



The Indirect Effect of Mindfulness in Marriage in the Relationship Between Digital Stress and Dyadic Adjustment: An Investigation of Dyadic Effects

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Abstract

Studies on marriage make important contributions to the psychosocial health of individuals. In recent years, there are cases where the marital relationship has been negatively affected due to the use of social media. In this context, the concept of digital stress emerges as a current problem. We have less information about the mechanisms underlying the dyadic relationships of married individuals. This study reports the results of 325 married couples using actor-partner interdependence modeling. The mean age of women was 36.19 ($SD=7.83$, range=21–60) and the mean age of men was 39.12 ($SD=8.55$, range=24–67). Digital stress, mindfulness in marriage, and marital adjustment were measured among married individuals. According to the results, women's digital stress significantly predicted women's mindfulness in marriage. Similarly, men's digital stress significantly predicted women's mindfulness in marriage. Furthermore, women's mindfulness in marriage significantly predicted both women's and men's dyadic adjustment. Men's mindfulness in marriage also significantly predicted women's and men's dyadic adjustment. It was found that women's mindfulness in marriage has an indirect effect on the relationship between their digital stress and dyadic adjustment. In addition, men's mindfulness in marriage has an indirect effect on the relationship between their digital stress and dyadic adjustment. These findings indicate that digital stress plays a significant role in marital relationships, and mindfulness is one of the key mechanisms in these interactions. It is suggested that interventions aimed at increasing mindfulness in marriage could mitigate the negative effects of digital stress and strengthen dyadic adjustment in couples.

Keywords Digital stress · Mindfulness in marriage · Dyadic adjustment · Married couples

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Introduction

While the rapid development and easy accessibility of the Internet provide many benefits for individuals, it also brings digital stress as a current problem for individuals. Digital stress is defined as stress and anxiety caused by notifications from, and use of information and technologies (social media platforms, phones, computers, etc.) provided through mobile and social media (Steele et al., 2020). In other words, it is defined as cognitive, emotional, and physiological arousal to notifications from social media or social media use (Thomee et al., 2010). Reinecke et al. (2017) also refer to it as stress resulting from specific aspects of social media use. Studies examining internet use have identified a number of effects and relationships, such as increased family conflict, increased isolation, and increased social anxiety (Lee & Stapinski, 2012). Hancock et al. (2019) conducted a meta-analysis study on social media use, revealing an association between social media use and anxiety and depressive symptoms. According to another meta-analysis study, digital stress and its sub-dimensions are associated with psychological distress (Khetawat & Steele, 2023). Therefore, it is important to understand the impact of digital stress in order to reduce its effects on individuals and to be aware of the mechanisms that will increase well-being. However, despite the evidence on the negative effects of digital stress on individuals, little is known about the effects of digital stress on the marital relationship and the mechanisms underlying this relationship. This research's focus on digital stress may help explain the mechanism underlying the relationship between mindfulness in marriage and marital adjustment. Looking at the studies on marriage and social media use in the literature, Clayton et al. (2013) examined the relationship between the social media applications used by married individuals and marital problems. According to the results of this study, as the social media use of married individuals increases, the problems they experience in their marriages also increase. However, considering that digital stress causes distraction and focusing problems due to the fact that thoughts are constantly on social media or on the phone (Rosen et al., 2011), it can be stated that bilateral relationships will be negatively affected by this situation. However, according to the displacement theory, it can be interpreted that internet use will weaken social ties by replacing the time spent offline (face-to-face) socializing with others (Kraut et al., 1998), thus affecting the marital relationship.

Digital stress also negatively impacts mindfulness. Marriage mindfulness refers to married individuals' understanding and awareness of each other's feelings and needs (McGill et al., 2016). In more comprehensive terms, mindfulness in marriage is the spouses' listening carefully to each other during the communication process between spouses, being aware of each other's feelings, accepting both their own and their spouses' feelings and thoughts without judgment, and responding to each other's behaviors without being reactive (Erus & Deniz, 2020). In a study on the use of social media, it was found that couples distracted their attention from the relationship due to the use of social media and the time spent together decreased (Morgan et al., 2017). In a similar study conducted by Vaterlaus and Tulane (2019), it was revealed that the use of technology due to social media use can distract attention in face-to-face interaction in the relationship and that they can turn to technology instead of spending time together. However, when we look at the research on mindfulness, it

was observed in an experimental study that individuals with high mindfulness tend to have a more positive perspective towards others, behave more empathetically, and be more sensitive to the needs of others (Gambrel & Keeling, 2010). In this context, it can be interpreted that mindfulness in marriage is an important factor for marital relationships. The literature reveals that mindfulness studies impact romantic relationships, enhance marital satisfaction, and foster harmony between couples (Erus & Deniz, 2018; Erus, 2019; Kozlowski, 2013; Lenger et al., 2017; Pratscher et al., 2019).

Marital adjustment is defined as the ability of spouses to solve problems that may arise in the face of life events through effective communication and agreement, as well as to act together in line with their common goals (Spanier, 1976). It is also defined as the ability of spouses to adapt to each other, to the role of spouse, and to the responsibilities of the marital relationship (Kendrick & Drentea, 2016). In addition, marital adjustment can be expressed as increased marital peace and successful management of conflict (Tucker & O'Grady, 1991). In this context, stress draws attention as an important factor in marriage. When the relevant literature is examined, in a study conducted by McDaniel and Coyne (2016), the negative effects of digital stress and digital device use on marriage were observed. According to this study, excessive use of digital technologies negatively affects marriage by weakening communication between couples and reducing the time spent together. However, interpersonal mindfulness is defined as individuals' focusing on the moment during communication, making them feel that they understand what they are talking about, and listening to the other party effectively without being reactive (Stahl & Goldstein, 2019). From this perspective, it can be said that mindfulness in marriage is an important variable that affects marital adjustment through the acquisition of communication skills.

The Present Study

Previous research has revealed the dual relationships between digital stress, marital adjustment, and mindfulness in marriage. The aim of this study is to examine, using a dyadic approach, whether marital mindfulness has an indirect effect on the relationship between digital stress and marital adjustment. Within the scope of the study, we propose that the stress caused by digital technologies and the time allocated to these technologies replacing the couple's face-to-face interaction may reduce their mindfulness in marriage and ultimately marital adjustment. By exploring these mechanisms, we aim to deepen our understanding of how digital stress can affect mindfulness in marriage and marital adjustment. With this in dyadic relationships, both individuals exert a mutual influence on each other's behavior (Woody & Sadler, 2005). To evaluate this mutual interaction in a more beneficial manner, it is of great importance to analyze the data for couples together (Kenny et al., 2006). In this context, dyadic analyses aim to reveal the contribution of both individuals to each other (Bond & Kenny, 2002). In dyadic analyses, both individuals are considered as both actors and partners, and the interactions between them are analyzed mutually (Kenny et al., 2006). In this study, which evaluated digital stress, marital adjustment, and marital mindfulness together, both partners were included as subjects. The mutual interactions were analyzed by the data obtained from both partners. A review of pre-

vious studies reveals that a dyadic approach has been employed to examine a range of variables related to marital adjustment, including dyadic coping and quality of life (Brandão et al., 2020), relational resilience (Cihan & Aydoğan, 2020), and depression (Kim et al., 2018). In this study, we adopted a similar approach, examining the variables of digital stress, marital adjustment, and marital mindfulness in a dyadic analysis. Accordingly, we formulated the following research questions about the relationship between spouses using a dyadic approach:

RQ1 Does digital stress relate to mindfulness in marriage?

RQ2 Does mindfulness in marriage relate to dyadic adjustment?

RQ3 Does mindfulness in marriage have an indirect effect on the relationship between digital stress and dyadic adjustment?

Methods

Participants and Procedure

A total of 802 individuals completed the form created for this study; 152 were excluded from the analysis as they could not be matched with their partner or did not meet the criteria. Consequently, a total of 325 Turkish married couples participated in the study. The mean age for the women was 36.19 years ($SD=7.83$, range=21–60) and for the men was 39.12 ($SD=8.55$, range=24–67). The majority of the women were bachelor's degree or above (81.9%), while the rest were high school graduates or below (18.1%). Most of the men were bachelor's degree or above (83.1%), while the rest were high school graduates or below (16.9%). Women stated their perceived socioeconomic status as low (6.2%), moderate (47.4%), or high (46.4%), while men stated as low (8.3%), moderate (47.0%), or high (44.7%). Most of the women (53.2%) and men (51.1%) use social media 2–3 h in a day. Most of the couples (33.8%) have one child, while 27.7% of them have two children, 14.5% of them have three children or above, and 24.0% of them are childless. The demographic information of the participants is detailed in Table 1.

Participants were recruited through Google Forms and participated voluntarily. The Google form included a section for informed consent, which stated that they might withdraw at any time, followed by a personal information form containing demographic information and measurements. After following the research link, individuals who had been informed about the study provided their consent and subsequently completed the questionnaires. Participants were asked to participate in the study via individual invitations. The sample method employed was convenience sampling, and the data was gathered in April 2024. To match the spouses, they were asked to write a nickname they had chosen for each other, year of marriage and date of birth of the spouse while participating in the research. Ethical approval for this study was granted by the university affiliated with the authors.

Table 1 Demographic information of the research group

Variable	Women		Men	
	Frequency	%	Frequency	%
<i>Educational status</i>				
Highschool or below	59	18.1	55	16.9
Bachelor's degree or above	266	81.9	270	83.1
<i>Perceived socioeconomic status</i>				
Low	20	6.2	27	8.3
Moderate	154	47.4	153	47.0
High	151	46.4	145	44.7
<i>Daily social media use</i>				
0–1 h	50	15.4	38	11.7
2–3 h	173	53.2	166	51.1
4–5 h	77	23.7	74	22.7
6 h or above	25	7.7	47	14.5
<i>Number of children</i>				
Childless	78	24.0	78	24.0
Single child	110	33.8	110	33.8
Two children	90	27.7	90	27.7
Three children or above	47	14.5	47	14.5
<i>Total</i>	325	100	325	100

Measures

Digital Stress

Multidimensional Digital Stress Scale developed by Hall et al. (2021) and adapted into Turkish by Erinç (2023). Multidimensional Digital Stress Scale is a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) with 24 items. The scale's Turkish version has five subscales, Availability Stress (e.g., "My friends expect me to be constantly available online"), Approval Anxiety (e.g., "I am nervous about how people will respond to my posts and photos"), Fear of Missing Out (e.g., "I fear my friends are having more rewarding experiences than me"), Connection Overload (e.g., "I have to check too many notifications"), and Online Vigilance (e.g., "I feel lost or "naked" without my phone"). Higher scores correspond to more digital stress. The analysis revealed that the scale's goodness of fit indices met the acceptable criteria as indicated by the results of the confirmatory factor analysis. The analyses revealed that the scale is reliable as a measurement tool (Erinç, 2023). Cronbach alpha value for this research was calculated as 0.95 for women and 0.96 for men.

Mindfulness in Marriage

Mindfulness in Marriage Scale developed by Erus and Deniz (2018) was used to evaluate marital mindfulness. Mindfulness in Marriage Scale is a 5-point Likert scale ranging from 1 (never) to 5 (always) with 12 items (e.g., "I am able to express my expectations and desires regarding our relationship to my spouse.") and has a unidimensional structure. Higher scores correspond to more marital mindfulness. The

confirmatory factor analysis results showed that the scale's goodness-of-fit indices met acceptable criteria. The analyses confirmed that it was a reliable measurement tool (Erus & Deniz, 2018). In this study, the Cronbach alpha value calculated for both men and women was 0.91.

Dyadic Adjustment

Revised Dyadic Adjustment Scale (RDAS) developed by Spanier (1976) and revised by Busby et al. (1995) was used to evaluate dyadic adjustment of married couples. RDAS adapted into Turkish by Gündođdu (2007) and revised by Bayraktaroglu and Cakici (2017). RDAS is a 5-point Likert scale ranging from 1 (we never agree) to 5 (we often agree) for the first 6 items and ranging from 1 (never) to 5 (often) for the last 8 items. The scale's Turkish version has three subscales, Satisfaction (e.g., "having a stimulating exchange of ideas"), Consensus (e.g., "agreement about career decisions"), and Conflict (e.g., "how often the partners quarrel"). Higher scores correspond to more dyadic adjustment. The analyses revealed that the Revised Dyadic Adjustment Scale (RDAS) is a reliable measurement tool (Bayraktaroglu & Cakici, 2017). In the current study, Cronbach alpha value was estimated as 0.90 for women and 0.91 for men.

Data Analysis

We employed a two-step structural equation modeling method to investigate the indirect effect of mindfulness in marriage in the relationship between digital stress and dyadic adjustment. Initially, we calculated descriptive statistics, including the mean, standard deviation, skewness, and kurtosis, reliability (Cronbach α) along with Pearson correlations for all variables. Subsequently, a measurement model was conducted, followed by the testing of the structural model. The goodness-of-fit of the models was evaluated using the χ^2/df , CFI, NFI, IFI and SRMR. To evaluate the significance of the indirect effects, 5000 resampling using the bootstrap technique and a 95% confidence interval (CI) were used. All data analyses were carried out using IBM SPSS Statistics version 25 and AMOS Graphics.

Results

Preliminary Analysis

Table 2 presents the descriptive statistics, reliability coefficients, and Pearson's correlation coefficients for the study variables. All variables demonstrated a normal distribution. While the highest possible score on the Multidimensional Digital Stress Scale is 120 and the lowest score is 24. The average digital stress score in this study was 53.93 for women and 54.02 for men. These average scores are relatively lower than the average score that can be obtained from the scale. While the highest possible score on the Mindfulness in Marriage Scale is 60 and the lowest score is 12. The average mindfulness in marriage score in this study was 49.65 for women and

Table 2 Descriptive statistics and correlations

Variable	1	2	3	4	5	6
1. Women's digital stress	-					
2. Men's digital stress	0.52**	-				
3. Women's mindfulness in marriage	-0.48**	-0.39**	-			
4. Men's mindfulness in marriage	-0.41**	-0.52**	0.56**	-		
5. Women's dyadic adjustment	-0.42**	-0.32**	0.74**	0.49**	-	
6. Men's dyadic adjustment	-0.36**	-0.36**	0.58**	0.70**	0.59**	-
Mean	53.93	54.02	49.65	49.69	55.36	56.10
SD	17.64	19.14	8.00	7.27	9.10	9.04
α	0.95	0.96	0.91	0.91	0.90	0.91
Skewness	0.920	0.928	-1.173	-0.883	-0.896	-0.916
Kurtosis	0.740	0.913	1.402	0.751	0.765	0.928

Note ** $p < .001$

49.69 for men. These average scores are relatively higher than the average score that can be obtained from the scale. While the highest possible score on the Revised Dyadic Adjustment Scale is 70 and the lowest score is 14. In this study, the average dyadic adjustment score was 55.36 for women and 56.10 for men. These average scores are relatively higher than the average score that can be obtained from the scale. The skewness values ranged from -1.173 to 0.928 , and the kurtosis values ranged from 0.740 to 1.402 . Correlation analysis indicated a significant, moderate negative relationship between women's digital stress and their marital mindfulness ($r = -.48, p < .01$), men's mindfulness in marriage ($r = -.41, p < .01$), women's dyadic adjustment ($r = -.42, p < .01$), men's dyadic adjustment ($r = -.36, p < .01$) and positively correlated with men's digital stress ($r = .52, p < .01$). A significant, moderate negative correlation was identified between men's digital stress and women's marital mindfulness ($r = -.39, p < .01$), men's mindfulness in marriage ($r = -.52, p < .01$), women's dyadic adjustment ($r = -.32, p < .01$) and men's dyadic adjustment ($r = -.36, p < .01$). Women's marital mindfulness demonstrated a moderate positive correlation with men's marital mindfulness ($r = .56, p < .01$) and men's dyadic adjustment ($r = .58, p < .01$), as well as a high positive correlation with women's dyadic adjustment ($r = .74, p < .01$). Men's marital mindfulness showed a significant, moderate positive correlation with women's dyadic adjustment ($r = .49, p < .01$) and a high positive correlation with men's dyadic adjustment ($r = .70, p < .01$). Women's dyadic adjustment showed a significant, moderate positive correlation with men's dyadic adjustment ($r = .59, p < .01$).

Structural Equation Modeling

We employed a two-step structural equation modeling approach, beginning with the examination of the measurement model. This model included six latent variables—women's digital stress, women's mindfulness in marriage, women's dyadic adjustment, men's digital stress, men's mindfulness in marriage, and men's dyadic adjustment—along with 14 observed variables. The results indicated that the measurement model fit the data acceptable: $\chi^2/df = 4.84$; CFI = 0.93; NFI = 0.91; IFI = 0.93; SRMR = 0.05. The factor loadings for the measurement model ranged from 0.67 to 0.97 ($p < .01$). Subsequently, we tested the structural modeling. The structural model

(Fig. 1) also demonstrated acceptable fit indices: $\chi^2/df=5.27$; CFI=0.92; NFI=0.90; IFI=0.92; SRMR=0.08. As shown in Fig. 1, women's digital stress was a significant negative predictor of their mindfulness in marriage ($\beta = -0.45, p < .01$) and men's mindfulness in marriage ($\beta = -0.20, p < .05$). Similarly, men's digital stress was a significant negative predictor of their mindfulness in marriage ($\beta = -0.48, p < .01$) and women's mindfulness in marriage ($\beta = -0.20, p < .05$). Furthermore, women's mindfulness in marriage was a significant positive predictor of their dyadic adjustment ($\beta = 0.76, p < .01$) and men's dyadic adjustment ($\beta = 0.30, p < .01$). Men's mindfulness in marriage was a significant positive predictor of their dyadic adjustment ($\beta = 0.63, p < .01$) and women's dyadic adjustment ($\beta = 0.11, p < .05$).

In the final stage of the indirect effect analysis, a bootstrap procedure with 95% confidence intervals (CI) and 5000 resamples was employed. Following Hayes (2022), the effect is considered significant if the confidence interval does not include zero at either bound. It was found that women's mindfulness in marriage has an indirect effect on the relationship between their digital stress and dyadic adjustment ($\beta = -0.138, 95\% \text{ CI} = [-0.519, -0.060]$). Also men's mindfulness in marriage has an indirect effect on the relationship between their digital stress and dyadic adjustment ($\beta = -0.104, 95\% \text{ CI} = [-0.196, -0.035]$).

Discussion

Digital stress, defined as the stress resulting from digital inputs from mobile and social media and their use (Steele et al., 2020), could potentially become a risk factor for modern relationships. In this study, we aimed to assess the relationships between married couples' digital stress and dyadic adjustment, as well as the indirect effect of mindfulness in marriage.

The results of this study showed that men's digital stress was negatively associated with both men's and women's mindfulness in marriage. Our findings also indicated

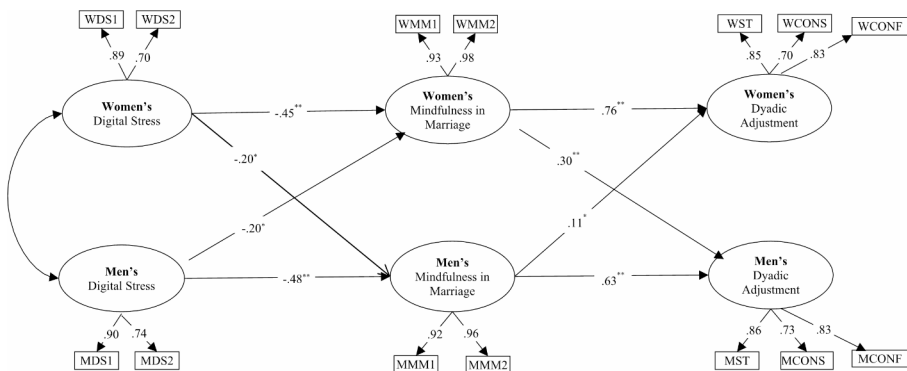


Fig. 1 Structural model for the actor partner effects. *WDS* Parcel of Women's Digital Stress; *MDS* Parcel of Men's Digital Stress; *WMM* Parcel of Women's Mindfulness in Marriage; *MMM* Parcel of Men's Mindfulness in Marriage; *WST* Satisfaction/Women; *WCONS* Consensus/Women; *WCONF* Conflict/Women; *MST* Satisfaction/Men, *MCONS* Consensus/Men, *MCONF* Conflict/Men * $p < .05$, ** $p < .01$

that women's digital stress was negatively associated with both men's and women's mindfulness in marriage. In Bowen's family systems theory, individuals are considered part of the family system and influence each other's behavior. The concept of triangulation arises when a third party intervenes to mitigate the stress in a relationship between two individuals (Bowen & Kerr, 1988). Our research focuses on married individuals who spend excessive time in digital environments to alleviate stress from digital inputs, which could potentially lead to triangulation and negatively impact their relationship. We propose that this could represent a contemporary manifestation of triangularization. According to displacement theory (Kraut et al., 1998), the fact that individuals are under the influence of the stress created by digital inputs may have a negative impact on their state of being present in marriage. Mindfulness in marriage includes listening attentively to one's partner, recognizing and accepting one's own and one's partner's feelings, and responding through self-regulation. These findings are supported by research indicating that physical warmth increases closeness between 51 German couples (Ditzen et al., 2008). Additionally, Morgan et al. (2017), in a qualitative study involving 98 American individuals, examined perceptions of their partner's digital media usage. They found that technological devices and media use were perceived to distract partners from the relationship, leading to a general sense of distraction. As a result of a qualitative study in the United States conducted with 66 married couples aiming to examine their perspectives on the impact of interactive technologies (mobile phones, internet, social media) on marital relationships, it was found that interactive technology can distract attention from face-to-face interactions in the relationship and priorities technology over spending time together as a couple (Vaterlaus & Tulane, 2019). McDaniel and Coyne (2016) conducted a qualitative study with married women to examine the relationship between technological interruptions in romantic relationships and women's personal and relational well-being and found that technological devices frequently interrupted their interactions with their partners and that they experienced more conflict, lower relationship satisfaction, more depressive symptoms, and lower life satisfaction with technology use. Considering the stress caused by excessive digital input as a cognitive load, it is associated with decreased attention and concentration (Kamal et al., 2020). In the focus of the displacement theory, time spent on media such as mobile phones can replace meaningful interactions with one's partner. Distractions related to digital devices and not being fully present during the time spent together due to pressures can be factors that reduce one's mindfulness in marriage.

Another finding in the current study showed that there was a positive relationship between women's mindfulness in marriage and both men's and women's perceived dyadic adjustment. In addition to these findings, we also found a positive relationship between men's mindfulness in marriage and both women's and men's dyadic adjustment. Adjustment in couple relationships is defined as the ability of spouses to adapt to their daily lives and changing conditions throughout their lives and to keep up with each other (Spainer, 1980). In a study conducted with 422 Turkish individuals who have been married for at least one year, it was found that mindfulness in marriage positively predicted marital adjustment (Almasarani, 2023). Another study conducted in Türkiye found that mindfulness in marriage and dyadic adjustment are positively correlated (Erus & Deniz, 2018). Furthermore, meta-analyses evaluating the rela-

tionship between mindfulness and relationship satisfaction show that as individuals' mindfulness increases, they experience more relationship satisfaction (McGill et al., 2016; Quinn-Nilas, 2020). A study conducted in the United States involving 1333 couples (couples in serious relationships, engaged, and married couples), it was found that the time spent by men playing video games was positively related to partner conflict (Coyne et al., 2012). This result was explained by the authors in the context of displacement theory by replacing the time spent with one's partner with the time spent playing video games. When considered in the focus of both system theory (Bowen, 1978) and displacement theory (Kraut et al., 1998), the fact that couples are more open to their partners with their conscious awareness in marriage and that they exist beyond their physical presence in the relationship may be a factor that contributes to the other partner's feeling of dyadic adjustment. In his family systems theory, Bowen emphasized that individuals exist in the relationship through their own experiences and emotional awareness (Bowen, 1978). Considering that mindfulness in marriage involves the awareness of the thoughts, feelings, and behaviors of both themselves and their partners, this awareness can make couples more open to both themselves and their partners, and couples can transfer their feelings, wishes, and expectations to each other more freely. This openness and honesty can help couples establish healthier and more satisfying relationships and increase their adjustment by strengthening their emotional bonds.

The current study also found a significant indirect effect of mindfulness in marriage on the relationship between digital stress and dyadic adjustment for both men and women. This suggests that higher levels of digital stress in both men and women may reduce mindfulness in marriage, which in turn might decrease the couple's dyadic adjustment. Presence involves the process of focusing on others without external and internal distractions (Siegel, 2010). The physical union of partners may not represent their mutual presence. From this perspective, it can be argued that the presence of both partners is essential for a fulfilling relationship. Findings from an Australian study involving 21 couples suggested that using technology in the presence of a partner without interacting with them was associated with negative perceptions of the relationship. In contrast, couples who used technology while interacting with each other tended to have more positive perceptions of their relationship (Leggett & Ros-souw, 2014). A study of problematic media use with 1039 couples from the United States found indirect actor and partner effects of problematic media use (Booth et al., 2021). Problematic media use was associated with lower relationship outcomes (communication, satisfaction) in relationships. The authors discussed this result in the context of displacement theory (Kraut et al., 1998), as follows: With displacement, both the media-interacting and the displaced partner's responsiveness may be reduced, and they may be less sensitive to their partner in the relationship, feeling that the effort they put into the relationship is unrequited. Similar to our research variables, a study conducted in Canada examining the relationship between mindfulness, stress, and relationship satisfaction in married couples found that individuals with high mindfulness experience less stress and achieve more satisfaction from the relationship, and another result is that mindfulness is related to partners' relationship satisfaction (Morin et al., 2023). Similarly, another study conducted in the USA with 847 couples demonstrated that mindfulness significantly improves both individual

and partner satisfaction by facilitating more effective stress management (McGill et al., 2020). Consistent with previous research, the results of our study suggest that one of the negative outcomes of digital stress in women and men may reduce the individual's dyadic adjustment by reducing the individual's mindfulness in marriage, which includes the individual's current presence and sensitivity in the relationship. In system theory, Bowen defines the differentiation of the self as the capacity to think, understand, and not react automatically to internal and external pressures and emphasizes that it includes the ability to act rationally even under stress. Individuals with a differentiated self are open to strong emotions and have the ability to regulate their emotions, while those who do not differentiate are more prone to conflict with their partner in the face of difficult emotions, and this is a risk factor for the couple's harmony (Bowen & Kerr, 1988). The results of our current study support this view. If married couples find the ability to control digital stress by self-regulating themselves with conscious awareness in marriage and become more open and sensitive to their partner, they can achieve harmony without being vulnerable to conflicts. Lastly, the similarity between the results of our study and those of previous studies conducted in different cultures may be important for understanding the relationship dynamics of our findings beyond cultural boundaries. Furthermore, these parallels can contribute to a more comprehensive understanding of patterns of relationships that are not confined to specific cultural frameworks, thus highlighting the potential for our results to be considered on a global scale.

Limitations

Although the present study is a strong exploration of actor and partner effects conducted with married couples, it has some limitations. While the paths for actor and partner effects are significant and point to important data, longitudinal research is needed to determine the causal relationships between the relevant variables. Another limitation is that the data is based on self-report, which may cause social desirability and recall bias. The study can be enriched with larger and more diverse sample groups. Since it was a quantitative study, it was not possible to analyze the experiences of the participants in depth. For a deeper and more detailed examination of the participants' experiences, qualitative research can be conducted to explore how digital stress affects mindfulness and dyadic adjustment in marriage.

Implications and Future Directions

These findings highlight the importance of mindfulness in marriage for buffering the negative effects of digital stress on dyadic adjustment. For this purpose, couple therapy and counselling services, mindfulness-based training programs for couples can be a way to increase couples' adaptation. In addition, raising awareness about digital literacy can also help couples cope with digital stress. Couples can be made aware of setting limits for digital device use, encouraging face-to-face interactions and healthy communication habits. Employers and policymakers can develop policies that promote work-life balance and limit after-hours digital work demands, considering the effects of digital stress on personal relationships. Future research

should explore the differential effects of various types of digital stress (e.g., social media, work-related emails, online games) on mindfulness and dyadic adjustment. Furthermore, longitudinal studies are needed to determine causal relationships and to examine how changes in digital stress and mindfulness affect dyadic adjustment in marriage over time. In addition to the fact that the concept of digital stress is a new concept, it is seen that the studies conducted are mostly with adolescents. Considering that digital stress can be a concept that can potentially affect the family system as stated in the results of our research, it may be useful to conduct more studies with the concept of digital stress in the focus of couple and family therapy. Finally, it is recommended that the role of digital stress in marital relationships and its impact on dyadic adjustment be re-examined in light of recent studies.

Conclusion

In this study, we aimed to evaluate the relationships between couples' digital stress and dyadic adjustment and to examine the indirect effect of mindfulness in marriage. The findings of the current study show that for both men and women, digital stress is negatively linked to dyadic adjustment through a negative link with mindfulness in marriage. Moreover, digital stress experienced by men is negatively linked to men's and women's mindfulness in marriage. Similarly, the digital stress experienced by women is negatively linked to women's and men's mindfulness in marriage. Another research finding was that women's mindfulness in marriage was positively related to the dyadic adjustment perceived by women and men. Similarly, men's mindfulness in marriage was found to be positively related to the dyadic adjustment of women and men. The most important finding of our study is that the indirect effect of mindfulness in marriage on the relationship between digital stress and dyadic adjustment is significant for both men and women. In other words, as the level of digital stress increases, it may become more challenging for individuals to maintain mindfulness in their marriages, potentially leading to a decrease in dyadic adjustment.

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Data Availability Data will be available on request.

Declarations

Ethical Approval The study protocol was approved by the Scientific Research and Ethical Review Board of Yildiz Technical University (Issue No: 20240502948). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its following updates.

Consent to Participate Informed consent was obtained from all the individual participants that were included in the study.

Pre-registration Statement This study was not pre-registered.

Conflict of Interest No conflict of interest exists for this manuscript for any of the authors.

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