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Exploring the Association Between Social Media Addiction and Relationship Satisfaction: Psychological Distress as a Mediator

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Abstract

Social media use has become part of daily life for many people. Earlier research showed that problematic social media use is associated with psychological distress and relationship satisfaction. The aim of the present study was to examine the mediating role of psychological distress in the relationship between social media addiction (SMA) and romantic relationship satisfaction (RS). Participants comprised 334 undergraduates from four mid-sized universities in Turkey who completed an offline survey. The survey included the Relationship Assessment Scale, the Social Media Disorder Scale, and the Depression Anxiety and Stress Scale. According to the results, there were significant correlations between all variables. The results also indicated that depression, anxiety, and stress partially mediated the impact of SMA on RS. Moreover, utilizing the bootstrapping procedure the study found significant associations between SMA and RS via psychological distress. Consequently, reducing social media use may help couples deal with romantic relationship dissatisfaction, thereby mitigating their depression, anxiety, and stress.

Keywords Social media addiction · Problematic social media use · Online addiction · Psychological distress · Relationship satisfaction

Establishing social relationships is one of the basic needs of human beings (Heaney & Israel, 2008). How this basic need is met can vary greatly. In particular, technological developments, such as computers, the Internet, and smartphones have created new ways

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for people to communicate with each other. One of the most successful new means of communication is through social media. Social media involves many different communication (i.e., social networking) platforms. Among the most popular are platforms in Western countries are Facebook, Twitter, Instagram, and YouTube. These sites, which are accessed via the Internet, provide many opportunities for communication, such as voice and video messaging, photograph and video sharing, and creating profiles, through which individuals can introduce themselves and make connections with others.

The communication opportunities brought about by social networking sites (SNSs) allow for the development of social relationships (Fuchs, 2017; Hazar, 2011; Valentini, 2015). In addition, social media is used for a wider variety of purposes, including obtaining information, communicating, entertainment, playing games, and sharing photos, videos, and music (Griffiths, 2012). However, excessive use of social media including SNSs can cause negative effects (Griffiths, 2013; van den Eijnden et al., 2016). This phenomenon, which is sometimes referred as "social media addiction," is defined as the irrational and excessive use of social media at a level that negatively affects the daily life of the user (Griffiths, 2012). When social media use reaches the level of addiction, it can prevent the establishment of real, face-to-face social relationships (Glaser et al., 2018; Kuss & Griffiths, 2017; Young, 2019). When general characteristics of social media addiction have been examined, it has been found that individuals tend to have restless thoughts concerning the urges and craving to be on social media, lose their self-control over their use of social media, spend excessive amounts of time staying on (or thinking about) social media which in turn lead to negative impacts on their relationships with their families and friends, and compromise their occupation and/or education (Andreassen et al., 2012; Griffiths et al., 2014). Therefore, examining social media addiction in terms of its effect on human relationships and mental health is an important pursuit.

Theoretical Framework

Social Media Addiction and Relationship Satisfaction

Research into the effects of social media addiction on romantic relationships has increased (Abbasi, 2019a; Demircioğlu & Köse, 2018). The literature suggests that social media addiction negatively affects romantic relationships due to its tendency to create jealousy and suspicion and facilitate deception between married couples and committed partners (Abbasi, 2019b). Additionally, problematic social media use can hinder the development of face-to-face relationships (Glaser et al., 2018; Kuss & Griffiths, 2017; Pollet et al., 2011; Young, 2019). Therefore, it is possible that some couples' relationships may become disrupted and that dissatisfaction may be experienced. In some cases, not only has social media use decreased the amount of relationships that individuals have in person, but it has also markedly impaired the quality of the time spent together. Therefore, it can be concluded that some couples may experience relationship dissatisfaction.

Similarly, social media addiction can result in low relationship satisfaction due to the existence of online alternative centers of attraction and investments of time and emotion outside the bilateral relationship in individuals aged between 18 and 73 years (Abbasi, 2019a). In addition, social media addiction has also been associated with physical and emotional infidelity, romantic separation, decline in the quality of romantic relationships, and relationship dissatisfaction (e.g., Abbasi, 2019a, b; Demircioğlu & Köse, 2018; Valenzuela

et al., 2014). Therefore, these aforementioned findings indicate that social media addiction negatively affects relationship satisfaction.

Social Media Addiction and Psychological Distress

One of the most important consequences of social media addiction is the mental health of individuals. When social media use reaches the level of addiction, it can create stress and negatively affect mental health rather than being a method of healthy coping. This occurs because social media addiction triggers social media fatigue and, as a result, individuals may experience anxiety and depression (Dhir et al., 2018). Social media users may use social media as a means of diversion in order to cope with stress (van den Eijnden et al., 2016). However, social media addicts give a lower priority to hobbies, daily routines, and close relationships (Tutgun-Ünal & Deniz, 2015) which in turn lead to problems with daily functioning, completion of tasks, and relationship maintenance. This puts such individuals at risk for experiencing negative physical and psychological health.

In fact, some research has claimed that social media addiction triggers psychological distress factors, such as depression, anxiety (Woods & Scott, 2016), and stress (Larcombe et al., 2016). In addition, a meta-analysis synthesizing the findings of 13 studies found that social media addiction may increase depression, anxiety, and stress levels (Keles et al., 2020). In both meta-analyses and cross-sectional studies, it has been found that social media addiction can increase psychological distress (e.g., Hou et al., 2019; Keles et al., 2020; Marino et al., 2018; Meena et al., 2015). In sum, these findings consistently associate social media addiction with psychological distress.

Psychological Distress and Relationship Satisfaction

Individuals experiencing psychological discomfort often have non-functional communication styles characterized by highly negative behaviors, such as criticism, complaining, hostility, defensiveness, and tendency to end relationships. They also experience problems actively listening to others (Fincham et al., 2018). In this respect, psychological distress prevents healthy communication in relationships, and a lack of healthy communication may cause conflicts that can embitter psychological distress between couples. Such a situation can continue in a cyclical manner that prevents relationship satisfaction. In romantic relationships, couples are supposed to fulfill their partners' emotional needs (Willard, 2011). When individuals have psychological problems due to social media addiction, they will ignore their partner's emotional needs because they would be trying to deal with their own problems, which, in turn, may lead to lower relationship satisfaction.

When psychological distress and romantic relationship satisfaction are examined, it can be seen that much psychological distress, such as major depression, panic disorder, social phobia, general anxiety disorder, post-traumatic stress disorder, and mood disorder, positively predict relationship dissatisfaction (Whisman, 1999). On the other hand, it can also be seen that individuals who are sensitive to negative affect in romantic relationships and who can successfully stop these emotions early on and cope with their feelings are satisfied with their relationships (Fincham et al., 2018).

Couples who have high levels of stress are reported to experience less satisfaction in their relationships (Bodenmann et al., 2007). In addition, it is known that depression negatively predicts relationship satisfaction (Cramer, 2004a, b; Tolpin et al., 2006). Therefore, it appears that psychological distress negatively affects relationship satisfaction.

The Present Study

The prevalence of the use of the internet and Internet-related tools has consistently increased year on year (Roser et al., 2020). Even though the social media use is widespread and facilitates communication when it is used normally, it can negatively affect daily life when it is used excessively by some individuals. Literature reviews have shown that social media addiction has been mostly studied in East Asian countries like China, Japan, and South Korea (e.g., Bian & Leung, 2015; Kwon et al., 2013; Tateno et al., 2019). In this respect, when the prevalence of social media use among Turkish people and the different cultural context of the present study are considered, the findings would arguably make important contributions to the current literature. Furthermore, the present study appears to be the first to examine the mediating role of psychological distress in the relationship between social media addiction and romantic relationship satisfaction.

Older aged adolescents and emerging adults are inextricably connected with technology in terms of their social media use and stand out as an important risk group in relation to problematic social media use (Griffiths et al., 2014). Many young adults closely follow technological developments and often adopt every innovation that arises into their lives without wasting time (Kuyucu, 2017). When such use becomes problematic, some individuals experience serious difficulty in maintaining their mental health. For example, cross-sectional studies among adolescents (Woods & Scott, 2016) and young adults (Larcombe et al., 2016) have found that social media addiction can lead to stress, anxiety, and depression. Moreover, the establishment of close relationships as a young adult is an important stage of emotional and social development (Cashen & Grotevant, 2019; Orenstein, & Lewis, 2020). Romantic relationship satisfaction may be seen as an important indicator of young people's ability to engage in intimacy in a healthy manner (Orenstein & Lewis, 2020). Therefore, the findings obtained as a result of examining the relationships between social media addiction, psychological distress, and romantic relationship satisfaction among young people will contribute to an understanding of the associations between the psychological and social variables regarding maintenance of their mental health and their success in establishing close relationships.

In previous studies of the variables examined in the present study, even though studies examining the three variables dichotomously have been conducted (e.g., Abbasi, 2019a, b; Bodenmann et al., 2007; Keles et al., 2020; Larcombe et al., 2016; Whisman, 1999), no research examining social media addiction, psychological distress (depression, anxiety and stress), and romantic relationship satisfaction together has been published. In particular, there is no study examining the role of psychological distress mediating between social media addiction and relationship satisfaction. In this respect, the results of the present study may also allow the findings of previous studies (which have been conducted with the aim of identifying the relationship between these variables) to be evaluated from a wider perspective.

Consequently, given the aforementioned theoretical explanations and the research findings, it has been demonstrated that social media addiction appears to induce both psychological distress and a low level of romantic relationship satisfaction (e.g., Demircioğlu & Köse, 2018; Woods & Scott, 2016). This is due to the deterioration of individuals' mental health that can arise as a result of social media addiction (Baker & Algorta, 2016; Dhir et al., 2018), and in contrast to the advantages of developing relationships, it can lead to romantic relationship dissatisfaction (Abbasi, 2019b; Muise et al., 2009). Therefore, when the relationships between social media addiction, psychological distress, and romantic

relationship satisfaction are evaluated simultaneously, psychological distress may represent a mediating variable between social media addiction and romantic relationship satisfaction. Consequently, it was hypothesized that psychological distress would mediate the association between social media addiction and relationship satisfaction.

Method

Participants and Procedure

The present cross-sectional study was carried out on a convenience sample of university students from three universities that are located in the west, middle, and east part of Turkey. A total of 350 surveys were originally distributed. Of these, 16 participants were removed because of incomplete data, yielding a final sample of 334 participants aged between 18 and 29 years ($M = 20.71$ years, $SD = 2.18$). The participants comprised 214 females (64%) and 120 males (36%), of which 90 were freshmen, 87 were sophomores, 84 were junior students, and 73 were senior students. Participants reported that they were currently in a romantic relationship and reported having an average of 3.21 romantic relationships to date ($SD = 2.21$). Table 1 shows the detailed demographic characteristics of the participants. Written informed consent was obtained from the volunteer

Table 1 Participant characteristics ($N = 334$)

Variables		n (%) or (Mean $\pm$ SD)
Gender	*Female*	214 (64.1)
	Male	120 (35.9)
Education	*Freshman*	90 (26.9)
	Sophomore	87 (26.0)
	Junior	84 (25.1)
	Senior	73 (21.9)
Majors	*Educational Sciences*	146 (43.7)
	Social Sciences	97 (29.0)
	Sciences	70 (21.0)
	Engineering Sciences	21 (6.3)
Income status	*Low*	34 (10.2)
	Moderate	233 (69.8)
	High	67 (20.1)
Age		20.71 $\pm$ 2.18
Time on social media (hours/day)		4.73 $\pm$ 2.15
Number of friends/followers		493.06 $\pm$ 485.28
Number of romantic relationships to date		3.21 $\pm$ 2.21
Independent variable	*Social media addiction*	19.33 $\pm$ 6.25
Mediators	*Depression*	6.12 $\pm$ 5.24
	Anxiety	6.77 $\pm$ 4.84
	Stress	8.09 $\pm$ 5.13
Dependent variable	*Relationship satisfaction*	35.34 $\pm$ 8.94

participants prior to participation in the study. Research participants were assured of the confidentiality of the collected data. Data collection was carried out through a "paper-and-pencil" survey in the classroom environment. The surveys took less than 15 min to complete.

Measures

Relationship Assessment Scale (RAS) The RAS was designed to assess general relationship satisfaction (Hendrick, 1988). Items (e.g., "In general, how satisfied are you with your relationship?") utilize a seven-point Likert scale ranging from 1 (*low*) to 7 (*high*). The total score ranges from 7 to 49. The higher the score, the higher the relationship satisfaction. Hendrick (1988) reported very good reliability. The RAS was adapted into Turkish by Curun (2001) with very good internal consistency. In the present study, the internal consistency of this scale was also good ($\alpha = 0.80$).

Social Media Disorder Scale (SMD) The SMD was designed to assess overall social media addiction, and the items were developed by adapting the DSM-5 criteria for Internet gaming disorder (van den Eijnden et al., 2016). This scale includes nine items (e.g., "… regularly found that you can't think of anything else but the moment that you will be able to use social media again?") to which participants indicate their level of agreement on a five-point Likert scale ranging from 0 (*never*) to 4 (*always*). The total score ranges from 0 to 36. The higher the score, the higher the risk of social media addiction. The SMD was adapted to Turkish by Savci et al. (2018) and has very good internal consistency. In the present study, the internal consistency of this scale was also very good ($\alpha = 0.88$).

Depression Anxiety and Stress Scale (DASS-21) The DASS was designed to assess the level of psychological distress (Henry & Crawford, 2005). The scale consists of 21 items that are rated on a four-point Likert scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time*) and comprises three sub-scales: depression (seven items; e.g., "I found it difficult to work up the initiative to do things"), anxiety (seven items; e.g., "I felt I was close to panic"), and stress (seven items; "I found myself getting agitated"). The scores range from 0 to 21 for each sub-scale. The DASS-21 subscales' scores were multiplied by two based on Lovibund and Lovibond's (1995) suggestion to the cut-offs (see Appendix 1). The DASS-21 was adapted to Turkish by Yilmaz et al. (2017) with good to very good internal consistencies. In the present study, the internal consistency of the sub-scales were all very good ($\alpha = 0.89, 0.82, 0.85$, respectively).

Statistical Analyses

Pearson correlations, means, and standard deviations were examined as preliminary analyses for all study variables. To examine whether the association between social media addiction and relationship satisfaction was mediated by psychological distress, the mediation model was calculated using the PROCESS macro (model 4), developed by Hayes (2018). As recommended by Hayes (2018), all regression/path coefficients are in unstandardized form. A total of 10,000 bootstrap samples were generated and bias corrected 95% confidence intervals calculated.

Ethics

Written informed consent was obtained from the volunteer participants prior to participation in the study. This research was approved by Artvin Coruh University Scientific Research and Ethical Review Board (REF: E.5375).

Results

Descriptive Statistics

Bivariate Pearson correlations among study variables were investigated (see Table 2). As expected, social media addiction was significantly and positively correlated with depression, anxiety, and stress. There was a significant negative correlation between social media addiction and relationship satisfaction.

Results indicated that 156 participants had no depressive symptoms (46.7%), 54 participants had mild depressive symptoms (16.2%), and the remainder had depressive symptoms (16.5% moderate, 9.9% severe, and 10.8% extremely severe). Moreover, 101 participants had no anxiety symptoms (30.2%), 30 participants had mild anxiety symptoms (9.0%), and the remainder had anxiety symptoms (20.4% moderate, 15.6% severe, and 24.9% extremely severe). Finally, 163 participants had no stress symptoms (48.8%), 47 participants had mild depressive symptoms (14.1%), and the remainder had stress symptoms (17.7% moderate, 12.6% severe, and 6.9% extremely severe) (see Appendix 1).

Statistical Assumption Tests

Prior to mediation analysis, statistical assumptions were evaluated. Skewness and kurtosis values ($> \pm 2$; George & Mallery, 2003) were checked for normality, and there were no violations (see Table 3). All reliability coefficients were above Nunnally and Bernstein's (1994) 0.70 criterion. Multicollinearity was checked with variance inflated factor (VIF), tolerance, and Durbin-Watson (DW) value. The results showed that VIF ranged from 1.47 to 2.09 and tolerance ranged from 0.48 to 0.87. These findings also showed that there was no multiple linearity problem according to Field's (2013) recommendation. Also, the DW value was 1.82 indicating no significant correlations between the residuals.

Table 2 Correlations among study variables

Variable	1	2	3	4	5
1. Social media addiction	–				
2. Relationship satisfaction	− .25[**]	–			
3. Depression	.27[**]	− .36[**]	–		
4. Anxiety	.30[**]	− .36[**]	.50[**]	–	
5. Stress	.33[**]	− .38[**]	.60[**]	.64[**]	–

[**] $p < .001$

Table 3 Statistical information concerning study variables

Variable	Skewness	Kurtosis	α	ω	λ6
Social media addiction	− .637	− .201	.879	.889	.893
Relationship satisfaction	.656	.316	.799	.803	.806
Depression	.930	.247	.885	.887	.878
Anxiety	.713	-.069	.820	.823	.820
Stress	.432	-.418	.848	.852	.843

α Cronbach's alpha; *ω* McDonald's omega; *λ6* Guttman's lambda-6

Mediation Analyses

Applying PROCESS model 4, the analysis assessed whether psychological distress mediated the relationship between social media addiction and relationship satisfaction (see Table 4; Fig. 1). The results showed a significant total direct effect (*path c*; without mediator) of social media addiction on relationship satisfaction (B = − 0.36, $t_{(334)}$ = − 4.74, p = 0.001, 95% CI = − 0.51, − 0.21), significant direct effect (*path c*; with mediator) (B = − 0.16, $t_{(334)}$ = − 2.11, p = 0.03, 95% CI = − 0.04, − 0.01), and a significant indirect effect via psychological distress (total B = − 0.20, 95% CI = − 0.29, − 0.12).

The results also showed that the social media addiction was associated with higher depression scores (path a_1; B = 0.23, p = 0.001), anxiety scores (path a_2; B = 0.23, p = 0.001), and stress scores (path a_3; B = 0.27, p = 0.001), and these, in turn, were

Table 4 Path coefficients of the model

Model		Estimate	*SE*	*t*	*p*	95% CI Lower	Upper
Model without mediator							
Path *c*	SM ➜ RS	− .361	.07	− 4.74	<.001	− .510	− .211
Model with psychological distress as mediator							
Path a_1	SM ➜ DEP	.227	.04	5.13	<.001	.140	.315
Path a_2	SM ➜ ANX	.232	.04	5.71	<.001	.152	.312
Path a_3	SM ➜ STR	.274	.04	6.43	<.001	.190	.357
Path b_1	DEP ➜ RS	− .280	.10	− 2.61	.009	− .491	− .068
Path b_2	ANX ➜ RS	− .281	.12	− 2.32	.021	− .518	− .043
Path b_3	STR ➜ RS	− .263	.12	− 2.12	.034	− .507	− .019
Path *c'*	SM ➜ RS	− .160	.07	− 2.11	.035	− .308	− .011
*a*b*	Total indirect effect	− .200	.04			− .293	− .121
	Indirect effect of DEP	− .064	.03			− .128	− .014
	Indirect effect of ANX	-.065	.03			-.139	-.007
	Indirect effect of STR	− .072	.04			-.156	-.009

SM social media addiction (independent variable), *RS* relationship satisfaction (dependent variable), *DEP* depression (mediator), *ANX* anxiety (mediator), *STR* stress (mediator)
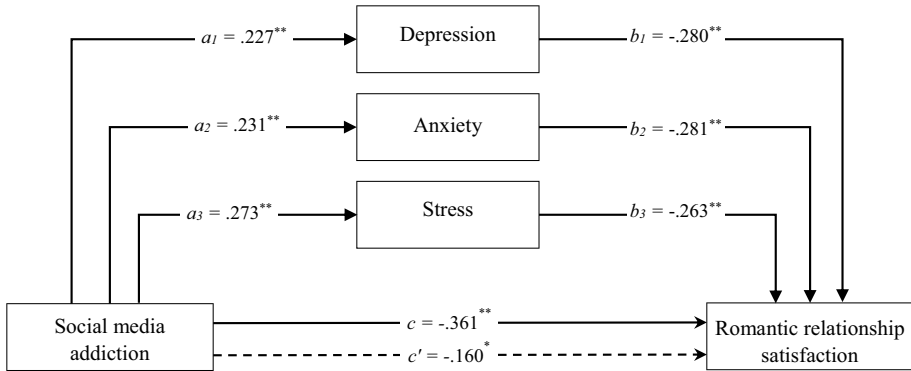
Fig. 1 The mediation model. $^{*}p < .05.$ $^{**}p < .001$

negatively associated with relationship satisfaction (path b_1, b_2, b_3; B $= -0.28$, B $= -0.28$, B $= -0.26$, all p values < 0.05, respectively).

Discussion

In contemporary society, rapidly developing technology has entered human life, but some individuals may have difficulty in adapting to the innovations brought by such technology. Consequently, some individuals may experience psychological and social problems. Social media use, which has markedly increased in the past decade, can cause psychological distress (e.g., Keles et al., 2020; Marino et al., 2018) and the deterioration of interpersonal relationships (e.g., Glaser et al., 2018; Kuss & Griffiths, 2017; Young, 2019) among a minority of individuals. In this context, the main purpose of the present study was to evaluate the mediating role of psychological distress in the relationship between social media addiction and romantic relationship satisfaction.

According to the findings, a high level of social media addiction leads to a decrease in relationship satisfaction. Consequently, the first hypothesis was confirmed. A recent study conducted by Abbasi (2019b) found that social media addiction was negatively associated with romantic relationship commitment. In another recent study, it was emphasized that social media addiction results in deception between couples through social media and may lead to the deterioration of relationships as a consequence (Abbasi, 2019a). In addition, social media addiction not only leads to physical and emotional deception but also appears to negatively impact on the quality of romantic relationships (Demircioğlu & Köse 2018; Valenzuela et al., 2014). Therefore, the findings obtained in the present study are in line with the findings of previous research.

In the study here, the findings showed that a high level of social media addiction appears to result in psychological distress. Dhir et al. (2018) argued that social media addiction triggers social media fatigue, leading to anxiety and depression. Similarly, social media addiction has been found to be associated with depression, anxiety (Woods & Scott, 2016) and stress (Larcombe et al., 2016). In addition, a recent meta-analysis also concluded that social media addiction is closely and positively associated depression, anxiety and stress

(Marino et al., 2018). Therefore, the findings of the present study are consistent with previous research.

Thirdly, the findings indicate that individuals who experience psychological distress have a low level of satisfaction in their romantic relationships. Whisman (1999) found that psychological distress positively predicted relationship dissatisfaction. It has also been suggested that couples with high levels of stress experience dissatisfaction in their romantic relationships (Bodenmann et al., 2007). In addition, there have also been a number of studies which indicate that the relationship satisfaction of individuals with high levels of depression is low (Cramer, 2004a, b; Tolpin et al., 2006). In this respect, the findings obtained from the present study are similar to the findings of the previous studies.

Within the scope of this study, it was hypothesized that psychological distress would mediate between social media addiction and relationship satisfaction. In this sense, the study showed that social media addiction predicted romantic relationship satisfaction, partially mediated by psychological distress. Consequently, the fourth hypothesis of the research was also confirmed. No previous studies have examined the effect of psychological distress in the relationship between social media addiction and relationship satisfaction. However, there are research findings which provide evidence that social media addiction predicts both psychological distress (e.g., Larcombe et al., 2016; Woods & Scott, 2016) and relationship dissatisfaction (e.g., Demircioğlu & Köse, 2018; Valenzuela et al., 2014) and that psychological distress predicts relationship dissatisfaction (e.g., Bodenmann et al., 2007; Whisman, 1999). Due to the consideration of a variable's mediating conditions (Barron & Kenny, 1986), it may be asserted that the findings of the previous studies in the literature and the findings of this research are consistent. Furthermore, it has been demonstrated that technological addiction, such as Internet addiction and smartphone addiction, is associated with psychological distress (McNicol & Thorsteinsson, 2017; Samaha & Hawi, 2016; Young & Rogers, 1998). Psychological distress may also predict variables such as closeness in relationships (Manne et al., 2010), dating violence (Cascardi, 2016), and social support (Robitaille et al., 2012) which are based on interpersonal relationships. It is therefore suggested that there is similarity between these findings and the findings of the present study. Consequently, it may be that the results of the studies conducted previously support the findings of this the present research indirectly, if not directly.

In the study here, the mediating role of psychological distress in the relationship between social media addiction and romantic relationship satisfaction was investigated. However, there could be some other variables that can mediate the relationship between social media addiction and romantic relationship satisfaction. For instance, romantic relationships are considered interpersonal (Knap et al., 2002); therefore, it can be assumed that interpersonal relationships and communication skills can be seen as potential mediators of the relationship between social media addiction and romantic relationship satisfaction. Additionally, given that psychological problems are the indicators of poor mental health (American Psychiatric Association, 2013), it can be assumed that variables (i.e., other indicators of poor mental health such as burnout, somatization, and hostility) would mediate the relationship between social media addiction and romantic relationship satisfaction. Therefore, future studies should investigate such relationships more closely.

When the role of social media addiction in the development of psychological distress is considered, it is necessary for social media addiction to be included in the process of

forming the content of the intervention programs that aim to treat psychological distress. As such, it is interesting that an intervention program aimed at decreasing the level of social media addiction was also found to have a beneficial impact on individuals' mental health (Hou et al., 2019). Likewise, the treatment of couples' social media usage habits in family and couple therapies may be effective in terms of the efficacy of the therapy, since social media addiction decreases satisfaction in romantic relationships. Moreover, given the mediation relationships in the present research, the results may provide a more holistic viewpoint for mental health professionals which consider all of the three variables (social media addiction, psychological distress, and romantic relationship satisfaction) rather than a focus on only one. In this context, the following suggestions are made: to prevent social media addiction, effective Internet use skills can be taught to couples. In addition, awareness-raising skills such as yoga and meditation could be provided to individuals to protect them from social media addiction and psychological distress.

In terms of the study's participatory group, it is significant that social media addiction (Kittinger et al., 2012; Koc & Gulyagci, 2013), psychological distress (Canby et al., 2015; Larcombe et al., 2016), and relationship satisfaction problems (Bruner et al., 2015; Roberts & David, 2016) are frequently experienced by university students. Consequently, the findings of the present study may be of particular help to specialists who work in the psychological counseling centers of universities. Within this framework, meetings, conferences, and psycho-educational group activities could be carried out to improve relationship building skills, as well as activities preventing social media addiction and psychological distress.

The present study has some limitations. Firstly, the data comprised self-report scales, which may decrease internal reliability, a limitation which may be prevented through the use of different methods of data collection. Secondly, the generalizability of the findings is limited since the sample was based on convenience sampling. Thirdly, the research design was cross-sectional. This may make it difficult to explain the cause-effect relationship of variables in the study, and therefore, experimental and longitudinal studies are recommended in future research which should examine the relationship between these variables. Finally, only the mediating role of psychological distress was examined in the research. Other possible mediating variables were not examined.

Conclusion

In the present research, the mediation of psychological distress in the relationship between social media addiction and romantic relationship satisfaction was empirically tested. Results showed that social media addiction predicted the partial mediation of depression, anxiety, and stress on romantic relationship satisfaction. In other words, social media addiction apparently increased individuals' depression, anxiety, and stress levels, and this situation decreased the level of satisfaction in individual's romantic relationships. In the present study, psychological and social variables were examined simultaneously. Overall, this study suggests that social media addiction may have a meaningful but negative impact on romantic relationship satisfaction via depression, anxiety, and stress.

Appendix 1

Depression, Anxiety and Stress Scale: Cut-Off Criteria and Distribution of Participants

	Depression	Anxiety	Stress
Cut-off criteria			
Normal	0–9	0–7	0–14
Mild	10–13	8–9	15–18
Moderate	14–20	10–14	19–25
Severe	21–27	15–19	26–33
Extremely severe	28+	20+	34+
Distribution[*]			
Normal	156 (46.7%)	101 (30.2%)	163 (48.8%)
Mild	54 (16.2%)	30 (9.0%)	47 (14.1%)
Moderate	55 (16.5%)	68 (20.4%)	59 (17.7%)
Severe	33 (9.9%)	52 (15.6%)	42 (12.6%)
Extremely severe	36 (10.8)	83 (24.9%)	23 (6.9%)

[*]*n* (%)

Scores on the DASS-21 are multiplied by 2 to calculate the final score

Declarations

Ethics Approval All procedures performed in this study involving human participants were in accordance with the ethical standards of University's Research Ethics Board and with the 1975 Helsinki Declaration.

Consent to Participate Informed consent was obtained from all participants.

Conflict of Interest The authors declare no competing interests.

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