The Predictive Relationships between the Social Media Addiction and Social Anxiety, Loneliness, and Happiness

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Abstract

The purpose of this study is to examine how well university students' social anxiety, happiness and loneliness levels explain their levels of social media addiction. The research was designed as a correlational survey model. The research group consisted a total of 312 university students, 165 female (53%) and 147 male (47%), attending at a state university in Turkey during the 2017-2018 academic year. The data collected using a Personal Information Form, a Social Media Addiction Scale, a Social Anxiety Scale, the short form of the Oxford Happiness Questionnaire, and the short form of the UCLA Loneliness Questionnaire. Pearson correlation and hierarchical regression analysis were conducted in SPSS to investigate the relationship between students' social media addiction and their social anxiety, happiness, and loneliness levels. The findings showed that there was a positive relationship between students' social media addiction levels and their social anxiety and loneliness levels. On the other hand, there was a negative relationship between students' social media addiction levels and their happiness levels. According to these findings, social media addiction variable significantly predicted by the social anxiety and happiness variables, but it did not significantly predicted by the loneliness variable. The findings were discussed in the light of the relevant literature and recommendations were presented.

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INTRODUCTION

Human life and behavior constantly change and as a result various problems arise. One of these problems is addiction. The term *addiction* reminds using chemicals such as alcohol, cigarettes, cannabis, and cocaine (Padwa & Cunningham, 2010). According to Bradley (1990), addiction means that a person becomes dependent on an object or a substance that contains narcotic components. Although addiction has traditionally been treated as a condition that can only be caused by psychoactive substances, in recent years, it has been shown that ordinary habits and activities can lead to addiction. For instance, excessive eating, gambling, internet use, shopping and sex can cause similar problems that alcohol, drugs, and psychoactive substances cause (Padwa & Cunningham, 2010). Whether video games, internet use, and exercise should be considered as addiction become the subject of discussions in social networks (social media) (Griffhits, Kuss & Demetrovics, 2014).

Together with the technological developments, social media has become a part of our lives. Social media can be defined in general as tools and groups formed by these tools that people use to share their thoughts, life experiences, perceptions, attitudes, music, video, and photographs (Lai & Turban, 2008). Social media provides users with many possibilities such as creating and sharing information, establishing and improving relationships (Kwon & Wen, 2010). Social media can be defined as online environments accessed via internet that individuals use when they want to share their instantaneous thoughts and feelings and even their behaviors with others by means of photos and videos. Social media should be evaluated in the context of internet addiction because it is an internet application and can be used over internet.

Social media, especially for youths, provides easy and fast access to real-time activities such as various events, visual sharing, and chatting. Youths spend most of their time on social media, updating their contacts and status (Fox & Moreland, 2015). The increase in the popularity of social media and becoming dependent on the virtual structure of these social networks leads to an increase in the number of individuals with negatively affected lives by being isolated from real life and individuals with damaged relationships (Eliphinston & Noller, 2011). Social media applications have been widely used with the emergence of interactive web technologies, and the overuse of these applications cause addiction problems (Andreassen, Torsheim, Brunborg & Pallesen, 2012).

Şahin and Yağcı (2017) define social media addiction as having various psychological, physical, and social problems that occur in every age group of individuals who spend excessive time in social media and consequently having problems in fulfilling their personal, social, educational, and professional responsibilities. When the reasons behind social media addiction are evaluated, these reasons behind it show similarities with other addictions. Excessive use of social networks can cause serious problems especially for young individuals, and individuals who addicted to these networks show symptoms similar to those who experience drug addiction or other behavioral addictions (Echeburúa & Corral, 2009; Kuss & Griffiths, 2012).

Social anxiety is a condition in which an individual is hesitated to talk in front of a society, meeting with a new person or being introduced to a person, worrying when he needs to talk to an authorized person, and even the individual is disturbed by thinking about these situations (Baltacı, 2010; Baltacı & Hamarta, 2013). Individuals who have difficulty in expressing themselves in social environments express themselves more easily on internet. It is seen that youths tend to avoid from socially worrying environments and try to exist in social networks (Morahan-Martin & Schumacher, 2000). It is reported that socially anxious individuals use internet for social interaction (Peter, Valkenburg & Schouten, 2006). Caplan (2007) explains this situation with the term *privacy*, which is one of the fundamental features of internet. Individuals perceive less risk when they communicate using virtual environments rather than face to face communications. It is emphasized that social anxiety is related to internet addiction, problematic internet use, and social media addiction (Doğan & Tosun, 2016; Ko, et al., 2012; Rosenthal, 2009; Yen, et al., 2012; Yılmaz, Şar & Civan, 2015). Therefore, social anxiety is thought to be an important predictor of the social media addiction.

Individuals who have fear of being away from social media report feeling loneliness when they spent time not using social media (Dossey, 2014). Loneliness is an emotion that can be seen in almost every period of individual's lives. Individuals feel loneliness when they need the support of a social group in which they perceive sincerity and security but do not belong such a group, or if they cannot do so because they do not have the maturity to establish appropriate social relationships with others. Loneliness is an indication of there are important shortcomings in the social relations of an individual, in other words, a clue that points out some things are going wrong (Batıgün, 2008). While Primack et al. (2017) defined loneliness as a risk factor for the social media addiction, Vendor (2018) stated that social media addiction cause loneliness. Loneliness and social anxiety lead to internet addiction (Hardie & Tee, 2007). In addition, social anxiety also mediates the relationship between loneliness and internet addiction (Caplan, 2007). On the other hand, happiness is a condition in which individuals frequently have more positive emotions and less negative emotions and receive high satisfaction from their experiences (Doğan & Sapmaz, 2013). According to Seligman and Csikszentmihalyi (2000), there are many concepts that may be related to happiness, and these concepts should be investigated. Happiness is found to be related with problematic internet use (Baltacı, Sırakaya, & Dansız, 2017), facebook addiction (Uysal, Seller, & Akin, 2013), and social media use (Colak & Dogan, 2016; Pittman & Reich, 2016) and reported to be predicting these concepts.

Although the negative use of technological developments causes problems at every age level, youths are the significant group at risk. Moreover, university students are emphasized to be one of the important groups under abuse of technology (Pawlowska, et al., 2015). In this period of their lives, university students face many problems due to blending into a new social environment, academic studies, financial problems, and lacking family support due to the separation. Therefore, it is important to investigate what kinds of choices youths choose to escape from these problems and what types of psychosocial variables leads to these choices. Hence, it is important to determine the relationships between the social media addition and social problems that university students face in their social environments, their perception of happiness and loneliness. It is thought that investigating these relationships can also shed light on the future studies. In the light of the above information, the purpose of this study is to examine university students' social media addiction levels in terms of social anxiety, happiness and loneliness levels. Thus, the following questions are examined in this study:

(1) Is there a significant relationship between university students' social media addiction and their social anxiety and their happiness and loneliness levels?

(2) Do social anxiety, happiness and loneliness significantly predict university students' social media addiction?

METHOD

In this study, a correlational survey model was used to investigate the relationships between university students' social media addiction and their social anxiety, happiness and loneliness levels. "Correlational survey model are research models aiming to determine the presence and/or degree of coexistence between two or more variables. According to the correlational survey model, the relationships among variables are examined in an existing situation without the intervention of the researcher (Fraenkel ve Wallen, 2006, s. 328).

Participants

The research group consisted a total of 312 university students, 165 female (53%) and 147 male (47%), attending at a state university in Turkey during the 2017-2018 academic year. Students' age ranged between 19 and 25 with a standard deviation of 1.23.

Data Collection Tools

Personal Information Form: The form was developed by the researchers and consisted questions in order to collect participants' socio-demographic information and to collect information and thoughts on their social media usage.

Social Media Addiction Scale - Adult Form (SMAS-AF): The SMAS-AF was developed by Şahin and Yağcı (2017). The scale included 20 items that were written as five-point Likert-type items and could be clustered under two factors (virtual tolerance and virtual communication). Confirmatory factor analysis showed that the two-factor model was fitting the data ($\chi2 = 7051.32$; $SD = 190$, and $p = .00$; $RMSEA = .059$; $SRMR = .060$; $NFI = .59$; $CFI = .96$; $GFI = .90$; and $AGFI = .88$). Internal consistency coefficients were calculated as .92 and .91 for virtual tolerance and virtual communication sub-dimensions, respectively. Coefficient of the total internal consistency was .94. The test-retest reliability coefficient of the overall scale was calculated as .93 (.91 for the virtual tolerance and .90 for the virtual communication). The confirmatory factor analysis proved that SMAS-AF was a valid and reliable source in determining the social media addiction among adults.

Social Anxiety Scale (SAS): The scale was developed by Özbay and Palancı (2001) in order to determine the "social anxiety" related problems experienced by university students. The scale, which has been developed for the university students, has been developed in a way that can measure university students' skills that are convenient for social situations and their concerns that may occur in these situations. Factor analysis showed that the scale with three subtests explained 32.9% of the total variance. The Cronbah Alpha value, which shows internal test consistency, was calculated as .89. The scale included Likert-type items with a five-point rating system (0-4). The increment in the scale scores indicated increments in the social anxiety levels.

The Oxford Happiness Questionnaire-Short Form (OHQ-SF): This questionnaire was developed by Hills and Argyle (2002). The questionnaire included eight items and there was a positive correlation (.93, $p < .001$) among 29 items in the original form. The OHQ- SF was translated into Turkish by Doğan and Çötok [30]. As a result of conducting an exploratory factor analysis, a single factor structure was obtained that contained seven items with an eigenvalue of 2.782, and it explained 39.74% of the total variance. The single factor structure of the OHQ-SF was analyzed by conducting a confirmatory factor analysis and goodness of fix indices were calculated as follows: v2/df = 2.77, AGFI = .93, GFI = .97, CFI = .95, NFI = .92, IFI = .95, RMSEA = .074). The internal consistency coefficient of the OHQ-SF was calculated as .74, and the test–retest reliability coefficient was calculated as .85.

The UCLA Loneliness Questionnaire-Short Form (ULS-8): This questionnaire was developed by Russell, Peplau, and Ferguson and was re-organized in 1980 (Russell, Peplau & Cutrano, 1980). The Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted to determine the factor structure of the questionnaire. Moreover, the criterion-related validity and internal consistency were tested. The EFA yielded a single factor that explained 36.69% of the total variance. Next, the CFA was performed in order to verify the previously identified single factor structure of the questionnaire. The CFA revealed that the single factor structure of the questionnaire had a reasonably satisfactory goodness of fit. The correlation between the ULS-8 and the UCLA Loneliness Questionnaire was .88 ($p < .001$). With a Cronbach's Alpha value of .72, the internal consistency of the questionnaire was found to be good. The questionnaire included eight items (six were direct coded and two were reverse coded). In each item of the questionnaire, a condition that stated an emotion or a thought about a social relationship was presented and the individuals were asked to state how often they come across this type of a condition rating on a four-point Likert scale. Higher scores were accepted as a sign of loneliness that was come across very occasionally. In Turkey, the validity and reliability study of the UCLA Loneliness Questionnaire was completed by Doğan, Çötok, and Tekin (2011).

Data Analysis

The data of the study were collected from university students who participated on a voluntary basis during the 2017-2018 academic year. Before the application process, the participants were informed about the purpose of the study and data collection tools, and the application process was carried out by the researchers in regular classroom environments. The collected forms were checked before they were being included in the data analysis process. Hence, 14 incomplete forms were determined and not included in the analysis. The SPSS 21 package program was used to analyze the data. Pearson correlation coefficient was used in determining the relationship between the social media addiction and social anxiety, loneliness, and happiness. Finally, a hierarchical regression analysis was conducted to understand whether independent variables (social anxiety, loneliness, and happiness) predict the dependent variable (social media addiction).

RESULTS

The descriptive statistics, which included mean and standard deviation values, and Pearson correlation coefficients among the independent variables (social anxiety, loneliness, and happiness) and dependent variable (social media addiction) are presented in Table 1.

Table 1. Pearson correlation coefficients and descriptive statistics

Variables	1	2	3	4
1. Social Media Addiction	1			
2. Social Anxiety	.427*	1		
3. Happiness	-0.298*	-0.457*	1	
4. Loneliness	.185*	.506*	-0.453*	1
Arithmetic Mean	53.14	36.6	23.75	12.58
Standard Deviation	12.31	17.22	3.6	3.19
Skewness	.025	.405	-0.303	.633
Kurtosis	-0.600	.278	.041	.120

*$p < .01$

When the results in Table 1 are examined, there was a positive moderate level interaction between the social media addiction and social anxiety (r = .427, $p < .01$) and a positive low level interaction between the social media addiction and loneliness (r = .186, $p < .01$). On the other hand, there was a negative low level interaction between the social media addiction and happiness (r = -.298, $p < .01$). In order to determine the predictors of the social media addiction, a hierarchical regression analysis was conducted. The results of the analysis are presented in Table 2.

Table 2. The prediction of the social media addiction by the independent variables: Regression analysis results

Predicted Model	B	SH$_B$	β	t	F	R	R^2	ΔR^2
Constant	41.974	1.485		28.270**	69.080	.427	.182	.180
Social Anxiety	.305	.037	.427	8.311**				
Constant	54.087	5.539		9.765**	37.575	.442	.196	.190
Social Anxiety	.263	.041	.367	6.407**				
Happiness	-0.445	.196	-0.130	-2.269*				
Constant	59.503	6.702		8.879**	25.817	.448	.201	.193
Social Anxiety	.286	.044	.401	6.484**				
Happiness	-0.529	.204	-0.155	-2.589*				
Loneliness	-0.340	.238	-0.088	-1.430				

Dependent Variable: Social Media Addiction; ** $p < .01$; * $p < .05$

When the R^2 values are analyzed in Table 2, it is seen that social anxiety scores explain 18% of the total variance in the first stage [$F_{(1,\ 310)}$: 69,080; $p < .01$]. In the second stage, including happiness scores in the prediction process, 19.6% of the total variance was explained [$F_{(2,\ 309)}$: 37.575; $p < .01$]. In the third stage, including loneliness scores in the prediction process, the percentage of the total variance explained was increased at 20% [$F_{(3,\ 308)}$: 25,817; $p < .01$] ($R^2 = .201$, r = 0.448, $p < .01$). The regression coefficients related to the loneliness (β = -0.088; t = -1,430; $p > .05$) scores in the third stage were not statistically significant. As a result of the hierarchical regression analysis, we found that the most important contribution to the prediction of the social media addiction came from the social anxiety variable (β = .401), followed by the happiness (β = -0. 155) and loneliness variables (β = -0. 088). When the directions of the relationships between variables are examined, we found that students' social anxiety levels positively predicted their social media addiction levels. On the other hand, their happiness and loneliness levels negatively predicted their social media addiction levels. Therefore, as a result of the regression assumption analysis, we can conclude that the model was significantly explaining university students' social media addiction levels because it did not yield multicollinearity and covariation issues, and the error terms were normally distributed (Sipahi, Yurtkoru, & Zinko, 2006).
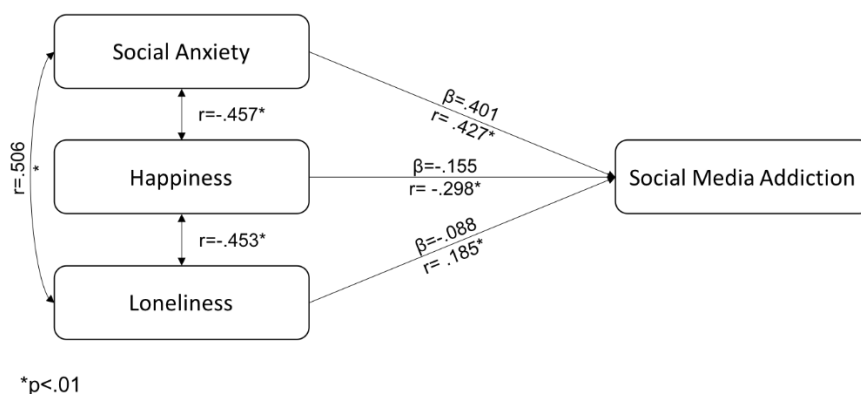

Figure 1: The obtained model that expresses the prediction of the social anxiety, happiness, and loneliness levels of the social media addiction level.

DISCUSSION, CONCLUSIONS, AND SUGGESTIONS

This study investigated whether university students' social anxiety, happiness, and loneliness predicted their social media addiction. The results showed that students' social anxiety and happiness significantly predicted their social media addiction. This result showed similarities with previous studies (e.g., Doğan & Tosun, 2016; Ko, et al., 2012; Rosenthal, 2009; Yen, et al., 2012; Yılmaz, Şar, & Civan, 2015) that suggested a positive relationship between social anxiety and social media addiction and with studies that suggested a negative relationship between happiness and social media addiction (e.g., Baltacı, Sırakaya, & Cansız, 2017; Çolak & Doğan, 2016; Pittman & Reich, 2016; Uysal, Satıcı, & Akın, 2013). Individuals who have difficulty communicating with others in social environments and who choose to establish this type of social interaction using internet tools show characteristics of the social anxiety (Peter, Valkenburg & Schouten, 2006). Baltacı, Sırakaya, and Dansız (2017) reported that happiness significantly predicts university students' problematic internet use. They stated that individuals who are happy in their social environment and do not worry about being evaluated in this environment usually do not search for different online communication tools. Thus, their possibility of being addicted to social media decreases.

In this study, the relationship between loneliness and social media addiction were found to be low. This finding is in line with the studies (e.g., Bonetti, Campbell, & Gilmore, 2010; Bozoğlan, Demirer, & Şahin, 2013; Primack et al., 2017) that found association between loneliness and social

media addiction. However, in this current study, the loneliness variable did not significantly predict the social media addiction. In this study, we also identified a moderate relationship between loneliness and social anxiety and between loneliness and happiness. It is possible that a marginal effect caused by these moderate relationships leads to a decrease in the predictive power of the loneliness variable. When loneliness, which is a psychosocial variable, is analyzed in terms of internet addiction, internet abuse, and social media addiction variables, it is seen that loneliness is both the reason (e.g., Primack et al., 2017) and the result (e.g., Dossey, 2014; Satıcı, 2008) of these addictions. When the regression analysis results were examined, social anxiety and happiness explained 20% of the total variance of the social media addiction. Therefore, social anxiety and happiness have the power for explaining university students' social media addiction. Thus, suggestions for future studies are presented in terms of this context.

The regression model obtained in this study can be tested again in samples with similar characteristics. In addition, the structural equation model (SEM) can be used in order to examine the indirect effects of these independent variables on the dependent variable. Furthermore, a qualitative study can be designed by conducting in-depth interviews with individuals who have social media addiction. In this study, social anxiety and happiness were found to be predictors of the social media addiction. Hence, doing psycho-educational group studies aiming to improve university students' social relations and life skills can make a multifaceted effect on the development of all living spaces. Thus, we suggest that psychological counseling services should disseminate psychological support for university students in order to eliminate their social anxiety related problems.

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