Doomscrolling Scale: its Association with Personality Traits, Psychological Distress, Social Media Use, and Wellbeing

Seydi Ahmet Satici1 · Emine Gocet Tekin2 · M. Engin Deniz1 · Begum Satici1

Received: 8 September 2022 / Accepted: 6 October 2022 / Published online: 19 October 2022
© The International Society for Quality-of-Life Studies (ISQOLS) and Springer Nature B.V. 2022

Abstract
Doomscrolling is a fairly new concept in mental health research which has attracted significant attention in recent years. This paper consists of three separate studies examining doomscrolling. In Study I (N=378), both 15-item and 4-item forms of Doomscrolling Scale (DS) were confirmed by confirmatory factor analysis. Item Response Analysis demonstrated that all items had strong discriminative power. Different reliability coefficients supported the high reliability of DS. In Study II (N=419), both correlation and network analysis indicated that doomscrolling was significantly associated with big five personality traits, social media addiction, fear of missing out, and some features of social media usage. In Study III (N=460), the relationship of doomscrolling with psychological distress and wellbeing indicators -life satisfaction, mental well-being and harmony in life- were investigated. Structural equation modeling indicated that the relationship between doomscrolling and wellbeing indicators were mediated by psychological distress. This comprehensive and pioneering study on doomscrolling has highlighted the individual and social impacts of doomscrolling.

Keywords  Doomscrolling · Personality · Social media usage · FOMO · Wellbeing · Psychological distress

Introduction
Over the last few years, people all around the world have been fighting against Covid-19 pandemic which has brought unprecedented challenges for both every individual and society in the world. Due to the unknown nature of the pandemic,
individuals tried to reach every information and news available about Covid-19 via the internet and social media. Without a doubt, uncertain stimuli like pandemics and outbreaks lead individuals to get stuck in uncontrollable and uncomfortable thoughts which can be eased by getting related answers about the unknown (Carleton, 2016). This urge to get all the facts to protect ourselves from danger and to have a feeling of control over it has kept us engaged with scrolling our phones long hours for more information and news, which are primarily negative. Constant exposure to negative news on social media and news feeds could take the form of “doomscrolling” which is commonly defined as a habit of scrolling through social media and news feeds where users obsessively seek for depressing and negative information (Jennings, 2020; Watercutter, 2020). Sharma et al. (2022) conceptualized doomscrolling as” a habitual, immersive scanning for timely negative information on social media newsfeeds”.

As it can be understood from these definitions, doomscrolling appears as a vicious cycle in which users find themselves get stuck in a pattern of seeking negative information no matter how bad the news is. Moreover, since the online platforms are well aware of what captivates us most by using algorithmic systems, they serve us with the content that will get our attention considering our previous history on the internet (Nguyen, 2020). Therefore, whether the motivation for doomscrolling is seeking negative information or individual factors such as loss of self-control or algorithmic systems which offer endless newsfeeds or outbreaks and crisis, it will ultimately lead to compulsive scrolling behavior (Sharma et al., 2022).

Previous research has revealed a relationship between social media use and increased feelings of depression and anxiety (Vannucci et al., 2017). In an early study, individuals who reported spending more time on COVID-19 pandemic related news were found to experience higher levels of anxiety, distress, stress, and depression (Wathelet et al., 2020). Similarly, Buchanan and colleagues (Buchanan et al., 2021) reported that consumption of COVID-19 related negative news on social media was linked with lower levels of well-being.

Since doomscrolling has a compulsive nature with constant scrolling for depressing and negative news on social media, it would be important when we consider traits as part of a self-regulatory system to determine the extent to which specific personality traits are connected to doomscrolling behavior. Individuals tend to exaggerate some aspects of experience over others depending on their personality traits. For instance, while extroverted people have stronger reactions to positive emotions, neurotic people have stronger reactions to negative emotions such as sadness or anxiety (Canli et al., 2002; Costa & McCrae, 1992). Therefore, we would expect neurotic individuals to be more inclined to be engaged with doomscrolling behavior. In that respect, Sharma and colleagues (Sharma et al., 2022) reported that doomscrolling has positive relationships with neuroticism, sensation-seeking, and negativity bias and negative relationships with conscientiousness, and positive affect.

Doomscrolling is a relatively new concept and only a few researches have been published so far. A self-report measure of doomscrolling was developed by Sharma and colleagues (Sharma et al., 2022) which will allow researchers to examine the relationships between doomscrolling and other mental health variables. In this respect, our study aims to test the validity and reliability of the Doomscrolling scale.
in Turkish population. Additionally, we will examine the relations between doomscrolling, Big Five, FOMO, social media addiction, social media daily hour and social media platform used. Finally, the mediator role of psychological distress on the relations between doomscrolling and well-being indicators (mental well-being, life satisfaction and harmony in life) will be investigated. Therefore, we expect to examine the relations between doomscrolling and a range of variables related to mental, social and technological health by conducting multiple studies.

**Study I**

At this stage of the study, confirmatory factor analysis of the Doomscrolling Scale will be performed. As in the original form, CFA for both 15-item and 4-item short forms of the scale will be performed. Additionally, the scale will be examined utilizing item-total correlations and Item Response Theory. Reliability analyzes were also carried out in this step.

**Method**

**Participants**

Study I included 378 participants that were recruited from 23 of Türkiye’s 81 cities via online surveying. The mean age of participants was 23.45 years (SD = 5.68 years, 18–59 years). Participants reported that they actively used 3.74 social media platforms (SD = 1.66, 1–15 platforms). The average daily social media usage hours was 4.12 (SD = 2.47 h, 1–18 h). Most participants used Twitter (n = 247, 65.3%). Regarding the socio-economic status (SES), 15.4% of the participants had low SES, 66.9% of the participants had middle SES, and 17.2% of the participants had high SES.

**Measures**

**Doomscrolling Scale** The scale was developed by Sharma et al. (2022). The uni-dimensional scale comprises 15 items (e.g., “I lose track of time when I read bad news on social media”) rated on a 7-point Likert scale, with 1 indicating “strongly disagree” and 7 indicating “strongly agree.” High scores imply high doomscrolling. Researchers supported the validity and reliability of the scale with different parameters (for more details see Sharma et al., 2022).

**Data Analysis**

Confirmatory factor analysis (CFA) using maximum likelihood estimation in AMOS Graphics was performed for both the 15-item and 4-item short form of the scale. Comparative Fit Index (CFI), Normed Fit Index (NFI), Incremental Fit Index (IFI),...
and Standardized Root Mean Square Residual (SRMR) were used to assess model fit. In addition, item-total correlations of the scale were investigated.

We extend the validation process by modelling the Doomscrolling Scale via Item Response Theory (IRT) using the Graded Response Model (GRM) in Stata. We also calculated different reliability coefficients such as Cronbach alpha ($\alpha$), McDonald’s omega ($\omega$), and Guttmann’s lambda ($\lambda_6$).

Ethics

All studies in this research adhered to the tenets of the Helsinki Declaration of 1975 as revised in 2000. Studies approval was received from Artvin Coruh University Scientific Research and Ethical Review Board.

Results

The CFA revealed acceptable model fit with 15-item Doomscrolling Scale; $\chi^2(89, N = 378) = 402.57$, $p < .001$; CFI = 0.92, NFI = 0.90, IFI = 0.92, SRMR = 0.046. The unidimensional-factor of 15-item solution explained 54.46% of the variance. Factor loadings ranged from 0.632 to 0.835. Afterwards, the 4-item Doomscrolling Scale’s CFA was tested. All fit indices revealed that the 4-item model fitted well: $\chi^2(2, N = 378) = 28.78$, $p < .001$; CFI = 0.95, NFI = 0.94, IFI = 0.95, SRMR = 0.044. Consequently, the 15-item and 4-item structure of the Doomscrolling Scale was confirmed. Factor loadings, descriptive statistics, and item-total correlation are presented in Table 1.

After the structure of the scale was confirmed, the IRT analysis of calculated. Table 2 displays that values of the discrimination parameter ($a$) ranged from 1.69 to 3.31. Recommendations the rules of Baker (2001), 14 items were classified as very high, whereas one remained item high. These findings indicated that the Doomscrolling Scale showed the highest discriminative power.

Finally, the reliability coefficients of the 15-item and 4-item Doomscrolling Scale (all studies separately) were examined with Cronbach’s alpha, McDonald’s omega, and Guttmann’s lambda.

The reliabilities of the 15-item Doomscrolling Scale showed that the Cronbach’s alpha ($\alpha$ ranged = 0.938 – 0.944), McDonald’s omega ($\omega$ ranged = 0.942 – 0.947), and Guttmann’s lambda ($\lambda_6$ ranged = 0.949 – 0.955) were highly acceptable. Also, all reliability coefficients of the 4-item Doomscrolling Scale were found within acceptable criteria (Table 3).

Study II

Following the assessment of psychometric properties of the Doomscrolling Scale, we proceeded to examine the relationships between Doomscrolling and the big five personality traits, social media addiction, and fear of missing out in Study II.
Additionally, the associations between Doomscrolling and social media daily hour, social media platform used and the use of Twitter were evaluated.

### Method

#### Participants

Study II consisted 419 participants that were recruited from 22 cities via online surveying. Of the participants, 74% were women (n=310). Age for these participants varied from 18 to 64 years old (M=24.47, SD=7.32). Participants reported that they actively used 3.83 social media platforms (SD=1.83, 1–15 platforms). The average daily social media usage hours was 3.94 (SD=2.38 h, 1–18 h). Most participants used Twitter (n=264, 63%). Regarding the socio-economic status (SES), 16.9% of the participants had low SES, 66.1% of the participants had middle SES, and 17% of the participants had high SES.

#### Measures

In addition to the Doomscrolling scale, the following questionnaires were added in the Study II.

Big five personality traits were measured with the 10-item short version of the Big Five Inventory (BFI-10; Rammstedt & John, 2007). Each item was rated on a

---

| Item | Factor loadings | Mean | SD | Item-total correlations |
|------|-----------------|------|----|-------------------------|
| 1. I feel an urge to seek… | 0.632 (0.691) | 2.50 | 1.63 | 0.621 |
| 2. I lose track of time… | 0.650 (0.669) | 2.92 | 1.78 | 0.645 |
| 3. I constantly refresh… | 0.757 | 2.75 | 1.90 | 0.744 |
| 4. I stay up late at… | 0.725 | 1.70 | 1.22 | 0.698 |
| 5. Reading negative news… | 0.683 | 3.07 | 2.05 | 0.668 |
| 6. When I am online… | 0.673 | 2.17 | 1.60 | 0.667 |
| 7. I constantly feel panicked… | 0.659 | 1.87 | 1.32 | 0.658 |
| 8. I unconsciously check… | 0.805 | 2.49 | 1.81 | 0.779 |
| 9. Even if my newsfeed… | 0.748 | 1.91 | 1.48 | 0.714 |
| 10. I find myself continuously… | 0.835 (0.759) | 2.16 | 1.60 | 0.807 |
| 11. I check social media… | 0.731 | 2.48 | 1.88 | 0.703 |
| 12. I feel like I am… | 0.788 (0.773) | 1.69 | 1.27 | 0.759 |
| 13. My social media… | 0.815 | 2.08 | 1.53 | 0.784 |
| 14. I am terrified by… | 0.730 | 2.92 | 1.92 | 0.708 |
| 15. It’s difficult to stop… | 0.798 | 2.33 | 1.67 | 0.775 |

$N=358$, * Short-form items, parenthesis indicate the short form results
Table 2  IRT results for the Doomscrolling Scale

| Item | $a$ coefficient | SE  | Confidence interval | $z$  | $p > |z|$ |
|------|----------------|-----|---------------------|------|--------|
| Item 1 | 1.69 | 0.15 | 1.38–2.01 | 10.72 | 0.001  |
| Item 2 | 1.78 | 0.15 | 1.44–2.05 | 11.16 | 0.001  |
| Item 3 | 2.43 | 0.20 | 2.02–2.84 | 11.73 | 0.001  |
| Item 4 | 2.34 | 0.23 | 1.88–2.80 | 10.00 | 0.001  |
| Item 5 | 1.99 | 0.17 | 1.64–2.34 | 11.27 | 0.001  |
| Item 6 | 2.21 | 0.20 | 1.81–2.61 | 10.86 | 0.001  |
| Item 7 | 2.25 | 0.21 | 1.83–2.67 | 10.55 | 0.001  |
| Item 8 | 3.01 | 0.25 | 2.49–3.50 | 11.63 | 0.001  |
| Item 9 | 2.59 | 0.24 | 2.11–3.08 | 10.57 | 0.001  |
| Item 10 | 3.21 | 0.28 | 2.65–3.78 | 11.21 | 0.001  |
| Item 11 | 2.20 | 0.19 | 1.81–2.59 | 11.15 | 0.001  |
| Item 12 | 3.31 | 0.32 | 2.67–3.95 | 10.12 | 0.001  |
| Item 13 | 3.05 | 0.27 | 2.52–3.59 | 11.22 | 0.001  |
| Item 14 | 2.06 | 0.17 | 1.71–2.42 | 11.57 | 0.001  |
| Item 15 | 2.91 | 0.25 | 2.41–3.40 | 11.49 | 0.001  |
|                  | Study I ($N=378$) | Study II ($N=419$) | Study III ($N=460$) |
|------------------|-------------------|-------------------|-------------------|
|                  | 15-item           | 4-item            | 15-item           | 4-item            | 15-item           | 4-item            |
| Cronbach’s alpha | 0.944             | 0.807             | 0.942             | 0.810             | 0.938             | 0.788             |
| McDonald’s omega | 0.947             | 0.815             | 0.945             | 0.821             | 0.942             | 0.799             |
| Guttmann’s lambda| 0.955             | 0.779             | 0.951             | 0.789             | 0.949             | 0.772             |
scale from (1 = disagree strongly, 5 = agree strongly). The BFI-10 is a set of five sub-scale, with 2 items per sub-scale; openness, conscientiousness, extraversion, agreeableness, neuroticism. The Turkish adaptation of the BFI-10 used in this study was carried out by Turkum et al. (2016). Turkum et al. stated that the five-factor structure of the Turkish BFI-10 showed acceptable fit indices: $\chi^2_{(25, N=357)} = 55.86; \text{CFI} = 0.97; \text{GFI} = 0.97; \text{IFI} = 0.97; \text{SRMR} = 0.041$.

Social media addiction was assessed via the Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2016). The BSMAS includes six items. Each item was rated on a scale from (1 = very rarely, 5 = very often). Items were summed, and higher scores indicated greater social media addiction. The Turkish adaptation of the BSMAS used in this study was carried out by Demirci (2019). Demirci suggested that the uni-dimensional structure of the Turkish BSMAS showed acceptable fit indices: $\chi^2_{(9, N=371)} = 10.80, \text{CFI} = 0.99; \text{TLI} = 0.99; \text{SRMR} = 0.031$.

Fear of missing out was assessed with the Fear of Missing out Scale (FOMOS; Przybylski et al., 2013). The FOMOS includes ten items. Each item was rated on a scale from (1 = not at all true, 5 = absolutely true). Items were summed, and higher scores indicated greater fear of missing out level. The Turkish adaptation of the FOMOS used in this study was performed by Can and Satici (2019). Can and Satici stated that the uni-dimensional structure of the Turkish FOMOS showed acceptable fit indices: $\chi^2_{(35, N = 354)} = 93.75; \text{GFI} = 0.95; \text{CFI} = 0.91; \text{SRMR} = 0.050$.

Data Analysis

Firstly, descriptive information about the examined variables was tested via SPSS 22. Also, the relationship of doomscrolling with big five personality traits, social media addiction, fear of missing out, social media use (social media daily hours, social media platforms used, and Twitter use), and psychosocial variable (age, gender, socio-economic status) was calculated with the correlation coefficient. In addition, a network analysis was performed in which all variables were included in order to depict the associations using the JASP.

Results

Descriptive statistics (range, mean, and SD) and correlations are reported in Table 4. Doomscrolling was negatively correlated with conscientiousness ($r = −.168, p < .01$), extraversion ($r = −.169, p < .01$), and agreeableness ($r = −.213, p < .01$). Doomscrolling was also negatively associated with age ($r = −.229, p < .01$) and socio-economic status ($r = −.098, p < .05$). On the other hand, doomscrolling was positively correlated with neuroticism ($r = .217, p < .01$), social media addiction ($r = .358, p < .01$), fear of missing out ($r = .377, p < .01$), and social media daily hours ($r = .112, p < .05$). In addition, doomscrolling was significantly related with Twitter use. Otherwise, doomscrolling was not significantly associated with gender ($r = .065, p > .05$), social media platforms used ($r = .085, p > .05$), and openness ($r = −.095, p > .05$).
The network analysis results on the Doomscrolling with the other variables are shown in Fig. 1. Doomscrolling was strongly connected to fear of missing out, social media addiction, and Twitter use.

![Network analysis for doomscrolling](image)

**Fig. 1** Network analysis for doomscrolling. Blue lines represent positive correlations and red lines represent negative correlations.  
*Note. DoomS: doomscrolling; SMA: social media addiction; FoMO: fear of missing out; SMdh: social media daily hours; SMpu: social media platforms used; O: openness; C: conscientiousness; E: extraversion; A: agreeableness; N: neuroticism*

**Table 4** Relationship of the doomscrolling with the variables

| Variable                          | Range     | M      | SD   | r          | p          |
|-----------------------------------|-----------|--------|------|------------|------------|
| Age                               | 18–64     | 24.48  | 7.33 | −0.229     | <0.001     |
| Gender (dichotomous)              | 1–2       | 1.26   | 0.44 | 0.065      | 0.186      |
| Social media daily hours          | 1–17      | 3.95   | 2.38 | 0.112      | 0.022      |
| Social media platforms used       | 1–15      | 3.83   | 1.83 | 0.085      | 0.081      |
| Twitter use (dichotomous)         | 1–2       | 1.37   | 0.48 | −0.192     | <0.001     |
| Socio-economic status             | 1–5       | 2.98   | 0.65 | −0.098     | 0.045      |
| Bergen Social Media Addiction Scale | 6–30     | 18.05  | 5.84 | 0.358      | <0.001     |
| Fear of Missing out Scale         | 10–50     | 27.19  | 8.19 | 0.377      | <0.001     |
| Big Five Personality Traits       |           |        |      |            |            |
| Openness                          | 2–10      | 7.20   | 1.82 | −0.095     | 0.053      |
| Conscientiousness                 | 2–10      | 7.10   | 1.83 | −0.168     | <0.001     |
| Extraversion                      | 2–10      | 6.88   | 2.09 | −0.169     | <0.001     |
| Agreeableness                     | 2–10      | 8.17   | 1.49 | −0.213     | <0.001     |
| Neuroticism                       | 2–10      | 6.04   | 1.90 | 0.217      | <0.001     |

1 = female for gender, 1 = yes for Twitter use
Study III

In the last stage of the research, we will examine whether psychological distress would mediate the relationship between doomscrolling and well-being indicators (mental wellbeing, life satisfaction, and harmony in life).

Method

Participants

Study III included 460 participants that were recruited from 25 of Türkiye’s 81 cities via online surveying. Among them, 343 were female (74.6%) and 117 were male (25.4%). Participants were on average 23.68 years old (SD = 6.08) with ages ranging from 18 to 55 years. Participants reported that they actively used 3.78 social media platforms (SD = 1.76, 1–14 platforms). The average daily social media usage hours was 4.05 (SD = 2.31 h, 1–16 h). Most participants used Twitter (n = 294, 63.9%). Regarding the socio-economic status (SES), 16.4% of the participants had low SES, 63.9% of the participants had middle SES, and 19.5% of the participants had high SES.

Measures

In addition to the Doomscrolling Scale, the following questionnaires were added in the Study III.

Psychological distress was assessed with the Depression Anxiety Stress Scales-21 (DASS-21; Henry & Crawford, 2005; Lovibond & Lovibond, 1995). Each item was rated on a scale from (0 = did not apply to me at all, 3 = applied to me very much or most of the time). The DASS-21 is a set of three sub-scale, with 7 items per sub-scale; depression, anxiety, and stress. Items were summed, and higher scores indicated greater psychological distress level. The Turkish adaptation of the DASS-21 used in this study was made by Yilmaz et al. (2017). Yilmaz et al. stated that the three-factor structure of the Turkish DASS-21 showed acceptable fit indices: GFI = 0.985; AGFI = 0.982; RMR = 0.028; NFI = 0.979.

Mental wellbeing was assessed with the Short Warwick–Edinburgh Mental Wellbeing Scale (SWEMS; Tennant et al., 2007). The SWEMS includes seven items. Each item was rated on a scale from (1 = none of the time, 5 = all of the time). Items were summed, and higher scores indicated greater mental wellbeing level. The Turkish adaptation of the SWEMS used in this study was made by Demirtas and Baytemir (2019). Demirtas and Baytemir stated that the uni-dimensional structure of the Turkish SWEMS showed acceptable fit indices: GFI = 0.96; CFI = 0.99; NFI = 0.97; SRMR = 0.040.

Life satisfaction and harmony in life were measured with abbreviated three-item versions of the Satisfaction with Life Scale (SWLS-3) and the Harmony in Life Scale (HILS-3 (Kjell & Diener, 2021). The SLWS-3 and HILS-3 include three items. Each
item was rated on a scale from (1 = strongly disagree, 7 = strongly agree). The items of each scale were calculated respectively, and higher scores indicated greater life satisfaction and harmony in life level. The Turkish adaptation of the SWLS-3 and HILS-3 used in this study was made by Yelpaze et al. (2022). Yelpaze stated that the uni-dimensional structure of the Turkish SWLS-3 and HILS-3 showed acceptable fit indices: $\chi^2 (9, N = 339) = 60.59$, GFI = 0.948; AGFI = 0.879; NFI = 0.925; RFI = 0.875; IFI = 0.936; TLI = 0.892, CFI = 0.935.

Data Analysis

Firstly, the correlations between doomscrolling, psychological stress, mental well-being, life satisfaction, and harmony in life were analyzed by Pearson’s correlation coefficients. Next, we conducted structural equation modelling (SEM) in AMOS Graphics, with maximum likelihood estimation used to estimate parameters. Mediation analysis was carried out to investigate the possible mediating role of psychological distress in the association between doomscrolling and wellbeing indicators. We also used bootstrapping to determine whether the indirect effects significant.

Result

Doomscrolling was significantly and negatively related to life satisfaction ($r = -0.290$, $p < 0.01$), mental wellbeing ($r = -0.296$, $p < 0.01$), and harmony in life ($r = -0.290$, $p < 0.01$) and positively related to psychological distress ($r = 0.391$, $p < 0.01$). The findings of the structural equation model analyzing the effects of doomscrolling on life satisfaction via psychological distress (see Panel A) showed that the model fits well: $\chi^2 (24, N = 460) = 87.78$; GFI = 0.958; CFI = 0.970; NFI = 0.960; IFI = 0.970; SRMR = 0.063. The model for the relationship between doomscrolling and mental wellbeing was mediated by psychological distress (see Panel B) was also acceptable fit the data: $\chi^2 (18, N = 460) = 81.35$; GFI = 0.955; CFI = 0.972; NFI = 0.964; IFI = 0.956; SRMR = 0.068. Psychological distress also showed a significant mediation between doomscrolling and harmony in life (Panel C). Fit of the last mediational model was acceptable: $\chi^2 (24, N = 460) = 76.56$; GFI = 0.963; CFI = 0.975; NFI = 0.964; IFI = 0.975; SRMR = 0.062 (Fig. 2).

The indirect effects with bootstrapping at 5,000 was significant, $\beta = -0.191$, SE = 0.04, 95% CI = -0.279, -0.123, confirming that doomscrolling was linked to life satisfaction through psychological distress. The bootstrapping confirmed the
mediating role of psychological distress in the relationship between doomscrolling and mental wellbeing ($\beta = -0.282$, SE = 0.04, 95% CI = $-0.354$, $-0.209$). Lastly, psychological distress was a significant mediator of the relationship between doomscrolling and harmony in life ($\beta = -0.165$, SE = 0.03, 95% CI = $-0.239$, $-0.107$) (Table 5).

**Discussion**

Doomscrolling has become a cause of concern for mental health which became widespread after the start of the COVID-19 pandemic. The aim of this study was to assess the psychometric properties of the Dommscrolling Scale in Turkish population and to examine the relations between doomscrolling and a range of variables related to mental, social and technological health.

Confirmatory factor analysis results confirmed the structures of both 15 item and 4 item forms of the scale which is in line with the unidimensional structure of the original scale (Sharma et al., 2022). In the present study, we also applied a relatively new model- item response theory (IRT) to explore the relationship between item responses and to analyze the Doomscrolling Scale. According to the results of IRT, %93 of items were classified as very high and %7 of items as high, which indicates that the Doomscrolling Scale had high discriminative power.

Our results also evidenced that doomscrolling had significant negative relationships with conscientiousness, extraversion and agreeableness and it had a significant positive relationship with neuroticism which is in line with the previous research (Sharma et al., 2022). This result would not be surprising when we consider the descriptive definitions of these personality traits. Individuals who exhibit conscientiousness are prone to control their behavior to meet their goals and be more responsible and show commitment and purpose in their tasks (McCrae & Costa, 2003) which may help them to spend less time using social networks. Extraverted people show greater demand to participate in social activities and have a tendency to experience positive emotions which may lead them to use the internet for interaction with other people and have joyful time. Likewise, characteristics of agreeableness, such as trust, cooperation, compliance and flexibility may help them to use the social media feeds in a healthy manner. For instance, individuals who are high in agreeableness are reported to be less likely to use their mobile phones problematically (Gao et al., 2020). On the other hand, neurotic people are more vulnerable

| Indirect effect | Effect | SE | 95% C.I. Lower | 95% C.I. Upper |
|----------------|-------|----|---------------|---------------|
| Doomscrolling ➔ psychological distress ➔ life satisfaction | $-0.191$ | $0.04$ | $-0.279$ | $-0.123$ |
| Doomscrolling ➔ psychological distress ➔ mental wellbeing | $-0.282$ | $0.04$ | $-0.354$ | $-0.209$ |
| Doomscrolling ➔ psychological distress ➔ harmony in life | $-0.165$ | $0.03$ | $-0.239$ | $-0.107$ |
to emotional instability, psychological distress, anxiety and depression (Costa & McCrae, 1992). Neurotic people have stronger reactions to negative emotions and they are vulnerable to excessive sadness and low self-esteem which would lead them to engage with doomscrolling behavior.

Further, the relations between doomscrolling and variables associated with social media usage were investigated. Our findings indicated that doomscrolling had positive relationships with FOMO, social media addiction and social media daily hour, which support the findings of the previous research (Sharma et al., 2022). Individuals with social media addiction may find it difficult to stay away from the compulsive nature of the doomscrolling since addiction leads them to use the social media platforms and the internet problematically. Additionally, doomscrolling had significant positive relations with the social media and news platform Twitter. On the other hand, there weren’t any associations between doomscrolling and other social media platforms which can be explained by the fact that other social media platforms are less likely to act like news sources like Twitter.

Finally, we investigated the mediator role of psychological distress on the relations between doomscrolling and well-being indicators. The findings showed that psychological distress mediated the relations between doomscrolling and mental well-being, life satisfaction and harmony in life. In other words, individuals who are more engaged with doomscrolling are more likely to experience psychological distress which in turn leads to lower mental well-being, life satisfaction and harmony in life. In line with our findings, Buchanan et al. (2021) reported that a brief exposure to news about COVID-19 ended up immediate and significant reductions in positive affect and optimism when compared to a no-information exposure group, resulting in higher levels of psychological distress and lower levels of well-being. Another study also indicated that Individuals’ spending a significant amount of time surfing the internet for the latest news on developments in the COVID-19 crisis resulted in doomscrolling in which the individuals find themselves scrolling or surfing through a large number of pessimistic news items which was mediated by poor affect regulation skills (Anand et al., 2022).

Limitations

This study has some limitations. First, the data in the research were collected by using self-reported questionnaires, which may cause some subjective errors. Second, the cross-sectional design of the study makes it difficult to draw causal conclusions. Therefore, experimental and longitudinal studies are needed to examine such causal-effect relationship. Finally, this study was conducted on a non-clinical sample from different cities in Türkiye.

Conclusion

We have investigated a relatively new concept “doomscrolling” in three separate studies conducted on different study samples. The doomscrolling scale was found to be a reliable and valid measuring tool. Furthermore, cross-sectional analyses
suggested that doomscrolling may lead to higher levels of psychological distress and lower levels of mental well-being indicators (mental well-being, life satisfaction and harmony in life). Finally, further longitudinal and experimental studies are needed in order to better understand the doomscrolling concept and to support its associations with the variables in this study.

Data Availability Data will be available on request.

Declarations

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

Ethical Approval The study protocol has been approved by Artvin Coruh University Scientific Research and Ethical Review Board (E-18457941-050.99-45554). 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.

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

References

Anand, N., Sharma, M. K., Thakur, P. C., Mondal, I., Sahu, M., Singh, P., & Singh, R. (2022). Doomsurfing and doomscrolling mediate psychological distress in COVID-19 lockdown: Implications for awareness of cognitive biases. Perspectives in Psychiatric Care, 58(1), 170–172.

Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorder: A large-scale cross-sectional study. Psychology of Addictive Behaviors, 30, 252–262. https://doi.org/10.1037/adb0000160

Baker, F. B. (2001). The basics of item response theory. In: ERIC Clearinghouse on Assessment and Evaluation, second ed. Retrieved from https://files.eric.ed.gov/fulltext/ED458219.pdf. Accessed 15 June 2022.

Buchanan, K., Aknin, L. B., Lotun, S., & Sandstrom, G. M. (2021). Brief exposure to social media during the COVID-19 pandemic: Doom-scrolling has negative emotional consequences, but kindness-scrolling does not. PLoS One, 16(10), e0257728. https://doi.org/10.1371/journal.pone.0257728

Can, G., & Satici, S. A. (2019). Adaptation of fear of missing out scale (FoMOs): Turkish version validity and reliability study. Psicologia: Reflexão e Crítica, 32, 3. https://doi.org/10.1186/s41155-019-0117-4

Canli, T., Sivers, H., Whitfield, S. L., Gotlib, I. H., & Gabrieli, J. E. (2002). Amygdala response to happy faces as a function of extraversion. Science, 296, 2191. https://doi.org/10.1126/science.1068749

Carleton, R. N. (2016). Into the unknown: A review and synthesis of contemporary models involving uncertainty. Journal of Anxiety Disorders, 39, 30–43. https://doi.org/10.1016/j.janxdis.2016.02.007

Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. Psychological Assessment, 4(1), 5–13.

Demirci, I. (2019). The adaptation of the Bergen Social Media Addiction Scale to Turkish and its evaluation of relationship with depression and anxiety symptoms. Anadolu Psikiyatri Dergisi, 20(SI 1), 15–23. https://doi.org/10.5455/apd.41585

Demirtas, A. S., & Baytemir, K. (2019). Adaptation of Warwick-Edinburgh Mental Well-being Scale short form into Turkish: Validity and reliability study. Elektronik Sosyal Bilimler Dergisi, 18(70), 689–701. https://doi.org/10.17755/esonerd.432708
Doomscrolling Scale: its Association with Personality Traits, …

Gao, L., Zhai, S., Xie, H., Liu, Q., Niu, G., & Zhou, Z. (2020). Big five personality traits and problematic mobile phone use: A meta-analytic review. *Current Psychology*. https://doi.org/10.1007/s12144-020-00817-x Advance online publication.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227–239. https://doi.org/10.1348/014466505X29657

Jennings, R. (2020). Doomscrolling, explained. Vox. Retrieved from https://www.vox.com/the-goods/21547961/doomscrolling-meaning-definition-what-is-meme. Accessed 7 Apr 2022.

Kjell, O. N., & Diener, E. (2021). Abbreviated three-item versions of the satisfaction with life scale and the harmony in life scale yield as strong psychometric properties as the original scales. *Journal of Personality Assessment, 103*(2), 183–194. https://doi.org/10.1080/00223891.2020.1737093

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

McCrae, R. R., & Costa, P. T. (2003). *Personality in adulthood: A five-factor theory perspective*. Guilford Press.

Nguyen, N. (2020, June 7). Doomscrolling: Why we just can’t look away. *Wall Street Journal.*

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29*(4), 1841–1848. https://doi.org/10.1016/j.chb.2013.02.014

Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*(1), 203–212. https://doi.org/10.1016/j.jrp.2006.02.001

Sharma, B., Lee, S. S., & Johnson, B. K. (2022). The dark at the end of the tunnel: Doomscrolling on social media newsfeeds. *Technology, Mind, and Behavior, 3*(1: Spring 2022). https://doi.org/10.1037/tmb0000059

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*(1), 50–63. https://doi.org/10.1186/1477-7525-5-63

Tarkan, A. S., Satıc, S. A., Yılmaz, M. F., & Kayis, A. R. (2016). *Turkish version of 10-Item Big Five Inventory’s psychometric properties*. Paper presented at the X. European Conference on Social and Behavioral Sciences. Sarajevo, Bosnia and Herzegovina.

Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2017). Social media use and anxiety in emerging adults. *Journal of Affective Disorders, 207*, 163–166. https://doi.org/10.1016/j.jad.2016.08.040

Watercutter, A. (2020, June 25). Doomscrolling is slowly eroding your mental health. Wired. https://www.wired.com/story/stop-doomscrolling/. Accessed 25 Mar 2022.

Wathelet, M., Duhem, S., Vaiva, G., Baubet, T., Habran, E., Veerapa, E., & D’Hont, F. (2020). Factors associated with mental health disorders among university students in France confined during the COVID-19 pandemic. *JAMA Network Open, 3*(10), e2025591. https://doi.org/10.1001/jamanetworkopen.2020.25591

Yelpaze, I., Satıc, S. A., & Satıc, B. (2022). Psychometric properties of the harmony in life scale-3 and the satisfaction with life scale-3 (Report No. 2021/6-21 M). Kahramanmaras University Scientific Research Project.

Yılmaz, O., Boz, H., & Arslan, A. (2017). The validity and reliability of depression stress and anxiety scale (DASS 21) Turkish short form. *Research of Financial Economic and Social Studies, 2*(2), 78–91.

**Publisher’s Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.