



Social Media Craving and the Amount of Self-Disclosure: The Mediating Role of the Dark Triad

Research Article

Mustafa SAVCI¹

¹Firat University, Faculty of Education, Department of Guidance and Psychological Counseling, Elazig, Turkey, ORCID: 0000-0002-7025-5901

To cite this article: Savci, M. (2019). Social media craving and the amount of self-disclosure: The mediating role of the dark triad. *International Online Journal of Educational Sciences*, 11(4), 1-10

ARTICLE INFO

Article History:

Received: 09.07.2019

Available online:
02.09.2019

ABSTRACT

In this study, the mediating role of the dark triad (narcissism, machiavellianism and psychopathy) in the relationship between social media craving and amount of self-disclosure was investigated. The present study comprised 296 (178 females and 118 males) university students who have used social media for at least one year and have at least one social media account. The measures used included Social Media Craving Scale, Short Dark Triad Scale, Self-Disclosure Scale and Personal Information Form. Mediation analysis was performed using Hayes's Process program. The fourth model was used in the Process program. Narcissism, machiavellianism and psychopathy have a partial mediating effect on the relationship between social media craving and the amount of self-disclosure. The relationship between social media craving and the amount of self-disclosure can be explained through narcissism, machiavellianism and psychopathy.

© 2019 IOJES. All rights reserved

Keywords:

Social media craving, self-disclosure, dark triad, narcissism, machiavellianism, psychopathy

Introduction

Social media addiction is considered as a behavioral addiction (Andreassen & Pallesen, 2014; Griffiths, 2013, Griffiths, Kuss & Demetrovics, 2014; Savci & Aysan, 2017; Savci, Ercengiz & Aysan, 2018). Behavioral addictions can be similar to substance addictions in many ways including natural history, phenomenology, tolerance, comorbidity, overlapping genetic contribution, neurobiological mechanisms, and response to treatment (Grant, Potenza, Weinstein, Gorelick, 2010; Griffiths, 1996). In fact, in recent years, there have been many studies showing that social media addiction has common features both behavioral (such as gambling and sex addiction) and chemical addictions (such as alcohol and substance addiction) (He, Turel & Bechara, 2017; Hormes, Kearns & Timko, 2014; Griffiths et al., 2014). Therefore, the concept of social media craving has become a frequently researched topic in the literature for the last few years (Hormes et al., 2014; Savci &

¹ Corresponding author's address: Firat University, Faculty of Education, Department of Guidance and Psychological Counseling, Elazig/Turkey.
Telephone: +904242370000-4892
e-mail: msavci@firat.edu.tr
DOI: <https://doi.org/10.15345/iojes.2019.04.001>

Griffiths, 2019). Social media craving is defined as “a strong desire/urge” to use a social media or as “a strong desire or sense of compulsion” to use social media. Social media craving is considered an important component of social media addiction (Savci & Griffiths, 2019).

Self-disclosure is a communication skill, defined as disclosing personal information to another person (Derlega & Chaikin, 1977). More specifically, self-disclosure is the transfer of knowledge about one's self, including feelings, thoughts and experiences, to others (Öksüz, Mersin & Türker, 2017). Online self-disclosure is defined as a way of expressing personal information to others through online environments (Lin & Utz, 2017). Self-disclosure is generally considered a two-dimensional structure. These; depth of self-disclosures and breadth of self-disclosures. Depth refers to the intimacy level of the disclosure, whereas breadth refers to the amount of information transferred (Altman & Taylor, 1973). The amount of self-disclosure refers to the frequency and duration of self-disclosure (Posey, Lowry, Roberts & Ellis, 2010). The amount of self-disclosure is a component of the breadth of self-disclosures.

There is no research in the literature that examines the relationship between social media craving and the amount of self-disclosure. Social media craving is considered as an important component of social media addiction (Savci & Griffiths, 2019). Therefore, it can be said that social media craving is related to the amount of self-disclosure just like social media addiction. As a matter of fact, the desire to use social media at addiction level is positively related to self-disclosure behaviors (Hawk, van den Eijnden, van Lissa & ter Bogt, 2019; Islam, Mäntymäki & Benbasat, 2019; Kanwal, 2018; Kanwal, Pitafi, Akhtar & Irfan, 2019)

Although there is a relationship between social media craving and the amount of self-disclosure, there are some variables that mediate this relationship. In this study, the mediating role of the dark triad (narcissism, machiavellianism and psychopathy) in the relationship between social media craving and amount of self-disclosure was investigated. The dark triad is a clinically expressed overlapping but inseparable three personality trait; narcissism (characterized by superiority, arrogance and entitlement), machiavellianism (characterized by manipulateness and selfishness) and psychopathy (characterized by impulsivity, stolidity and interpersonal antagonism) (Paulhus & Williams, 2002). In the relationship between social media craving and the amount of self-disclosure, the study of the dark triad as a mediating variable stems from the fact that there is a dark side of social media. The dark triad is also a form of self-disclosure. In other words, the dark triad is the determinant of the amount of self-disclosure. The explanations based on the literature are discussed in the next paragraph.

Research and practice have mostly focused on the “bright side” of social media, aiming to understand and help in leveraging the manifold opportunities afforded by this technology. However, it is increasingly observable that social media present enormous risks for individuals, communities, firms, and even for society as a whole. Examples for this “dark side” of social media include cyberbullying, addictive use, trolling, online witch hunts, fake news, and privacy abuse (Baccarella, Wagner, Kietzmann & McCarthy, 2018). Behaviors such as cyber-anger, cyber-hate, cyber-provocation, cyber-hostility and cyber-harassment are considered as the dark side of social media (Almuhanna, 2017). In addition, online environments are also frequently used by individuals to be the center of attention (Hawk et al., 2019), to exhibit sexually seductive or provocative behaviors (van Oosten, de Vries & Peter, 2018), to attract attention (Hogue & Mills, 2019), to exhibit impressionist behaviors (Singh & Farley, 2018) and manipulative behaviors (Qiu, Lu, Yang, Qu & Zhu, 2015). Therefore, the use of social media is closely related to the dark triad. The dark triad is an important indicator of how much the individual will give information about himself (Lyons, 2019; Sanecka, 2017). We think that social media craving is a variable explaining the dark triad, and the dark triad is a variable explaining the amount of self-disclosure. In summary, we think that the dark triad have a mediating role in the relationship between social media craving and amount of self-disclosure.

Methods

Participants

The study comprised on 296 university students (178 females and 118 males) who have used social media for at least one year and have at least one social media account. Participants are between the ages of 17-31 ($\bar{X}= 22.17$, $sd= 2.04$). Demographic information about the participants is presented in Table 1.

Table 1. Demographic data of sample (N=296)

Variable	n	%	
Sex	Female	178	60.1
	Male	118	39.9
Age	18-30 years, $\bar{X}= 22.14$, $sd=1.98$		
Daily social media using duration	.25-12 hours, $\bar{X}= 2.84$		
Social media using history	1-16 years, $\bar{X}= 5.34$		
Frequency of checking social media accounts	3-360 minutes, $\bar{X}= 95.79$		
Number of social media accounts	1-14 accounts, $\bar{X}= 3.67$		

Materials

Social Media Craving Scale (SMCS): The SMCS was developed by Savcı and Griffiths (2019) by modifying the Penn Alcohol Craving Scale (Flannery, Volpicelli & Pettinati, 1999). The SMCS consists of five items and one dimension. As a result of Exploratory Factor Analysis (EFA), it was seen that SMCS consisted of one dimension explaining 55.75% of the total variance. This unidimensional structure was tested in two different samples with Confirmatory Factor Analysis (CFA). As a result of the CFA, it was found that SMCS had acceptable fit index values. The reliability of the SMCS was evaluated by Cronbach α internal consistency coefficient, corrected item total correlation coefficients and test-retest method. As a result of the analyzes, SMCS was found to be a reliable scale (Savcı & Griffiths, 2019).

Self-Disclosure Scale (SDS): In this study, the "amount" sub-dimension of the SDS was used to measure the amount of self-disclosure. The SDS is used to assess the level of self-disclosure in both face-to-face and online communication. The SDS was adapted into Turkish by Öksüz et al. (2017). Five factors were found to explain 45% of the total variance. The Cronbach α internal consistency coefficient of the SDS was .70 for the whole scale and .74 for the "amount" sub-dimension. The test-retest reliability coefficient of the SDS was .89 for the whole scale and .94 for the "amount" sub-dimension. The "amount" sub-dimension is measured by four items. Higher scores from the "amount" sub-dimension indicate a high level of the amount of self-disclosure (Öksüz et al., 2017).

Short Dark Triad (SD3-T): The SD3-T was adapted into Turkish by Özsoy, Rauthmann, Jonason and Ardıç (2017). The SD3-T consists of 27 items and three sub-dimensions: Machiavellianism, narcissism and psychopathy. As a result of the CFA, it was found that three-dimensional SD3-T had acceptable fit values. The Cronbach α internal consistency coefficients of the SD3-T were .70 for machiavellianism, .79 for narcissism, and .79 for psychopathy. High scores in the scale indicate a high level in the relevant sub-dimension (Özsoy et al., 2017).

Procedure and Data Analysis

In the present study, application permission was obtained for data collection and ethics approval was granted by the author's university ethics committee. Furthermore, each phase of the study was carried out in accordance with the Declaration of Helsinki. The data collection process lasted approximately 20-25 minutes.

Prior to the analysis, preconditions for mediating analyzes were examined. Accordingly, the data should provide single and multiple normality. In addition, there should be no multicollinearity problems in the dataset. Firstly, the data set was examined in terms of univariate normality, taking into account the skewness and kurtosis coefficients. The coefficients of skewness and kurtosis of the variables are between -1 and +1. Therefore, it can be said that the data has univariate normality. The dataset was then analyzed for multivariate normality. For this purpose, a scatter diagram matrix was examined. If the shapes of the diagrams in the matrix resemble the ellipse shape, it is emphasized that the data has multiple normality. Consequently, elliptical distribution was observed. These tests meant the dataset met the assumptions of multivariate normality. All binary correlation coefficients of the variables were less than .90 (as shown in Table 2). Therefore, there is no multicollinearity problem in the data set (Çokluk, Şekercioğlu & Büyüköztürk, 2012). Mediation analysis were performed using Hayes' (2017) Process program. Mediation analysis were performed using the fourth model in the Process program.

Results

Correlations

Descriptive statistics and bivariate correlations among variables are presented in Table 2.

Table 2. Descriptive statistics and bivariate correlations among variables

	1	2	3	4	5
1. Social media craving	1				
2. Amount of self-disclosure	.30**	1			
3. Machiavellianism	.32**	-.30**	1		
4. Narcissism	.45**	.40**	.19**	1	
5. Psychopathy	.31**	.25**	.14*	.38**	1
Range	30	24	31	29	23
Mean	12.15	13.40	24.38	21.86	16.10
SD	5.75	6.98	6.90	4.95	4.80
Skewness	.61	.65	-.19	-.07	.63
Kurtosis	.49	-.65	-.70	.43	.10

**p< .01, *p< .01

Bivariate correlations given in Table 2 show that all variables are significantly related to each other.

Mediation Analysis

The findings concerning the mediation role of the dark triad are presented in Table 3.

Table 3. Results concerning the mediating role of dark triad in the relationship between social media craving and the amount of self-disclosure

Outcome: Narcissism							
Model Summary	R	R²	MSE	F	df1	df2	p
	.45	.20	19.54	75.43	1	294	.00
Model 1	Coefficient	SE	t	p	LLCI	ULCI	
Social media craving	.39	.04	8.69	.00	.30	.48	
Outcome: Machiavellianism							
Model Summary	R	R²	MSE	F	df1	df2	p
	.32	.10	42.95	33.42	1	294	.00
Model 2	Coefficient	SE	t	p	LLCI	ULCI	
Social media craving	.38	.07	5.78	.00	0.25	.51	
Outcome: Psychopathy							
Model Summary	R	R²	MSE	F	df1	df2	p
	.31	.10	20.91	31.26	1	294	.00
Model 3	Coefficient	SE	t	p	LLCI	ULCI	
Social media craving	.26	.05	5.60	.00	.17	.35	
Outcome: Amount of self-disclosure							
Model Summary	R	R²	MSE	F	df1	df2	p
	.30	.09	44.49	29.08	1	294	.00
Model 4	Coefficient	SE	t	p	LLCI	ULCI	
Social media craving	.36	.07	5.39	.00	.23	.50	
Outcome: Amount of self-disclosure							
Model Summary	R	R²	MSE	F	df1	df2	p
	.61	.38	30.81	43.90	4	291	.00
Model 5	Coefficient	SE	t	p	LLCI	ULCI	
Narcissism	.46	.08	6.03	.00	.31	.61	
Machiavellianism	-.47	.05	-9.45	.00	-.56	-.37	
Psychopathy	.16	.07	2.15	.03	.01	.30	
Social media craving	.32	.07	4.89	.00	.19	.45	

MSE: Mean squared error, df: Degrees of freedom, SE: Standard error, LLCI: Lower Levels for Confidence Interval, ULCI: Upper Levels for Confidence Interval

Table 3 presents the analysis results for five different models. In the first model, social media craving predicts narcissism significantly and positively ($F = 75.43$, $R^2 = .20$, $p < .0001$). Social media craving explains 20% of the variance in narcissism. In the second model, social media craving predicts machiavellianism significantly and positively ($F = 33.42$, $R^2 = .10$, $p < .0001$). Social media craving explains 10% of the variance in machiavellianism. In the third model, social media craving predicts psychopathy significantly and positively ($F = 31.26$, $R^2 = .10$, $p < .0001$). Social media craving explains 10% of the variance in psychopathy. In the fourth model, social media craving predicts the amount of self-disclosure significantly and positively ($F = 44.49$, $R^2 = .09$, $p < .0001$). Social media craving explains 9% of the variance in the amount of self-disclosure. In the fifth model, narcissism, machiavellianism, psychopathy and social media craving predict the amount of self-disclosure significantly ($F = 44.49$, $R^2 = .38$, $p < .0001$). These four variables explain 38% of the variance in the amount of self-disclosure. Narcissism, psychopathy and social media craving positively predict the amount of self-disclosure; machiavellianism predicts negatively.

In the fourth model, the coefficient between social media craving and self-disclosure was found to be .36. However, in the fifth model, when the variables of narcissism, machiavellianism and psychopathy are included in the model as predictive variables, the model coefficient between social media craving and self-disclosure decreases to .32. In addition, this coefficient is statistically significant. For this reason, narcissism, machiavellianism and psychopathy have a partial mediating effect on the relationship between social media craving and the amount of self-disclosure.

Whether the mediation effect was significant was examined by bootstrapping and Sobel test. Analysis related to the significance of mediation effect are presented in Table 4. When Table 4 is examined, it is seen that the mediating effect is significant for narcissism, machiavellianism and psychopathy. As a matter of fact, the BootLLCI and BootULCI results are within the expected range and Sobel test for narcissism (Sobel $Z= 4.93$, $p< .0001$), machiavellianism (Sobel $Z= -4.91$, $p< .0001$) and psychopathy (Sobel $Z= 1.98$, $p< .05$) statistically significant. In summary, narcissism, machiavellianism and psychopathy have a partial mediating effect on the relationship between social media craving and the amount of self-disclosure.

Table 4. Analysis related to the significance of mediation effect

	Effect	Boot SE	BootLLCI	BootULCI
Narcissism	.18	.04	.12	.25
Machiavellianism	-.18	.04	-.26	-.11
Psychopathy	.04	.02	.01	.09
	Effect	SE	Z	p
Narcissism	.18	.04	4.93	.000
Machiavellianism	-.18	.04	-4.91	.000
Psychopathy	.04	.02	1.98	.048

Discussion

In this study, the mediating role of the dark triad (narcissism, machiavellianism and psychopathy) in the relationship between social media craving and amount of self-disclosure was investigated. The results of the research were obtained by testing five different regression models. Research results can be presented in three stages.

Firstly, social media craving predicts narcissism, machiavellianism and psychopathy significantly and positively. There is no research in the literature that directly investigates the relationship between social media craving and the dark triad. However, there have been many studies investigating the relationship between problematic social media use (social media addiction, social media disorder, pathological social media use, excessive social media use and compulsive social media) and dark triad (Abell & Brewer, 2014; Andreassen, Pallesen & Griffiths, 2017; Chung, Morshidi, Yoong & Thian, 2019; Demircioğlu & Göncü-Köse, 2018; Lee, 2019). A significant number of these studies point to the conclusions that support this finding.

Numerous variables are effective in problematic social media use. One of these variables is personality. As a matter of fact, personality is an important variable of individual difference which plays a role in the development and maintenance of addictive behaviors. In particular, personality traits such as psychopathy, narcissism and machiavellianism have unique characteristics that can lead to pathological online use (Chung et al., 2019). Individuals with a high tendency to psychopathy are often impulsive and careless. Therefore these individuals are more vulnerable to problematic internet pornography (Shim, Lee & Paul, 2007). Narcissistic individuals feel the need of frequently approval and admiration. This need is easily met on social media. Therefore, narcissistic individuals are a risk group for social media addiction (Casale & Fioravanti, 2018). Finally, individuals with high tendency to machiavellianism tend to make strategic planning in their social interactions. These individuals use more self-presentation tactics on social media. This leads to problematic social media use (Abell & Brewer, 2014).

Secondly, social media craving predicts the amount of self-disclosure positively and significantly. There is no research examining the relationship between the amount of self-disclosure and social media craving. However, in recent years, there have been many researches about self-disclosure on social media (Chen, Hu, Shu & Chen, 2019; Lin & Utz, 2017; Zhang, Kwok, Lowry, Liu & Wu, 2019; Zhang, Kwok, Lowry & Liu, 2019). In addition, a number of studies have examined the relationship between problematic social media use and

online and offline self-disclosure (Hawk et al., 2019; Islam et al., 2019; Kanwal, 2018; Kanwal et al., 2019). These studies indicate a positive relationship between social media addiction and self-disclosure. In other words, the increase in the amount of self-disclosure is associated with problematic social media use.

Social media has important functions in establishing close relationships, searching for new social networks, and initiating and maintaining relationships. The individual has the opportunity to easily share his thoughts, feelings, mood, location and attitude about a subject with others in a short period of time through social media (Savci & Aysan, 2018). This practical function of social media facilitates self-disclosure. Any status update/sharing that includes personal information can be considered self-disclosure. The shares could contain descriptive information such as what one has done today, and/or evaluative information such as how one feels about an event (Lin, Levordashka & Utz, 2016; Lin & Utz, 2017). Almost all social media sites/applications encourage users to provide information about themselves. Facebook asks "What do you think" on user home page to make it easier for users to share what they think. Similarly, Twitter asks "What is happening?". Instagram's "stories" feature allows you to share which automatically deleted content within 24 hours. Therefore, it is possible to make a large number of shares during the day without the hassle of deleting. Indeed, social media applications/sites continue to exist through self-disclosure. In addition, social media provides a sense of anonymity that is not involved in offline interactions. This helps the user to express himself more comfortably and more. Thus, social media facilitates self-disclosure (Aharony, 2016; Correa Hinsley & de Zúñiga, 2010).

Thirdly, narcissism, machiavellianism and psychopathy have a partial mediating effect on the relationship between social media craving and the amount of self-disclosure. In other words, the relationship between social media craving and the amount of self-disclosure can be explained through narcissism, machiavellianism and psychopathy. Narcissism is characterized by grandiose and inflated self-concept, arrogance, expectation of special treatment, seeking interest and admiration (Campbell & Miller, 2011). Therefore, individuals with high tendency to narcissism have more self-disclosure. As a matter of fact, all these expectations and needs can only be satisfied by the increase in self-disclosure behaviors. Social media sites are the environments where individuals with high tendency to narcissism can easily meet their expectations and needs (Hawk, ter Bogt, van den Eijnden & Nelemans, 2015). Thus, social media craving predicts narcissism and narcissism predicts the amount of self-disclosure. Machiavellianism is a personality trait characterized by manipulative interpersonal style, lack of moral anxiety, low empathy, and the desire to exploit others (Christie & Geis, 1970). Individuals with a high tendency to machiavellianism tend to be fraudulent and strategic self-disclosure in online environments (Abell & Brewer, 2014). In addition to, individuals with high tendency to machiavellianism tend to have less self-disclosure (Brown & Guy, 1983). In other words, as the tendency of machiavellianism increases, the amount of self-disclosure decreases. These findings confirm the results of this research. Therefore, social media craving predicts machiavellianism and machiavellianism predicts the amount of self-disclosure. Finally, psychopathy have a partial mediating effect on the relationship between social media craving and the amount of self-disclosure. This result is consistent with the literature. Indeed, problematic social media use is associated with psychopathy (Chung et al., 2019) and psychopathy is associated with the amount of self-disclosure (Lyons, 2019). In this study, self-report measurement tools were used. In this study, convenience sampling method was used. Finally, this study was carried out in a non-clinical sample. These should be considered as limitations of the study.

REFERENCES

- Abell, L., & Brewer, G. (2014). Machiavellianism, self-monitoring, self-promotion and relational aggression on Facebook. *Computers in Human Behavior*, 36, 258-262. doi:10.1016/j.chb.2014.03.076.
- Aharony, N. (2016). Relationships among attachment theory, social capital perspective, personality characteristics, and Facebook self-disclosure. *Aslib Journal of Information Management*, 68(3), 362-386. doi:10.1108/ajim-01-2016-0001.
- Almuhanna, N. (2017). *Social media acceptance and use under risk: A cross-cultural study of the impact of antisocial behaviour on the use of Twitter*. (Doctoral thesis). University of Southampton, United Kingdom
- Altman, I., & Taylor, D. A. (1973). *Social penetration: The development of interpersonal relationships*. New York: Holt, Rinehart & Winston.
- 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. doi:10.1016/j.addbeh.2016.03.006.
- Andreassen, C., & Pallesen, S. (2014). Social network site addiction - an overview. *Current Pharmaceutical Design*, 20(25), 4053-4061. doi:10.2174/13816128113199990616.
- Baccarella, C. V., Wagner, T. F., Kietzmann, J. H., & McCarthy, I. P. (2018). Social media? It's serious! Understanding the dark side of social media. *European Management Journal*, 36(4), 431-438. doi:10.1016/j.emj.2018.07.002.
- Brown, E. C., & Guy, R. F. (1983). The effects of sex and machiavellianism on self-disclosure patterns. *Social Behavior and Personality: An International Journal*, 11(1), 93-96. doi:10.2224/sbp.1983.11.1.93.
- Campbell, K. W., & Miller, J. D. (2011). *The handbook of narcissism and narcissistic personality disorders: Theoretical approaches, empirical findings and treatments*. Hoboken: Wiley and Sons.
- Casale, S., & Fioravanti, G. (2018). Why narcissists are at risk for developing Facebook addiction: The need to be admired and the need to belong. *Addictive Behaviors*, 76, 312-318. doi:10.1016/j.addbeh.2017.08.038.
- Chen, L., Hu, N., Shu, C., & Chen, X. (2019). Adult attachment and self-disclosure on social networking site: A content analysis of Sina Weibo. *Personality and Individual Differences*, 138, 96-105. doi:10.1016/j.paid.2018.09.02839.
- Christie, R., & Geis, F. L. (1970). *Studies in machiavellianism*. London: Academic Press.
- Chung, K. L., Morshidi, I., Yoong, L. C., & Thian, K. N. (2019). The role of the dark tetrad and impulsivity in social media addiction: Findings from Malaysia. *Personality and Individual Differences*, 143, 62-67. doi:10.1016/j.paid.2019.02.016.
- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). *Sosyal bilimler için çok değişkenli istatistik: SPSS ve Lisrel uygulamaları [Multivariate SPSS and LISREL applications for social sciences]*. Ankara: Pegem Akademi.
- Correa, T., Hinsley, A. W., & de Zúñiga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253. doi:10.1016/j.chb.2009.09.003
- Demircioğlu, Z. I., & Göncü-Köse, A. (2018). Effects of attachment styles, dark triad, rejection sensitivity, and relationship satisfaction on social media addiction: A mediated model. *Current Psychology*. doi:10.1007/s12144-018-9956-x.
- Derlega, V. J., & Chaikin, A. L. (1977). Privacy and Self-Disclosure in Social Relationships. *Journal of Social Issues*, 33(3), 102-115. doi:10.1111/j.1540-4560.1977.tb01885.x.
- Flannery, B. A., Volpicelli, J. R., & Pettinati, H. M. (1999). Psychometric properties of the Penn Alcohol Craving Scale. *Alcoholism: Clinical & Experimental Research*, 23(8), 1289-1295. doi:10.1097/00000374-199908000-00001.
- Grant, J. E., Potenza, M. N., Weinstein, A., & Gorelick, D. A. (2010). Introduction to behavioral addictions. *American Journal of Drug and Alcohol Abuse*, 36(5), 233-241. doi:10.3109/00952990.2010.491884.

- Griffiths, M. (1996). Behavioural addiction: An issue for everybody? *Employee Counselling Today*, 8(3), 1925. doi:10.1108/13665629610116872.
- Griffiths, M. D. (2013). Social networking addiction: Emerging themes and issues. *Journal of Addiction Research & Therapy*, 4, e118. doi:10.4172/2155-6105.1000e118.
- Griffiths, M. D., Kuss, D. J., & Demetrovics, Z. (2014). Social networking addiction: An overview of preliminary findings. In Rosenberg K. P. , & Feder L. C. (eds.). *Behavioral addictions: Criteria, evidence, and treatment* (pp. 119-141). New York: Elsevier.
- Hawk, S. T., ter Bogt, T. F. M., van den Eijnden, R. J. J. M., & Nelemans, S. A. (2015). Too little power, too much information! Power, narcissism, and adolescents' disclosures on social networking sites. *Computers in Human Behavior*, 52, 72-80. doi:10.1016/j.chb.2015.05.014.
- Hawk, S. T., van den Eijnden, R. J., van Lissa, C. J., & ter Bogt, T. F. (2019). Narcissistic adolescents' attention-seeking following social rejection: Links with social media disclosure, problematic social media use, and smartphone stress. *Computers in Human Behavior*, 92, 65-75. doi: 10.1016/j.chb.2018.10.032.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Publications.
- He, Q., Turel, O., & Bechara, A. (2017). Brain anatomy alterations associated with Social networking site (SNS) addiction. *Scientific Reports*, 7(1), 45064. doi:10.1038/srep45064.
- Hogue, J. V., & Mills, J. S. (2019). The effects of active social media engagement with peers on body image in young women. *Body Image*, 28, 1-5. doi:10.1016/j.bodyim.2018.11.002.
- Hormes, J. M., Kearns, B., & Timko, C. A. (2014). Craving Facebook? Behavioral addiction to online social networking and its association with emotion regulation deficits. *Addiction*, 109(12), 2079-2088. doi:10.1111/add.12713.
- Islam, A. K. M. N., Mäntymäki, M., & Benbasat, I. (2019). Duality of self-promotion on social networking sites. *Information Technology & People*, 32(2), 269-296. doi:10.1108/itp-07-2017-0213.
- Kanwal, S. (2018). Self-Disclosure and SNS addiction in South Asian Youth: An empirical study of Pakistan. *Advances in Sciences and Humanities*, 4(1), 1-11. doi:10.11648/j.ash.20180401.11.
- Kanwal, S., Pitafi, A. H., Akhtar, S., & Irfan, M. (2019). Online self-disclosure through social networking sites addiction: A case study of Pakistani university students. *Interdisciplinary Description of Complex Systems*, 17(1), 187-208. doi:10.7906/indecs.17.1.18.
- Lee, S.-L. (2019). Predicting SNS addiction with the Big Five and the Dark Triad. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13(1). doi:10.5817/cp2019-1-3.
- Lin, R., & Utz, S. (2017). Self-disclosure on SNS: Do disclosure intimacy and narrativity influence interpersonal closeness and social attraction? *Computers in Human Behavior*, 70, 426-436. doi:10.1016/j.chb.2017.01.012
- Lin, R., Levordashka, A., & Utz, S. (2016). Ambient intimacy on Twitter. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 10(1). doi:10.5817/cp2016-1-6.
- Lyons, M. (2019). *The Dark Triad of personality: Narcissism, machiavellianism, and psychopathy in everyday life*. Cambridge: Academic Press.
- Öksüz, E., Mersin, S., & Türker, T. (2017). Validity and reliability of the Turkish version of the Self-Disclosure Scale among university students. *Anatolian Journal of Psychiatry*, 18(6), 586-593. doi:10.5455/apd.259467.
- Özsoy, E., Rauthmann, J. F., Jonason, P. K., & Ardiç, K. (2017). Reliability and validity of the Turkish versions of Dark Triad Dirty Dozen (DTDD-T), Short Dark Triad (SD3-T), and Single Item Narcissism Scale (SINS-T). *Personality and Individual Differences*, 117, 11-14. doi:10.1016/j.paid.2017.05.019.
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556-563. doi:10.1016/s0092-6566(02)00505-6.
- Posey, C., Lowry, P. B., Roberts, T. L., & Ellis, T. S. (2010). Proposing the online community self-disclosure model: The case of working professionals in France and the U.K. who use online communities. *European Journal of Information Systems*, 19(2), 181-195. doi:10.1057/ejis.2010.15.

- Qiu, L., Lu, J., Yang, S., Qu, W., & Zhu, T. (2015). What does your selfie say about you? *Computers in Human Behavior*, 52, 443-449. doi:10.1016/j.chb.2015.06.032.
- Sanecka, E. (2017). The dark side of social media: Associations between the Dark Triad of personality, self-disclosure online and selfie-related behaviours. *The Journal of Education, Culture, and Society*, 2, 71-88.
- Savci, M., & Aysan, F. (2017). Technological addictions and social connectedness: Predictor effect of Internet addiction, social media addiction, digital game addiction and smartphone addiction on social connectedness. *Dusunen Adam: The Journal of Psychiatry and Neurological Sciences*, 30(3), 202-216. doi:10.5350/dajpn2017300304.
- Savci, M., & Aysan, F. (2018). #Interpersonal competence, loneliness, fear of negative evaluation, and reward and punishment as predictors of social media addiction and their accuracy in classifying adolescent social media users and non-users. *Addicta: The Turkish Journal on Addictions*, 5(3), 431-471. doi:10.15805/addicta.2018.5.3.0032.
- Savci, M., & Griffiths, M. D. (2019). The development of the Turkish Social Media Craving Scale (SMCS): A validation study. *International Journal of Mental Health and Addiction*. doi:10.1007/s11469-019-00062-9.
- Savci, M., Ercengiz, M., & Aysan, F. (2018). Turkish adaptation of the Social Media Disorder Scale in adolescents. *Archives of Neuropsychiatry*, 55(3), 248-255. doi:10.29399/npa.19285.
- Shim, J. W., Lee, S., & Paul, B. (2007). Who responds to unsolicited sexually explicit materials on the internet?: The role of individual differences. *CyberPsychology & Behavior*, 10(1), 71-79. doi:10.1089/cpb.2006.9990.
- Singh, S., Farley, S. D., & Donahue, J. J. (2018). Grandiosity on display: Social media behaviors and dimensions of narcissism. *Personality and Individual Differences*, 134, 308-313. doi:10.1016/j.paid.2018.06.039.
- van Oosten, J. M., de Vries, D. A., & Peter, J. (2018). The importance of adolescents' sexually outgoing self-concept: Differential roles of self-and other-generated sexy self-presentations in social media. *Cyberpsychology, Behavior, and Social Networking*, 21(1), 5-10. doi:10.1089/cyber.2016.0671.
- Zhang, S., Kwok, R. C.-W., Lowry, P. B., & Liu, Z. (2019). Does more accessibility lead to more disclosure? Exploring the influence of information accessibility on self-disclosure in online social networks. *Information Technology & People*, 32(3), 754-780. doi:10.1108/itp-04-2017-0134.
- Zhang, S., Kwok, R. C.-W., Lowry, P. B., Liu, Z., & Wu, J. (2019). The influence of role stress on self-disclosure on social networking sites: A conservation of resources perspective. *Information & Management*. doi:10.1016/j.im.2019.02.00240.