

THE EFFECT OF SOCIAL MEDIA ADDICTION ON DEPRESSION LEVEL IN UNIVERSITY STUDENTS

ÜNİVERSİTE ÖĞRENCİLERİNDE SOSYAL MEDYA BAĞIMLILIĞININ DEPRESYON DÜZEYİ ÜZERİNE ETKİSİ

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ABSTRACT

Objective: This study was conducted to determine the effect of social media addiction on the level of depression in university students

Method: A cross-sectional design was used to this study. The research was conducted between February and August 2020 with 824 university students. Data were collected by an information form, the Social Media Addiction Scale - Student Form and Beck Depression Scale in the study.

Results: It was determined that the students got 87.2±21.98 points from Social Media Addiction Scale and their addiction level was moderate, and they got 17.5±8.87 points from Beck Depression Scale and they were moderately depressed. It was determined that social media addiction is an important variable predicting the level of depression (R²: 35.5, p<0.001).

Conclusion: It has been determined that as students' social media addictions increase, their depression levels increase.

Keywords: Depression, Internet, Social media addiction, Students.

ÖZET

Amaç: Bu araştırma, üniversite öğrencilerinde sosyal medya bağımlılığının depresyon düzeyi üzerine etkisini belirlemek amacıyla yürütülmüştür.

Yöntem: Bu araştırma kesitsel tiptedir. Araştırma Şubat-Ağustos 2020 tarihleri arasında 824 üniversite öğrencisi ile gerçekleştirildi. Veriler, tanımlayıcı bilgi formu, Sosyal Medya Bağımlılığı Ölçeği - Öğrenci Formu ve Beck Depresyon Ölçeği kullanılarak toplanmıştır.

Bulgular: Öğrencilerin Sosyal Medya Bağımlılığı ölçeğinden 87.2±21.98 puan aldıkları ve sosyal medya bağımlılık düzeylerinin orta düzeyde olduğu, Beck Depresyon Ölçeğinden 17.5±8.87 puan aldıkları ve orta düzeyde depresif oldukları belirlendi. Sosyal medya bağımlılığının depresyon düzeyini yordayan önemli bir değişken olduğu belirlendi (R²: 35.5, p<0.001).

Sonuç: Öğrencilerin sosyal medya bağımlılıkları arttıkça depresyon düzeylerinin de arttığı tespit edilmiştir.

Anahtar Kelimeler: Depresyon, İnternet, Sosyal medya bağımlılığı, Öğrenciler.

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INTRODUCTION

Today, social media has become the only tool where free time is evaluated, connection with the circle of friends is maintained, having fun, chatting, exchanging information, accessing information and following the agenda (Şeker, 2018). Spending time on social media in the process other than general needs has increased with the presence of the COVID-19 pandemic. In the pandemic process, individuals who have to spend most of the day at home during these periods of mandatory quarantines and social distance rules in order to control the spread of the virus, use the internet and social media networks intensively in order to meet their socialization needs, access information, follow the agenda and spend their spare time (Dikmen, 2021). In 2021, it has been determined that the rate of social media users all over the world is 53.6% and many countries have users over this rate. In Turkey, it has been determined that 70.8% of the population actively uses social media (Digital, 2021). It has been determined that the age group with the highest rate of access to social media via smartphones is composed of young people between the ages of 16-24 (Turkish Statistical Institute, 2021).

The excessive and unconscious use of social media, which makes life easier in many ways, has brought a problem such as social media addiction to the agenda. Social media addiction is seen as a sub-form of internet addiction that forces individuals to use social media excessively (Griffiths, 2005). DSM-5 (American Psychiatric Association 2013) does not accept Social Networking Sites (SNS) addiction as a possible psychological disorder (APA, 2013). However, researchers predict that a potential mental health problem in young people may develop due to the overuse of new technologies (Stankovska et al., 2016). Individuals who are addicted to social media cannot control the use of these tools and exhibit obsessive behaviors (Balcı & Baloğlu, 2018). Griffiths identified six criteria/components common to different types of (behavioral) addictions. These; “Salience, Tolerance, Mood Swings, Withdrawal, Relapse, and Conflict.” Regardless of the type of behavior, Griffiths emphasized that any individual who performs a behavior that meets the six basic criteria should be defined as operationally dependent on that behavior (Griffiths, 2000; Griffiths, 2005). The desire to constantly look at the phone due to addiction, spending more time than necessary, weakening in family relations, isolating oneself from people and being alone are among the problems that are seen at first. However, in the future, more complicated problems such as insomnia, lack of satisfaction with life and depression are encountered (Fu et al., 2017).

Depression, which is one of the most important consequences, can harm individuals' personal relationships, quality of life and other social functions (Maalouf et al., 2011). According to Truschel (2013): “People who are depressed do not want to do activities that they previously enjoyed, and experience frequent feelings of hopelessness and unhappiness. They may also experience pain and digestive problems that may be associated with depression.” As such, depression is an important health problem in adolescents, and considering the prevalence of social media use, a causal relationship points to an important and widespread health risk (Dikmen, 2021). For this reason, it is necessary to conduct more research on the subject and increase the awareness of young people about the subject.

This research was carried out to determine the effect of social media addiction on the level of depression in university students.

Research Questions:

1. What is the level of students' social media addiction?
2. What are the students' depression levels?
3. What is the relationship between students' social media addiction and depression levels?
4. What are the variables that affect students' depression levels?

MATERIALS AND METHODS

Study Design

The study has a cross-sectional design. It was conducted between February and August 2020.

Participants

The research was carried out in students at a state university in Turkey. The population of the research consists of students studying in five faculties determined by lottery method from fourteen faculties of university. The number of students studying in these faculties is 10.401. Its sample is; it consists of 824 students whose population was determined by power analysis. (0.95 confidence interval, 0.5 effect size,

0.95 representation power). The faculties were accepted as a cluster and after determining the sample sizes from each cluster with the cluster weighting method, they were selected to the sample group by the simple random sampling method. Number of students to be taken from faculties; 195 from the Faculty of Nursing/Health Sciences, 314 from the Faculty of Education, 121 from the Faculty of Medicine, 53 from the Faculty of Fine Arts and 72 from the Faculty of Law.

Inclusion Criteria

University students over the age of 18 with internet access were included in the study. We excluded those with a psychiatric diagnosis.

Data Collection

Data collection forms were prepared online by the researcher from Google forms and sent to the students' e-mail addresses registered in the system. The necessary explanation about the research was written in the introduction part of the form and the data were collected online from the students who agreed to participate in the research. Data collection was continued until the target number was reached.

Measures

In data collection, the information form, which determines the socio-demographic characteristics of the students and their thoughts about their use of social media, the "Social Media Addiction Scale-Student Form (SMAS-SF)" was used to determine the social media addiction of the students, and the "Beck Depression Scale (BDI)" to determine the depression level of the students.

Information form

This form, created by the researcher, includes the introductory features of the students; related to age, gender, class, economic level, social media usage; It consists of a total of 14 questions about being using social media, using which social media application, duration of use and time spent.

Social Media Addiction Scale - Student Form (SMAS-SF)

This measurement tool was developed by Şahin (2018). It was developed to assess students' social media addiction. The scale consists of 29 items and four sub-dimensions. A minimum score of 29 and a maximum score of 145 can be obtained from the scale. A high score indicates a high level of addiction. Şahin found the Cronbach's alpha value of the scale as .93 (Şahin, 2018). In this study, it was determined as .95.

Beck Depression Scale (BDS)

It is a self-assessment scale developed by Beck et al., (1961) to determine the frequency of depression symptoms experienced by individuals. According to the scores obtained from the BDI, depression levels were determined as severity; It is interpreted as 0-9 point = Minimal, 10-16 point = Mild, 17-29 point = Moderate, 30-63 point = Severe. Its validity and reliability in Turkey was done by Hisli (1989).

Data Analysis

Data were analyzed with SPSS 23.0 software. For statistical evaluation, number, percentage, mean, ROC curve estimates and Regression analysis were used. $p < 0.05$ was considered statistically significant.

Ethical Considerations

Written approval was obtained for the research from the Inonu University Health Sciences Scientific Research and Publication Ethics Committee (2019/8-2). After obtaining the permission of the Ethics Committee, written permission was obtained from the faculty dean's offices. To the participants; The purpose of the research, its plan and information about where the data obtained will be used, the principle of 'respect for human dignity', the principle of "Respect for Autonomy" by recruiting those who voluntarily participate in the research, and the principle of 'Confidentiality and Protection of Confidentiality' by stating that the information obtained in the research will be kept confidential.

RESULTS

The average age of the students was 20.7 ± 1.97 years, 62.5% of them were female, 37.1% of them was 1st grade, 77.5% of them had medium level of economic level, and the education level of parents was mostly primary school. All of the students use any social media application, 85.6% use Instagram the most, 40.3% use social media application for 4-6 years, 26.2% spend more than 7 hours a day on social media, 46.5% it was determined that they were satisfied with social media applications and 80.5% of them felt happy because they used social media (Table 1)

Table 1. Socio-Demographic Variables

Variables	Group	Number	%	
Age				
		20.7±1.97		
Gender	Female	515	62.5	
	Male	309	37.5	
Grade level	1 th grade	306	37.1	
	2 th grade	303	36.8	
	3 th grade	133	16.1	
	4 th grade	82	10.0	
Economic status	Low income	118	14.3	
	Middle income	639	77.5	
	High income	67	8.1	
Mother education level	Illiterate	175	21.2	
	Literate	156	18.9	
	Primary school	317	38.5	
	High school	127	15.4	
	University	49	5.9	
Father education level	Illiterate	43	5.2	
	Literate	97	11.8	
	Primary education	311	37.7	
	High school	235	28.5	
Do you use social media?*	Yes	824	100.0	
	No	0	0.0	
	Facebook	Yes	323	39.2
		No	501	60.8
Twitter	Yes	352	42.7	
	No	472	57.3	
Instagram	Yes	705	85.6	
	No	119	14.4	
Foursquare	Yes	27	3.3	
	No	797	96.7	
Google plus	Yes	376	45.6	
	No	448	54.4	
LinkedIn	Yes	46	5.6	
	No	778	94.4	
Vine	Yes	47	5.7	
	No	777	94.3	
Youtube	Yes	664	80.6	
	No	160	19.4	
What device do you use to access social media apps?	PC	23	2.8	
	Mobile devices	801	97.2	
Social media usage time	Less than 1 year	56	6.8	
	Between 1-3 years	225	27.3	
	Between 4-6 years	332	40.3	
	More than 7 years	211	25.6	
Daily social media use	Less than 1 hour	88	10.7	
	Between 1-3 hours	279	33.9	

	Between 4-6 hours	241	29.2
	More than 7 hours	216	26.2
Are you satisfied with social media applications?	Yes	383	46.5
	No	71	8.6
	Partially	370	44.9
Are you happy to use social media?	Yes	663	80.5
	No	161	19.5

^aMore than one answer has been given.

The students got a total of 87.2 ± 21.98 points from the social media addiction scale and 17.5 ± 8.87 points from the Beck depression scale and they were moderately depressed (Table 2).

Table 2. Social Media Addiction Scale - Student Form (SMAS-SF) and Beck Depression Scale (BDS) Means Scores

Scale Dimensions	Min	Max	X ± SD	Cronbach α
Virtual Tolerance	5.00	25.00	14.7±4.66	0.946
Virtual Communication	9.00	45.00	26.2±7.51	
Virtual Problem	9.00	44.00	25.5±8.36	
Virtual Information	6.00	30.00	20.7±4.95	
SMAS-SF	30.00	141.00	87.2±21.98	
BDS	4.00	61.00	17.5±8.87	0.82

X: Mean, SD: Standart Deviation

Linear regression stepwise model was used to determine the factors affecting students' depression level. Beck Depression Scale total score was taken as the dependent variable. Social media addiction scale total score and all socio-demographic variables were included in the model as independent variables. Social media addiction was the most important variable predicting the level of depression ($R^2: .355, p < 0.001$). According to the results of the regression analysis; Of the independent variables, the total score of social media addiction has an effect size of 0.35, the total score of social media addiction and the state of being happy in social media use has 0.37 effect size, the total score of social media addiction, the state of being happy in social media use and Instagram use is 0.38 effect size, social media addiction is a total score of 0.38. score, being happy in using social media, using Instagram and economic level were found to predict depression level with an effect size of 0.38 ($p < 0.001$). The effect of the characteristics depending on the qualitative data on the depression level was determined. $R = .625$, Adjusted R Square: .388, as .38.8% of the total variance in the dependent variable of the Beck depression scale was explained by these variables. It has been determined that social media addiction alone has the most important effect on the level of depression (Table 3).

Table 3. Investigation of The Effects of Social Media Addiction Scale (SMAS-SF) and Socio-Demographic Variables on Depression Level using Regression Analysis

Coefficients ^a										
Model	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations		
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part
1 (Constant)	-3.458	1.017		-3.400	.001	-5.455	-1.462			
SMAS-SF	.241	.011	.596	21.287	.000	.218	.263	.596	.596	.596
R: .596 ^a , R Square: .355, Adjusted R Square: .355, F: 453.147, Sig.: .000 ^b										
2 (Constant)	-8.188	1.329		-6.162	.000	-10.797	-5.580			
SMAS-SF	.249	.011	.616	22.181	.000	.227	.271	.596	.612	.611

Being happy with the use of social media	3.359	.621	.150	5.406	.000	2.140	4.579	.067	.185	.149
R: .614 ^b , R Square: .378, Adjusted R Square: .376 , F: 248.965, Sig.: .000 ^c										
3 (Constant)	-10.937	1.562		-7.003	.000	-14.002	-7.871			
SMAS-SF	.253	.011	.627	22.543	.000	.231	.275	.596	.619	.617
Being happy with the use of social media	3.145	.621	.141	5.064	.000	1.926	4.365	.067	.174	.139
Use of Instagram	2.309	.700	.092	3.299	.001	.935	3.682	.029	.114	.090
R: .621 ^c , R Square: .386, Adjusted R Square: .383 , F: 171.604, Sig.: .000 ^d										
4 (Constant)	-13.262	1.780		-7.452	.000	-16.755	-9.769			
SMAS-SF	.252	.011	.623	22.485	.000	.230	.273	.596	.618	.613
Being happy with the use of social media	3.040	.620	.136	4.903	.000	1.823	4.257	.067	.169	.134
Use of Instagram	2.198	.698	.087	3.147	.002	.827	3.569	.029	.109	.086
Economic level	1.391	.517	.074	2.691	.007	.376	2.406	.106	.094	.073
R: .625 ^d , R Square: .391, Adjusted R Square: .388 , F: 131.492, Sig.: .000 ^e										

a. Dependent Variable: Beck Depression Scale

b. Predictors: (Constant), SMAS-SF

c. Predictors: (Constant), SMAS-SF, being happy with the use of social media

d. Predictors: (Constant), SMAS-SF, being happy with the use of social media, Use of Instagram

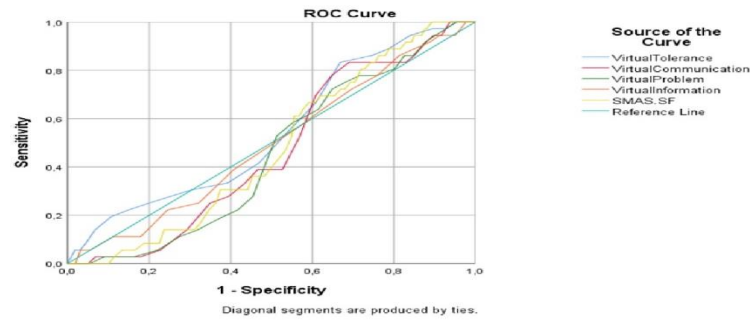
e. Predictors: (Constant), SMAS-SF, being happy with the use of social media, Use of Instagram, Economic level

Independent Variables: SMAS-SF, Age, Gender, Grade, Economic status, Mother education level, Father education level, Do you use social media?, Facebook, Twitter, Instagram, Foursquare, Google plus, LinkedIn, Vine, Youtube, What device do you use to access social media apps?, Social media usage time, Daily social media use, Are you satisfied with social media applications?, Are you happy to use social media?

ROC Curve analysis showed that while social media addiction and its sub-dimensions increased, the level of depression also increased (Figure 1).

DISCUSSION

Although social media and the internet offer a number of benefits and opportunities to daily life, they have also brought with them concerns and negative consequences about their excessive use all over the world. Studies show that the use of social media negatively affects the mental health of its users, especially the younger generation (Glazzard & Stones, 2019; Haand & Shuwang, 2020; Lai et al., 2015). In this study, the social media addiction alone was the most important variable predicting depression. It was determined that 38.8% of depression in university students was predicted by social media addiction, being happy in using social media, using Instagram and economic level. Supporting our research finding, the social media addiction, daily internet use and self-esteem predicted 28% of depression in adolescents in Kircaburun (Kircaburun, 2016). In addition, it is possible to say that the concept of depression is both a cause and a result for internet or social media addiction. As a result of depression due to sociological and psychological reasons, it seems possible to turn to the Internet, as well as observing addiction-induced depression after becoming addicted to the Internet (Tsai & Lin, 2003). Haangd and Shuwang (2020) found that depression significantly predicted social media addiction, that is, social media addiction increased as a result of depression. In a similar study, the level of depression in young people was a predictor of social media addiction ($\beta=.49, p<.001$) (Dikmen, 2021). This study showed that social media addiction is a significant risk factor for depression in young people.



Area Under the Curve

Test Result Variable(s)	Area
SMAS.SF	.476
Virtual Tolerance	.545
Virtual Communication	.466
Virtual Problem	.452
Virtual Information	.495

The test result variable(s): SMAS.SF, Virtual Tolerance, Virtual Communication, Virtual Problem, Virtual Information has at least one tie between the positive actual state group and the negative actual state group. Statistics may be biased.

Figure 1. ROC Curve analysis

In addition, the other factors predicting the level of depression: being happy with the use of social media, using Instagram and economic level. Advances in internet technologies, gaming, gambling, sex, shopping, social networking etc. It has introduced many different online applications such as these into the lives of individuals and has led them to get very different satisfaction from these activities (Kircaburun & Griffiths, 2018). Social media is one of them and it is thought that the social communication and interaction, entertainment and virtual environment provided by these sites make young people happy. In fact, a study has shown that behavioral addictions affect individuals' limbic systems and include an "internal chemical" structure. For example, it has been revealed that a certain amount of happiness (dopamine) hormone is secreted during the use of technological tools. For this reason, individuals want to spend more time on the internet with the developing technology (Küçükvardar & Tıngöy, 2018). Although social media enables individuals to interact and be happy with a large audience, these superficial and artificial interactions are insufficient to replace face-to-face communication. Excessive use of the internet and social media can reduce social relationships and make individuals feel lonelier and more depressed (Kircaburun, 2016). In this study, it is thought that the difficulties of coping with the responsibilities and problems that exist in the real world, feeling lonely and the decrease in social interactions due to the pandemic may have affected depression. However, these latent variables should be evaluated in detail by further research on the subject.

The use of Instagram in university students were another factor that predicts depression. Similar to the results of this study, Pantic et al., found that staying on Facebook for a longer time made students more depressed (Pantic et al., 2012). Instagram gives users the opportunity to edit and share photos and videos with others, get "likes" and/or comment, live stream, follow other people's profiles and be followed by others. It is stated that the urge to control the number of notifications (via likes and comments) for uploaded photos and videos and/or the desire to follow other people's profiles and shared photos and videos can lead to overuse (Kircaburun & Griffiths, 2018). Karadağ et al., (2015) state that the expectation of getting more likes, the desire to announce and promote themselves in the virtual environment, and the desire to prove their existence by appearing in the social media can be factors that increase addiction. Social media can increase self-esteem as it gives individuals the opportunity to edit and share their own profiles and be liked by others, but there can also be negative consequences when individuals are often exposed to more attractive visual posts from others. For example, those who use social media frequently may believe that others are happier and more successful than themselves, especially by looking at the posts of people they do not know closely. This can reduce individuals' self-confidence and self-esteem (Hou et al., 2019). It is thought that not being like the ones in the shared

video or picture, fear of being disliked, emulating other lives, and ultimately being unhappy may have affected depression.

The result of ROC Curve analysis; a positive and moderately strong relationship between social media addiction and depression. Dikmen's study also found a positive relationship between depression and social media addiction (Dikmen, 2021). In the study conducted by Balcı and Baloğlu (2018), it was determined that individuals with severe depression symptoms were highly addicted to social media. It has been observed that similar results have been obtained in the international literature. It has been determined that there is a positive relationship between the problematic use or addiction of social media and depression among young people (AlBarashdi, 2020; Lin et al., 2016; Wang et al., 2018). As a result, it is seen that the mutual interaction between depression and addiction affects each other negatively and is an important problem among young people.

Limitations

The fact that the data of this study was collected from students studying at a single university is a limitation in terms of the generalizability of the results.

CONCLUSION

According to the results of this research; It has been determined that social media addiction is an important risk factor affecting depression in university students. It was determined that as social media addiction increased, depression also increased. It is necessary to raise awareness among university students about the negative consequences of the problematic use of social media and the internet. Here, psychiatry and public health nurses should come together with students and inform them about the problematic use of social media and its negative consequences. Thus, it is thought that it will be effective in protecting students against depression and other mental health disorders. Considering that students should improve their mental health protection skills by raising awareness of themselves, their families and the society, this study may have contributed to nursing practices. In order to reduce students' social media addictions, it can be recommended to provide informative trainings to both families and students about the importance of reducing the time spent on the Internet, maintaining real social relationships, and participating in physical and artistic activities. Psychiatric nurses can benefit from the results of this study in clinical practice. The result of this research will ensure that psychiatric nurses are aware that university students will be affected by the pandemic periods and that their social media addictions and depression levels will increase.

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Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

Study design: HP, HA, BE. Data collection: HP, HA. Data analysis: BE. Study supervision: HP, HA, BE. Manuscript writing: HP, HA, BE. Critical revisions for important intellectual content: HP, HA, BE.

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