

The Mediating Role of Mindfulness in the Relationship Between School Burnout and Problematic Smartphone and Social Media Use

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Abstract

The aim of this study is to examine the mediating role of the mindfulness in the relationship between the school burnout and problematic smart phone (PSU) and social media use (SMA). The participants of the research consists of 411 students studying in the high schools in the city centre Erzurum in Turkey in 2020. Research data were obtained through the Smart phone Addiction Scale-short version, The Social Media Addiction Scale short form, the awareness scale for children and adolescents, and the Student form of the Maslach Burnout Inventory. The relationship between the variables of the research was examined by Pearson coorelation analyses. The SPSS-22 program was used for correlation analysis and the Jamovi 1.0.7 program was used for analyses on the mediating role of mindfulness. At the end of the study, it was found out that there is a mediating role in the relationship between mindfulness, exhaustion sub-size of the school burnout scale, and PSU and SMA. In the other result of the research, it has been found out that mindfulness mediated the relationship between the depersonalization dimension of the school burnout and SMA In another conclusion obtained from the study, mindfulness has been found not to mediate the relationship between the competence dimension of the school burnout, PSU and SMA. Also, in another similar conclusion, mindfulness has been found not mediate the relationship between the competence dimension of the school burnout and PSU.

Keywords: School Burnout, Problematic Smart phone, Social Media Use, Mindfulness, Mediating Effect

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INTRODUCTION

Today, Internet which provides services in many fields such as education, shopping, entertainment and communication take place at the centre of our life (Kraut, Mukhopadhyay, Szczypula, Kiesler, & Scherlis, 2000). Particularly, the fact that infants and adolescents, who are born and brought up in the age of technology, use internet extremely appears as a problem (Leung & Lee, 2012). While the Web 2.0, in which individuals are more sharing and in interactive with each other, not only provides opportunities individuals in order to create their own communication channels, but also brings new relations and concepts on the basis of addiction (Griffiths, 2000). Especially with the widespread of the mobile phones, access to internet became easier and has caused the internet to be used excessively.

The excessive use of internet has been defined as problematic internet use or internet addiction (Shaw & Black, 2008). Problematic internet use- internet addiction is expressed as the excessive use of internet and not being able to prevent the desire to use it, ignoring the importance of the moments that pass without being connected to the internet, experiencing extreme nervousness and aggression in the deprivation of internet and not having a regular a social and family lifestyle (Young, 2007). The problematic internet use, Substance Use Disorders (e.g Tolerance, individual's withdrawal when he leaves the phone) and as in the functional disorders observed as a result of the excessive use, is a form which includes the excessive use of the smart phone (Billieux, Maurage, Lopez-Fernandez, Kuss, & Griffiths, 2015).

Tolerance, deprivation, mental preoccupation and mood swings, just as in the alcohol-substance addictions, are basis of the behavioral addiction. Although problematic internet use- internet addiction- is similar each other in terms of having these four characteristics, carrying the smart phones in the pockets and ubiquitous make it be separated from traditional internet use (Lin, Lin, Lee, Lin, Lin, Chang, & Kuo, 2015; Jin Jeong, Suh, & Gweon, 2019). Such a number of properties smart phones have as touch screens, calling, text messaging, voice recording, internet-based applications, educational contents, games, navigation, calculators music, camera, facilities to reach the social media make them indispensable (Oviedo-Trespalacios, Nandavar, Newton, Demant, & Phillips, 2019; Peters & Allouch, 2005).

Individuals who get away from the stress and pain through the smart phone can not see the negative results of the phone and continue to use it. Starting as an enjoyable activity, the increasing use of the smart phone causes individuals to develop dependency on smart phones. Individuals who have become addicted to smart phone use seem to lose control over their behaviours (Mahapatra, 2019; Walsh, White, & Young, 2010). This situation not only affects their lives physically and mentally, but also socially and culturally. Especially the youths who are trying to express themselves with this tool share their tastes, lifestyles, friendship relations and what kind of person they are through their smart phones and social media with other people (Goodyear & Armour, 2019). In recent years, the popular social media sites the young use have become Facebook, Twitter, Youtube, LinkedIn and Tumblr.

With the spread of the smart phones, person who wants to use social media application knows he doesn't need to be in front of the computer. Therefore, through smart phone, he can be in connection all the time without shutting down the social media account (McGahoon, 2015). The social media developers who want individuals to spend more time in virtual world not only provide them with communication- interaction but also try to provide them with meeting their needs such as research, having fun, spending time, shopping and getting information (Bryant, 2017). Through social media, providing these facilities increase the pleasure they take by using social media thus leading to creating a strong habit of use in individuals. High levels of problematic social media use - social media addiction-serve as a precondition for its formation (Longstreet & Brooks, 2017).

Adolescents who are in high-level risk group for both problematic smart phone and social media use, they can leave neither smart phone nor social media. (Cha & Seo, 2018). In line with this, studies which show the young are at high risk in terms of problematic use of the smart phone (He, Chen, Bao & Lei, 2012; Lopez-Fernandez, Honrubia-Serrano, Freixa-Blanxart, & Gibson, 2014). According to the studies carried, the use of problematic smart phone and social media also bring about a variety of problems in adolescents.

These problems can be observed in social, physiological, psychological aspects and can affect individuals negatively. In order to determine the conditions that cause problematic smart phone use and social media use, in the studies carried, particularly the concepts of academic success (Erdem, Kalkın, Türen, & Deniz, 2016; Gezgin, Hamutoğlu, Samur, & Yıldırım, 2018), academic performance (Boumosleh & Jaalouk, 2018; Chaudhury & Tripathy, 2018), academic postponement, and school burnout have been observed to be addressed. It has been stressed that excessive use of internet leads to anxiety (Lepp, Barkley and Karpinski, 2014) and depression (Chen, Yan, Tang, Yang, Xie, & He, 2016; Jun, 2016). Moreover, it has been revealed that excessive use of internet through phones has harmful effects on the relationships between individuals (e.g social relationships with friends and teachers) (Lee, Lee, Yi, Park, Hong, & Cho, 2016; Soni, Upadhyay, & Jain, 2017).

School Burnout

The concept of school burnout is defined with the fact that the student is fed up with what school demands, he is reckless and cynical attitude towards school, and considers himself inadequate (Salmela-Aro, Kiuru, Leskinen, & Nurmi, 2009). According to Kunkel, Thampson and McElhinney (1973), students who can not connect between school and the outside world experience burnout and alienation towards school. Therefore, these individuals are observed to be away from the school, take a cynical attitude towards the purpose of the school and not to be able to cope with the insufficient thoughts at school (Carbonell, Chamarro, Oberst, Rodrigo, & Prades, 2018). The adolescents who step from the childhood to youth also experience school burnout. The adolescent who experiences within the school environment not only developmental problems but also academic problems may have reluctance and exasperation towards the school. The adolescent tries to solve the problems that he experiences by turning various forms of activities which lead to problematic internet usage. (Tomaszek & Muchacka-Cymerman, 2019).

The study conducted by Avci and Şahin (2017), found a positively significant relationship between school burnout and problematic internet use. In the study conducted by Brubaker and Beverly (2020), there is a positive high level of significant correlation between problematic smartphone use and exhaustion, which is one of the lower dimensions of school burnout. Similarly, the study by Salmela-Aro, Upadyaya, Hakkarainen, Lonka and Alho (2017) examined the relationship between school burnout and excessive internet use. School burnout and problematic internet use-internet addiction - have been seen to mutually affect each other.

Mindfulness

Many definitions of mindfulness have been put forward in the psychological literature (Janssen, Heerkens, Kuijer, van der Heijden, & Engels, 2018). According to Kabat Zinn (1990), mindfulness is defined as the ability of the individual to concentrate his or her attention on the present moment, to intentionally observe his or her body and mind, and to momentarily experience what he or she experiences. According to Shapiro and Carlson (2009), mindfulness consists of 3 basic elements. The first element is that the person pays attention to the most important points in achieving their goals and values, the second element is that they focus on their main goals and the third element is that they do not judge their illegal experiences.

According to the contemporary psychology, mindfulness is accepted the best tool to respond to mental processes which contribute to the emotional distress and maladaptive behaviour as well as increase the awareness. Mindfulness that allows individual to accept the experience without judgement is an effective antidote to common psychological problems such as the tendency to over-engage or aversion to sadness, suppression, anger and horror (Keng, Smoski, & Robins, 2011). Moreover, in recent months, in the studies carried, it has been found that mindfulness has a role preventive role against psychological problems such as internet addiction, problematic smartphone and social media use.

Mindfulness As An Mediating Variable

The studies dealing with problematic smartphone and social media use generally concentrate on the causes of these situations. However, there are few studies to determine the variables that function as a protective factor. Therefore, it has been determined that mindfulness plays a protective role against problematic smartphone and social media use (Gámez-Guadix & Calvete, 2016). Mindfulness is the quality of consciousness that enables individual to become aware of the experiences he lives in the multifaced processes of cognitive, emotional and physical. The fact that the individual reacts less against internal and external stimulants, becomes less judgemental provides him to pay less attention towards objects (Armstrong, 2015). Brown and Ryan (2003), define mindfulness as being in the moment in which the individual is present and acting in an accepting and non-judgmental manner by becoming aware of the moment. Mindfulness plays an important role to allow individual to become aware of behaviours, unhealthy behavioral patterns and automatic thoughts (Ryan & Deci, 2000). Mindfulness is used to evaluate whether the individuals focus on the experiences in a certain time and these experiences include concentration at present without consideration external events, thoughts and opinions or intentions in future (Brown, Ryan, & Creswell, 2007; Zhang and others, 2020).

When the literature is examined, it has been determined that school burnout causes problematic internet use (Tomaszek & Muchacka-Cymerman, 2019). It has been understood that mindfulness predicts negatively problematic smartphone use (Kaymaz & Şakiroğlu, 2020; Song & Park, 2019). Liu and Ma (2018), have revealed that social media addiction are important predictions of burnout. In a study conducted in America has revealed that mindfulness is effective in preventing the negative behaviours of the individuals (Andrews, Kacmar, & Kacmar, 2014). Accordingly, in this study, it has been thought that mindfulness may have a protective role in the relationship between problematic smartphone and social media use and school burnout in adolescents.

The Problem Statement

Does adolescents' mindfulness levels moderate the relationship between school burnout (exhaustion, competence and desensitization) and problematic smartphone and social media use?

METHOD

Research Model

In the relationship between school burnout and problematic smartphone use and social media use, relational screening model has been used to examine the mediating role of the mindfulness between school burnout and problematic smartphone use and social media addiction.

Study Group

The study group of the research consists of 411 students studying in the high schools in the Erzurum province in Turkey in 2020. Among the students in the working group are 237 boys (%57,7), 174 girls (%42,3). % 36 of the students who participated in the research are in the class 9, % 27 are in class 10, % 21,4 are in the class 11 and %15,6 are in the class 12.

Data Collection Tools

The Smartphone Addiciton Scale- Short Version

Originally developed by Kwon, Lee, Won, Park and Min (2013) for the first time, smartphone addiction consists of 33 items. The short version of smartphone scale has been developed by Kwon, Kim, Cho and Yang (2013). The original of the scale is of the likert type 6 and consists of 10 items. Developed to determine whether the adolescents are addicts of smartphone, ‘ Turkish adaptation of “Smartphone Dependency scale-short version” has been made by Şata and Karip (2017). The Turkish version of the scale is of the likert type with 10 items and 6. It has been determined that the more score the individuals obtain from the test, the more the dependency level increases. Cronbach α values were calculated to ensure the reliability of the scale and it has been found to be 90.

Social Media Addiction Scale Short Form

In order to determine whether adolescents are addicted to social media, Social Media Addiction Scale was developed by Van den Eijnden, Lemmens and Valkenburg (2016). The scale was prepared based on the internet addiction diagnostic criteria in DSM-5. The adaptation of the scale to Turkish was carried out by Taş (2017). Consisting of one dimension, the scale consists of 9 items and is rated as ‘ Yes or No’. The individuals who choose YES at least 5 out of 9 items are defined as social media addicts. The Cronbach α factor calculated for the reliability of the scale was found to be 82.

The Awareness scale for the infants and adolescents.

‘The Awareness Scale For Children and Adolescents’ has been developed by Greco, Baer and Smith (2011) in order to determine the current awareness, feelings and thoughts of the children and adolescents. The adaptation of the scale into Turkish was carried out by Çıkrıkçı (2015). The scale consists of 8 items an done dimension, in 5 likert type. In order to calculate the reliability of the scale, the internal consistency coefficient for Cronbach α was found to be 73.

The Maslach Burnout Inventory Student Form

Aiming at measuring the school burnout levels of the students, the adaptation of the The Maslach Burnout Inventory Student Form (vet-ÖF) by Schaufeli, Martinez, Marques-Pinto, Salanova and Bakker (2002) into Turkish has been carried out by Çapri, Gündüz and Gökçekan (2011). As a result of the confirmatory factor analysis conducted in order to ensure the validity of the structure, 3-sub-dimensions such as exhaustion, competence and depersonalization were obtained. The scale, which consists of 13 items, is of the 5s likert type. To calculate the reliability of the scale, the Cronbach Alpha internal consistency coefficient was examined and coefficient was found to be respectively .76, .82 and .61. Confirmatory factor analysis (DFA) was conducted to determine the validity of the Maslach Burnout scale for high school students. Standardized values for DFA are shown in Figure 1.

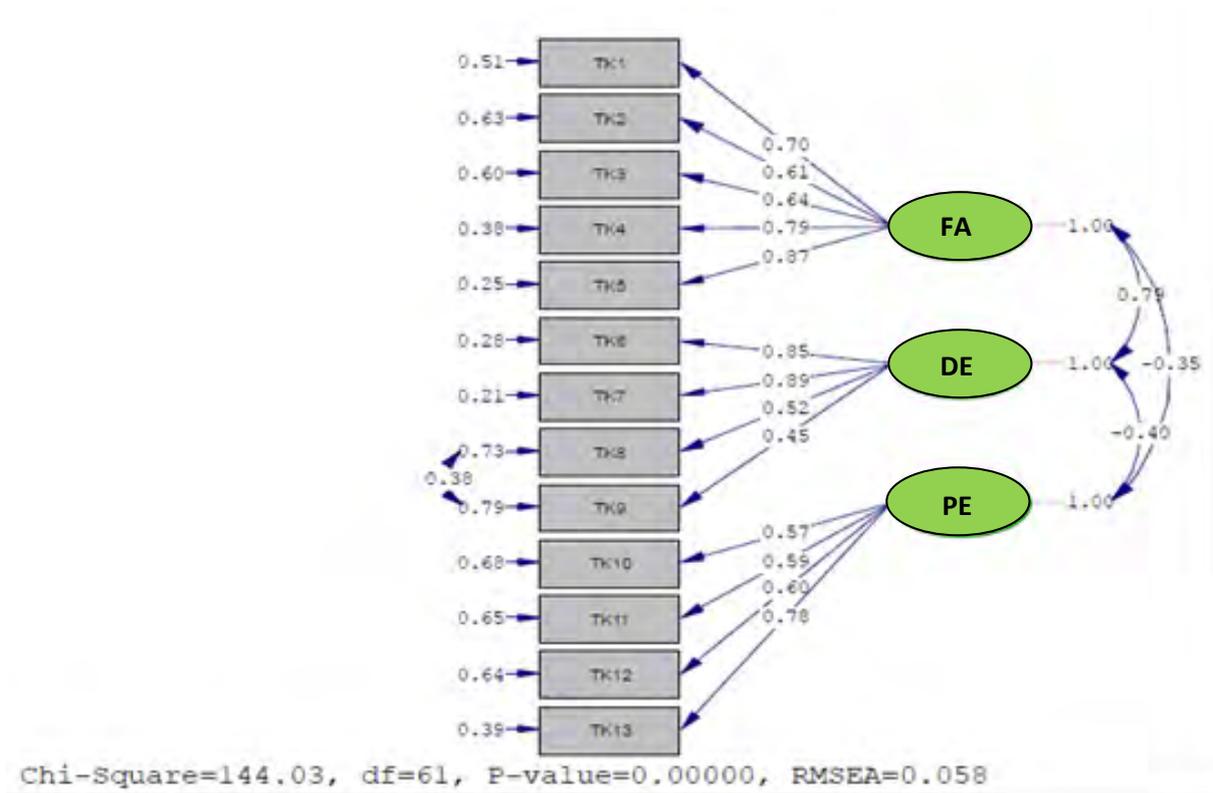


Figure 1. Standardized values of the Maslach Burnout scale

When the figure 1 is examined, it is seen that the structure of Maslach Burnout Scale which consists of 13 items and 3 dimensions has been confirmed for the high school students. It is observed that the standardized factor load levels of the scale change between 45 and 89. In accordance with the recommendations, in the confirmatory factor analysis, modifications were made between 8th and 9th items. The modifications carried led to the decrease in X2 value and an increase in compliance indices. At the end of this process, it was observed that the confirmatory factor analysis of the Maslach burnout scale gave a good fit for the high school students. The fit index values ($\chi^2/df = 2,36$; NFI = .96; CFI = .98; RFI = .95; AGFI = .92, GFI = .95; SRMR = .045; RMSEA = .058; CI(RMSEA) = .045-.070 indicate the confirmation of the scale. The t values related to the significance of the Maslach burnout scale are presented in figure 2.

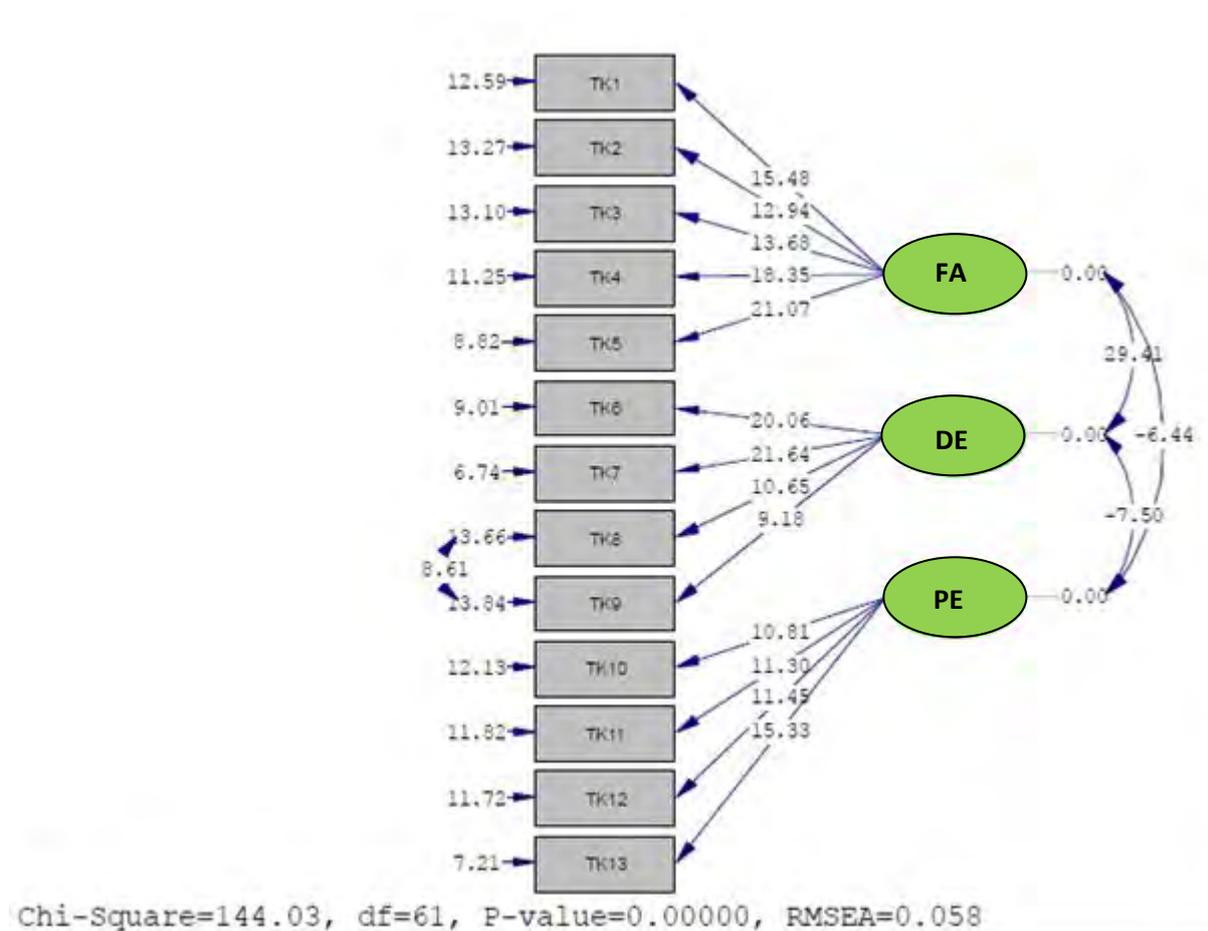


Figure 2. T values related to the Maslach Burnout scale.

When t values related to the Maslach Burnout Scale in figure 2 are examined, it is understood that DFA is meaningful. These results show that the Maslach Burnout scale may be valid for the high school students.

Data Collection

Having determined the schools in which the research would be conducted, an appointment was requested from the principals for the implementation of the data collection tool, and the schools were visited in the specified days and hours. In the classrooms entered with the teachers, the explanations needed were given about the data collection tool. During the participation of students in surveys, on the basis of volunteering, data was collected only from students who wanted to participate. During the collection of data, the researcher was present in classrooms and the questions asked by the students were answered by the researcher. Students were given one lesson hour (40 minutes) to complete the data collection tool. The data was collected by the researcher between 17.02.20220 - 13.03.20220.

Analysis of the Data

In this study, the relationship between variables was examined with Pearson correlation coefficient. The SPSS-22 program was used for correlation analysis and the Jamovi 1.0.7 program was used for analyses on the mediating role of mindfulness. It is stated that the mediating relationship is meaningful when the lower and upper limits of the confidence intervals of the indirect effects of the model do not contain zero; the mediating relationship is meaningless when it contains zero (Preacher

& Hayes, 2008). To examine the normal distribution with descriptive values of the research data, the coefficients of kurtosis and skewness have been calculated and the results of this calculation are shown in Table 1.

Table 1. Normality Values For Variables

Variables	Mean	S.s	Skewness		Kurtosis	
			Statistic	S.h	Statistic	S.h
Problematic Smart Phone Use	27.00	10.92	.67	.120	-.005	.240
Problematic Social Media Use	2.41	2.17	.93	.120	.38	.240
Mindfulness	23.53	5.25	-1.0	.120	1.0	.240
Burnout	9.46	5.10	.36	.120	-.67	.240
Depersonalization	4.95	4.05	.91	.120	.14	.240
Competence	10.29	3.67	-.45	.120	-.35	.240
Total				411		

That the levels of Skewness and Kurtosis concerning competence are between +2 and -2 in addition to problematic smart phone and social media use mindfulness, burnout, depersonalization are considered as a measure of normal distribution of data. (Tabachnick, Fidell, & Ullman, 2007).

Ethical Procedures

Before starting this study, permission was obtained to conduct research from Atatürk University the Social and Human Sciences Ethics Committee Educational Sciences Unit Ethics Committee (Date: 14.02.2020). In the study, there were no ethical and scientific problems.

FINDINGS AND DISCUSSION

Pearson correlation analysis was conducted in order to reveal the levels of relationship between the school burnout of the adolescents, mindfulness, problematic smart phone social media use. The findings obtained have been given in the Table 2.

Table 2. The results of the Pearson correlation analysis related to the levels of relationship between the school burnout of the adolescents, mindfulness, problematic smart phone social media use.

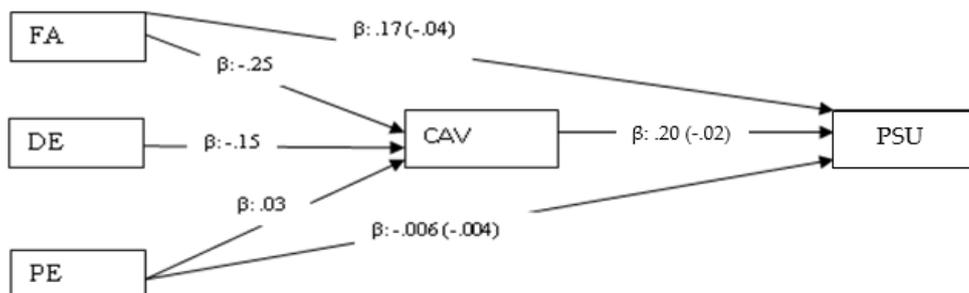
Variables	1	2	3	4	5	6
1.Problematic smart phone use	1					
2.Problematic social media use	.55*	1				
3.Mindfulness	-.29*	-.33*	1			
4.Burnout	.38*	.33*	-.36*	1		
5.Depersonalization	.39*	.31*	-.32*	.67*	1	
6.Competence	-.19*	-.15*	.14*	-.26*	-.30*	1

When the Table 2 is examined, it is observed that there is a negative and meaningful in low level relationship between problematic smart phone use and mindfulness. It has been determined that there is a moderate and positive relationship between problem smartphone use and the lower dimensions of depletion and desensitization of the school burnout scale, while there is a low level, negative and meaningful relationship between competence. It has been observed that there is a moderate, negative and meaningful relationship between social media use and mindfulness. It has been found that there is a moderate and positive relationship between problematic social media use and the lower dimensions of exhaustion and desensitization of the school burnout scale, and a low level, negative and meaningful relationship between competence.

The Mediating Role of Mindfulness between School Burnout and Problematic Smart Phone Use

Phone Use

Regression-based mediation analysis was conducted to examine the mediating role of mindfulness between adolescents' school burnout and problematic smartphone use. The results of the analysis are presented in Figure 3.



FA: Burnout, DE: Depersonalization, Competence, CAV: Mindfulness, PSU: Problematic Smart Phone Use.

Figure 3. The mediating role of mindfulness in the relationship between school burnout and problematic smartphone use.

When the Figure 3 is examined, it is seen that the way between the path between the exhaustion sub-dimension of school burnout scale of mindfulness and problematic smart phone use is significant. It has been observed that the path between the depersonalization and competence sub-dimensions of the school burnout scale of mindfulness and problematic smartphone use is not significant.

The direct, indirect and total impact results of regression-based mediation analysis to determine the mediating role of mindfulness and the lower and upper limit confidence intervals are presented in Table 3.

Table 3. Indirect and Total Effects of mindfulness on mediating analysis between school burnout and problematic smartphone use.

Model Type	Model Paths Effect	Estimate	SE	95% C.I. (a)		β	z	p
				Lower	Upper			
Indirect	FA ⇒ CAV ⇒ PSU	.079	.03	.016	.627	-.04	2.46	.01*
	DE ⇒ CAV ⇒ PSU	.061	.03	-.001	.873	-.02	1.92	.055
	PE ⇒ CAV ⇒ PSU	-.012	.02	-.054	.090	-.004	-.57	.57
Component	FA ⇒ CAV	-.25	.06	-.380	-.131	-.25	-4.02	.001*
	CAV ⇒ PSU	-.31	.01	-.503	-.115	-.15	-3.12	.002*
	DE ⇒ CAV	-.19	.08	-.356	-.038	-.15	-2.43	.015*
Direct	PE ⇒ CAV	.04	.07	-.094	.174	.03	.58	.56
	FA ⇒ PSU	.37	.13	.117	.627	.17	2.85	.004*
	DE ⇒ PSU	.55	.16	.229	.873	.20	3.36	.001*
Total	PE ⇒ PSU	-.18	.14	-.451	.090	-.06	-1.30	.19
	FA ⇒ PSU	.45	.12	.197	.705	.21	3.48	.001*
	DE ⇒ PSU	.61	.16	.289	.936	.23	3.71	.001*
	PE ⇒ PSU	-.19	.14	-.468	.081	-.07	-1.38	.16

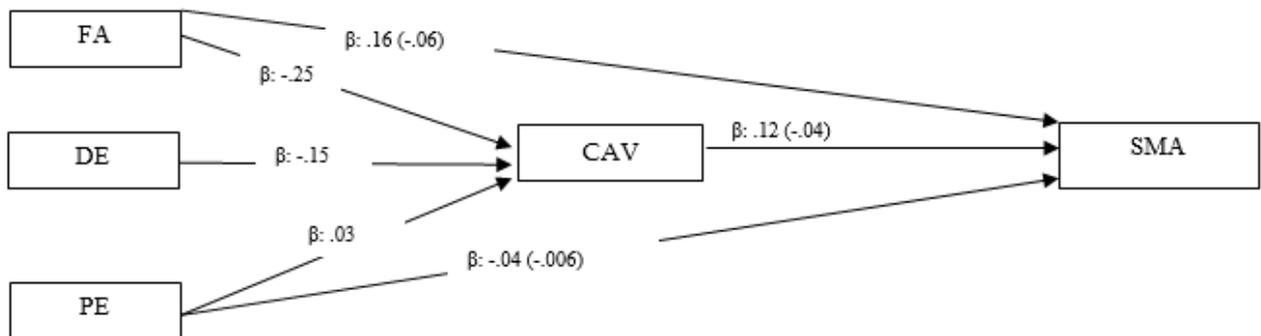
*p<.05

When we look at whether the indirect effects in Table 3 are significant, the total effect of exhaustion on problem smartphone use is .17, while this effect falls to -.04 when conscious awareness is included in the model. In other words, conscious awareness has a mediating role in the relationship between the depletion sub-dimension of the school burnout scale and problematic smartphone use. It can be said that as individuals with high levels of exhaustion increase their level of mindfulness, problematic smartphone use will decrease.

While the total effect of the depersonalization on the problematic smart phone use is .20, when the mindfulness is included to the model, it is observed that this effect decreases to -.02. However, this is not significant since the upper and lower limits of the indirect effects don't contain zero. In other words, mindfulness in the relationship between problematic smart phone use and the depersonalization sub-dimension of the school burnout scale does not have a mediating role. While the total effect of the competence on the smart phone use is -.06, it is seen that this effect decreases to the -.004 when the mindfulness is included to the model. However, since the upper and lower limits of the indirect effects don't contain zero, this result is not significant. In other words, mindfulness in the relationship between problematic smart phone use and the competence sub-dimension of the school burnout scale does not have a mediating role. Finally, the lower dimensions of the school burnout scale and mindfulness explain 19.6 % of the variance in problematic smartphone use.

The Mediating Role of Mindfulness between School Burnout and Problematic Social Media Use

The regression- based mediating analysis has been conducted in order to examine the role of mindfulness mediating in the relationship between the adolescents's school burnout and problematic social media use. The results of the analysis are presented in the figure 2.



FA: Burnout, DE: Depersonalization, PE: Competence, CAV: Mindfulness, PSMA: Problematic Social Media Use.

Figure 4. The mediating role of mindfulness in the relationship between school burnout and problematic social media use

When the results in the figure 4 are examined, it has been found that the path between the exhaustion and depersonalization of the school burnout scale of mindfulness and problematic social media is significant. It is observed that the path between the competence sub-dimension of the school burnout scale of mindfulness and problematic social media use is not significant. The direct, indirect and total impact results and lower and upper limit confidence intervals for regression-based mediation analysis to determine the mediating role of mindfulness are presented in Table 4.

Table 4. Indirect and Total Effects of Mindfulness On Mediating Analysis Between School Burnout and Problematic Social Media Use

Model Type	Model Paths Effect	Estimate	SE	95% C.I. (a)		β	z	p
				Lower	Upper			
Indirect	FA \Rightarrow CAV \Rightarrow SMA	.02	.01	.008	.040	-.06	3.07	.002*
	DE \Rightarrow CAV \Rightarrow SMA	.01	.01	.001	.036	-.04	2.17	.03*
	PE \Rightarrow CAV \Rightarrow SMA	-.01	.01	-.016	.009	-.006	-.58	.56
Component	FA \Rightarrow CAV	-.26	.06	-.380	-.131	-.25	-4.02	.001*
	CAV \Rightarrow SMA	-.09	.02	-.135	-.056	-.23	-4.77	.001*
	DE \Rightarrow CAV	-.19	.08	-.356	-.038	-.15	-2.43	.015*
Direct	PE \Rightarrow CAV	.04	.07	-.094	.174	.03	.58	.56
	FA \Rightarrow SMA	.06	.03	.015	.119	.16	2.55	.01*
	DE \Rightarrow SMA	.06	.03	-.314	.129	.12	1.93	.053
Total	PE \Rightarrow SMA	-.02	.03	-.075	.033	-.04	-.76	.45
	FA \Rightarrow SMA	.09	.03	.039	.144	.22	3.45	.001*
	DE \Rightarrow SMA	.08	.03	.016	.149	.15	2.45	.014*
	PE \Rightarrow SMA	-.02	.03	-.081	.031	-.04	-.87	.38

*p<.05

When we look at whether the indirect effects in the table 4 are significant or not, it is seen that while the total effect of the burnout on the problematic social media use is .16, this effect decreases to -.06 when the mindfulness is added to the model. In other words, mindfulness has a mediating role in the relationship between the depletion sub-dimension of the school burnout scale and problematic social media use. According to this result, it can be said that as the level of mindfulness of the the individulas with high burnout increases, the problematic social media use decreases. While the total effect of the depersonalization on the problematic social media use is .12, this effect is observed to decrease to -.4 when the mindfulness is added to the model. In other words, the relationship between the desensitization sub-dimension of the school burnout scale of conscious awareness and problematic social media use also has a mediating role. This result can be evaluated that as the mindfulness levels of the individuals with high level of depersonalization increases, the problematic social media use decreases. While the total effect of the competence on the problematic media use is -.04, this effect is observed to decrease to -.006 when the mindfulness is added to the model. However, since the upper and lower limits of the indirect effects don't contain zero, this result is not significant. In other words, mindfulness doesn't have a mediating role in the relationship between the competence sub-dimension of the school burnout scale and problematic socail media use. Finally, it is explained that the variance of the school burnout scale and the problematic social media use of the mindfulness is 17%.

DISCUSSION AND CONCLUSION

Inrepretation of Mindfulness Mediating the Relationship Between Exhaustion and Problematic Smartphone and Social Media Use

In this study, it has been concluded that mindfulness had a mediating role in the relationship between the depletion sub-dimension of the school burnout scale and problematic smartphone and social media use. Therefore, it can be said that as the levels of the mindfulness of the adolescents with high levels of exhaustion increase, their use of problem smartphones and social media decreases. In the study conducted by Liu, Zhang, Yang, Zhang, Fan and Zhou (2018), it has been revealed that the individulas with low mindfulness exhibit smart phone use, and as the level of their mindfulness increases, their phone use decreases. Similarly, in the study conducted by Charoensukmongkol (2015), the mediating role of the mindfulness between social media use and the sub-dimension of burnout has been studied. The individulas, working in a workplace, appear to decrease the levels of burnout as the levels of the mindfulness increases during the social media use. In the study conducted by Ke and Shih-Tsung (2019), it has been revealed that as the levels of the individuals' mindfulness increase, the risks of the smart phone use. The results of the study are consistent with the previous research which reveals that mindfulness decreases the problematic smart phone use and social media use (Arslan,

2017; Kim, 2013). It is stated that the individuals with high mindfulness tend to use less internet when compared to the ones with low mindfulness (Yang, Zhou, Liu, & Fan, 2019). Mindfulness can also stimulate an individual's spiritual development by increasing self-esteem, endurance, hope and optimism (Bajaj & Pande 2016; Bajaj & others, 2016; Malinowski & Hui, 2015). These concepts are cited among the psychological sources which contribute to reducing the effects of the problems. Accordingly, the individuals with high mindfulness often exhibit positive and hopeful attitudes towards themselves and future. As a result, they can better deal with the problems such as problematic internet and social media use (Yang, Zhou, Liu, & Fan, 2019).

Interpretation of mindfulness not mediating the relationship between competence and problematic smartphone and social media use

In this study, it has been concluded that in the relationship between the sub-dimension competence of the school burnout scale and problematic smart phone use and social media use, mindfulness doesn't have a mediating role. However, unlike this result taken, Arpaci (2019) emphasized that as the levels of the individuals' mindfulness increase, the number of the positive frameworks decrease towards the smart phone use. This situation is explained by the fact that while the individuals with high mindfulness use the technology-related tools, they can control their own emotions, ideas and behaviours. In this study, the absence of a mediating relationship may be attributed to individuals who perceive themselves as a good student, who can solve it when a problem arises, see themselves active in the lesson, making the internet and social media use more conscious.

Interpretation of mindfulness not mediating the relationship between depersonalization and problematic smartphone use.

In this research, it has been concluded that mindfulness does not have a mediating role in the relationship between the depersonalization sub-dimension which is the sub-dimension of the the school burnout scale and problematic smart phone use. When the studies in the literature are examined, it is seen that school burnout is accepted as a total score. Accordingly, there has not been any study which matches or differs from this result. In the literature, it is stated that the individuals with the high mindfulness display less problematic smart phone use (Elhai, Levine, O'Brien, & Armour, 2018; Oulasvirta, Rattenbury, Ma, & Raita, 2012; Regan, Harris, Loon, Nanavaty, Schueler, Engler, & Fields, 2020). Kaymaz and Şakiroğlu (2020) state that the individuals with low level of mindfulness are have difficulty in preventing themselves from problematic internet use because they are unable to stay at the moment and manage their emotions, thoughts and behaviours. In this study, the reason for the lack of a mediating relationship between the depersonalization dimension of the school burnout and problematic smart phone use may be because there are other variables instead of mindfulness in the decreasing of the problematic smart phone use of the students who have less interest in the lessons and doubts about the importance of the lessons and benefits.

Interpretation of mindfulness mediating the relationship between desensitization and problematic social media use.

In this study, it has been concluded that the mindfulness has a mediating role in the relationship between the depersonalization sub-dimension of the school burnout scale and problematic social media use. The individuals' intensive use of technology often creates addiction-based problems. This situation can only be reduced if the individuals gain mindfulness (Shonin, 2015). It is stated that when the individuals with mindfulness use social media, they can organize their behaviours effectively, and solve the situations which can create problems in the social media (Charoensukmongkol, 2015). Sriwilai and Charoensukmongkol (2015) state that the individuals who are highly addicted to social media tended to have lower mindfulness. Generally, mindfulness represents an intense mental state beneficial to focus one's attention on the present moment rather than the past and future. (Bajaj & Pande, 2016; Kabat-Zinn, 2003).

The adolescents who have high level mindfulness can cope with such emotions and thoughts as restlessness, anxiety, feeling bad, failure and incompetence due to not being able to use social media. They can realistically accept their situation and their feelings. In addition to this, mindfulness can help individuals display more positive behaviours instead of reacting in an incompatible way (Bajaj & Pande, 2016; Roemer, Williston & Rollins, 2015). Accordingly, adolescents with high mindfulness as a result of indifference to the school courses, having doubts about the importance and beneficals of the lessons in their minds rather than spending time in the social media, may be capable of displaying coping behaviours (Yang, Zhou, Liu & Fan, 2019). Indeed, in the study conducted by Gámez-Guadix & Calvete (2016), it has been stated that the high school students with high level of mindfulness have less preferences to establish social relationships on online platforms. Since these students' own mindfulness in the daily life is high, it is has been emphasized that they don't live any fear of being liked or appreciated by the socail media users and thus they need less social media. In this context, it can be said that the students who can control the negative emotions and thoughts, gather their attention, and find solutions to the problems related to the school can decrease the problematic social media use.

Limitations and Recommendations

While interpreting the results of the study, some limitations must be taken into consideration. First, since the research is conducted associatively, casual relationships can't be established. Second, the results may not be generalized to all the country samples because the study has been conducted in a sample taken from a province in Turkey and does not include a clinical group. Therefore, future research may also include more diverse participants. Third, the study found that the mindfulness is a mediating variable in the relationship between problematic smart phone use and social media use. The studies in the future, the effectiveness of the intervention training (eg. mindfulness) program on problematic smartphone and social media use can be examined. Finally, the protective role of the mindfulness in the problematic smart phone use and social media use has been revealed. However, the effect on the mental problems of the adolescents has not been examined in this study. In future researches, the effect of the adolescence on the problematic smart phone use, social media use and mental health can be searched.

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