



Mindfulness and Satisfaction of Psychological Needs as Predictors of Adolescents' Social Media Disorder

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ABSTRACT

Objectives: In this study, mindfulness (MN) and satisfaction of psychological needs (SPN) were considered as structures that protect adolescents' mental health against social media disorder (SMD). The main purpose of the study was to examine the relationships between MN levels, SPN levels and SMD levels of adolescents and to examine the predictive level of MN and SPN on SMD levels of adolescents. *Methods:* The model was predictive associational survey model. The sample was consisted of 521 adolescents (Mage: 16,02; SD: 1,16; %37 girls, %67 boys) from the central districts of Izmir province in Turkey. Data were collected by Social Media Disorder Scale, Mindful Attention and Awareness Scale – Adolescents, Psychological Need Satisfaction Scale with a questionnaire to gather demographic information. *Results:* Results showed that there were negative correlations between mindfulness levels and SMD levels, between the satisfaction of competence need levels and SMD levels. There were positive correlations between the satisfaction of relatedness need levels and the SMD levels. There was no significant relationship between the satisfaction need for autonomy and social media disorder. Mindfulness, satisfaction of competence need and relatedness need together, predict the social media disorder levels of adolescents significantly and they explain 26,1% of the total variance. *Conclusion:* Mindfulness and competence need satisfaction protect adolescents from social media disorder more than a quarter. However as the need to be related increases, social media disorder increase.

Recently, the use of online information technologies such as social media (Vural & Bat, 2010) has been associated with enjoyment, communicating with family and friends, access to knowledge, increasing social capital and social interaction as positive features (Boyd & Ellison, 2007; Lin et al., 2013; Park & Kim, 2013). Today, adolescents' social culture has evolved into communicating through digital media such as e-mail, social media or messaging (Allen, Ryan, Gray, McInerney, & Waters, 2014; Griffiths, 2010). Most adolescents spend an average of two hours a day on social media (Dawley, 2009). Words such as like, retweet, trend topic, spam, mention, add to story, which are frequently used on social media platforms, have become part of adolescents' daily language (Eraslan, 2018). In time, the overuse of social media and especially the potential of users to become "addicted" have emerged (Andreassen, 2015; Kuss et al., 2014). The definition of social media addiction has two meanings. One is meeting the diagnostic criteria for internet addiction, and the other is mainly using the social features of the internet such as chat rooms, internet forums and instant messaging (Qian et al., 2006). Many studies with children and adolescents reveal that mindfulness has a high correlation with

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well-being and life satisfaction (Brown, West, Loverich, & Biegel, 2011; İkiç & Uygur, 2019) and a low correlation with psychological problems such as depressive mood, anger and addiction (Black, Sussman, Johnson, & Milam, 2012; Brown et al., 2011; Calvete, Sampedro, & Orue, 2014).

Through social media adolescents engage in a variety of social activities, such as self-disclosure and interaction with others. These social activities greatly improve the efficiency of social relationship management and satisfy people's psychological needs (Feng et al., 2017). According to the self-determination theory (Ryan & Deci, 2000); there are 3 basic needs of the individual: perception of autonomy, relatedness and sense of competence. According to self-determination theory, psychological development, psychological integrity and psychological well-being of the individual are possible by meeting these needs (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). In addition, individuals can develop and express their true selves when they are in environments where they can fulfil these three psychological needs (Deci & Ryan, 2000).

Since adolescence is the most important period of life for social media addiction tendencies (Asıcı, 2019; Kuss & Griffiths, 2012; Kuss et al., 2014), the role of adolescents' mindfulness levels and psychological needs in predicting their social media disorder levels is important. This study aims to determine whether adolescents' social media disorder levels are predicted by adolescents' mindfulness and psychological needs satisfaction.

Addiction Symptoms and Social Media Disorder in Adolescence

The concept of internet addiction is multidimensional in nature (Caplan, 2010) and refers to different forms of compulsive online behavior. Individuals do not appear to be addicted to the Internet itself, but to specific online activities (Griffiths & Szabo, 2014). Some online activities cause more compulsive use than others, and social media use is one of them (Asıcı, 2019). Although an “addiction” related to the social media use or that it is a disorder are not diagnosed in DSM-V, the addiction related to the social media is considered as a behavioral addiction type in the literature (Eryılmaz & Deniz, 2019; Griffiths & Szabo, 2014).

To characterize individuals as social media addicts, the literature evaluates the individuals in terms of being mentally and constantly busy with social media use, thinking about nothing but the time an individual can use social media, not satisfying the desire to spend time, feeling bad when not using it, not having positive results for the effort of using it less, an occupied mind, tolerance, withdrawal and continuity (Satici, 2019; Van den Eijnden et al., 2016). Besides, when channeling their ideas towards activities related to the internet due to the desire of social media use is considered, it is seen that individuals neglect other vital activities and real social activities (Andreassen, 2015; Barry et al., 2017; Weinstein et al., 2021). It compels attention that this situation causes interpersonal problems with significant others in the lives of the individuals who use social media and even cause arguments with family members; that the individuals make deceptive statements about the duration spent on the social media; and that they use the social media as a method to escape from their negative emotions (Oberst et al., 2017; Subrahmanyam & Greenfield, 2008). It is stated that individuals with social media disorder have several different behavioral addiction symptoms such as displacement, facing some problems, lying, escape behavior and conflicting (Asıcı, 2019; Satici, 2019; Savi- Çakar, 2018, Van den Eijnden et al., 2016).

Xu and Tan (2012) suggested that when the social networks are considered by an individual as a solution mechanism to ease stress, loneliness or depression, the transition from a normal to a problematic social network use occurs. They also stated that the ones who are frequently present on the social networks are not good at socializing in real life. For these individuals, being on the social media, using it constantly and sophisticatedly can be supportive to their self-efficacy perceptions and can provide with almost a reward by making them content with the process. The more an individual obtains this reward, the more he/she uses the social networks; after that, this overuse starts to pose a problem. This situation causes these individuals to increase social media use as a way of easing their dysphoric psychological states after a while. As a result, when social network users repeat this cyclical model in order to ease their undesired psychological states through social media use, their level of psychological addiction to social networks increase (Griffiths et al., 2014).

Although each individual who has internet access has the potential risk to develop addiction regardless of age, gender or social status (Kuss et al., 2014), especially the individuals who are at a young age have a higher risk of developing addiction (Andreassen, 2015; Asıcı, 2019; Kuss & Griffiths, 2012; Kuss et al., 2014; Satici, 2019; Van Deursen et al., 2015). Passing towards adolescents is a process in which individuals experience different social, emotional, biological and cognitive changes and developments after childhood. An adolescent

individual who is in a process of change searches about issues related to what kind of a career path he/she will choose related to his/her character and what kind of a life he/she desires (İkiz & Savi-Çakar, 2010). In this process, along with experiencing distrust, individuals may feel desperate, may be hopeless about the future and even may feel alone in what they live and think (İkiz, 2020; Ünalın et al., 2007). Therefore, the risk of developing addictions such as social media addiction is high during adolescence.

Importance of Needs And Mindfulness on Social Media Use in Adolescence

When the recent literature is scrutinized, it is seen that self-determination theory dwells upon increasing the functionality and well-being of individuals, and many studies have been carried out both in our country and in the world (Vansteenkiste & Ryan, 2013). According to self-determination theory (Ryan & Deci, 2000), individuals have three basic needs which are the perception of (a) autonomy, (b) competence and (c) relatedness. When the theory is examined, the psychological development, psychological integrity and psychological well-being of individuals can be achieved by satisfying these needs (Reis et al., 2000). Also, individuals can develop and express their real self-concepts in the environments where they can satisfy these three psychological needs (Deci & Ryan, 2000). At this point, the question of how much satisfaction can be achieved for these psychological needs for the adolescents in the virtual world becomes a current issue.

The term autopilot implies that the individual is not aware of his/her own emotional perception at the time he/she is in or that the individual acts without a conscious purpose and has a blurred perception of now (Kınay, 2013). However, instead of driving on autopilot, creativity increases, stress decreases and performance increases when attention is paid to the present moment (Langer, 2009). This situation reveals the importance of the concept of mindfulness, which has been emphasized in recent years. Due to its nature which stems from the meditation studies in Eastern culture, mindfulness is that the individual connects with the experienced moment by directing his/her attention and conscious in a deep, acquiescent and non-judgmental way towards the experiences lived in the moment which can be understood completely solely by experiencing it (Brown & Ryan, 2003; Chambers et al., 2009; İkiz & Uygur, 2019; Kabat-Zinn, 2003) so that, mindfulness can be conceptualized as a characterization as well (Garland, 2013).

Several studies carried out with children and adolescents reveal that the correlation between mindfulness and wellbeing as well as life satisfaction is high (Brown, West, Loverich, & Biegel, 2011; İkiz & Uygur, 2019) and that the correlation between mindfulness and psychological problems such as depressive emotional state, anger and addiction is low (Black, Sussman, Johnson & Milam, 2012; Brown et al., 2011; Calvete, Sampedro, & Orue, 2014). Also, it is reported that mindfulness in adolescents is negatively correlated on a high level with individual's having problem in controlling their behavior (Güldal, 2019). Hereunder, such a correlation may be present between mindfulness and social media addiction.

The Present Study

The process of satisfying aforementioned psychological needs does not proceed for each individual; consequently, some individuals may experience having difficulty. Especially during adolescence, individuals may sometimes experience stress, feel a deep anxiety as a result of their evaluations and even sometimes think that they are desperate within the situation they are in which can consequently result in getting angry with other people. In this case, an individual may choose to relax and regulate his/her emotions through social media use. Individuals with high level of mindfulness have better interpersonal skills since they tend to express themselves more frequently and live less social anxiety (Dekeyser et al., 2008). According to these results, it was thought that individuals with a higher level of mindfulness may use online social interactions more purposefully and in a controlled manner or choose to use it less.

When it was searched for social media disorder, we found many studies on social media addiction or internet addiction, as addiction is a kind of disorder. Social Media Disorder Scale is used in this study and it searches this unhealthy phenomena by each item covers one of the addiction diagnosis criteria. So it was concluded that social media addiction is accepted as a social media disorder; disorders and addictions both have a base of satisfying needs. In this study, social media addiction literature was also used while making quotations and references about social media disorder.

The main purpose of the study was to examine the relationships between mindfulness levels (MN), satisfaction of psychological needs levels (SPN) and social media disorder levels (SMD) of adolescents and to examine the predictive level of MN and SPN on SMD levels of adolescents. The present study will hopefully make a unique contribution to understand the social media use of adolescents and reflect the importance of mindfulness and satisfaction of psychological needs on social media disorder of adolescence. Moreover, it is thought that it will help determine and realize the psychological needs of adolescents as well as provide awareness about the relationship between social media use and psychological need satisfaction. In the light of this, the answers of the questions below will be sought.

1. What are the relationships between mindfulness levels, satisfaction of psychological needs levels and social media disorder levels of adolescents?
2. Do the mindfulness levels of adolescents predict the social media disorder levels of adolescents significantly?
3. Do the psychological need satisfaction levels of adolescents predict the social media disorder levels of adolescents significantly?

Materials and Methods

In the current study, the aim is to research the role of mindfulness levels and psychological needs of adolescents on predicting the social media disorder levels of adolescents. With this aim, stepwise regression analysis was used. For the implementation of the research, the ethics committee approval was obtained from Dokuz Eylül University Institute of Educational Sciences Ethics Committee with the decision numbered 12018877-604.01.02- E.23583534.

Participants and Procedure

The sample of the study consists of the 9th, 10th, 11th 12th grade state high school students which are located in central districts of İzmir province. When the sample group was formed, multi-stage sampling model was used. The state schools in the central districts of İzmir province were clustered into three as “Vocational and Technical Anatolian High Schools”, “Religious Vocational High Schools” and “Anatolian and Science High Schools”. Then, the percentage of high school types in the population were calculated, and these percentages were considered when the sample group was formed. It was determined that 201 students from Vocational and Technical Anatolian Schools, 30 students from Religious Vocational High Schools and 169 students from Anatolian and Science High Schools were needed to represent the sample. It was planned that the scales will be given to the 9th, 10th, 11th and 12th grade students for each school. The sample consist of 521 adolescents, 187 female and 322 male and 12 participants did not specify their biological gender (M_{age} : 16,02, SD : 1,16, %37 girls, %67 boys).

Measures

In the study, “Demographic Information Questionnaire” developed by the researcher, “Social Media Disorder Scale (SMDS)”, “Mindful Attention and Awareness Scale – Adolescents”, “Psychological Need Satisfaction Scale” were used in order to collect data.

Demographic Information Questionnaire. The data related to gender, grade level, age and school type of the students were gathered with the demographic information questionnaire developed by the researcher.

Social Media Disorder Scale (SMDS). Social Media Disorder Scale (SMDS) was developed by Van den Eijnden et al. (2016) and consists of 9 items. The scale has one subscale. Savcı et al. (2018) carried out the Turkish adaptation study. In the original scale, the items of SMDS items are scored as yes-no. However, it is adapted into Turkish language with five-point Likert (0=Never, 5=Always) in order to obtain more delicate results. Each item covers one of the addiction diagnosis criteria. For the reliability and validity study, data from 553 adolescents was gathered. When the sampling was determined, four different categories had been formed as the ones who use the social media every day for the last one year and who has at least one social media account.

To test the construct validity, both Exploratory and Confirmatory Factor analyses were used. The analyses results determined that SMDS items were gathered under one factor. The internal consistency reliability coefficient of SMDS was calculated and Cronbach Alpha level was found .86, and criterion-related validity

score was found .83. For the test-retest analysis, data from 66 adolescents was gathered three weeks apart, and test-retest analysis result was found .80,5.

Mindful Attention and Awareness Scale – Adolescents. It was developed by Brown et al. (2011) in order to measure the mindfulness levels of 14-18-year-old adolescents. The scale items are gathered under a one-factor construct. The scale consists of 14 items. The high scores obtained from the scale show that the individual has high mindful attention and awareness level. The highest score to be obtained from the scale is 84 whereas the lowest score is 14. Sünbül (2016) adapted the scale into Turkish language. The reliability and validity studies were carried out with 383 high school students. The confirmatory factor analysis for construct validity showed that 14 items were gathered under one factor ($\chi^2 = 162.5$, $df = 75$, $\chi^2 / df = 2.17$; GFI = 0.94, CFI = 0.92; TLI = .90; RMSEA = 0.06). The Cronbach Alpha coefficient of the scale was calculated as .81.

Psychological Need Satisfaction Scale. The original scale was developed by Deci and Ryan (1991). Psychological Need Satisfaction scale consists of 21 items and 3 subscales which are competence, autonomy and relatedness. While the highest score to be obtained from the scale is 47, the lowest score is 21. The scale was adapted into Turkish language by Cihangir-Çankaya and Bacanlı (2003). The reliability and validity studies were carried out with 250 university students. The internal consistency coefficients were found .80 for competence; .82 for autonomy and .81 for relatedness. Obtaining high scores from the subscales indicates that the individuals satisfy their needs. In the reliability and validity studies carried out by Eryılmaz (2011) with 326 high school students, the interpreted variance was found %53.96. As a result of the study, three-factor construct of the original scale was confirmed. For the total scale, Cronbach Alpha was calculated as .84.

Statistical Analysis

The forms in which one of the scales were not filled, in which a page is not filled, and which includes three or more empty items as well as the ones that leave the impression of being filled indiscriminately were not included in the analysis. After this process of overall evaluation, extreme values were determined and excluded; the final analysis was carried out with the remaining 521 data. All the statistical analyses were done via Statistical Package for the Social Sciences (SPSS) program 21.0. Stepwise regression analysis was also used in order to determine the prediction strength of the independent variables of the study on the social media addiction levels of adolescents

Results

In this section, there are descriptive statistics related to dependent and independent variables, and the correlation analysis results are presented afterwards. Finally, the stepwise regression analysis results carried out in order to determine if mindfulness and psychological need satisfaction of adolescents predict the social media disorder levels of adolescents are presented.

Descriptive Statistics

The obtained mean scores and standard deviations related to dependent and independent variables of adolescents are displayed in Table 1.

Table 1. Descriptive Statistics of Study Variables

Variables	n	Mean	S.d
Social Media Disorder	521	18.5189	6.46823
Autonomy	521	29.7132	6.97693
Competence	521	27.4340	6.49912
Relatedness	521	46.1717	9.07326
Mindfulness	521	56.2208	13.29946

Correlation and Regression Statistics

Table 2. Correlation Coefficients between Dependent and Independent Variables

Variables	SMD	Autonomy	Competence	Relatedness	Mindfulness
SMD	1				
Autonomy	-,267*	1			
Competence	-,250*	,524*	1		
Relatedness	-,146*	,500*	,495*	1	
Mindfulness	-,476*	,391*	,402*	,346*	1

As seen in Table 2, a negative and significant correlation ($r=-.27$) between the social media disorder levels and psychological need satisfaction levels of adolescents was found; a negative and significant correlation ($r=-.25$) between the social media disorder levels and the satisfaction of autonomy psychological need was found; and a negative and significant correlation ($r=-.14$) between the social media disorder levels and the satisfaction of relatedness psychological need was found. There is a negative and significant correlation ($r=-.48$) between their social media disorder levels and their mindfulness levels. As can be seen, a correlation over .90 is not present between predictive variables, and this indicates that there is no multicollinearity problem (Tabachnick & Fidell, 2006).

After the correlation values between variables were examined, univariate normality and multicollinearity was examined in the next step in order to determine if it meet the assumptions of multivariate analysis (Kline, 2011). Univariate normality was examined according to the ± 1 criterion of Skewness and Kurtosis values, and it is determined that the data related to all the measuring tools are within these limits and shows normal distribution. For multiple correlation, variance inflation factors (VIF) were also examined in addition to binary correlation. According to Büyükoztürk (2014), In order to achieve the assumption of multi correlation between independent variables, the tolerance value described as the variance ratio that other independent variables cannot describe one variable must not be less than 0.2, it must have a value close to 1, and the VIF value; in other words, the variance inflation factor must be less than 2. In Table 3, multiple correlation assumption is confirmed as can be seen.

Table 3. Tolerance and VIF Values Related to the Variables

	Tolerance	VIF
Autonomy	.623	1.606
Competence	.687	1.456
Relatedness	.718	1.393
Mindfulness	.805	1.242

The analyses revealed that the assumptions are confirmed in order to proceed to the regression analysis; therefore, regression analysis was carried out as the next step. The stepwise regression analysis related to the prediction of the social media disorder levels of adolescents was completed in three steps. In the first step, mindfulness, in the second step competence and in the third step relatedness was included in the analysis, and they were found to be significant predictors of social media disorder levels of adolescents.

Table 4. R and R2 Changes Regarding Predicting Social Media Disorder Levels of Adolescents

N: 521	Multiple R	R2	R2 Variation	F Variation	Sd1	Sd2	F Variation p
Mindfulness	.502	.251	.252	174.898	1	519	.000
Competence	.508	.256	.006	4.458	1	518	.035
Relatedness	.515	.261	.007	4.604	1	517	0.32

In the first step, as the best predictor of the social media disorder levels of adolescents, mindfulness, was included in the analysis and explained 25.1% of the total variance ($R=.502$, $R^2 = .251$, $F(1, 519)= 174.898$, $p<.005$). In the second step, competence subscale of psychological need satisfaction variable was included in the analysis in addition to mindfulness variable. With the contribution of this variable the total variance increased in the scores of the social media disorder to 25,6% ($R=.508$, $R^2=.256$, $F(1,518)=4,458$, $p<.005$). In the third step, relatedness subscale of psychological need satisfaction variable was included in the analysis in

addition to mindfulness and competence variable. With the contribution this variable total variance increased in the scores of the social media disorder to 26.1% ($R=.515$, $R^2=.261$, $F(1,517)=4,604$, $p<.005$).

As a result, the variables mindfulness, competence psychological need satisfaction and relatedness psychological need satisfaction significantly predict the social media disorder levels of adolescents, and altogether these variables explain 26.1% of the total variance.

Discussion

According to the findings of the current study, mindfulness, satisfaction of competence needs and satisfaction of relatedness needs significantly predict the social media disorder levels of adolescents and explain 26,1% of the total variance altogether.

When the analyses carried out to find out if mindfulness levels of adolescents predict their social media disorder are examined, it is seen that as the mindfulness scores of the adolescents increase, their social media disorder scores decrease. Low levels of mindfulness and high levels of social media disorder may stem from the fact that individuals with low levels of mindfulness behave more impulsive (Kuss & Griffiths, 2012) and have weaker self-control (Lattimore et al., 2011). People repeat the behavioral disorder that intensely as a way of creating a reliable and consisted change in their own life (Griffiths, 2005); sometimes it becomes as a strategy to feel better or as a way of coping. Mindfulness is a phenomenon that decreases stress and anxiety (Shapiro et al., 2006; Shapiro et al., 2007), and the literature is consistent with this finding indicating that there is a negative correlation between problematic internet use, gambling and mindfulness (Arslan, 2017; Riley, 2014).

The literature shows that the individuals with higher levels of social media use adopt the coping methods of emotional base rather than problem-oriented problem-solving methods in coping with stress (Charoensukmongkol, 2014). When we searched social media disorder, we found many studies on social media addiction or internet addiction, as addiction is a kind of disorder. Literature emphasize that the social media use driven by low levels of mindfulness, potentially may cause social media addiction (Andreassen et al., 2012) and the ones deprived of mindfulness may have difficulties in controlling their social media use behaviors (Kuss & Griffiths, 2011). The founder of Mindfulness Based Stress Reduction technique, Kabat-Zinn (2003) defines mindfulness as “the awareness emerging from paying attention purposefully to the aim in the present moments”. However, individuals cannot pay attention to what they do when they surf on the social media and walk or do other activities at the same time. For instance, Rosen et al. (2013) reported that multi-screen computer environments, smart phones that offer multiple applications and multi-tasks when using the social media cause individuals to turn their attention from one communication screen to another. It is known that adolescents tend to act risk-taking and cannot anticipate threats. When there is a cognitive disposition towards mindfulness, it has been determined that the adolescent shows awareness in the here and now, paying more attention to the decision-making processes underlying the behavior. Thus, increased instant attention may affect the performance of risky behaviors (Black, Sussman, Johnson & Milam, 2012). Also, integrating mindfulness into life allows the adolescents to approach their problems in life with another point of view; thus, decreases their stress related to life (Edwards et al., 2014) and that psychoeducation based on mindfulness can be used as an effective intervention which helps behavioral addictions of individuals as well as it can help individuals to focus on their job when using social networking sites at the same time (Shonin et al., 2014).

Realizing our feelings and thoughts that occur in our minds about the occasions and situations and allowing them belongs in the nature of mindfulness (Gilbert, 2005). Problematic social media use prevents that. Therefore, it can be said that the finding that the individuals with high mindfulness have low levels of social media addiction is consistent with the findings in the literature. Thus, increasing the mindfulness levels of adolescents may decrease maladaptive coping strategies use risk such as participating in online activities addictively (Arslan, 2017; Brand et al., 2016).

Our findings show that the satisfaction of competence need which is one of the psychological needs increase, the scores of the social media disorder of the adolescents decrease, and that as the satisfaction of relatedness need increase, the scores of the social media disorder of the adolescents increase as well. It is determined that

there is no correlation between autonomy need satisfaction levels and the social media disorder levels of adolescents.

When the negative correlation between the satisfaction of competence need and the social media disorder is considered, it is seen that the finding of the current study is in line with the literature. For example, Can and Zeren (2019) reported a significant and negative correlation between competence need satisfaction and internet addiction. The need of competence can be defined as the desire of affecting the environment where individuals live (Kowal & Fortier, 1999) and their capacity to communicate with their environment effectively. Satisfying psychological needs is required to achieve developments, consolidations and growths and consequently to achieve mental health of individuals (Deci & Ryan, 2000). Competence means that an individual feels effective in their interaction with their social environment; that is, it expresses that an individual uses his/her capacity and skills, broadens them and experiences opportunities to express them (Deci & Ryan, 1980; Deci & Moller, 2005; Ryan & Moller, 2016). It is reported that individuals with high level of competence need satisfaction make an effort in order to achieve their goals (Williams et al., 2002). Thus, it can be thought that adolescents who work hard in order to achieve their goals in life will not develop social media disorder. Additionally, it can be concluded that when it is thought that competence need is the capacity of an individual to interact with the environment effectively (Deci & Ryan, 1980), an adolescent who can satisfy competence need does not try to prove him/herself or to achieve satisfaction by using the social networking sites.

The finding of the current study which shows that as the relatedness need satisfaction of the adolescents increases, their social media addiction increases will be understood more clearly. When adolescents cannot satisfy their need of relatedness, power/control, their problematic internet use levels increase (Tanrikulu et al., 2015), and it is a fact that when the adolescent cannot build an appropriate relationship with their families, their risk of developing addiction becomes higher (Wang & Wang, 2013). In parallel, it has been found that adolescents who perceive their parents as retributive individuals who provide limited support and love tend to have higher levels of Internet addiction (Lam et al., 2009; Xiuqin et al., 2010; Yen et al., 2007). In this respect, it can be said that adolescents who cannot satisfy their need to relate to their families and friends in real life choose to satisfy this need virtually. All in all, it can be seen that the result of the study is in line with several studies in the literature.

It is determined in the current study that the satisfaction of autonomy need of adolescents does not predict their social media disorder levels. This situation may stem from the fact that when considered in terms of developmental approach, adolescents with a sense of self-knowledge (i.e., positive self-concept, confidence in abilities, sense of right from wrong when making decisions) may be better equipped to manage daily stresses and form connections to others (Leung, Rawana, & Klein, 2023). When the task solution performances of the adolescents were examined according to their autonomy levels, it was statistically determined that the performance in the last part of the task decreased in the group with low self-confidence; for the group characterized by low autonomy, task performance varies among adolescents (Bobková, & Lovaš, 2023). It is thought that the egocentric nature of adolescents and their limited reasoning capacity may be effective.

There are some limitations to the current study. The sample of the study is limited to the students studying at state high schools located in the central districts in İzmir province in 2019-2020 academic year. Therefore, the findings of the current study can be generalized to the students who study at these high schools and the ones studying at similar high schools.

These results provide a better understanding of some of the risk factors for the development of social media addiction.

Social media use is growing. The consequences of addictive use of social media are harmful. In order to provide effective interventions, a holistic theoretical understanding of the development of social media addiction is needed.

Conclusion and Suggestions

Major conclusion indicated that as the adolescents' mindfulness levels and the satisfaction for competence need increase, their social media disorder levels decrease. However as the need to be related increases, social media disorder increase. It should be considered principally that mindfulness, competence need satisfaction and relatedness need satisfaction explain 26,1% of the total variance of the social media disorder. It is

suggested for further studies to study with a larger sample taking different cultural, familiar and economical characteristics into account. It would be beneficial to provide psychoeducational interventions to adolescents about social media addiction and the effective use of social media. They should be taught about the healthy and the beneficial ways of satisfying their psychological needs. Psychological counseling services should be organized to enable adolescents to be more controlled in their lives and to stay away from addictions by gaining mindfulness skills.

According to the study results, it is substantial to study with a larger population and sample group with different socio-economic status living in different regions of Turkey and to support the findings of the current study with new studies carried out with adolescents and same variables in order to detect the generalizability of the results. In addition, it is also deemed important that including psychological needs in the curriculum of Psychological Counselling and Guidance bachelor's degree education can be beneficial as well as informing school counsellors about the use of social media and the variables affecting it.

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