Examining Coping Skills, Anxiety, and Depression Dynamics Amidst the COVID-19 Pandemic

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This cross-sectional study, conducted amid the COVID-19 pandemic, delves into the intricate connections between coping strategies and levels of anxiety and depression, presenting vital implications for medical, clinical, and broader societal contexts. As crises like the pandemic highlight the importance of adaptive coping, this investigation underscores the imperative to comprehend and address maladaptive coping strategies. The study utilized a diverse sample of 386 participants during the pandemic's peak, employing online platforms for recruitment and ensuring broad demographic representation. Data were collected through self-report measures, including the Patient Health Questionnaire-4 (PHQ-4) for depression and anxiety symptoms and the Brief Coping Orientation to Problems Experienced (COPE) inventory to assess coping skills across various domains. The coping skills assessment measured strategies such as Self-Distraction, Active Coping, Denial, Substance Use, Emotional and Instrumental Support, Behavioral Disengagement, Venting, Positive Reframing, Planning, Humor, Acceptance, Religion, and Self-Blame. The Colorado Multiple Institutional Review Board prioritized and approved ethical considerations, and participants provided informed consent. Data analysis involved rigorous cleaning, recoding, and quantitative analysis using SPSS. Descriptive statistics, regression analyses, and correlation analyses were employed to uncover nuanced relationships between coping strategies and mental health outcomes, contributing to understanding the phenomena under investigation within the context of the pandemic. The findings highlight the pivotal role of individualized approaches and the potential of humor as an essential coping mechanism, emphasizing the need for tailored interventions during crises.

Keywords: pandemic, ČOVID-19, anxiety, depression, coping skills

Coping skills have gained significant attention for their profound impact on psychological well-being, particularly in the face of heightened stressors such as the ongoing COVID-19 pandemic. This exploration delves into the intricate relationship between coping skills, depression, and anxiety, emphasizing critical studies that contribute to our understanding of these complex dynamics.

The relationship between coping mechanisms and mental health outcomes, specifically depression and anxiety, has been extensively investigated. As the pandemic continues to present unprecedented challenges to global well-being, understanding the dynamics of coping in this context becomes crucial. The Transactional Model of Stress and Coping provides a foundational framework, emphasizing the dynamic nature of the stress-coping process (Etchin et al., 2020). Yeşiloğlu et al. (2023) further classify coping strategies into problem-focused and emotion-focused, shedding light on their distinct impacts on mental health.

Adaptive and maladaptive coping strategies play pivotal roles in elucidating the nuanced relationships between coping mechanisms and mental health outcomes. Features of anxiety and depression may exhibit adaptive characteristics, emphasizing the need for an understanding of coping strategies beyond a binary categorization (Morris, 2019).

Adaptive coping is conceptualized as strategies facilitating effective stress management, enhancing resilience,

and contributing to overall psychological well-being. Examples include seeking emotional and instrumental support, positive reframing, active problem-solving, and employing humor. These adaptive coping mechanisms are considered beneficial in navigating challenges and promoting mental health during times of crisis.

In contrast, maladaptive coping is characterized by strategies that may exacerbate stress, contribute to symptomatology, and hinder psychological resilience, including self-blame, denial, substance use, and behavioral disengagement. Specific coping mechanisms may be context-dependent, exhibiting adaptive or maladaptive qualities based on circumstances and individual differences.

Coping Skills and Anxiety

The interplay between coping skills and anxiety unravels the complexities of adaptive and maladaptive responses to stress, shedding light on the diverse strategies individuals employ to manage anxious thoughts and emotions. Aldwin and Revenson (1987) have significantly contributed to our comprehension of this relationship by establishing a correlation between effective coping strategies and reduced levels of anxiety.

The effectiveness of adaptive coping strategies, particularly those focused on problem-solving, has been consistently demonstrated in alleviating symptoms associated with anxiety (Buffart et al., 2020). Engaging in active problem-solving empowers individuals to confront stressors directly, disrupting the cycle of anxious thoughts and fostering a sense of control over

their circumstances. Conversely, maladaptive coping strategies, such as wishful thinking or avoidance, fuel the perpetuation of anxiety symptoms, emphasizing the importance of distinguishing between adaptive and maladaptive coping approaches (Carver et al., 1989).

Coping Skills and Depression

The relationship between coping skills and depression has been a focal point in psychological literature. Maladaptive coping strategies, such as avoidance and rumination, consistently surface as significant contributors to the exacerbation of depressive symptoms (Aldao et al., 2010). Southward, Howard, and Cheavens (2023) conducted a comprehensive study highlighting the detrimental effects of maladaptive coping strategies on mental health, particularly with depression.

Avoidance mechanisms may prolong negative emotional experiences. Similarly, rumination, characterized by repetitive and intrusive negative thinking, has been identified as a significant risk factor for the development and perpetuation of depressive symptoms over time (Nolen-Hoeksema, 1991). Addressing these maladaptive coping strategies is crucial for unraveling the complex dynamics underlying depression.

Coping During the COVID-19 Pandemic: A Multifaceted Perspective

Recent studies underscore the relevance of coping skills in navigating the challenges posed by significant life disruptions, such as the ongoing COVID-19 pandemic. Research by Gurvich et al. (2021) and Holmes et al. (2020) emphasizes the importance of effective coping mechanisms in fostering resilience during unprecedented times.

In navigating the mental health implications of the COVID-19 pandemic, individuals have been compelled to employ coping strategies to manage heightened anxiety levels. Research by Ogueji et al. (2021) on coping strategies in the United Kingdom during the pandemic provides valuable insights into the adaptive mechanisms individuals adopt to cope with the stressors unique to this global health crisis. Similarly, the survey by Kar et al. (2021) delves into stress and coping during the pandemic, underscoring the importance of effective coping in mitigating the psychological impact of the crisis.

These studies, situated within the context of a global pandemic, serve as examples of the relevance and urgency of understanding coping skills, particularly in managing anxiety during significant life disruptions. They underscore the need to understand coping dynamics and the potential adaptation of coping mechanisms in response to unprecedented stressors.

Adaptive Coping as a Protective Factor

In contrast to maladaptive coping, adaptive coping strategies emerge as protective factors in mitigating the impact of stress on mental health, particularly in the context of depression. Problem-solving, a fundamental component of adaptive coping, involves actively addressing stressors and employing constructive solutions to navigate challenges effectively (Compas et al., 2001).

Another adaptive strategy, seeking social support, has been consistently associated with positive mental health outcomes. Compas et al. (2001) highlighted the protective effect of adaptive coping by linking problem-solving and social support-seeking with lower levels of depression.

Nuanced Roles of Coping Mechanisms The understanding of coping mechanisms and

their roles in influencing mental health outcomes sets the stage for an exploration of the interplay between coping and depressive symptoms. Research has not only elucidated the distinct impact of maladaptive and adaptive coping but has also emphasized the need for a holistic approach to intervention.

The complexity of the relationship underscores the importance of tailoring therapeutic strategies to address individual coping profiles and their specific implications for mental health. Exploring Coping Styles in Response to Societal Changes

Gurvich et al. (2021) delve into the intricate dynamics of coping styles in response to societal changes during the pandemic. This study sheds light on individuals' coping strategies as societal norms change. The significance of this research lies in its contribution to our understanding of coping as a dynamic and adaptive process that individuals engage in when faced with transformative societal challenges.

Diverse Populations and Coping Dynamics

Studies conducted by Savitsky et al. (2020) have taken a comprehensive approach to explore coping during the pandemic across diverse populations. These investigations unravel the intricate interplay between coping strategies, mental health outcomes, and overall quality of life. By examining coping mechanisms across various demographic groups, these studies contribute to understanding how different population segments

navigate stress and adversity during the pandemic. Healthcare Workers: Coping on the Frontlines

The study conducted by Rose et al. (2021) serves as an investigation into the coping mechanisms employed by healthcare workers, shedding light on the distinctive challenges faced by those on the frontlines of the COVID-19 pandemic. Healthcare professionals, as frontline workers, navigate an array of stressors, including high work demands, exposure to the virus, and witnessing the impact of the pandemic on patients.

Understanding the coping dynamics of health-care workers is paramount for several reasons. Healthcare professionals are subjected to height-ened levels of stress and emotional strain due to the nature of their work, potentially leading to burn-out and mental health challenges (Shanafelt et al., 2020). A study by Lai et al. (2020) highlights the prevalence of anxiety and depression among health-care workers during the COVID-19 pandemic, underscoring the need for effective coping strategies.

Moreover, the well-being of healthcare workers has broader implications for public health. An overburdened and stressed healthcare workforce is more susceptible to making errors, experiencing reduced job satisfaction, and facing challenges in delivering high-quality patient care (West et al., 2018). Therefore, the psychological health of healthcare workers is essential to maintaining a resilient and effective healthcare system.

In the context of the COVID-19 pandemic, understanding and addressing the mental health of healthcare workers has also become crucial for the broader community. The psychosocial well-being of healthcare professionals influences their ability to effectively manage the challenges posed by the pandemic, contributing to the overall resilience of the healthcare system (Kisely et al., 2020). As highlighted by Greenberg et al. (2020), the mental health of frontline workers is critical in ensuring a sustained and robust response to public health crises. Contributions to the Evolving Narrative

These studies contribute to the evolving narrative on coping during the COVID-19 pandemic. These investigations provide an examination of coping from various angles, considering different populations and contexts, and emphasizing the dynamic nature of coping strategies. The current investigation strategically adopts a cross-sectional design to align with this complex landscape, capturing

a timely snapshot of how coping strategies relate to anxiety and depression during the ongoing pandemic. **Hypotheses**

- **1. Self-Distraction Hypothesis**: Individuals who employ self-distraction as a coping mechanism (redirecting attention to activities) will exhibit lower levels of anxiety and depression compared to those who do not engage in this coping strategy.
- **2. Active Coping Hypothesis:** Participants who proactively address stressors through active coping strategies will demonstrate lower anxiety and depression levels than individuals who lack operational coping tendencies.
- **3. Denial Hypothesis:** Individuals who frequently resort to denial as a coping strategy (avoiding or refusing to acknowledge stressors) will display higher levels of anxiety and depression compared to those who employ alternative coping mechanisms.
- **4. Substance Use Hypothesis:** Participants who turn to substances as a coping mechanism will exhibit elevated levels of anxiety and depression compared to those who utilize alternative coping strategies.
- **5. Emotional Support Hypothesis:** Individuals who seek emotional support (seeking empathy and understanding from others) will demonstrate lower anxiety and depression levels compared to those who do not actively pursue emotional support.
- **6. Instrumental Support Hypothesis:** Participants who seek tangible assistance or advice (use instrumental support) as a coping strategy will exhibit lower levels of anxiety and depression compared to those who do not engage in this coping mechanism.
- **7. Behavioral Disengagement Hypothesis:** Individuals who frequently withdraw from stressors through behavioral disengagement will display higher levels of anxiety and depression compared to those who employ alternative coping strategies.
- **8. Venting Hypothesis:** Participants who express negative emotions through venting as a coping strategy will demonstrate lower levels of anxiety and depression compared to individuals who do not engage in this coping mechanism.
- **9. Positive Reframing Hypothesis:** Individuals who reinterpret stressors in a positive light through positive reframing will exhibit lower levels of anxiety and depression compared to those who do not employ this coping strategy.
- 10. Planning Hypothesis: Participants who engage

in planning and strategizing to overcome stressors will demonstrate lower anxiety and depression levels compared to those who lack effective planning as a coping mechanism.

- **11. Humor Hypothesis:** Individuals who find humor in challenging situations will exhibit lower levels of anxiety and depression compared to those who do not use humor as a coping strategy.
- **12. Acceptance Hypothesis:** Participants who acknowledge and accept stressors (acceptance as a coping strategy) will demonstrate lower levels of anxiety and depression compared to those who struggle with accepting stressors.
- **13. Religion Hypothesis**: Individuals who turn to religious or spiritual beliefs as a coping mechanism will exhibit lower levels of anxiety and depression compared to those who do not engage in religious coping strategies.
- **14. Self-Blame Hypothesis:** Participants who take responsibility for stressors through self-blame will display higher levels of anxiety and depression compared to those who employ alternative coping mechanisms.

Methods

Study Design

A cross-sectional design was employed to investigate the relationships among coping skills, anxiety, and depression. The selection of a cross-sectional approach allowed the researcher to examine these variables simultaneously, providing a snapshot of their associations within a specific timeframe.

The adoption of a cross-sectional design conferred several distinct advantages to this investigation. It facilitated a thorough exploration of the dynamic interplay between coping skills, anxiety, and depression without necessitating a protracted observational period. This data collection and analysis efficiency is particularly noteworthy, enabling the researcher to understand the relationships among these variables within a relatively condensed timeframe.

The cross-sectional design further empowered the researcher to discern patterns and associations in real-time, capturing a momentary cross-section of participants' experiences and mental health dynamics. By leveraging the advantages of the cross-sectional approach, the study not only efficiently investigated the interconnections among coping skills, anxiety, and depression but also provided a timely and relevant depiction of these associations. This

design choice reflects a pragmatic and effective methodological strategy, enhancing the study's capacity to contribute meaningful insights to the existing body of knowledge in mental health research.

Participants

These data were collected during the Summer and Fall of 2020, the pinnacle of the COVID-19 pandemic. A total of 386 participants contributed to this study by completing assessments related to coping skills, anxiety, and depression. The diverse participants ensured a broad representation of demographics and experiences (See Table 1).

Recruitment

The study employed a recruitment strategy leveraging various online platforms such as Canvas, Facebook, Twitter, Instagram, and Reddit. The recruitment aimed to assemble a sample (N=386) that met specific eligibility criteria, including being over 18 years old and proficient in English.

Measures and Coping Skills Assessment

As part of the self-report measures, participants engaged with the Patient Health Questionnaire-4 (PHQ-4), a succinct four-item tool designed to assess symptoms of depression and anxiety over the preceding two weeks. The PHQ-4 utilized a scoring system to categorize responses, where a total score greater than or equal to three for the first two questions indicated anxiety and the same threshold for the last two questions suggested depression. Scores were further stratified into normal (0-2), mild (3-5), moderate (6-8), and severe (9-12) categories, offering an understanding of participants' mental health status.

Additionally, participants completed a coping skills inventory, a robust instrument known as the Brief Coping Orientation to Problems Experienced inventory. This tool measured coping skills across various domains without employing reversals of coding. The following coping skills were assessed, each associated with specific items that were summed:

- 1. Self-Distraction (Items 1 and 19): Redirecting attention to activities to cope with stress.
- 2. Active Coping (Items 2 and 7): Proactively address stressors.
- 3. Denial (Items 3 and 8): Avoiding or refusing to acknowledge stressors.
- 4. Substance Use (Items 4 and 11): Turning to substances as a coping mechanism.
- 5. Use of Emotional Support (Items 5 and 15):

Seeking empathy and understanding from others.

- 6. Use instrumental support (Items 10 and 23): Seeking tangible assistance or advice.
- 7. Behavioral Disengagement (Items 6 and 16): Withdrawing from stressors.
- 8. Venting (Items 9 and 21): Expressing negative emotions.
- 9. Positive Reframing (Items 12 and 17): Reinterpreting stressors in a positive light.
- 10. Planning (Items 14 and 25): Strategizing to overcome stressors.
- 11. Humor (Items 18 and 28): Finding Humor in challenging situations.
- 12. Acceptance (Items 20 and 24): Acknowledging and accepting stressors.
- 13. Religion (Items 22 and 27): Turning to religious or spiritual beliefs.
- 14. Self-Blame (Items 13 and 26): Taking responsibility for stressors.

These coping skills, each measured by specific items, contributed to an understanding of participants' strategies for dealing with stress and adversity—the assessment aimed to uncover how individuals approach and navigate life challenges.

Procedures

Ethical considerations were paramount in conducting this research, and the study received approval from the Colorado Multiple Institutional Review Board (COMIRB). Participants provided informed consent before completing online surveys, a process overseen by the COMIRB (identification number 20-2870). The survey took approximately 30 minutes, thoroughly exploring participants' coping mechanisms and mental health. **Data Analysis**

Quantitative data, exported from Qualtrics to SPSS v27, underwent a systematic analysis. Initial recording aligned responses with predefined scales, facilitating categorization and interpretation—rigorous cleaning and recoding followed to enhance data reliability and validity. Descriptive statistics provided an overview, including mean and standard deviations. Regression analyses explored variable relationships, identifying potential predictors. Correlation analyses delved into associations, unveiling patterns and interdependencies within the dataset. This analytical approach aimed to extract insights from the collected data, contributing to a robust understanding of the investigated phenomena.

Results

The descriptive statistics and correlations for anxiety, depression, and various study variables were examined in a sample of 386 participants (see Table 2). The mean anxiety score was 4.83 (SD = 2.04), which is within the range of mild anxiety, and the mean depression score was 4.72 (SD = 2.06), which is within the range of mild depression. Among the coping strategies assessed, Self-Distraction exhibited a positive correlation with anxiety (r = 0.23, p < .01) and a positive, albeit less substantial, correlation with depression (r = 0.15, p < .05). Active Coping, on the other hand, showed a negative correlation with both anxiety (r = -0.16, p < .05) and depression (r = -0.29, p < .01).

The Use of Emotional Support was negatively correlated with both anxiety (r = -0.18, p < .01) and depression (r = -0.34, p < .01), indicating that higher utilization of emotional support was associated with lower levels of anxiety and depression. Similar patterns were observed for the Use of Instrumental Support, with a negative correlation with depression (r = -0.28, $p = \langle .01 \rangle$. Behavioral Disengagement demonstrated positive correlations with anxiety (r = 0.22, p < .01) and depression (r = 0.36, p < .01). Positive Reframing demonstrates a negative association with depression (r = -0.18, p < .01), suggesting that individuals employing positive reframing may experience lower depression levels. Planning demonstrates a positive association with anxiety (r = 0.27, p < .01) and depression (r = 0.27) = 0.23, p < .01). suggesting that individuals employing planning may experience higher anxiety and depression levels. Notably, Humor was strongly negatively correlated with both anxiety (r = -0.43, p < .01) and depression (r = -0.43, p < .01). Religion showed a negative correlation with depression (r = -0.18, p < .01), but no significant correlation with anxiety. Self-Blame displayed positive correlations with both anxiety (r =0.34, p < .01) and depression (r = 0.29, p < .01). The anxiety and depression scores were highly correlated (r = 0.65, p < .01), emphasizing a strong association between anxiety and depression within the sample.

The regression analysis for anxiety (see Table 3) reveals several coping styles with significant associations. Notably, engaging in Humor (B = -0.51, $\beta = -0.29$, t = -4.42, p < .001) is strongly linked to lower anxiety levels. Additionally, Self-Blame (B = 0.35, $\beta = 0.27$, t = 3.36, p < .001) exhibits a positive associ-

ation with anxiety, indicating that individuals employing Self-Blame as a coping mechanism are more likely to experience heightened anxiety. These relationships are robust, as reflected in the wide 95% confidence intervals (CI) for both Humor (LL = 0.28, UL = 0.74) and Self-Blame (LL = 0.14, UL = 0.55), further supporting the reliability of these findings.

The regression analysis for depression (see Table 4) also highlights significant coping styles. Behavioral Disengagement ($B = 0.30, \beta = 0.253 t = 4.43, p < .001$) is positively associated with depression, suggesting that individuals utilizing this coping mechanism may experience elevated depressive symptoms. In contrast, Humor (B = -0.44, $\beta = -0.23$, t = -4.10, p < .001) is negatively associated with depression, suggesting that individuals utilizing these coping mechanisms may experience lower depressive symptoms. The Use of Emotional Support (B = -0.19, $\beta = -0.19$, t = -2.68, p =0.008) and Religion (B = -0.20, $\beta = -0.15$, t = -2.35, p = 0.02) demonstrate negative associations with depression, indicating that these coping styles are linked to lower depressive symptoms. Conversely, Acceptance $(B = 0.23, \beta = 0.17, t = 2.53, p = 0.01)$ is positively associated with depression, suggesting that individuals utilizing this coping mechanism may experience elevated depressive symptoms. The 95% CI for these significant relationships further strengthens their validity.

Several coping styles did not exhibit statistically significant associations with anxiety and depression. These include Self-Distraction, Active Coping, Denial, Substance Use, Use of Emotional Support, Use of Instrumental Support, Venting, Positive reframing, Planning, Acceptance, and Religion in the context of anxiety, as well as Self-Distraction, Active Coping, Denial, Substance Use, Use of Instrumental Support, Venting, Positive reframing, and Planning in the context of depression. The lack of statistical significance suggests that these coping styles may not be directly linked to anxiety or depression in the studied population, underscoring the diversity of coping mechanisms individuals employ, and emphasizing the need for personalized approaches in clinical interventions.

The consideration of unstandardized coefficients (B), standardized coefficients (B), t-values, p-values, and 95% confidence intervals enhances the robustness and interpretability of these findings in the context of mental health outcomes. This analysis provides an understanding of how specific coping

styles relate to anxiety and depression, shedding light on both significant and non-significant associations.

Discussion

The multiple linear regression analyses yield crucial insights into the intricate relationships between coping styles and anxiety and depression. Contextualizing these findings within the broader framework of significant life disruptions, such as those experienced during the COVID-19 pandemic and other catastrophic events, is essential. Regarding coping styles and anxiety, Humor exhibits a negative association with anxiety levels, aligning with contemporary literature emphasizing its effectiveness as a stress-coping strategy (Marziali et al., 2008). It emerges as a protective factor against depression, supporting its mood-enhancing and stress-reducing effects, particularly relevant during major life disruptions (Chen & Lim, 2022).

The positive association observed between Self-Blame and anxiety underscores the maladaptive nature of this coping style, particularly during crises (Maunder et al., 2010). The inclination toward Self-Blame may exacerbate anxiety symptoms, emphasizing the importance of identifying and redirecting such maladaptive coping. Additionally, the link between Behavioral Disengagement and higher depression levels reinforces the need to address maladaptive coping that could lead to heightened depression (Bonanno, 2004).

The findings also highlight the potential vulnerability of disengaging from Active Coping strategies when facing adversity. The significant negative associations of the Use of Emotional Support and Acceptance with depression underscore the pivotal role of social support and adaptive Acceptance in promoting mental well-being, aligning with studies emphasizing the importance of interpersonal connections during crises (Rosen et al., 2022). Behaviors that accentuate Emotional and Instrumental Support, Humor, and Acceptance align with identified protective factors against depression and anxiety.

Recognizing the diverse nature of individual coping mechanisms is essential. (Stanley et al., 2021). The unique nature of crises emphasizes the need for targeted interventions that address maladaptive coping strategies, such as Self-Blame, pervasive in the aftermath of catastrophic events. It is crucial to recognize ineffective coping mechanisms and redirect them towards more constructive approaches. This aligns with

established best practices outlined by the National Academies of Sciences, Engineering, and Medicine (2019), emphasizing the importance of psychoeducation to enhance emotional and instrumental support.

The literature on coping during catastrophic events underscores the need for a multifaceted approach. Studies highlight the importance of community-level coping strategies in the aftermath of large-scale disasters, emphasizing the interconnectedness of individual coping with broader societal responses (Bonanno et al., 2010). The collective efficacy of communities in navigating and recovering from catastrophic events is an essential aspect that complements individual coping strategies (Kocalevent et al., 2015). Their research suggests that resilience is not a uniform trait, and individuals may employ various coping mechanisms based on their unique characteristics and circumstances (Bonanno & Diminich, 2013).

The implications of effective coping mechanisms in the context of catastrophic events extend beyond individual well-being to encompass broader societal resilience (Norris et al., 2008. The ongoing COVID-19 pandemic serves as a backdrop to these insights, emphasizing the need for adaptive coping strategies at the community level. As we navigate the aftermath of such events, an approach that addresses maladaptive coping enhances support systems, contributing to a more resilient and mentally healthy society.

Non-professionals can also independently implement effective coping strategies. These strategies can promote an individual's resilience and well-being by fostering supportive social networks and seeking tangible assistance when needed. In the broader context of community and societal well-being, awareness campaigns and educational initiatives become crucial. By disseminating information about effective coping strategies, the public can learn to create a more supportive and resilient society. This can enable individuals to cope better with challenging situations (Holmes et al., 2020; World Health Organization, 2020).

Future Directions

It is imperative to broaden our investigation into sleep patterns and their potential interplay with mental health challenges, specifically anxiety and depression. Sleep, acknowledged as a pivotal factor in mental well-being, represents a relatively uncharted terrain within the context of coping skills. Probing into how coping skills might influence sleep quality and, recipro-

cally, how disrupted sleep patterns might impact mental health outcomes holds the promise of unveiling novel dimensions in our understanding of these phenomena.

Recognizing the bidirectional relationship between coping skills and sleep could furnish insights into the holistic well-being of individuals contending with anxiety and depression. Sleep disturbances have been correlated with a spectrum of mental health challenges, and exploring this link within the framework of coping skills may furnish valuable information for developing integrated interventions (Zhao et al., 2022).

To propel our understanding further, future research endeavors may employ methodologies such as longitudinal studies or ecological momentary assessments, to capture real-time fluctuations in coping skills and sleep patterns. Additionally, investigating potential mediating or moderating factors, such as stress or anxiety, could contribute to a more comprehensive understanding of the intricate connections between coping skills, anxiety, depression, and sleep.

This study not only advances our understanding of coping skills and their associations with anxiety and depression but also lays the groundwork for future research initiatives, therapeutic approaches, and support mechanisms tailored to the unique needs of individuals grappling with these complex mental health challenges.

Limitations

This study is subject to certain limitations that should be considered when interpreting the results. One notable limitation is the overrepresentation of women in the clinically significant range for depression and anxiety. Additionally, the study's focus on a sample of notably younger and technologically adept participants raises the possibility that the results may apply primarily to specific demographic subsets rather than the entire population.

Moreover, the study was conducted amid the COVID-19 pandemic, a period associated with a heightened prevalence of depression and anxiety. This temporal context could impact the results, potentially leading to an overestimation of mental health issues. Researchers conducting similar studies with larger samples experiencing depression and anxiety should be cautious about generalizing findings to populations unaffected by pandemic-related stressors. Therefore, recognizing the influence of the pandemic on mental health trends is crucial for a nuanced interpretation of study outcomes.

Conclusion

Understanding coping strategies and their profound implications for depression extends beyond clinical settings. Recognizing individual coping patterns and tailoring interventions accordingly empowers both clinicians and individuals to contribute actively to advancing mental health and alleviating depression. This approach addresses the immediate needs of individuals and fosters a cultural shift towards a more empathetic and informed approach to mental health and well-being.

Comprehending coping strategies becomes even more crucial amid significant life disruptions, such as the ongoing COVID-19 pandemic, emphasizing the need for effective coping mechanisms on a societal scale. The insights gained from understanding coping strategies during such turbulent times aid in immediate crisis management and contribute to the resilience and adaptability of individuals facing adversity.

This study unveils the myriad coping strategies individuals adopt to navigate the complexities of mental health challenges. The insights gleaned offer a nuanced perspective on how coping skills may relate to emotional experiences and well-being during heightened stress and uncertainty.

Exploring coping strategies within the context of life-altering events is crucial for tailoring interventions to the unique needs of individuals experiencing mental health challenges. This research provides a timely contribution to our understanding of coping dynamics amid significant societal upheavals, facilitating the development of targeted strategies to support mental well-being during times of crisis.

Comprehending coping strategies extends beyond individual well-being to societal resilience, especially during the unparalleled challenges posed by events like the COVID-19 pandemic. Tailoring interventions to the distinctive needs of individuals grappling with mental health challenges during such disruptive events is integral to fostering a more adaptive society.

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References

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004
- Aldwin, C. M., & Revenson, T. A. (1987). Does coping help? A reexamination of the relation between coping and mental health. *Journal of Personality and Social Psychology*, *53*(2), 337–348. https://doi.org/10.1037//0022-3514.53.2.337
- Bonanno G. A. (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *The American Psychologist*, *59*(1), 20–28. https://doi.org/10.1037/0003-066X.59.1.20
- Bonanno, G. A., Brewin, C. R., Kaniasty, K., & Greca, A. M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest: A Journal of the American Psychological Society, 11*(1), 1–49. https://doi.org/10.1177/1529100610387086
- Bonanno, G. A., & Diminich, E. D. (2013). Annual research review: Positive adjustment to adversity--trajectories of minimal-impact resilience and emergent resilience. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 54*(4), 378–401. https://doi.org/10.1111/jcpp.12021
- Budimir, S., Probst, T., & Pieh, C. (2021). Coping strategies and mental health during COVID-19 lockdown. *Journal of Mental Health (Abingdon, England)*, 30(2), 156–163. https://doi.org/10.10 80/09638237.2021.1875412
- Buffart, L.M., Schreurs, M.A., Abrahams, H.J., Kalter, J., Aaronson, N.K., Jacobsen, P.B., Newton, R.U., Courneya, K.S., Armes, J., Arving, C. and Braamse, A.M., 2020. Effects and moderators of coping skills training on symptoms of depression

- and anxiety in patients with cancer: Aggregate data and individual patient data meta-analyses. *Clinical Psychology Review*, 80, p.101882.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283. https://doi.org/10.1037//0022-3514.56.2.267
- Chen, C. J., & Lim, S. (2022). Examining the effect of COVID-19 pandemic on exercise behavior and perceived academic stress among U.S. college students. *Journal of American College Health : J of ACH*, 1–7. Advance online publication. https://doi.org/10.1080/07448481.2022.2094202
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, *127*(1), 87–127.
- Etchin, A. G., Fonda, J. R., McGlinchey, R. E., & Howard, E. P. (2020). Toward a system theory of stress, resilience, and reintegration. *Advances in Nursing Science*, 43(1), 75–85. https://doi.org/10.1097/ANS.0000000000000277
- Fullana, M. A., Hidalgo-Mazzei, D., Vieta, E., & Radua, J. (2020). Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown. *Journal of Affective Disorders*, 275, 80–81. https://doi.org/10.1016/j.jad.2020.06.027
- Gurvich, C., Thomas, N., Thomas, E. H., Hudaib, A. R., Sood, L., Fabiatos, K., Sutton, K., Isaacs, A., Arunogiri, S., Sharp, G., & Kulkarni, J. (2021). Coping styles and mental health in response to societal changes during the COVID-19 pandemic. *The International Journal of Social Psychiatry*, *67*(5), 540–549. https://doi.org/10.1177/0020764020961790
- Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ* (*Clinical research ed.*), 368, m1211. https://doi.org/10.1136/bmj.m1211
- Hawes, M. T., Szenczy, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2022). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. *Psychological Medicine*, 52(14), 3222–3230. https://doi.

- org/10.1017/S0033291720005358
- Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78(2), 169–183. https://doi.org/10.1037/a0018555
- Hofmann S. G. (2021). The Impact of COVID-19 on mental health. *Cognitive Behaviour Therapy,* 50(3), 185–190. https://doi.org/10.1080/16506 073.2021.1897666
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I.,
 Wessely, S., Arseneault, L., Ballard, C., Christensen,
 H., Cohen Silver, R., Everall, I., Ford, T., John, A.,
 Kabir, T., King, K., Madan, I., Michie, S., Przybylski, A. K., Shafran, R., Sweeney, A., Worthman,
 C. M., ... Bullmore, E. (2020). Multidisciplinary
 research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet. Psychiatry*, 7(6), 547–560. https://doi.org/10.1016/S2215-0366(20)30168-1
- Hotopf, M., Bullmore, E., O'Connor, R. C., & Holmes, E. A. (2020). The scope of mental health research during the COVID-19 pandemic and its aftermath. *The British Journal of Psychiatry The Journal of Mental Science*, 217(4), 540–542. https://doi.org/10.1192/bjp.2020.125
- Kar, N., Kar, B., & Kar, S. (2021). Stress and coping during COVID-19 pandemic: Result of an online survey. *Psychiatry Research*, 295, 113598. https://doi.org/10.1016/j.psychres.2020.113598
- Kisely, S., Warren, N., McMahon, L., Dalais, C., Henry, I., & Siskind, D. (2020). Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. *BMJ (Clinical research ed.), 369*, m1642. https://doi.org/10.1136/bmj.m1642
- Kocalevent, R. D., Zenger, M., Heinen, I., Dwinger, S., Decker, O., & Brähler, E. (2015). Resilience in the general population: Standardization of the Resilience Scale (RS-11). *PloS One*, *10*(11), e0140322. https://doi.org/10.1371/journal.pone.0140322
- Marziali, E., McDonald, L., & Donahue, P. (2008). The role of coping humor in the physical and mental health of older adults. *Aging & Mental Health*, 12(6), 713–718. https://doi.org/10.1080/13607860802154374

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- Maunder, R., Hunter, J., Vincent, L., Bennett, J., Peladeau, N., Leszcz, M., Sadavoy, J., Verhaeghe, L. M., Steinberg, R., & Mazzulli, T. (2003). The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ: Canadian Medical Association Journal = Journal de l'Association Medicale Canadienne*, 168(10), 1245–1251.
- Maunder, R. G., Lancee, W. J., Mae, R., Vincent, L., Peladeau, N., Beduz, M. A., Hunter, J. J., & Leszcz, M. (2010). Computer-assisted resilience training to prepare healthcare workers for pandemic influenza: a randomized trial of the optimal dose of training. BMC Health Services Research, 10, 72. https://doi.org/10.1186/1472-6963-10-72
- Morris, D. W. (2019). Adaptive affect: The nature of anxiety and depression. *Neuropsychiatric Disease and Treatment*, 3323-3326.
- National Academies of Sciences, Engineering, and Medicine, Division on Earth and Life Studies, Health and Medicine Division, Institute for Laboratory Animal Research, Board on Earth Sciences and Resources, Board on Health Sciences Policy, Committee on Strengthening the Disaster Resilience of Academic Research Communities, Carlin, E., Brown, L., & Benjamin, G. C. (Eds.). (2017). Strengthening the Disaster Resilience of the Academic Biomedical Research Community: Protecting the Nation's Investment. National Academies Press (US).
- Nolen-Hoeksema S. (1991). Responses to depression and their effects on the duration ofdepressive episodes. *Journal of Abnormal Psychology*, 100(4), 569–582.https://doi.org/10.1037//0021-843x.100.4.569
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41(1-2), 127–150. https://doi.org/10.1007/s10464-007-9156-6
- Ogueji, I. A., Okoloba, M. M., & Demoko Ceccaldi, B. M. (2022). Coping strategies of individuals in the United Kingdom during the COVID-19 pandemic. *Current Psychology* (New Brunswick, N.J.), 41(11), 7493–7499. https://doi.org/10.1007/s12144-020-01318-7
- Rose, S., Hartnett, J., & Pillai, S. (2021). Healthcare worker's emotions, perceived stressors and coping

- mechanisms during the COVID-19 pandemic. *PloS One*, *16*(7), e0254252. https://doi.org/10.1371/journal.pone.0254252
- Rosen, A. O., Holmes, A. L., Balluerka, N., Hidalgo, M. D., Gorostiaga, A., Gómez-Benito, J., & Huedo-Medina, T. B. (2022). Is social media a new type of social support? Social media use in Spain during the COVID-19 pandemic: A mixed methods study. *International Journal of Environmental Research and Public Health*, 19(7), 3952. https://doi.org/10.3390/ijerph19073952
- Savitsky, B., Findling, Y., Ereli, A., & Hendel, T. (2020). Anxiety and coping strategies amongnursing students during the covid-19 pandemic. *Nurse Education in Practice*, 46, 102809. https://doi.org/10.1016/j.nepr.2020.102809
- Shanafelt, T. D., Hasan, O., Dyrbye, L. N., Sinsky, C., Satele, D., Sloan, J., & West, C. P. (2015). Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clinic Proceedings*, 90(12), 1600–1613. https://doi.org/10.1016/j.mayocp.2015.08.023
- Shanafelt, T., Ripp, J., & Trockel, M. (2020). Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. *JAMA*, *323*(21), 2133–2134. https://doi.org/10.1001/jama.2020.5893
- Southward, M. W., Howard, K. P., & Cheavens, J. S. (2023). Less is more: Decreasing the frequency of maladaptive coping predicts improvements in DBT more consistently than increasing the frequency of adaptive coping. *Behaviour Research and Therapy*, 163, 104288. https://doi.org/10.1016/j.brat.2023.104288
- Stanley, B., Martínez-Alés, G., Gratch, I., Rizk, M., Galfalvy, H., Choo, T. H., & Mann, J. J. (2021). Coping strategies that reduce suicidal ideation: An ecological momentary assessment study. *Journal of Psychiatric Research*, 133, 32–37. https://doi.org/10.1016/j.jpsychires.2020.12.012
- West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: contributors, consequences and solutions. *Journal of Internal Medicine*, 283(6), 516–529. https://doi.org/10.1111/joim.12752
- Yeşiloğlu, C., Tamam, L., Demirkol, M. E., Namli, Z., Karaytuğ, M. O., & Şenbayram Güzelbaba, Ş. (2023). The relationship of coping skills with psy-

- chache in patients with depressive disorder. *Medicine*, *102*(29), e34339. https://doi.org/10.1097/MD.0000000000034339
- Zhao, J., Xu, J., He, Y., & Xiang, M. (2022). Children and adolescents' sleep patterns and their ssociations with mental health during the COVID-19 pandemic in Shanghai, China. *Journal of Affective Disorders*, 301, 337–344. https://doi.org/10.1016/j.jad.2021.12.123
- Zhu, C., Zhang, T., Li, Q., Chen, X., & Wang, K. (2023). Depression and anxiety during the COVID-19 pandemic: Epidemiology, mechanism, and treatment. *Neuroscience Bulletin*, *39*(4), 675–684. https://doi.org/10.1007/s12264-022-00970-2

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Table 1Table of Demographic Data

Country	Total	Female	Male	Minimum Age	Maximum Age
United States	242	163	79	18	51
Canada	71	52	19	18	45
Mexico	29	29	0	20	31
South Africa	11	8	4	18	27
Egypt	10	5	5	25	48
Russia	10	9	2	18	19
Turkey	5	5	0	19	53
United Kingdom	4	3	1	18	37
Ukraine	4	2	0	28	45

Note. Nationality, age, and sex of participants.

 Table 2

 Descriptive Statistics and Correlations for Anxiety, Depression, and Study Variables

Coping Style	n	M	SD	Anxiety	Depression
Self-Distraction	386	4.90	1.65	.23**	.15*
Active Coping	386	4.82	1.71	16*	29**
Denial	386	3.58	1.75	.05	.05
Substance Use	386	3.72	2.18	.04	.02
Use of Emotional Support	386	4.64	2.06	18**	34**
Use of Instrumental Support	386	4.97	1.52	11	28
Behavioral Disengagement	386	4.56	1.73	.22**	.36**
Venting	386	4.05	1.70	.08	.06
Positive reframing	386	4.95	1.88	06	17**
Planning	386	5.27	1.65	.27**	.23**
Humor	386	2.95	1.12	43**	43**
Acceptance	386	4.86	1.55	.12	0.06
Religion	386	4.46	1.52	05	18**
Self-Blame	386	4.89	1.56	.34**	.29**
Anxiety	386	4.83	2.04	1	.65**
Depression	386	4.72	2.06	.65**	1

Note. The table includes descriptive statistics and correlations for anxiety, depression, and study variables. The table includes mean (M), standard deviation (SD), and correlations with anxiety and depression scores.

^{*}*p* < .05, ***p* < .01.

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 Table 3

 Regression for Anxiety and Coping Styles

					95% CI	95% CI
Coping Style	В	β	t	p	LL	UL
Self-Distraction	0.07	0.05	0.86	0.39	-0.09	0.22
Active Coping	-0.09	-0.08	-1.12	0.26	-0.27	0.07
Denial	-0.04	-0.04	-0.57	0.57	-0.19	0.11
Substance Use	-0.06	-0.07	-1.08	0.28	-0.18	0.05
Use of Emotional Support	-0.10	-0.10	-1.28	0.20	-0.25	0.05
Use of Instrumental Support	0.08	0.06	0.76	0.45	-0.13	0.29
Behavioral Disengagement	0.10	0.09	1.36	0.18	-0.05	0.24
Venting	-0.15	-0.13	-1.80	0.07	-0.32	0.01
Positive reframing	-0.034	-0.04	-0.54	0.59	-0.18	0.11
Planning	0.11	0.09	1.16	0.25	-0.08	0.30
Humor	-0.51	-0.28	-4.42	<.001**	-0.28	0.74
Acceptance	0.13	0.10	1.36	0.18	-0.06	0.33
Religion	-0.13	-0.09	-1.43	0.16	-0.31	0.05
Self-Blame	0.35	0.27	3.36	<.001**	0.14	0.55

Note. The table presents unstandardized coefficients (B), standardized coefficients (β), Lower Limit (LL), Upper Limit (UL), *t*-values, *p*-values, and 95% confidence intervals for each predictor variable in relation to the dependent variable total anxiety.

^{*}*p* < .05, ***p* < .01.

Table 4Regression for Depression and Coping Styles

					95% CI	95% CI
Coping Style	В	β	t	p	LL	UL
Self-Distraction	0.03	0.02	0.36	0.72	-0.12	0.17
Active Coping	-0.11	-0.09	-1.34	0.18	-0.26	0.05
Denial	-0.08	-0.06	-1.06	0.29	-0.21	0.06
Substance Use	-0.06	-0.06	-1.16	0.25	-0.17	0.04
Use of Emotional	-0.19	-0.19	-2.68	0.008*	-0.34	-0.05
Support						
Use of Instrumental	-0.07	-0.05	-0.67	0.51	-0.26	0.13
Support						
Behavioral	0.30	0.25	4.43	<.001**	0.17	0.43
Disengagement						
Venting	-0.08	-0.06	-0.99	0.33	-0.23	0.08
Positive reframing	-0.08	-0.07	-1.18	0.24	-0.21	0.05
Planning	0.09	0.07	0.97	0.33	-0.09	0.26
Humor	-0.44	-0.24	-4.10	<.001**	-0.23	0.65
Acceptance	0.23	0.17	2.53	0.012*	0.05	0.41
Religion	-0.20	-0.15	-2.35	0.019*	-0.37	-0.03
Self-Blame	0.27	0.21	2.87	0.004*	0.09	0.46

Note. The table presents unstandardized coefficients (B), standardized coefficients (β), Lower Limit (LL), Upper Limit (UL), *t*-values, *p*-values, and 95% confidence intervals for each predictor variable in relation to the dependent variable total depression.

^{*}*p* < .05, ***p* < .01.