

## Original Article

# Doomscrolling and Existential Anxiety among Emerging Adults in Pakistan: Moderating Role of Cognitive Reappraisal

Zainab <sup>1</sup>, Zafar Ahmad <sup>2</sup>, Hamna Rehman Khan <sup>3</sup>

## Abstract

**Objective:** This study aimed to examine the moderating role of cognitive reappraisal on the relationship between doomscrolling and existential anxiety among emerging adults in Pakistan.

**Study design:** It was cross-sectional study.

**Place and duration of study:** A total of 323 participants were recruited from Islamabad and Rawalpindi, Pakistan.

**Material and Methods:** A cross-sectional research design was employed. A total of 323 participants (125 men, 198 women) aged 18–29 years were recruited from Islamabad and Rawalpindi, Pakistan. Participants completed the Doomscrolling Scale (Sharma et al., 2022), the Emotion Regulation Questionnaire – Cognitive Reappraisal Subscale Short Form (Preece et al., 2023), and the Existential Anxiety Questionnaire (Weems, 2024).

**Results:** Correlational analyses indicated a significant positive relationship between doomscrolling and existential anxiety. However, cognitive reappraisal did not significantly moderate the association between doomscrolling and existential anxiety or its subscales.

**Conclusion:** These findings suggest that the ability to use cognitive reappraisal in response to emotionally challenging situations, such as exposure to negative social media content, may be limited among Pakistani emerging adults. Cultural norms surrounding emotional expression and regulation may influence these outcomes, resulting in inconsistent moderation effects. The study highlights the need to consider cultural and contextual factors when evaluating emotion regulation strategies in digital media contexts.

**Keywords:** Doomscrolling, Existential Anxiety, Cognitive Reappraisal, Emerging Adults

## 1. Introduction

Doomscrolling, a pattern of excessive engagement with negative news that gained prominence during the COVID-19 pandemic, has been linked to heightened anxiety, hopelessness, and rumination as a result of prolonged exposure to distressing, algorithm-driven content on social media <sup>1,2,3</sup>. Despite growing evidence of its adverse mental health effects, the relationship between doomscrolling and existential anxiety remains underexplored, particularly within the cultural context of Pakistan.

Existential anxiety, an in-depth psychological experience involving harsh or threatening information <sup>4</sup>, characterized by death fear, meaninglessness, and guilt was acknowledged. This anxiety leads to higher stress and lower quality of life <sup>5</sup>. Being a country that suffers

from both extreme sociopolitical and global crises that are live on digital platforms, emerging adults in Pakistan may be particularly susceptible to such anxieties.

Cognitive reappraisal is thought of as adaptive, where you reformulate your thoughts to change the emotional impact of them. Emotion regulation is a useful tool to prevent anticipatory anxiety and serves as a shield against emotional exhaustion that eventually decreases in the overall state of well-being <sup>6</sup>. Nevertheless, if maladaptive emotional regulation occurs cognitive strategies are used that negatively affect overall well-being which is connected to excessive negative news consumption <sup>(7)</sup>

Bahria University, Islamabad <sup>1,2,3</sup>

**Correspondence:** Zafar Ahmad, Bahria University Islamabad

Email: zafahmad@gmail.com

Cognitive Appraisal Theory<sup>8</sup>, which provides a framework for understanding how individuals perceive, evaluate, and respond to stressful or threatening situations. According to this theory, stress arises not solely from the situation itself but from an individual's appraisal of its threat level and their perceived ability to cope with it.

In the context of doomscrolling, repeated exposure to negative news and distressing information magnifies perceived threats, triggering maladaptive cognitive patterns such as rumination, pessimistic thinking, and feelings of hopelessness, which have been linked to adverse psychological outcomes. Doomscrolling has been shown to predict elevated levels of existential anxiety and existential concerns, including worries about life's meaning and mortality, across diverse cultural samples<sup>9</sup>. Although adaptive coping strategies particularly cognitive reappraisal, which involves reinterpreting a situation to reduce its emotional impact can help alleviate some negative psychological effects by reshaping how stressors are perceived, research suggests that the effectiveness of cognitive reappraisal may be limited in counteracting the pervasive and cumulative stress associated with habitual exposure to negative digital content<sup>10,11</sup>. This underscores the complex interplay between individual appraisal processes, coping resources, and the psychological consequences of persistent exposure to adverse information.

## 2. Materials & Methods

### Objective

To explore doom scrolling, existential anxiety, and cognitive reappraisal among emerging adults.

### Hypotheses

1. Doom Scrolling is positively related to existential anxiety among emerging adults.
2. Cognitive reappraisal moderates the relationship between doomscrolling and existential anxiety.

### Participants

The sample comprised 323 emerging adults (125 men, 198 women) aged 18–29 years, recruited from Islamabad and Rawalpindi. Participants were selected from Islamabad and Rawalpindi through non-probability Convenience sampling. An informed consent form was given to participants before data collection. The objectives and procedures of the research were explained, and participants were assured that they could withdraw from the study at any time without consequence. They were informed about the confidentiality and anonymity of their responses. Inclusion criteria required participants to be within the age range and have at least intermediate education; those outside the age range were excluded. All APA guidelines and ethical considerations were kept in mind.

### Instruments

#### Doomscrolling Scale (Sharma et al., 2022)

A Doomscrolling Scale was used to assess the tendency to engage in prolonged exposure to negative online content. The 15-item scale is a self-reported measure, using a 7-point Likert scoring system. Higher scores reflect greater doomscrolling tendencies. Cronbach's  $\alpha$  in this study = .96<sup>12</sup>.

#### Emotion Regulation Questionnaire–Short Form (ERQ–SF) (Preece et al., 2023)

The ERQ-S was developed by Preece et al. (2023) as a 6-item, rated on a 7-point Likert scale, short form of the original Emotion Regulation Questionnaire<sup>10</sup>. Emotional regulation subscale cognitive reappraisal was used to measure cognitive reappraisal. Higher subscale scores indicate greater use of the respective strategy. The ERQ-S demonstrates strong psychometric properties, with Cronbach's alpha of 0.87 for cognitive reappraisal<sup>13</sup>.

#### Existential Anxiety Questionnaire (EAQ) (Weems, 2024)

The Existential Anxiety Questionnaire consists of 13 items and is a binary scale. A multidimensional measure with three subscales: Fate and Death, Emptiness and Meaninglessness, and Guilt and

Condemnation. Higher scores indicate greater existential anxiety. EAQ shows internal consistency  $\alpha = 0.71$ <sup>14</sup>.

### 3. Results

*Bivariate Correlation Between Doom Scrolling, Emotional Regulation (Cognitive Reappraisal), and Existential Anxiety (Fate and death, Emptiness and meaninglessness, and Guilt and condemnation) (N = 323)*

Variables	1	2	3	4	5	6	7
<b>1.Doomscrolling</b>	-	.12*	-	.71**	.70**	.66**	.46**
			.54**				
<b>2. Emotional Regulation</b>		-	.49**	.01	.00	.06	-.02
Cognitive Reappraisal				-.62**	-.59**	-.51**	.49**
<b>4. Existential Anxiety</b>				-	.91**	.84**	.79**
Fate and Death						.76**	.56**
Emptiness and Meaninglessness							.44**
Guilt and Condemnation							-

Table 1 shows that doomscrolling is positively related to existential anxiety and all of its subscales (fate and death, emptiness and meaninglessness, and guilt and condemnation), while being negatively related to cognitive reappraisal, an emotional regulation strategy. Emotional regulation is positively associated with cognitive reappraisal but demonstrates minimal association with existential anxiety, except for a negative relationship with guilt and condemnation. Cognitive reappraisal is negatively associated with existential anxiety and each of its subscales. Moreover, the subscales of existential anxiety exhibit strong positive intercorrelations.

Moderation Analysis Examining the Interaction Effect of Doomscrolling and Existential Anxiety (Fate and Death) (N=323)

Variable	<i>Fate and Death</i>			
	<i>B</i>	<i>t</i>	<i>95% CI</i>	
			<i>LL</i>	<i>UL</i>
Constant	3.21	5.13	1.98	4.44
Doomscrolling	.03	3.55	.01	.04
cognitive reappraisal	-.13	-3.24	-.21	-.05
DST x CR	.00	.78	-.00	.00
R <sup>2</sup>	.55			
F	132.89			

Note. CI= Confidence Interval, UL= Upper Limit, LL= Lower Limit

The results indicate the Cognitive Reappraisal does not significantly moderate the relationship between doomscrolling and the existential anxiety subscale, Fate and death.

Table 3

Moderation Analysis Examining the Interaction Effect of Doomscrolling and Existential Anxiety (Emptiness and meaninglessness) (N=323)

Variable	<i>Emptiness and meaninglessness</i>			
	<i>B</i>	<i>t</i>	<i>95% CI</i>	
			<i>LL</i>	<i>UL</i>
Constant	1.89	3.58	.85	2.92
Doomscrolling	.02	3.07	.00	.03
cognitive reappraisal	-.09	-2.61	-.16	-.02
DST x CR	.00	.98	-.00	.00
R <sup>2</sup>	.47			
F	96.44			

Note. CI= Confidence Interval, UL= Upper Limit, LL= Lower Limit

The results indicate the Cognitive Reappraisal does not significantly reduce emptiness and meaninglessness.

Table 4

Moderation Analysis Examining the Interaction Effect of Doomscrolling and Existential Anxiety (Guilt and condemnation) (N=323)

Variable	Guilt and condemnation			
	B	T	95% CI	
			LL	UL
Constant	2.23	3.08	.81	3.65
Doomscrolling	.02	2.61	.00	.03
cognitive reappraisal	-.06	-1.42	-.16	.02
DST x CR	-.00	-.87	-.00	.00
R <sup>2</sup>	.29			
F	45.21			

Note. CI= Confidence Interval, UL= Upper Limit, LL= Lower Limit

The results indicate that Cognitive Reappraisal does not significantly moderate the relationship between Doomscrolling and the existential anxiety subscale Guilt and condemnation.

4. Discussion

The present study examined the association between doomscrolling and existential anxiety, including its subdimensions, and further explored whether the emotion regulation strategy of cognitive reappraisal moderated this relationship among emerging adults. Consistent with the first hypothesis, the findings demonstrated a significant positive relationship between doomscrolling and existential anxiety. Specifically, individuals who engaged more frequently in doomscrolling reported elevated levels of existential anxiety. Continuous exposure to distressing global events appears to heighten awareness of pervasive threats and uncertainties, thereby intensifying existential concerns such as fear of death and difficulty in deriving meaning from life. These findings are consistent with prior research by Shabahang et al. (2024), which showed that prolonged exposure to negative news content amplifies existential distress. Moreover, the results align with Terror Management Theory <sup>15</sup>, which posits that repeated reminders of mortality can intensify anxiety related to life’s meaning and future uncertainty. Doomscrolling was also strongly associated with the core dimensions of existential anxiety—namely, emptiness and meaninglessness, fate and death, and guilt and

condemnation—suggesting that the distress linked to doomscrolling reflects profound concerns about purpose, mortality, and personal responsibility rather than transient or superficial worry.

In the context of doomscrolling, this indicates that the way individuals regulate their emotions when encountering online content may be as critical as the frequency of their exposure. This hypothesis was tested by analyzing the moderating role of cognitive reappraisal that is a component of emotional regulation. The results offered partial support for this hypothesis, indicating that the moderating effects varied depending on the specific sub-dimension of existential anxiety.

Cognitive reappraisal served as a moderator; the interaction effects of doomscrolling by existential anxiety were not statistically significant. This implies that the relationship between doomscrolling and existential anxiety has not changed much in terms of cognitive reappraisal. The lack of consistent moderation by cognitive reappraisal suggests that cognitive processes are not adequately engaged or do not provide effective coping for existential concerns in Pakistani society. However, the reappraisal also necessitates metacognitive skills and emotional awareness that are not systematically fostered in Pakistani education or parenting styles. Even when reappraised, such fears (e.g., death, guilt) can be so profound that even the more adaptive strategies may not be strong enough to hold them at bay in the face of powerful cultural messages (e.g., fear of hell, family shame, sin). This type of practice might not be fruitful for many individuals cause most of the time they would try to make sense out of stuff using religious phrases rather than understanding what it really means, which may even increase anxiety.

These findings show the multifaceted cultural processes involving existential concerns in the case of Pakistan <sup>16</sup>. While the ability to change the interpretation of a situation to reduce negative emotions and to increase positive emotions is beneficial, it is usually harder and more mentally demanding to employ this strategy <sup>6</sup>. Within the Pakistani culture, many individuals do not receive training on how to employ these techniques. Unlike in many cultures, the articulation of emotions is not encouraged within families, schools, and more

broadly, society. The absence of this cultural training can make it difficult for individuals to utilize cognitive reappraisal in real-life pressure situations, such as the incessantly negative content portrayed on social media. This could account for the findings on cognitive reappraisal not having a significant effect in the study<sup>17</sup>. The findings of this study are relevant not only in the context of social media but also for vulnerable populations such as emerging adults, as they are more susceptible to emotional stress and social comparisons, and may not have the emotional resources required to manage these stressors effectively. Furthermore, even adaptive strategies may not provide suitable defenses where there is a lack of cultural context, tools, or skills to implement them effectively. So the moderation effects were less consistent, but they still highlight how personal and cultural differences play a role in how people respond to social media use<sup>18</sup>.

The limited availability of emotionally validating support systems in Pakistan, such as access to therapy or opportunities for open family dialogue, often results in reduced reliance on cognitive appraisal as a coping mechanism. This deficit can exacerbate existing mental health difficulties, as supported by prior literature, because cognitive reappraisal is employed less frequently, thereby contributing to poorer mental health outcomes<sup>16</sup>.

Taken together, these findings suggest that emotional regulation serves as a key mechanism linking doomscrolling with existential anxiety. However, its moderating role appears to differ across specific dimensions of existential anxiety under examination<sup>16</sup>.

### **Conclusion:**

Cognitive reappraisal failed to moderate the relationship between doomscrolling and existential anxiety because existential anxiety stems from deep concerns about meaning, mortality, and uncertainty that are not easily altered through cognitive reframing. Doomscrolling is often habitual and compulsive, while reappraisal requires deliberate effort and cognitive resources, making it less effective under conditions of repeated negative exposure and information overload. High cognitive load further limits the real-time use of reappraisal strategies. Cultural context may also reduce

reliance on cognitive reappraisal in favor of other coping mechanisms such as acceptance, religiosity, or social support. Additionally, reappraisal may reduce emotional intensity without changing perceived real-world threats, and trait-level measurement may not capture situational regulation during doomscrolling. Overall, alternative mechanisms such as intolerance of uncertainty, rumination, or meaning-related processes may better explain the link between doomscrolling and existential anxiety.

### **Limitations:**

Self-reported scales cause hindrance to some extent. Differences in the expression of emotions, attitudes toward existence, and social media behavior might have shaped how participants understood and reacted to the items. A cross-sectional survey design does not enable following participants longitudinally, conducting fieldwork, or employing a mixed-methods approach, which would have added depth to the analysis, yielding more comprehensive findings.

### **Future Recommendations:**

Future studies could investigate whether existential anxiety related to doomscrolling contributes to or exacerbates panic-like symptoms in vulnerable individuals, a connection not directly explored in the present research. Additionally, further research studies could explore on the protective and risk elements of resilience, mindfulness, religious and spiritual coping, and cognitive coping styles. More broadly, the literature remains limited on the emotional regulation to doomscrolling, existential anxiety, and psychological distress shaped by cultural frameworks, religious considerations, including Islamic perspectives and practices, fatalistic worldviews, and political climates.

### **Disclosure /Conflict of interest:**

Authors declare no conflict of interest.

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