325.
- Seidman, G. (2013). Self-presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54(3), 402–407.
- Skierkowski, D., & Wood, R. M. (2012). To text or not to text? The importance of text messaging among college-aged youth. *Computers in Human Behavior*, 28(2), 744–756.
- Stead, H., & Bibby, P. A. (2017). Personality, fear of missing out and problematic internet use and their relationship to subjective well-being. *Computers in Human Behavior*, 76, 534–540.
- Tang, J. H., Chen, M. C., Yang, C. Y., Chung, T. Y., & Lee, Y. A. (2016). Personality traits, interpersonal relationships, online social support, and Facebook addiction. *Telematics and Informatics*, 33, 102–108.

- Thomée, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults-a prospective cohort study. *BMC Public Health, 11*(1), 66–77.
- We Are Social. (2017). *Report of the digital in 2017: Global overview*. Retrieved from <https://wearesocial.com/uk/special-reports/digital-in-2017-global-overview>
- Wolniewicz, C. A., Tiamiyu, M. F., Weeks, J. W., & Elhai, J. D. (2017). Problematic smartphone use and relations with negative affect, fear of missing out, and fear of negative and positive evaluation. *Psychiatry Research, 262*, 618–623.
- Wu, A. M., Cheung, V. I., Ku, L., & Hung, E. P. (2013). Psychological risk factors of addiction to social networking sites among Chinese smartphone users. *Journal Of Behavioral Addictions, 2*(3), 160–166.
- Young, K. S. (2015). The evolution of Internet addiction. *Addict Behaviors, http://dx.doi.org/10.1016/j.addbeh.2015.05.016*
- Zhang, K. Z., Chen, C., & Lee, M. K. (2014). Understanding the role of motives in smartphone addiction. *Proceedings of the PACIS, 131–148*. <http://aisel.aisnet.org/pacis2014/131>