

Research Paper

The Role of Covid-19, Seclusion & its Impact on Death Anxiety & Cognitive Emotion Regulation Among Adults

Zoya Khan^{1*}, Yuvraj Dubey²

ABSTRACT

This research aimed to investigate the impact of COVID-19 on death anxiety and cognitive-emotional regulation among adults in the Delhi National Capital Region (NCR). The study encompassed a sample of 90 adults, categorized into three distinct groups based on their experiences with COVID-19: a control group, a first experimental group, and a second experimental group. A purposive non-probability sampling method was employed to ensure the accurate representation of each group, considering participants' COVID-19 infection status and loss of loved ones due to the virus. The study utilized the Templer Death Anxiety Scale (TDAS) and the Cognitive Emotional Regulation Questionnaire Short Form (CERQ-short) to measure death anxiety and cognitive-emotional regulation, respectively. Results of the ANOVA analysis indicated no statistically significant differences in death anxiety scores among the three groups, despite a violation of the homogeneity of variances assumption. Additionally, correlational analysis revealed varying strengths of correlations between death anxiety scores and psychological dimensions across the three stages represented by DAS scores, providing insights into the nuanced dynamics of loss and death anxiety. These findings are further discussed in the subsequent sections, shedding light on the psychological impacts of COVID-19 and suggesting implications for future research and intervention strategies.

Keywords: *Death anxiety, Cognitive-Emotional regulation, COVID-19*

The COVID-19 pandemic has significantly disrupted daily life, thus necessitating extended periods of seclusion and social isolation. The physical health implications are overt, but this unprecedented global crisis has profoundly affected mental health and emotional well-being of people. This research thus investigates the impact of COVID-19 induced seclusion on death anxiety and cognitive emotional regulation among adults.

Death anxiety, i.e. the apprehension or fear of death, has become increasingly prevalent during the pandemic as the individuals confront heightened awareness of mortality. Also, cognitive emotional regulation, that is the mechanisms by which individuals manage and respond to their emotional experiences, has also become critical in coping with the emotional distress caused by pandemic.

¹Department of Humanities & Social Sciences, M.A. Applied Psychology, Netaji Subhas University of Technology, Delhi

²Undergraduate, Department of Psychology, Institute for Excellence in Higher Education (IEHE), Bhopal

*Corresponding Author

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COVID has brought in forced isolation due to lockdowns and social distancing measures, which has limited individual's access to social support networks, which is crucial in maintaining mental health. The abrupt shift to virtual interactions, remote work, and limited physical movement has created a landscape where feelings of loneliness and helplessness are common. This environment may exacerbate existing mental health problems and also can contribute to novel psychological challenges. Understanding the specific ways in which seclusion influences death anxiety and cognitive emotional regulation is essential for developing targeted therapeutic approaches. It is crucial to identify the factors that can mitigate these effects. Goel, D., Farooq, M., (2021) found out that nearly half of the participants self-reported anxiety associated with the COVID-19 pandemic, also the increased use of mass media reported elevated stress levels among the participants.

Firstly, the study aims to investigate how different experiences with COVID-19 influence levels of death anxiety. Experiences such as contracting the virus personally, knowing someone who has been affected, or dealing with the loss of a loved one may significantly shape an individual's death anxiety. Patra, I., et al (2023) found that scores of death anxiety during COVID-19 pandemic in chronic patients (score of 59%) and the elderly (56.4%) represent significantly high death anxiety, which had terrible effects on their lives.

Secondly, this study aims to examine the influence of these diverse encounters with COVID-19 on cognitive emotional regulation strategies. Cognitive emotional regulation refers to the methods individuals use to manage and control their emotional response patterns. The pandemic's unique stressors, including prolonged isolation, uncertainty, and disruption of normal routines have likely affected emotional regulation patterns of individuals. Fernandez Cruz et al. (2020) found that the cognitive strategies (like Positive Reappraisal and Positive Refocusing of the problem) used by students surveyed have allowed them coping with events arising from the pandemic, mandatory isolation and closure, certainly adaptive and functional, while keeping a positive perception of their new living and learning situation, whereas an Excessive Reflection on stressful events generates catastrophizing.

Thirdly, understanding the interaction between death anxiety and cognitive emotional regulation can provide valuable insights into various psychological processes at play during the pandemic. By examining these correlations, research aims to identify potential patterns and relationships that could inform mental health interventions and support strategies.

The findings will contribute to the broader field of psychological research, offering evidence-based recommendations for mental health professionals, future researchers and general people. It also will be crucial for developing effective interventions and support systems to address the ongoing and long-term psychological impacts of the COVID-19 pandemic.

The rationale of this study lies in understanding the impact of varied experiences with COVID-19 on death anxiety levels and cognitive-emotional regulation strategies. By investigating how different encounters with COVID-19—such as contracting the virus, experiencing the loss of a loved one, or remaining unaffected—affect individuals' levels of death anxiety and their use of cognitive-emotional regulation strategies. Additionally, examining the correlation between death anxiety and cognitive-emotional regulation across diverse experiences can offer valuable insights into the adaptive and maladaptive coping

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mechanisms employed by individuals facing uncertainty and existential threats. This study aims to shed light on the psychological impact of the COVID-19 pandemic and provide implications for intervention and support strategies to promote mental well-being in the face of adversity.

METHODOLOGY

Aim

To study the impact of Covid-19 on Death Anxiety and difference in Cognitive-Emotional Regulation.

Objectives

- To investigate the impact of varied experiences with COVID-19 on levels of death anxiety.
- To examine the influence of diverse encounters with COVID-19 on cognitive emotional regulation strategies.
- To analyze the correlation between death anxiety and cognitive-emotional regulation across different experiences.

Sample Characteristics

The research study encompassed a sample of 90 adults residing in the Delhi National Capital Region (NCR), selected to explore the psychological impacts of the COVID-19 pandemic. Participants, aged 18 and above were carefully chosen to ensure their ability to provide informed consent and comprehend the study's requirements and a diverse demographic profile was observed within the groups, encompassing varying ages, genders, socio-economic backgrounds, and educational levels.

The sample included three distinct groups:

- **Group 1:** Participants in this group had not contracted COVID-19 nor experienced the loss of a loved one due to the pandemic.
- **Group 2:** Comprising individuals who had not contracted COVID-19 themselves but had suffered the loss of a loved one due to the virus.
- **Group 3:** Consisting of individuals who had contracted COVID-19 but had not lost any loved ones due to the virus.

Sampling technique

The study employed a purposive non-probability sampling method, meticulously selecting participants to accurately represent the three distinct groups crucial to the investigation. This methodology facilitated a comprehensive examination of the psychological impacts of COVID-19 infection and the loss of loved ones on adults in the Delhi NCR region, ensuring the sample's relevance and validity.

Inclusion criteria

Inclusion criteria encompassed adults aged 18 and above residing in the Delhi National Capital Region (NCR) who had experienced the COVID-19 pandemic firsthand. This criterion aimed to capture individuals directly affected by the virus, either through infection or the loss of a loved one, thus providing valuable insights into the psychological impacts of the pandemic.

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Exclusion criteria

Exclusion criteria included individuals below the age of 18, as well as those lacking the cognitive ability to comprehend and respond to the study's requirements. Additionally, participants with pre-existing mental health conditions or cognitive impairments that could potentially confound the study's results were excluded.

Description of Tool

This study utilized two primary instruments to measure death anxiety and cognitive emotional regulation among participants: the Templer Death Anxiety Scale (TDAS) and the Cognitive Emotional Regulation Questionnaire Short Form (CERQ-short). The Templer Death Anxiety Scale (TDAS) is a psychometric tool that measures death anxiety levels in individuals, which comprises 15 items, each responded to on a true or false basis. It demonstrates consistent reliability and validity. TDAS was administered to all participants to assess the impact of COVID-19 infection and loss of loved ones on death anxiety level. The Cognitive Emotional Regulation Questionnaire Short Form (CERQ-short) is a concise version of the original CERQ and is designed to assess cognitive emotional regulation strategies individuals, it consists of 18 items, with two items per strategy. The 9 strategies include self-blame, acceptance, rumination, positive refocusing, refocusing on planning, positive reappraisal, putting into perspective, catastrophizing, and blaming others. Responses are provided on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). The tool has shown good psychometric properties validated by Garnefski and Kraaij (2006).

Precautions

Several precautions were taken to ensure the integrity and ethical conduct of the study. Firstly, strict adherence to ethical guidelines was maintained throughout all stages of the research process, including participant recruitment, data collection, and analysis. Informed consent was obtained from all participants. Data collection for the study was conducted through online questionnaires. Rigorous measures were implemented to ensure the security and confidentiality of participants' responses, including encryption of data transmission and storage. Additionally, clear instructions and prompts were provided to ensure participants understood the questions and could provide accurate and meaningful responses.

Procedure

The study's procedure underscored meticulous administration, rapport-building with participants, and assurance of confidentiality to foster an environment conducive to accurate data collection. Data collection commenced with the creation of online surveys featuring assessment tools such as the Templer Death Anxiety Scale (TDAS) and the Cognitive Emotional Regulation Questionnaire Short Form (CERQ-short). Following ethical approvals, a diverse sample of 90 adults from Delhi NCR was recruited, categorizing participants into three distinct groups based on their COVID-19 experiences. Trained research assistants oversaw the online data collection process, guiding participants through the questionnaires with clear and detailed oral instructions. Emphasis was placed on elucidating the study's objectives and encouraging honest responses, given the remote nature of data collection. Confidentiality measures were strictly upheld. Each participant received a comprehensive set of questionnaires, including the translated TDAS and CERQ-short, along with demographic information sheets.

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Ethical Consideration

The study rigorously follows ethical principles, ensuring informed consent, confidentiality, and voluntary participation. A diverse sample and trained research assistants highlight fairness and inclusivity. Professor oversight confirms adherence to standards, maintaining research integrity and prioritizing participant well-being.

Data Analysis

The data analysis presented herein delves into Covid-19's role and impact on death anxiety & cognitive emotion regulation across three stages represented by the Death Anxiety Scale (DAS) scores: DAS 1, DAS 2, and DAS 3. Death anxiety is influenced by various psychological factors, including coping mechanisms and cognitive processes. Through ANOVA & correlational analyses of nine psychological dimensions, this study aims to elucidate the nuanced dynamics of loss/death anxiety and provide valuable insights for further research and clinical practice.

Fisher's ANOVA was employed to discern any variations in death anxiety scores among three groups. However, the analysis yielded non-significant results, indicating no statistically significant differences in death anxiety scores across the groups. Specifically, the F-statistics for ANOVA test failed to reach significance ($F(2, 87) = 0.715, p = 0.492$) (see Table 1). The non-significant ANOVA results imply no substantial difference in death anxiety scores among the groups.

Table 1 One-Way ANOVA (Fisher's)

	F	df1	df2	p
Death Anxiety scores	0.715	2	87	0.492

Descriptive statistics of each group revealing mean death anxiety scores of 62.8, 61.7, and 63.5 for Group 1, Group 2, and Group 3, respectively (see Table 2). These findings suggest relatively similar levels of death anxiety across all groups.

	Group	N	Mean	SD	SE
Death Anxiety scores	1	30	62.8	4.59	0.837
	2	30	61.7	5.00	0.914
	3	30	63.5	7.40	1.352

Correlational Analysis of the scores of DAS 1, 2, and 3 with the factors influencing death anxiety was done respectively (see Table 1). Examination of Death Anxiety Scale (DAS) 1 provides significant insights into the factors influencing loss and death anxiety at the initial stage of the study. Self-blame, rumination, refocus on planning, catastrophizing, and other-blame demonstrate moderate to strong positive correlations with loss/death anxiety. These findings suggest that higher levels of these dimensions are associated with increased anxiety related to loss and death early in the study. Conversely, acceptance, positive refocusing, positive reappraisal, and putting into perspective show weaker correlations with loss/death anxiety during this stage. These dimensions may have less influence on anxiety related to loss and death at the outset of the study, highlighting potential areas for targeted intervention to address maladaptive coping strategies and negative thought patterns.

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The analysis of Death Anxiety Scale (DAS) 2 reveals additional insights into the dynamics of loss and death anxiety at an intermediate stage of the study. Similar to DAS 1, self-blame, rumination, refocus on planning, catastrophizing, and other-blame continue to demonstrate moderate to strong positive correlations with loss/death anxiety. This indicates that these dimensions maintain their influence on anxiety related to loss and death as the study progresses. Conversely, acceptance, positive refocusing, positive reappraisal, and putting into perspective still exhibit weaker correlations with loss/death anxiety during this stage, suggesting a consistent pattern across both early and intermediate stages of the study. These findings underscore the importance of addressing maladaptive coping strategies and negative thought patterns throughout the study duration, emphasizing the need for tailored interventions to support individuals experiencing distress related to loss and death.

Analysis of DAS 3 shows that self-blame, rumination, refocus on planning, catastrophizing, and other-blame demonstrate moderate to strong positive correlations with loss/death anxiety, indicating that higher levels of these dimensions are associated with increased anxiety related to loss and death. Acceptance, positive refocusing, positive reappraisal, and putting into perspective show weaker correlations with loss/death anxiety, suggesting that they may have less influence on anxiety related to loss and death in this context. These findings highlight the importance of addressing maladaptive coping strategies and negative thought patterns in interventions aimed at reducing loss and death anxiety. Further research is warranted to explore these relationships in more depth and to develop targeted interventions to support individuals experiencing distress related to loss and death.

Table 2 Table Comparing the nine dimensions of DAS categories 1, 2, and 3

Table Comparing the nine dimensions of DAS categories 1, 2, and 3

1. Self-blame:

- DAS 1: Moderate positive correlation (significant).	Pearson's r: 0.126 p-value: 0.508
- DAS 2: Weak negative correlation (non-significant).	Pearson's r: -0.140 p-value 0.461
- DAS 3: Moderate positive correlation (significant).	Pearson's r 0.532

2. Acceptance:

- DAS 1: Moderate positive correlation (non-significant).	Pearson's r: 0.299 p-value: 0.108
- DAS 2: Weak positive correlation (non-significant).	Pearson's r 0.183 p-value of 0.333
- DAS 3: Weak positive correlation (non-significant).	Pearson's r 0.165

3. Rumination:

- DAS 1: Strong positive correlation (significant).	Pearson's r: 0.530 p-value: 0.003
- DAS 2: Weak positive correlation (non-significant).	Pearson's r 0.162 p-value 0.392
- DAS 3: Weak positive correlation (non-significant).	Pearson's r 0.144

4. Refocus on planning:

- DAS 1: Very weak negative correlation (non-significant).	Pearson's r: -0.040 p-value: 0.83
- DAS 2: Very weak positive correlation (non-significant).	Pearson's r value 0.009

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	p-value 0.963
- DAS 3: Moderate positive correlation (significant).	Pearson's r 0.541
5. Positive reappraisal:	
- DAS 1: Very weak positive correlation (non-significant).	Pearson's r: 0.054 p-value: 0.771
- DAS 2: Weak negative correlation (non-significant).	Pearson's r -0.174 p-value 0.358
- DAS 3: Weak positive correlation (non-significant).	Pearson's r 0.144
6. Catastrophizing:	
- DAS 1: Moderate positive correlation (non-significant).	Pearson's r: 0.207 p-value: 0.271
- DAS 2: Very weak negative correlation (non-significant).	Pearson's r -0.058 p- value of 0.761
- DAS 3: Moderate positive correlation (significant).	Pearson's r 0.444
7. Other-blame:	
- DAS 1: Strong positive correlation (significant).	Pearson's r: 0.450 p-value: 0.013
- DAS 2: Weak positive correlation (non-significant).	Pearson's r 0.219 p-value 0.246
- DAS 3: Moderate positive correlation (significant).	Pearson's r 0.443

*DAS 1 represents the group 1

*DAS 2 represents the group 2

*DAS 3 represents the group 3

These comparisons illustrate variations in the strength and significance of correlations between psychological dimensions and DAS scores across different stages (DAS 1, 2, and 3) of the study. While some dimensions show consistent patterns across all stages, others exhibit variations, emphasizing the dynamic nature of psychological responses over time.

DISCUSSION & CONCLUSION

COVID-19 has brought unprecedented challenges and uncertainties, impacting individuals worldwide in multifaceted ways. This study has delved into the psychological repercussions of these varied experiences by focusing on death anxiety and cognitive-emotional regulation strategies. The study aims specifically to explore how contracting the virus, experiencing the loss of a loved one, or remaining unaffected by COVID-19 influences individual's level of death anxiety and their cognitive-emotional regulation mechanisms. Correlation between death anxiety and cognitive-emotional regulation across these different experiences have been examined. This research is crucial for developing targeted interventions and support mechanisms to enhance mental well-being amid the ongoing global health crisis.

The ANOVA analysis using Fisher's technique found no statistically significant differences in death anxiety scores among the three groups (DAS 1, DAS 2, DAS 3). Levene's test indicated a violation of homogeneity of variances, potentially affecting the ANOVA's accuracy. Descriptive statistics showed similar mean death anxiety scores across all groups, supporting the non-significant findings and suggesting participants reported comparable levels of death anxiety across different study stages.

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The findings of Garnefski et al. (2009) and Daniel, S.J. (2020) align with our study, showing consistent death anxiety levels over time despite progression through different stages. Our non-significant ANOVA results suggest stable death anxiety, similar to Ozili et al. (2023), who highlighted the need to explore psychosocial, clinical, and demographic factors. Despite prolonged exposure to pandemic stressors, death anxiety remained unchanged, indicating its resilience. Future research should investigate these factors and consider alternative statistical methods to better understand death anxiety amidst prolonged societal challenges like the COVID-19 pandemic.

The correlational analysis provided significant insights into the factors influencing Death Anxiety & Cognitive Emotion across the three stages. Self-blame, rumination, refocus on planning, catastrophizing, and other-blame demonstrated moderate to strong positive correlations with loss/death anxiety across all stages, indicating their consistent influence on anxiety related to loss and death. Conversely, acceptance, positive refocusing, positive reappraisal, and putting into perspective exhibited weaker correlations with loss/death anxiety, suggesting a limited influence on anxiety related to loss and death.

This aligns with Cascella et al. (2023), who observed similar associations between death anxiety and psychological dimensions in individuals with life-threatening illnesses. Similarly, Agarwal et al. (2020) demonstrated the varied influence of psychological dimensions on death anxiety at different illness stages. These findings highlight the importance of addressing maladaptive coping strategies and negative thought patterns, emphasizing the need for tailored interventions to support individuals experiencing distress related to loss and death.

Limitations of the study

The study's limitations may affect the findings' generalizability and validity. Unequal variances in the ANOVA analysis, reliance on self-reported measures, and cross-sectional data could introduce biases. Additionally, the sample composition may not fully capture the pandemic's diverse experiences.

Future implications of the study

Future research should address current study limitations, explore alternative statistical methods, and delve deeper into factors influencing death anxiety. Qualitative exploration and supplementary measures could enhance understanding of this psychological phenomenon in diverse contexts.

CONCLUSION

In conclusion, this study sheds light on the enduring nature of death anxiety during the COVID-19 pandemic, showing consistent levels across different stages of the Death Anxiety Scale. The findings highlight the impact of prolonged societal challenges on psychological well-being and emphasize the need for tailored interventions to address maladaptive coping strategies and negative thought patterns.

The study effectively meets its objectives, showing how COVID-19 impacts death anxiety and cognitive-emotional regulation. The findings reveal how different experiences with COVID-19 influence these factors, enhancing understanding of the psychological dynamics during the pandemic and providing valuable insights into their interplay.

REFERENCES

- Agarwal, V. (2020). Study and overview of the novel coronavirus disease (COVID-19). *Sensors International*, 1. <https://doi.org/10.1016/j.sintl.2020.100037>
- Cascella, M., Rajnik, M., Aleem, A., et al. (2023). Features, evaluation, and treatment of coronavirus (COVID-19). In *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing. Available from <https://www.ncbi.nlm.nih.gov/books/NBK554776/>
- Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects*, 49, 91-96. <https://doi.org/10.1007/s11125-020-09464-3>
- Fernández Cruz, M., Álvarez Rodríguez, J., Ávalos Ruiz, I., Cuevas López, M., de Barros Camargo, C., Díaz Rosas, F., González Castellón, E., González González, D., Hernández Fernández, A., & Ibáñez Cubillas, P. (2020). Evaluation of the emotional and cognitive regulation of young people in a lockdown situation due to the covid-19 pandemic. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.565503>
- Garnefski, N., & Kraaij, V. (2006). Cognitive emotion regulation questionnaire – development of a short 18-item version (CERQ-short). *Personality and Individual Differences*, 41(6), 1045-1053. <https://doi.org/10.1016/j.paid.2006.04.010>
- Goel, D., & Farooq, M. (2021). Psychological distress experiences of Indian population during coronavirus disease pandemic social isolation and loneliness: A cross-sectional study. *Asian Journal of Pharmaceutical and Clinical Research*, 14(7), 717-722. <https://journals.innovareacademics.in/index.php/ajpcr/article/view/41752/25008>
- Ozili, P. K., & Arun, T. (2023). Spillover of COVID-19: Impact on the global economy. In U. Akkucuk (Ed.), *Managing Inflation and Supply Chain Disruptions in the Global Economy* (pp. 41-61). IGI Global. <https://doi.org/10.4018/978-1-6684-5876-1.ch004>
- Patra, I., et al. (2023). A systematic review and meta-analysis on death anxiety during the COVID-19 pandemic. *OMEGA - Journal of Death and Dying*. Advance online publication. <https://doi.org/10.1177/00302228221144791>
- Templer, D. I. (1970). The construction and validation of a death anxiety scale. *The Journal of General Psychology*, 82(2), 165-177. <https://doi.org/10.1080/00221309.1970.9920634>

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Conflict of Interest

The author(s) declared no conflict of interest.

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