

# Psychological adjustment and wellbeing after an earthquake: The serial mediating role of doomscrolling and emotional regulation difficulty

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## Abstract

Considering that individuals psychological adjustment is negatively affected after traumatic events such as earthquakes, it is important to examine the effect of the need for information about negative news on individuals mental well-being. The aim of this study is to examine the effect of psychological adjustment on mental well-being and to investigate the mediating role of doomscrolling and emotion dysregulation. A total of 407 Turkish adults (264 women, 143 men) participated in the study. The average age of the participants is about 35 years old. Participants completed scales for psychological adjustment, doomscrolling, emotion dysregulation, and mental well-being. Analysis was conducted using structural equation modeling (SEM). The mediating roles of doomscrolling and emotion dysregulation in the relationship between psychological adjustment and mental well-being were examined. Doomscrolling and emotion dysregulation fully mediated psychological adjustment and mental well-being. The results, psychological adjustment, mental well-being, doomscrolling and emotion dysregulation were discussed in line with the information in the literature.

## 1. Introduction

On February 6, 2023, two major earthquakes, one of which was centered in Kahramanmaraş, directly affected 13.5 million individuals in 11 provinces in Turkey (Özbilgin et al., 2023). Losses of life and property have a negative impact on many economic, sociological, and cultural areas, as well as a series of negative psychological consequences. Individuals affected by earthquakes may show different psychological effects (Akça et al., 2021; Goenjian et al, 2000; Harada et al., 2015). One of these is the deterioration of psychological adjustment in earthquake. Psychological adjustment is a combination of internal and external conditions. Traumatic experiences such as job change, home-environment change, loss, and grief can affect psychological adjustment (Kararmak, 2006). The existing literature generally focuses on the negative adjustment of individuals after an earthquake (Goenjian et al, 2000; Prayag et al., 2021; Tang, 2006). In an experimental study, it was found that individuals' negative mood scores and emotional state scores decreased significantly after the earthquake compared to before the earthquake (Kotozaki & Kawashima, 2012). In a longitudinal study, it was stated that the anxiety levels of those exposed to earthquakes increased compared to before the earthquake and their functionality was negatively affected (Hogg et al., 2016).

When we consider the psychological effects of the earthquake within the framework of psychological adjustment, individuals' mental well-being may also be affected. It is known that there is a close relationship between mental well-being and psychological adjustment (Gawali & Gavali, 2020). Mental well-being is a concept that includes many different areas and includes successful human functions (Kansky & Diener, 2017; Renshaw et al., 2015). The literature suggests that individuals' mental well-being is negatively affected after destructive events such as earthquakes (Bland et al., 2005; Krause, 1987; Tang, 2006; Uchida, 2014). In a

different study, it was stated that individuals' mental well-being was significantly negatively affected after the earthquake due to the negative impact on the perception of space and the change in social ties (Prayag et al., 2021).

When psychological harmony is negatively affected, individuals may need to know and research about the crisis they are experiencing. Today, this need can be met by searching and reading news on social media and moving from one news to another. Doomscrolling is a concept that describes searching for negative news on social media and gradually making it a habit. It is a behavior that is usually repeated more frequently during periods of events such as disasters, epidemics, violence and natural disasters (Sharma et al., 2022). Doomscrolling is the obsessive scrolling of disaster news. Although it creates a constant feeling of anxiety and worry in individuals, individuals continue to perform this damaging action (Rodriguez, 2022). Since continuing doomscrolling behavior increases individuals' feelings of anxiety and worry, individuals may have problems in recognizing, making sense of and regulating their emotions. This situation suggests that emotion regulation difficulties are experienced.

Emotion regulation is a concept related to the increase or decrease in the intensity of the current emotion, how we experience that emotion, and how we can ensure the continuation of the emotion (Leahy et al., 2011). Difficulty in emotion regulation has been explained with components such as not recognizing emotions, difficulty in accepting emotions, inability to use functional emotion regulation methods, difficulty in impulse control and displaying purposeful behaviors in the face of negative emotions (Gratz & Roamer, 2004). If the situation is under the control of the person, problem-focused coping method is preferred; if it is not under the control of the person, emotion-focused coping style is preferred (Lazarus & Folkman, 1984). Understanding, recognizing, and controlling the intensity of one's emotions can facilitate adaptation (Shiels & Cicchetti, 1997). The emotion regulation process can be controlled, conscious or unconscious. It has been stated that individuals experiencing traumatic events use inappropriate response and emotion regulation strategies (Gross & Thopson, 2007). Difficulty in emotion regulation predicts problematic smartphone use (Horwood & Anglim, 2020). Research shows that people use the internet more to regulate their negative emotions, which increases impulsivity and habitual behaviors (Brand et al., 2020; Rozgonjuk & Elhai, 2019). It is thought that individuals with difficulties in emotion regulation are more likely to show doomscrolling behavior. In this study, the mediating role of doomscrolling and emotion dysregulation in the relationship between psychological adjustment and well-being of earthquake-affected individuals was investigated.

## 1.2. The Present Study

The aim of this study was to examine the pathway from psychological adjustment to mental well-being. Specifically, the researchers investigated the role of two factors, namely doomscrolling and difficulties in emotion regulation, as mediators in this relationship. Drawing upon previous research, the authors put forth the following hypotheses:

- H1. There will be a positive correlation between psychological adjustment and mental well-being.
- H2. Doomscrolling will act as a mediator between psychological adjustment and mental well-being.
- H3. Difficulties in emotion regulation will mediate the relationship between psychological adjustment and mental well-being.
- H4. The relationship between psychological adjustment and mental well-being will be serially mediated by doomscrolling and emotion dysregulation.

## 2. Method

### 2.1. Participants and Procedure

The questionnaires for the study were generated using Google Forms and distributed to participants through convenience sampling. Participants were informed that they had the option to withdraw from the study at any point while completing the online form. A total of 407 individuals (Female = 264, Male = 143) from 42 different provinces in Turkey participated in the study. The mean age of the participants was 35.03 (SD

= 11.54; range = 18-70). Among the participants, the largest percentage held a bachelor's degree (46.9%), followed by those currently pursuing postgraduate studies (31.7%). A small percentage of participants were primary school graduates (2.2%), middle school graduates (2.5%), and high school graduates (16.7%). In terms of perceived socio-economic status, the majority of participants considered it to be moderate (77.6%) according to Table 1.

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## 2.2. Measures

### 2.2.1. Brief Psychological Adjustment Scale

The Brief Psychological Adjustment Scale is a 6-item self-report instrument developed by Cruz et al. (2020) to assess general psychological adjustment. The scale evaluates participants' feelings over the past week. Items are rated on a 7-point scale (1 = Not at all to 7 = Very much). An example item is "To what extent have you felt tense, anxious, and/or scared this week?". The Turkish adaptation of the scale was conducted by Yildirim and Solmaz (2021). The adapted scale demonstrated good fit ( $\chi^2 = 22.13$ ,  $df = 9$ ,  $p < .01$ ; CMIN/DF = 2.46, CFI = .97, NNFI = .95, RMSEA = .10, SRMR = .04). Cronbach's  $\alpha$  value was found to be 0.88.

### 2.2.2. Doomscrolling Scale (Short Form)

The Scale, developed by Sharma et al. (2022), is a one-dimensional measure comprising 15 items (such as "I find myself continuously looking at negative news"). Participants evaluate these items on a 7-point Likert scale, where 1 represents "strongly disagree" and 7 represents "strongly agree." Higher scores on the scale indicate higher levels of doomscrolling. Satici et al. (2022) conducted a study to adapt the scale to the Turkish context. The adapted version of the scale demonstrated good fit indices (GFI = 0.958, CFI = 0.970, NFI = 0.960, IFI = 0.970, SRMR = 0.063). The researchers also conducted a confirmatory factor analysis (CFA) for a 4-item version of the scale, and the model was found to be compatible (CFI = 0.95, NFI = 0.94, IFI = 0.95, SRMR = 0.044).

### 2.2.3. Difficulty in Emotion Regulation Scale-Short Form (DERS-16)

The scale developed by Bjureberg et al. (2016) is designed to measure the level of difficulty individuals experience in regulating their emotions. It consists of 16 items rated on a 5-point Likert scale (0 = almost never, 4 = almost always). The scale encompasses five factors: openness, goals, impulse, strategies, and non-acceptance. The Turkish adaptation of the scale was carried out by Yiğit and Yiğit (2017). The adapted version of the scale exhibited a good fit to the data, as indicated by the following fit indices:  $\chi^2/df = 2.75$ , CFI = .94, GFI = .91, TLI = .93, and RMSEA = .07. The internal consistency coefficient reported in the original study was 0.92, and the adaptation study yielded a similar value of 0.92.

### 2.2.4. Warwick-Edinburgh Mental Well-Being Scale (Short Form)

The original version of the scale, developed by Tennant et al. (2007), consisted of 14 items. However, a shorter 7-item version, known as the Short Form, was later created by Stewart-Brown et al. (2009). The Turkish adaptation of this scale was conducted by Demirtas and Baytemir (2019). The scale assesses the levels of mental well-being in Turkish adults and includes 7 items. Participants respond on a scale ranging from never (1) to always (5). The total score on the scale ranges from 7 to 35, with higher scores indicating higher levels of mental well-being. An example item from the scale is "I am optimistic about the future." The adapted version of the scale demonstrated good fit indices, including RMSEA = 0.065, SRMR = .040, CFI = 0.99, NFI = 0.97, GFI = .96, and AGFI = 0.91. The reliability coefficient, as measured by Cronbach's Alpha, was found to be .86.

## 2.3. Ethics

The study was conducted in accordance with the principles outlined in the Declaration of Helsinki. Prior to data collection, the authors obtained approval from the Yildiz Technical University Ethics Committee (ID:

20230502084).

## 2.4. Data Analysis

Initially, we examined descriptive statistics and correlations among psychological adjustment, mental well-being, doomscrolling, and difficulties in emotion regulation. All items of the general psychological adjustment scale were reverse-coded. Additionally, we created two plots for the unidimensional scales of mental well-being and psychological adjustment. Following the preliminary analyses, we employed a two-stage approach to test the proposed structural model. This approach involved first evaluating the measurement model to ensure an acceptable level of goodness of fit and subsequently examining the structural model (Anderson & Gerbing, 1988). Consequently, the structural model was initially constructed using the variables of psychological adjustment, mental well-being, doomscrolling, and emotion dysregulation. Subsequently, we assessed the serial mediation of doomscrolling and emotion dysregulation in the relationship between psychological adjustment and mental well-being.

## 3. Results

### 3.1. Preliminary Analysis

The mean scores were 26.19 ( $\pm 9.3$ ) for psychological adjustment, 24.81 ( $\pm 5.3$ ) for mental well-being, 9.85 ( $\pm 6$ ) for doomscrolling, and 41.02 ( $\pm 14.1$ ) for difficulties in emotion regulation (see Table 2). Skewness coefficients ranged from -0.44 to 1.12, and kurtosis coefficients ranged from -0.79 to 0.40, indicating a normal distribution of the study variables. All correlations were significant. The highest correlation was observed between mental well-being and emotion dysregulation ( $r = -0.62$ ,  $p < 0.01$ ), while the lowest correlation was found between mental well-being and disaster news scrolling ( $r = -0.40$ ,  $p < 0.01$ ).

### 3.2. Structural Equation Modelling

#### 3.2.1. Measurement Model

We assessed a measurement model comprising four latent variables (psychological adjustment, mental well-being, doomscrolling, and difficulty in emotion regulation) and thirteen observed variables. The measurement model demonstrated a good fit: ( $\chi^2=123$ ,  $df=59$ ,  $N = 407$ )  $= \chi^2/df = 2.09$ ;  $SRMR = 0.032$ ,  $RMSEA = 0.052$ ,  $CFI = 0.983$ ,  $NFI = 0.968$ ,  $GFI = 0.956$ ,  $IFI = 0.983$ .

#### 3.2.2. Structural Model

We examined the model testing the serial mediation of doomscrolling and difficulty in emotion regulation on the pathway from psychological adjustment to mental well-being. The goodness-of-fit statistics for the model indicated a good fit to the data ( $\chi^2=183$ ,  $df=83$ ,  $N = 407$ )  $p < .001$ ,  $\chi^2/df = 2.20$ ,  $SRMR = 0.058$ ,  $RMSEA = 0.054$ ,  $GFI = 0.944$ ,  $CFI = 0.974$ ,  $NFI = 0.954$ ,  $IFI = 0.983$ . Consequently, the model received support. The results of the fully mediated model are presented in Figure 1.

-Insert Figure 1 Here-

## 4. Discussion

It is thought that it would be helpful to elaborate on the model involved in the research. The initial research suggests that psychological harmony can be found to interpret doomscrolling in a meaningful way. As we look at the literature, it appears that stopping the follow-up on COVID data via Twitter and YouTube in parallel with this information increases my positive emotion (Buchanan et al., 2021). Doomscrolling also appears to be treating stress as positive, life-harmony and saturation with negative meaning. In other words, as doomscrolling increases, so does the person's stress and well-being (Satici et al., 2022).

Another study found that psychological harmony understandably exerts the difficulty of regulating emotions. If we look at the literature, it suggests that there are positive meaningful relationships between stress, anxiety and depression associated with psychological harmony and the difficulty of regulating emotion (Park et al., 2012). Editing emotion in a different direction is also seen as contributing to stress, depression and life

saturation in the structure of psychological harmony (Shim et al., 2015). Another study examining the psychological effects of childhood traumas shows a negative moderate relationship between psychological harmony and the difficulty of emotion regulation (Küçük, 2019). So that tells us that one's psychological orientation is a very important determinant of the emotional structure.

Another finding from the study is that psychological harmony appears to interpret mental well-being as meaningful. Similarly, in the COVID-19 pandemic, adverse mental health associated with depression, stress and anxiety. Problems with one's mental health dictate good behavior (Valiente et al., 2021). According to another research model with adolescents, subjective good causes a negative interpretation of emotional and behavioral problems expressed as subdimensions of psychological harmony (Arslan et al., 2021). This is found to be consistent with the literature given the earthquake disaster involved in this research.

According to the study, the model is derived from psychological harmony and mental well-being, with the difficulty in regulating emotions and the role of doomscrolling as an instrument. Now, when we look at the literature, it turns out that these four variables are not really a one-on-one study. However, when examining adolescent psychological harmony, good behavior, and emotional state, a study is associated with a high balance of subjective good behavior, high life saturation, and emotions. Balance of life saturation and emotion represents subjective good, emotional symptoms, and behavioral problems represent psychological harmony. It appears that there is a negative moderate relationship between life-saturation and emotional stability and emotional symptoms (de la Barrera et al., 2019). This results, it can be said, supports research evidence.

#### **4.1. Limitation**

This research reveals that adults are good at psychological harmony, doomscrolling, emotional regulation, and mental illness. Recommendations are seen as necessary to illustrate these limitations and to make them useful for future research. This research is limited to the data obtained by measuring tools that gather data based on a person's self-notification. In addition to the measuring tools used to fill out the measuring tools, given the social willingness of participants in the measurement system, it may be helpful to use different data collection methods and techniques such as interviews, observations, and so on. The second one is related to the research pattern. In this study, it is difficult to express a causality between the variables (psychological adjustment doomscrolling difficulty in emotion regulation mental well-being) with structural equation modeling. So the explanation of this causality can be supported by data from experimental and longitudinal studies. Another limitation of research is that it treats adults without limiting them to a particular period of development. This indicates a very large developmental age range. Further research can be found to be useful within those development-period features, such as by limiting them to the subheadings of this development period (for example, young adulthood). The study group is used in this study. In further studies, it is recommended that one of the methods of sampling (such as clustering) is preferred to increase the quality of research by creating a universe and sampling.

#### **4.2. Implication**

In addition to the limitations of the research, the relationships between mental well-being and psychological adjustment, difficulty in emotion regulation and doomscrolling were revealed in this study. Therefore, it is thought that psychoeducational studies to be developed to increase psychological adjustment in adults will contribute to reducing emotion regulation difficulties and doomscrolling and increasing mental well-being. In this context, it is recommended to give seminars on the use of technology in social disasters in order to prevent doomscrolling, which negatively predicts the mental well-being of the person. There is a Digital Health Workshop on this subject. This workshop provides a healthy access to information during the COVID-19 pandemic (Chisholm & Hartman-Caverly, 2022). Similarly, it is thought that it will be very useful in disaster periods when false information increases as well as correct information.

#### **4.3. Conclusion**

In our study, it was found that doomscrolling and difficulty in emotion regulation play a mediating role

between psychological adjustment and mental well-being in adults. In addition, it is seen that psychological adjustment significantly predicts doomscrolling, difficulty in emotion regulation and mental well-being. In addition, it is seen that the mediator variables with doomscrolling and difficulty in emotion regulation also significantly predict the dependent variable of mental well-being, and the model that is the subject of the research is confirmed.

### Compliance with Ethical Standards

**Funding:** This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Conflict of Interest:** Authors declare no competing interests for this manuscript.

**Informed Consent:** Consent to participate was obtained from participants.

### References

- Akça Taşçı, G., & Özsoy, F. (2021). Deprem travmasının erken dönem psikolojik etkileri ve olası risk faktörleri. *Çukurova Medical Journal* 46 (2), 488-494.<https://doi.org/10.17826/cumj.841197>
- Anderson, J. C., & Gerbing, D. W (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103 (3), 411–423.<https://psycnet.apa.org/doi/10.1037/0033-2909.103.3.411>
- Arslan, G., Allen, K. A., & Tanhan, A. (2021). School bullying, mental health, and wellbeing in adolescents: Mediating impact of positive psychological orientations. *Child Indicators Research* , 14 , 1007-1026.<https://doi.org/10.1007/s12187-020-09780-2>
- Bjureberg, J., Ljótsson, B., Tull, M. T., Hedman, E., Sahlin, H., Lundh, L.-G. . . . , et al. (2016). Development and validation of a brief version of the difficulties in emotion regulation scale: The DERS-16. *Journal of Psychopathology and Behavioral Assessment*, 38 (2), 284–296.<https://doi: 10.1007/s10862-015-9514-x>
- Bland, S.H., Valoroso, L., Stranges, S., Strazzullo, P., Farinero, E., & Trevisan, M. (2005). Long-term follow-up of psychological distress following earthquake experiences among working Italian males. *The Journal of Nervous and Mental Disease*, 193 (6), 420-423.<https://doi.org/10.1097/01.nmd.0000165297.49452.41>
- Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T.H., & Potenza, M.N. (2020). The Interaction of Person-Affect-Cognition-Execution (I-PACE) model for addictive behaviors: Update, generalization to addictive behaviors beyond internet-use disorders, and specification of the process character of addictive behaviors. *Neuroscience & Biobehavioral Reviews*, 104 , 1-10.<https://doi.org/10.1016/j.neubiorev.2019.06.032>
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 111–135). Beverly Hills.
- Buchanan, K., Akin, 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).<https://doi.org/10.1371/journal.pone.0257728>
- Chisholm, A., & Hartman-Caverly, S. (2022). Privacy Literacy: From Doomscrolling to Digital Wellness. *portal: Libraries and the Academy* , 22 (1), 53-79.<https://doi.org/10.1353/pla.2022.0009>
- Cruz, R. A., Peterson, A. P., Fagan, C., Black, W., & Cooper, L. (2020). Evaluation of the Brief Adjustment Scale-6 (BASE-6): A measure of general psychological adjustment for measurement-based care. *Psychological Services*, 17 (3), 332-342.<https://doi.org/10.1037/ser0000366>
- de la Barrera, U., Schoeps, K., Gil-Gómez, J. A., & Montoya-Castilla, I. (2019). Predicting adolescent adjustment and well-being: The interplay between socio-emotional and personal factors. *International journal of environmental research and public health* , 16 (23), 4650.<http://dx.doi.org/10.3390/ijerph16234650>

- Demirtas, A., & Baytemir, K. (2019). Warwick-Edinburgh Mental İyi Oluş Ölçeği Kısa Formunun Türkçeye uyarlanması: Geçerlik ve güvenilirlik çalışması. *Elektronik Sosyal Bilimler Dergisi*, 18 (70), 689-70. <http://dx.doi.org/10.17755/esosder.432708>
- Gawali, K., & Gawali, C. (2020). Relationship of Subjective wellbeing and Psychological Adjustment among students. *Journal of Psychosocial Research*, 15 (1), 317-327. <https://doi.org/10.32381/JPR.2020.15.01.27>
- Goenjian, A. K., Steinberg, A. M., Najarian, L. M., Fairbanks, L. A., Tashjian, M., & Pynoos, R. S. (2000). Prospective study of posttraumatic stress, anxiety, and depressive reactions after earthquake and political violence. *Am J Psychiatry*, 157 (6), 911 – 6. <https://doi.org/10.1176/appi.ajp.157.6.911>
- Gratz, K., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioural Assessment*, 26 , 41–54. <https://doi.org/10.1023/B:JOBA.0000007455.08539.94>
- Gross, J. J., & Thompson, R. A. (2007). Emotion Regulation: Conceptual Foundations. In J. J. Gross (Eds.), *Handbook of emotion regulation* (pp. 3-24). The Guilford Press.
- Harada, N., Shigemura, J., Tanichi, M., Kawaida, K., Takahashi, S., & Yasukata, F. (2015). Mental health and psychological impacts from the 2011 Great East Japan Earthquake Disaster: a systematic literature review. *Disaster and Military Medicine* 1 , 17. <https://doi.org/10.1186/s40696-015-0008-x>
- Hogg, D., Kingham, S., Wilson, T. M., & Ardagh, M. (2016). The effects of relocation and level of affect- edness on mood and anxiety symptom treatments after the 2011 Christchurch earthquake. *Social Science & Medicine*, 152 , 18–26. <http://dx.doi.org/10.1016/j.socscimed.2016.01.025>
- Horwood, S., & Anglim, J. (2020). Emotional regulation difficulties, personality, and problematic smartphone use. *Cyberpsychology, Behavior, and Social Networking*, 24 (4), 10-27. <https://doi.org/10.1089/cyber.2020.0328>
- Kansky, J., & Diener, E. (2017). Benefits of well-being: Health, social relationships, work, and resilience. *Journal of Positive Psychology and Wellbeing*, 1 (2), 129-169. <https://journalppw.com/index.php/jppw/article/view/15/12>
- Kararmak, Ö. (2006). Psikolojik Sağlık, Risk Faktörleri ve Koruyucu Faktörler. *Turkish Psychological Counseling and Guidance Journal*, 3 (26), 129-142. <https://dergipark.org.tr/en/pub/tpdrd/issue/21446/229856>
- Kotozaki, Y., & Kawashima, R. (2012). Effects of the higashi-nihon earthquake: post-traumatic stress, psychological changes, and cortisol levels of survivors. *Plos One*, 7 (4), e34612. <https://doi.org/10.1371/journal.pone.0034612>
- Krause, N. (1987). Exploring the impact of a natural disaster on the health and psychological wellbeing of older adults. *Journal of Human Stress* 13 (2), 61–69. <https://doi.org/10.1080/0097840X.1987.9936796>
- Küçük (2019). *Çocukluk çağı örseleyici yaşantıları: Geç ergenlik döneminde duygu düzenleme, psikolojik uyum ve sağlık* (Publication No. 564890) [Master dissertation, Ankara University]. Databases of National Thesis Center of the Council of Higher Education.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal and coping. Springer Publishing Company.
- Leahy, R. L., Tirsch, D., & Napolitano, L. A. (2011). Emotion regulation in psychotherapy: A practitioner's guide. The Guilford Press.
- Özbilgin, M., Erbil, C., Şimşek Demirbağ, K., Demirbağ, O., & Tanrıverdi, V. (2023). Afet yönetiminde sorumluluğun yeniden inşası: Deprem, sosyal dramalar, sosyal politikalar. *Sosyal Mucit Academic Review*, 4 (1), 71-112. <https://doi.org/10.54733/smar.1253256>

- Park, C. L., Edmondson, D., & Lee, J. (2012). Development of self-regulation abilities as predictors of psychological adjustment across the first year of college. *Journal of Adult Development* , 19 , 40-49.<http://doi.org/10.1007/s10804-011-9133-z>
- Prayag, G., Ozanne, L. K., & Spector, S. (2021). A psychological wellbeing perspective of long-term disaster recovery following the Canterbury earthquakes. *International Journal of Disaster Risk Reduction*, 63 , Article 102438. <https://doi.org/10.1016/j.ijdrr.2021.102438>
- Renshaw, T. L., Long, A. C. J., & Cook, C. R. (2015). Assessing adolescents positive psychological functioning at school: Development and validation of the student subjective wellbeing questionnaire. *School Psychology Quarterly*, 30 (4), 534-552.<https://doi.org/10.1037/spq0000088>
- Rodrigues, E. V. (2022). Doomscrolling- threat to mental health and wellbeing: A review. *International Journal of Nursing Research*, 8 (4), 127-130.<https://doi.org/10.31690/ijnr.2022.v08i04.002>
- Rozgonjuk, D. & Elhai, J. (2019). Emotion regulation in relation to smartphone use: Process smartphone use mediates the association between expressive suppression and problematic smartphone use. *Current Psychology*, 40 , 3246-3255.<https://doi.org/10.1007/s12144-019-00271-4>
- Satici, S. A., Gocet Tekin, E., Deniz, M. E., & Satici, B. (2022). Doomscrolling Scale: its Association with Personality Traits, Psychological Distress, Social Media Use, and Wellbeing. *Applied Research in Quality of Life* , 18 , 833-847.<https://doi.org/10.1007/s11482-022-10110-7>
- Sharma, B., Lee, S. S., & Johnson, B. K. (2022). The dark at the end of tunnel: Doomscrolling on social media newsfeeds. *Technology, Mind, and Behavior*, 3 (1), 1-13.<https://doi.org/10.1037/tmb0000059.supp>
- Shields, A., & Cicchetti, D. (1997). Emotion regulation among school-age children: The development and validation of a new criterion Q-short scale. *Developmental Psychology*, 33 (6), 906-916.<https://doi.org/10.1037/0012-1649.33.6.906>
- Shim, S. S., Wang, C., Makara, K., Xu, X.-G., Xie, L.-N., & Zhong, M. (2017) College students' social goals and psychological adjustment: Mediation via emotion regulation. *Journal of College Student Development*, 58 (8), 1237-1255.<http://eprints.gla.ac.uk/140783>
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS): a rasch analysis using data from the scottish health education population survey. *Health and Quality of Life Outcomes*, 7 (1), 15.<http://doi:10.1186/1477-7525-7-15>
- Tang, C.S. (2006). Positive and negative postdisaster psychological adjustment among adult survivors of the Southeast Asian earthquake-tsunami. *Journal of Psychosomatic Research*, 61 (5), 699-705.<https://doi.org/10.1016/j.jpsychores.2006.07.014>
- 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>.
- Uchida, Y., Takahashi, Y., & Kawahara, K. (2014). Changes in hedonic and eudaimonic well-being after a severe nationwide disaster: the case of the great east japan earthquake. *Journal of Happiness Studies*, 15 (1), 207-221.<https://doi.org/10.1007/s10902-013-9463-6>
- Valiente, C., Contreras, A., Peinado, V., Trucharte, A., Martinez, A. P., & Vazquez, C. (2021). Psychological adjustment in Spain during the COVID-19 pandemic: Positive and negative mental health outcomes in the general population. *The Spanish Journal of Psychology* , 24 , e8, 1-13.<https://doi.org/10.1017/SJP.2021.7>
- Yiğit, İ., & Guzey Yiğit, M. (2017). Psychometric properties of Turkish Version of Difficulties in Emotion Regulation Scale-Brief Form (DERS-16). *Current Psychology*, 38 , 1503-1511.<https://doi.org/10.1007/s12144-017-9712-7>



Yildirim, M., & Solmaz, F. (2021). Testing a Turkish adaption of the Brief Psychological Adjustment Scale and assessing the relation to mental health. *Psikoloji Çalışmaları - Studies in Psychology* , 41 (1), 231–245. <https://doi.org/10.26650/SP2020-0032>

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