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Original Article

Death Anxiety During the COVID-19 Pandemic: A Hybrid Concept Analysis

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Abstract

Background: Death anxiety is a distressing fear related to Death or the dying process, shaped by sociocultural and individual factors. During acute global health crises such as COVID-19, this anxiety may intensify and assume context-specific characteristics.

Objectives: This study aimed to analyze the concept of death anxiety during COVID-19 and develop a conceptual definition using Schwartz-Barcott and Kim's hybrid model of concept analysis.

Methods: A hybrid concept analysis with three phases (theoretical, fieldwork, analytical) was conducted. The theoretical phase reviewed literature from electronic databases, yielding 67 articles for analysis. The fieldwork phase involved semi-structured interviews with 14 COVID-19 survivors. The analytical phase integrated these findings to develop a comprehensive conceptual definition.

Results: Hybrid concept analysis identified death anxiety during COVID-19 as a multidimensional response involving emotional impairment and faith-anger struggle. Key antecedents included information chaos and social isolation, while consequences ranged from psychological distress to transformative outcomes like rebirth and spiritual integration.

Conclusion: Grounded in Schwartz-Barcott and Kim's model, this analysis reveals death anxiety as a multidimensional phenomenon with a dual trajectory of consequences, from psychological distress to transformative "rebirth", within the Iranian context.

Implications for Nursing and Midwifery Preventive Care

- Assessment of faith-anger struggles, information chaos, and fear of the dying process by nurses, alongside provision of culturally-sensitive spiritual care.
- Development of context-specific assessment instruments and health policies integrating existential care into crisis preparedness frameworks.

Introduction

Death anxiety is a form of existential anxiety triggered by an individual's acceptance of their mortality [1]. This type of anxiety is capable of significantly impacting an individual's personal and social life, as well as their behavioral and physiological changes [2, 3].

Factors such as personal health, age, religion, life experiences, and level of education can influence death anxiety [4, 5]. The impact of the COVID-19 pandemic has dramatically increased its focus as a central concern in mental health [6]. Many people are worried about Death and severe illness due to the disease's unknown nature and rapid spread. Death anxiety has been significantly heightened in various communities due to the COVID-19 pandemic's increased mortality rates and uncertainties about public health [7]. The fear of sudden Death, severe illness, and losing loved ones is becoming more common [8]. The COVID-19 crisis, as an acute global health event, significantly altered cultural and social attitudes toward Death, reshaping perceptions of mortality and illness. This shift necessitates a formal reassessment and conceptual redefinition of death anxiety to identify influential factors and develop effective, context-specific coping strategies. Despite the growing body of research on death anxiety during the COVID-19 pandemic, most existing studies have employed quantitative approaches focusing on prevalence rates and associated factors [9-12]. While these studies have provided valuable epidemiological insights, they have largely failed to capture the contextual, cultural, and spiritual nuances of death anxiety as experienced by individuals during acute health crises. Furthermore, most available literature lacks a comprehensive conceptual framework that integrates theoretical foundations with lived experiences, leaving a significant gap in understanding the multidimensional nature of this phenomenon [13, 14].

Although several studies have examined death anxiety in various populations [15-17], there remains a conceptual ambiguity regarding its defining attributes, antecedents, and consequences specifically within the context of a global pandemic. This ambiguity hinders the development of context-sensitive assessment tools and targeted interventions for healthcare providers, particularly nurses and midwives who are at the frontline of patient care during health crises.

Given these gaps, the use of a hybrid model of concept analysis, as proposed by Schwartz-Barcott and Kim, is particularly warranted. This approach uniquely combines theoretical inquiry with empirical fieldwork, allowing for a comprehensive and contextually grounded understanding of the concept [18]. Unlike purely theoretical or purely empirical approaches, the hybrid model facilitates the integration of existing knowledge with the lived experiences of those directly affected, thereby producing a more culturally relevant and clinically applicable conceptual framework. This methodology is especially suited for exploring complex, culturally-loaded phenomena such as death anxiety during COVID-19, where individual experiences are deeply intertwined with sociocultural, spiritual, and existential dimensions.

Objectives

This study aimed to analyze the concept of death anxiety in the context of the COVID-19 pandemic and develop a comprehensive conceptual definition using the Schwartz-Barcott and Kim hybrid model.

Methods

Study design

This study employed a concept analysis approach using Schwartz-Barcott and Kim's hybrid model to explore death anxiety among COVID-19 patients. The development of this model consists of three interconnected stages: theoretical investigation, fieldwork, and final analysis [19].

Theoretical phase

The theoretical phase began with an exploration of the concept of death anxiety in the context of COVID-19 through a review of the existing literature. A systematic search was conducted in major and reliable databases, including PubMed, Scopus, Web of Science, SID, SciELO, CINAHL,

and MagIran, using adjusted keywords related to COVID-19 and death anxiety. All qualitative and quantitative studies published up to 2024 were reviewed. The first and third authors independently performed the search and had it validated by the second author. In total, 2,070 articles were identified; after removing irrelevant and duplicate records, 1,481 abstracts remained for screening, and 67 articles were found to be significantly related to "death anxiety in COVID-19 [Figure 1]. These 67 articles were thoroughly analyzed to define and measure death anxiety and to identify various aspects of the impact of COVID-19 on death anxiety [Appendix 1].

Fieldwork phase

This phase validated theoretical findings via qualitative interviews [20]. Semi-structured interviews were conducted with 14 COVID-19 survivors who were purposively selected from Zanjan University of Medical Sciences hospitals (March 2020–June 2021) to validate theoretical findings and explore novel attributes [Table 1]. Inclusion criteria comprised: Laboratory-confirmed COVID-19 diagnosis, ≥7-day hospitalization with severe symptoms (e.g., oxygen saturation <90%), Age 30–60 years, and fluency in Persian. Exclusion criteria excluded individuals with psychiatric disorders or cognitive impairment.

Data saturation was defined as the point at which no new codes, subcategories, or themes emerged from the interview data [20].

To determine saturation, the first author and a research assistant independently reviewed transcripts after each interview and held weekly team meetings to discuss emerging patterns. Sampling continued until data saturation was achieved, defined as the point at which no new. Odes, subcategories, or themes emerged from the interview data [21].

Following iterative review of the transcripts and ongoing discussion of emerging patterns within the research team, the final sample comprised 14 participants, at which point no substantively new information emerged.

They were scheduled according to participants' time and location preferences and audio-recorded. The interviews explored experiences of death anxiety before, during, and after COVID-19 infection. The first author conducted semi-structured interviews using a guide developed during the theoretical phase. Example questions: "Describe your thoughts about death during hospitalization. “How did healthcare workers' behaviors affect your fear of dying?" Interviews lasted between 60 and 85 minutes. They were conducted promptly at locations convenient for participants. All interviews were audio-recorded and transcribed word-for-word. Participants were purposively selected to ensure diversity in terms of profession, gender, and age, enhancing the transferability of findings.

Qualitative data from semi-structured interviews were analyzed using conventional content analysis [20]. The process commenced with immersive familiarization: transcripts were read repeatedly to gain holistic insights. Subsequently, initial coding was performed line by line, generating 314 initial codes (e.g., "suffocation imagery," "guilt about infecting family").

These codes were then clustered into 10 subcategories based on semantic and contextual similarities (e.g., "fear of dying process" and "spiritual conflict" were merged into "existential dread"). Through iterative abstraction, subcategories were synthesized into four core categories that capture the essence of death anxiety in COVID-19 [Table 2]. To ensure trustworthiness, intercoder agreement was calculated ($\kappa = 0.82$ via Cohen's Kappa) through independent coding by two researchers, with discrepancies resolved via consensus. Member checking was employed with three participants to validate interpretive accuracy. All analytical procedures were conducted in MAXQDA software (v. 10), with an audit trail maintained to document the decision-making processes.

Analytical phase

The analytical phase used a three-step integration of theoretical and fieldwork findings via Schwartz-Barcott & Kim's hybrid model.

Step 1: Comparative analysis

First, convergences and divergences between theoretical and fieldwork data were systematically identified. Convergences included shared themes such as "existential-spiritual concerns" versus "inner faith-anger struggle," while divergences included contrasting consequences like "loss of meaning" versus "rebirth."

Step 2: Contextual reconciliation

Second, discrepancies were reconciled through team discussions involving all authors, who collectively considered contextual factors such as Iranian religiosity, cultural norms, and the timing of data collection during the pandemic's acute phase.

Step 3: Model refinement

Finally, the model was refined to define core attributes, antecedents, and consequences of COVID-19-related death anxiety within a contextually embedded framework [Table 2], highlighting cultural-spiritual dissonance and information chaos as new contextual antecedents, with transformational reappraisal of life (including "rebirth" and "spiritual integration") as a key consequence.

Result

Review of the literature from multiple databases (Theoretical phase) identified different definitions and aspects of COVID-19 death anxiety and its attributes.

Attributes and the concept definition

The three defining attributes of death anxiety during COVID-19 were extracted through a systematic synthesis of the theoretical literature.

The process began with an initial identification of all characteristics mentioned across the 67 selected articles. These characteristics were then coded and categorized based on semantic and conceptual similarities.

Through iterative comparison and abstraction, three overarching attributes emerged: (1) emotional and cognitive responses, (2) existential and spiritual concerns, and (3) psychological defense mechanisms.

These three attributes were selected because they (a) appeared consistently across the majority of reviewed studies, (b) captured the multidimensional nature of the phenomenon, and (c) distinguished death anxiety from related constructs such as general anxiety or fear of illness.

The attributes were further validated through the fieldwork phase, where they were confirmed and refined based on the lived experiences of COVID-19 survivors.

1. Emotional and Cognitive Responses

Emotional and cognitive responses to dying are central to death anxiety, often causing intense feelings like anger, anxiety, and dread. These emotional and cognitive responses typically manifest as chronic, irrational worry about one's own Death or that of a loved one [22-28]. Cognitive issues involve intrusive thoughts about Death, causing distractibility and emotional distress, often accompanied by psychosomatic symptoms like increased heart rate, sweating, and nausea. These reactions reflect intense panic and fear of Death and the dying process [29, 30]. This constellation of emotional-cognitive symptoms highlights the profound psychological impact that awareness of mortality exerts on individuals [31, 32].

2. Existential and Spiritual Concerns

In addition to immediate worries, individuals experience panic about how their Death affects their existence, raising deep philosophical and spiritual concerns. They reflect on existence, purpose, and meaning, including life's finiteness and the possibility of life after Death, which can lead to distress, fear of disappearing, and a sense of uncertainty [33-36].

3. Psychological Defense Mechanisms

Death anxiety is heavily influenced by sociocultural factors, with cultural norms often leading individuals to suppress fears about mortality. Worries about dying alone or being forgotten by loved ones further intensify this anxiety [37-40].People coping with death anxiety often use defense mechanisms, with denial being a common initial strategy to block the unsettling reality of life after Death [23, 41].

Other coping mechanisms include pursuing symbolic immortality through achievements or humor, rationalizing the meaning or inevitability of Death, and utilizing religious or spiritual practices to

mitigate fear and foster a sense of continuity beyond life [42, 43].

Antecedents of the concept

The literature review identified several categories of factors influencing death anxiety in COVID-19. It is important to distinguish between direct antecedents (factors that immediately trigger or precipitate death anxiety) and contextual/risk factors (predisposing characteristics that increase vulnerability to death anxiety).

A. Direct Antecedents (Precipitating Factors)

These factors directly trigger or exacerbate death anxiety during the COVID-19 pandemic:

1. Information chaos

Exposure to inconsistent, contradictory, or overwhelming information from media and health authorities created cognitive disorganization and psychological disturbance, directly precipitating death anxiety.

Participants reported that conflicting statistics, changing guidelines, and sensationalized reporting made Death feel tangible and imminent.

2. Social isolation

Quarantine, physical distancing, and restricted visitation policies disrupted social connections and support networks, directly intensifying fears of dying alone and concerns about leaving loved ones behind.

3. Lived exposure to Death

Direct encounters with Death, whether through witnessing patient deaths, losing family members or friends to COVID-19, or providing end-of-life care, served as immediate triggers for death anxiety among both patients and healthcare workers.

4. Fear of the unknown

The unpredictable disease trajectory, lack of clear prognostic information, and uncertainty about treatment efficacy directly precipitated anxiety about the dying process itself.

5. Loss of hope for treatment

Witnessing treatment ineffectiveness and rapid deterioration of others fostered fatalism and directly diminished psychological resilience.

6. Stigmatization

Fear of transmitting the virus to loved ones and potential social rejection directly contributed to emotional isolation and guilt.

B. Contextual and Risk Factors (Predisposing Characteristics)

These factors increase individuals' vulnerability to death anxiety but do not directly cause it:

1. Structural vulnerabilities

Demographic characteristics including younger age (particularly 20–30-year-olds), female gender, lower education levels, low socioeconomic status, and being married (especially among older women) were associated with higher death anxiety [36, 42, 44, 45].

Healthcare workers, particularly nurses and medical students, showed elevated vulnerability due to occupational exposure [28, 39, 46, 47].

2. Physical health conditions

Chronic physical ailments, advanced age, functional dependencies, and underlying health conditions (e.g., cancer, heart disease) increased vulnerability to death anxiety [48-52].

Among COVID-19 patients, severe symptoms and prolonged hospitalization heightened susceptibility.

3. Psychological vulnerabilities

Personality traits such as neuroticism, introversion, and intolerance of uncertainty increased psychological vulnerability [40, 53-57]. Persistent stress, depressive symptoms, dissatisfaction with life, and reduced hope further predisposed individuals to death-related distress [23, 44, 58-62].

4. Spiritual and religious context

Cultural and religious factors, including beliefs, norms, and perceived existential threats, influenced vulnerability [28, 37, 43, 53].

Table 1. Characteristics of Participants

Participant	Gender	Profession	Age
P1	Male	Self-employed	45
P2	Female	Homemaker	52
P3	Male	Teacher	57
P4	Female	Nurse	32
P5	Male	Psychologist	48
P6	Male	Bank Employee	39
P7	Female	Nurse	32
P8	Male	Retired	60
P9	Female	Office Worker	41
P10	Male	Engineer	38
P11	Female	Teacher	44
P12	Male	Driver	50
P13	Female	Housewife	55
P14	Male	Shopkeeper	47

While higher spirituality could be protective, spiritual struggles, particularly questioning God's justice or the meaning of suffering, amplified vulnerability [63].

Consequences

The consequences of death anxiety during COVID-19 were categorized into two distinct domains: psycho-existential consequences (internal psychological and spiritual impacts) and socio-functional consequences (external impacts on social roles and functioning).

A. Psycho-Existential Consequences

1. Psychological distress and impaired functioning

Death anxiety directly contributed to severe psychological distress, including depression, generalized anxiety, and phobic reactions [30, 57, 64, 65].

Individuals experienced reduced coping capacity, maladaptive behavioral responses, and increased risk of high-risk behaviors [49, 66, 67]. Sleep disturbances and chronic hypervigilance were commonly reported [68-72]. Among healthcare workers, death anxiety was associated with burnout, decreased resilience, and diminished mental health [27, 73, 74].

2. Spiritual and existential crisis

Individuals experienced profound spiritual struggles, including questioning divine justice, loss of meaning, and existential despair.

This spiritual dissonance often manifested as a volatile oscillation between devotion and anger toward God. In some cases, however, near-death experiences catalyzed transformative outcomes:

- **Rebirth:** Recalibrated priorities, enhanced appreciation for life, and reorientation toward meaningful connections [Fieldwork finding].
- **Spiritual integration:** Transition from transactional faith to contemplative acceptance of uncertainty [Fieldwork finding].

3. Emotional disconnection

Posttraumatic transformation sometimes came at the cost of intimacy. Participants described estrangement from partners who were unable to comprehend their internal changes [Fieldwork finding]. Healthcare workers reported profound disillusionment with their professional roles and values [Fieldwork finding].

B. Socio-Functional Consequences

1. Deterioration of professional performance

Among healthcare professionals, death anxiety caused occupational burnout, reduced quality of patient care, and impaired clinical decision-making [62, 75, 76].

It was associated with increased likelihood of medical errors, decreased patient satisfaction, and higher rates of nurses leaving the profession [57, 77, 78].

2. Decline in social roles and relationships

Individuals disengaged from self-care behaviors and developed dissatisfaction with healing processes [24, 79].

Family relationships suffered due to emotional withdrawal, guilt about potential virus transmission, and the psychological burden of separation during hospitalization **[**Fieldwork finding].

The awareness of life's fragility disrupted previous patterns of social engagement and created lasting relational challenges.

3. Quality of life deterioration

Profound feelings of hopelessness and discontent were associated with perceived suffering, reduced motivation for self-care, and diminished overall life satisfaction [24, 79, 80]. Among patients and healthcare workers alike, death anxiety eroded perceived quality of life across physical, psychological, and social domains.

Table 2. Integrated Conceptual Framework of Death Anxiety in COVID-19: From Theoretical and Fieldwork Phases to the Final Hybrid Model

Component	Findings from Theoretical Phase	Fieldwork Phase Findings (Iran, 2020-2021)	Final Hybrid Model: Contextual Synthesis
Antecedents	• Social isolation • Structural vulnerabilities • Spiritual questioning	• Information chaos [NEW] • Stigmatization [CONFIRMED] • Loss of hope for treatment [CONFIRMED] • Lived Exposure to Death [NEW] • Fear of the unknown [CONFIRMED]	Cultural-spiritual dissonance (e.g., conflicting media and religious messages) Relational-sacrificial anxiety (fear of infecting loved ones) Perceived therapeutic futility (loss of trust in treatments)
Attributes	• Emotional and cognitive responses • Existential and spiritual concerns • Psychological Defense Mechanisms	• Existential dread of the dying process • Anguish of separation • Inner faith-anger struggle • Rebirth	Paradoxical spiritual turmoil (oscillation between devotion and rage) Embodied awareness of mortality (vivid sensory dread) Anticipatory grief (unresolved futures)
Consequences	• Decline in quality of life • Deterioration of social roles • Psychological damage	• Rebirth • Spiritual integration • Deep appreciation • Emotional disconnection • Awareness of fragility	Transformational reappraisal (life value reordering, spiritual coherence) OR Psycho-existential erosion (disillusionment, chronic hypervigilance)

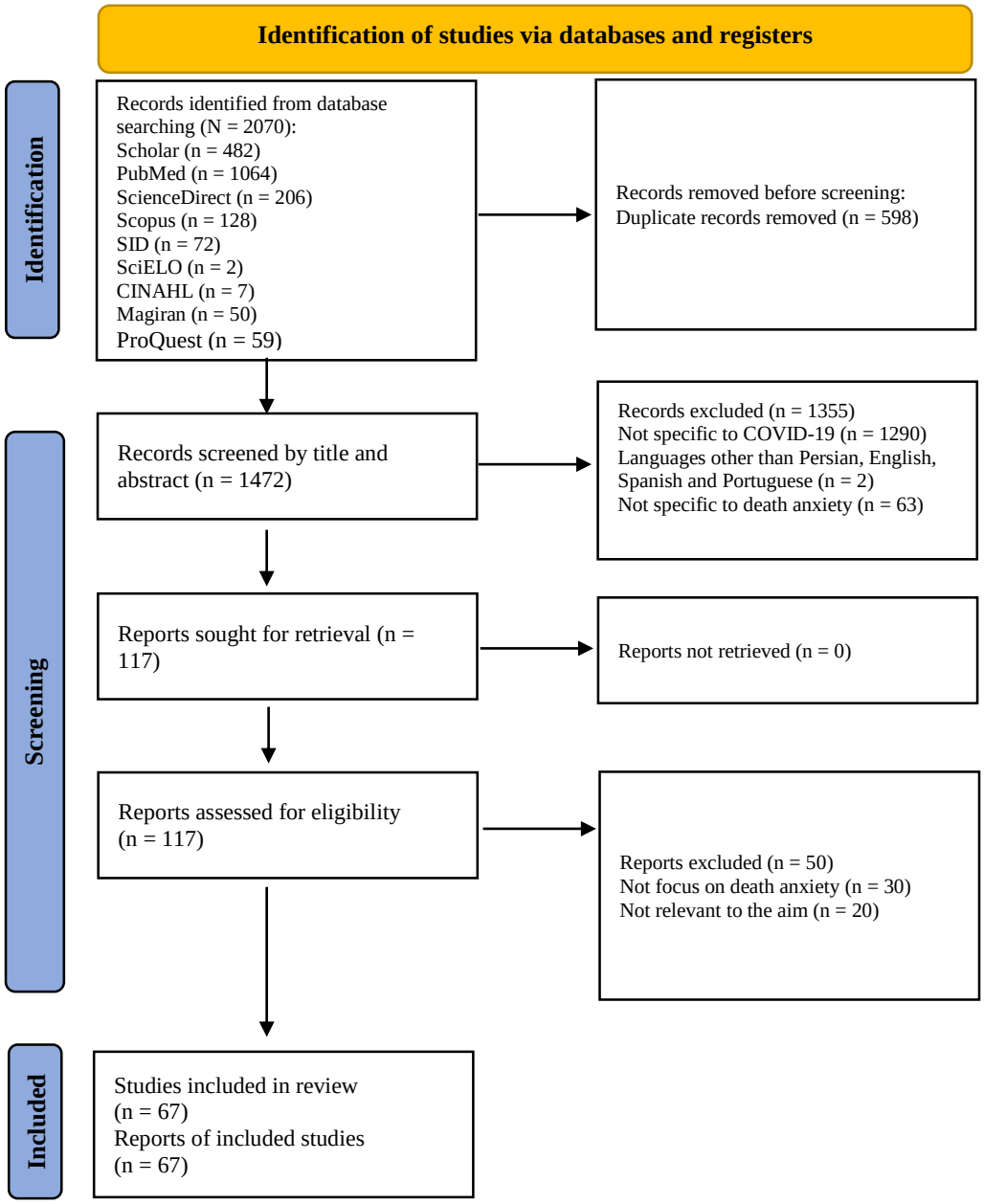

Figure 1. Flow Diagram Illustrating the Selection of Sources

Fieldwork phase

The following antecedents were identified through the fieldwork phase and represent either novel findings or confirmations of theoretical phase findings:

1. Information chaos [NEW FINDING - Fieldwork]

Several participants reported psychological disturbance and cognitive disorganization due to inconsistent information from the government and media. Disinformation and uncertainty about infection risk, mortality rates, and treatment efficacy undermined public confidence, making Death feel tangible, cold, and alarmingly close. This antecedent emerged as a novel finding from the fieldwork phase and was not previously emphasized in the theoretical literature as a distinct antecedent of death anxiety.

Participant 6 reflected: "*I felt like officials were... lying to us. Had they shown actual footage of patients in ICUs without vaccines, people would have responded differently to the situation. That*

downplays the entire situation and provides us with unreal footage, making people question everything."

Participant 7 observed: "*Media that covered the struggle of the frontline workers stopped portraying the battle. It felt like the calm is in the storm. They stopped covering us while we watched people die.*"

2. Stigmatization [CONFIRMED - Fieldwork]

Fear of transmitting the virus to loved ones and potential social rejection emerged as significant stressors. This finding confirmed theoretical phase literature suggesting that social stigma amplifies psychological distress during infectious disease outbreaks. Several participants reported concealing their diagnosis to shield family members from distress. This self-imposed silence, while protective, led to emotional isolation and guilt.

Participant 4 recounted: "*When hospitalized, I begged my colleagues: 'Don't tell my mother, tell only my father.' Her panic would have shattered me. I carried guilt for potentially exposing my family*."

Similarly, Participant 6 remarked: "*My wife sobbed daily after my positive test. Her despair became a mirror; I'd think, 'If I die, who will care for her and our three children*?'"

3. Loss of hope for treatment [CONFIRMED - Fieldwork]

Participants frequently spoke of the psychological burden caused by witnessing the ineffectiveness of treatment and the rapid deterioration of others. This finding reinforced theoretical phase evidence regarding perceived therapeutic futility. This awareness fostered a sense of fatalism, as hope in medical recovery diminished.

Participant 6 recalled: "*I visualized suffocating like ICU patients I'd treated. With no cure, I awaited the worst; each breath felt borrowed*."

"*At diagnosis, I told myself: 'It's over. I'll die within days.' Statistics became personal prophecies*."

4. Lived Exposure to Death [NEW FINDING - Fieldwork]

Direct encounters with Death, especially among younger patients, left enduring psychological impressions. This antecedent emerged as a novel finding from the fieldwork phase. At the same time, theoretical literature acknowledged occupational exposure; participants' vivid descriptions of personal encounters with Death among peers and family members represented a distinct and powerful trigger. For both patients and frontline workers, the line between witness and victim became increasingly blurred.

Participant 7 described: "*Each young patient's Death was a rehearsal for our own. We'd code for 24 hours, fail, and watch bodies wheeled out, then return next shift to repeat the cycle*."

Participant 6 added, "*Losing my father-in-law and best friend to COVID made Death tangible. Their absence screamed: 'You're next*.'"

5. Fear of the unknown [CONFIRMED - Fieldwork]

The absence of clear prognostic information and the unpredictable course of the disease intensified participants' psychological distress. This finding confirmed theoretical phase literature regarding uncertainty as a key driver of death anxiety. Anxiety centered not only on Death itself, but on the ambiguity surrounding its process.

Participant 6 reflected: "*I obsessed over how Death would claim me, slow suffocation? Cardiac arrest? The uncertainty was worse than the symptoms*."

Participant 4 noted: "*Doctors said 'lung infection' but couldn't predict my trajectory. Not knowing if I'd live or die was torture*."

Attributes of death anxiety during COVID-19

1. Existential dread of the dying process

A central characteristic of death anxiety was not simply fear of mortality, but an overwhelming dread of how Death would unfold. Participants vividly described suffocation scenarios, often shaped by clinical language or firsthand experiences.

Participant 4 shared: "*When doctors confirmed bilateral pneumonia, my mind fixated on how the end would unfold: would I drown in my fluids like the ICU patients I'd intubated*?"

Participant 6 echoed: "*I envisioned myself tethered to ventilators, reduced to a gasping statistic. The uncertainty of whether Death would come slowly or suddenly felt more torturous than the disease itself*."

2. Anguish of separation

Beyond fear of dying, many participants expressed intense sorrow over potential separation from their children and families. This anguish encompassed

emotional detachment, financial abandonment, and the impossibility of closure.

Participant 6 shared: "*Her despair became a mirror reflecting my deepest fear: Who would shield her and our children in this city where she knew no one? I started drafting lists of debts and school schedules, a pathetic attempt to control the uncontrollable*."

Participant 7 recalled: "*During intubation preparations, I made my husband swear to tell our son daily, 'Mama loved you beyond measure.' The thought of him growing up without me was an abyss I couldn't fathom*."

3. Inner faith-anger struggle

Spirituality functioned as both a sanctuary and a battleground. Participants reported vacillating between devout prayer and existential rage, a duality often triggered by worsening symptoms.

Participant 6 shared: "*Those verses calmed me until the fever spiked, and I'd scream at God: 'Why shatter me in my prime? Is this reward for faith*?"

Participant 4 added: "*I vowed lifelong service if spared, but when my oxygen dropped, I shook my fist at the ceiling: 'Why toy with me? Answer!' This dance between devotion and fury left me spiritually seasick*."

4. Rebirth

Experiences of near-death prompted a reordering of values. Participants described a renewed emphasis on spiritual reconciliation, relational healing, and attentiveness to the present moment.

Participant 7 stated: "*Ten years of silence evaporated when I said, 'Forgive my stubbornness.' Death's shadow taught me that grudges are shackles we forge ourselves*."

Participant 1 recalled: "*I overpaid the grocer's tiny bill, haunted by imagined whispers: 'He died owing bread money*.'"

Consequences of death anxiety during COVID-19

1. Life-changing outcomes

1.1. Rebirth

Many participants emerged with recalibrated priorities. Authentic connection replaced performative roles, and meaning was sought in small acts of care.

Participant 7 described this shift: "*After surviving, I quit my 80-hour work weeks. Now I teach community first aid, holding my son's hand while bandaging wounds. That crisis taught me: Legacies aren't built in ICUs but in living rooms*."

1.2. Spiritual integration

Several participants transitioned from bargaining with a higher power to embracing uncertainty as a sacred aspect of life. Faith was no longer transactional, but contemplative.

Participant 3 explained: "*I stopped bargaining with God. Now, when I recite Surah Yasin, it's not to survive but to remember: Whether breath continues or stops, both are sacred*."

1.3. Deep appreciation

Heightened sensory awareness and a renewed gratitude for the mundane were commonly reported. Everyday experiences became repositories of meaning.

Participant 4 noted: "*Before, I'd gulp coffee, rushing to shifts. Now I taste each bitter note. Surviving suffocation makes oxygen itself a miracle*."

2. Devastating consequences

2.1 Emotional disconnection

Posttraumatic transformation sometimes came at the cost of intimacy. Participants described estrangement from partners who were unable to comprehend their internal changes.

Participant 5 revealed: "*My wife said, 'You've become a stranger since COVID.' How could she understand? I met Death; we don't unsee such things*."

2.2 Awareness of fragility

Healthcare workers, in particular, reported profound disillusionment with their professional roles, describing a rupture between previous purpose and current values.

Participant 7 stated: "*Saving others felt meaningless when I couldn't save myself from terror. Now I garden, and things grow when I nurture them. No surprises*."

Many expressed a lasting awareness of life's fragility. Dreams, flashbacks, and a feeling of impending breakdown highlighted the psychological impact of the pandemic.

Participant 4 shared: "*I'm intubating a patient who morphs into myself. I wake, gagging. The horror isn't*

dying; it's knowing everything can shatter in one breath."

Discussion

The study's findings, viewed in the context of COVID-19 as a high-threat global health crisis, show that death anxiety in Iranian society often oscillated between faith and anger. Emotions frequently shifted between these extremes, highlighting the role of spiritual belief in managing crises. Soleimani's research indicated that religiosity can either increase or decrease death anxiety, depending on factors such as type of religiosity, certainty in beliefs, perceived meaning of religion, and level of religious commitment [81]. Another study showed that individuals' spiritual and religious values can predict death anxiety, and strengthening spiritual dimensions can help reduce it [82]. Furthermore, information chaos and media contradictions during acute public crises led to public distrust about the threat and its treatment, contributing to increased death anxiety, consistent with findings from both the theoretical and fieldwork phases [83].

Fear of the Unknown as a Driver of Death Anxiety

The present study identified "fear of the unknown" as a significant antecedent of death anxiety during COVID-19, consistent with existing literature on existential distress during health crises.

Participants consistently reported that the unpredictable disease trajectory, lack of clear prognostic information, and uncertainty about treatment outcomes were more distressing than the physical symptoms themselves. This finding aligns with Menzies and Menzies [84], who argued that intolerance of uncertainty is a transdiagnostic construct underlying death anxiety during the pandemic. Similarly, Damirchi et al. [24] found that uncertainty about disease progression and recovery significantly predicted death anxiety among COVID-19 patients.

The absence of clear medical guidance and contradictory information from health authorities amplified this uncertainty, reinforcing the need for transparent and consistent communication strategies during health crises [83].

Stigmatization and Its Contribution to Death Anxiety

Another significant antecedent identified in this study was stigmatization, the fear of transmitting the virus to loved ones and the potential for social rejection. This finding is consistent with the work of Heidaranlu et al. [38], who reported that Iranian COVID-19 patients experienced profound spiritual-cultural needs related to stigma and isolation. Similarly, Toulabi et al. [83] documented that COVID-19 patients experienced psychological distress partly due to concerns about being labeled as carriers and the resulting social exclusion. The present study extends these findings by demonstrating that self-imposed silence, concealing one's diagnosis to protect family members, paradoxically intensifies emotional isolation and guilt, thereby amplifying death anxiety. This finding suggests that stigmatization operates not only through external social rejection but also through internalized shame and self-blame.

Lived Exposure to Death as a Novel Antecedent

A particularly novel finding of this study was the identification of "lived exposure to death" as a distinct antecedent of death anxiety. While theoretical literature has acknowledged occupational exposure to Death among healthcare workers [46, 73, 74], the present study revealed that personal encounters with Death, including losing family members, friends, or colleagues to COVID-19, served as a uniquely powerful trigger for death anxiety. Participants described how witnessing the Death of younger patients or loved ones made mortality feel intensely personal and imminent. This finding is consistent with the observations of Firouzkouhi et al. [23], who noted that critically ill COVID-19 patients experienced heightened death awareness through vicarious exposure to others' suffering. However, the present study extends this understanding by demonstrating that such exposure blurs the boundaries between witness and potential victim, a phenomenon not previously emphasized in the literature. This antecedent is particularly salient in the Iranian context, where extended family networks and close-knit communities meant that most individuals knew someone who had died from

COVID-19. A defining attribute of death anxiety identified in this study was the overwhelming dread of the dying process itself, rather than merely the fact of mortality. Participants vividly described fears of suffocation, ventilator dependency, and dying alone, imagery often shaped by clinical language or firsthand experiences.

This finding resonates with the work of Firouzkouhi et al. [23], who documented that COVID-19 patients experienced existential distress related to the manner of their Death. Similarly, Weisskirch and Crossman [25] found that exposure to Death and dying education influenced undergraduate students' death anxiety during the pandemic, suggesting that detailed knowledge of the dying process can paradoxically heighten distress. The present study contributes to this literature by demonstrating that this dread is not merely cognitive but also deeply sensory and embodied; participants described anticipating specific physical sensations (e.g., drowning in fluids, gasping for air) that intensified their psychological distress. This finding underscores the importance of addressing not only abstract fears of mortality but also concrete concerns about the dying experience in clinical interventions.

Definition and Conceptualization of "Rebirth"

The concept of "rebirth" emerged from the fieldwork phase as a transformative consequence of death anxiety during COVID-19. In this study, rebirth is defined as a profound and enduring reorientation of personal values, priorities, and life meaning following a near-death or life-threatening experience. This transformation manifests through three interrelated dimensions:

(1) Recalibration of priorities: Individuals reported a shift from materialistic or performative pursuits toward authentic connections, relational healing, and meaningful engagement in daily activities.

(2) Enhanced appreciation for life: Participants described heightened sensory awareness and gratitude for mundane experiences, transforming ordinary moments into sources of profound meaning.

(3) Spiritual integration: Individuals transitioned from transactional faith (bargaining with God for survival) to contemplative acceptance of life's uncertainty as sacred.

Importantly, rebirth is distinct from simple recovery or posttraumatic growth in that it specifically involves a volitional reconstruction of one's life narrative in response to mortality awareness. This conceptualization aligns with Tedeschi and Calhoun's posttraumatic growth framework [85], which identifies similar dimensions (appreciation of life, new possibilities, spiritual change) but differs in its emphasis on the cultural-spiritual context; in Iranian participants, rebirth was inextricably linked to religious reconciliation and relational healing within extended family networks.

Divergence Between Theoretical and Fieldwork Findings

An intriguing divergence emerged between theoretical and fieldwork findings regarding consequences. While the theoretical phase predominantly highlighted a 'loss of life meaning' even after recovery [33, 79], our fieldwork revealed a distinct outcome: a 'deep appreciation for being alive,' giving ordinary experiences new significance. This finding contrasts with theoretical studies, reflecting contextual and temporal differences; acute-phase experiences (2020–2021) prompted immediate existential reevaluation, while prolonged pandemic stressors in other studies could erode meaning. Iran's strong socioreligious context likely supported transformative 'spiritual integration,' buffering against sustained meaninglessness, consistent with Soleimani's findings [81] that intrinsic religiosity moderates death anxiety. Thus, the contradiction underscores death anxiety's context-dependent trajectory: while Karabağ's conclusions [80] confirm its detrimental impact on quality of life in some settings, our data suggest that within specific cultural-spiritual contexts like Iran, existential threat can catalyze profound value reorientation and 'rebirth' alongside distress. Cross-cultural posttraumatic growth (PTG) patterns further contextualize this phenomenon [86, 87]. While Western studies link PTG to individualistic values like autonomy, Iranian participants emphasized collective-spiritual growth, suggesting culture influences whether death anxiety leads to PTG or deterioration. Based on the findings of this study, integrating systematic screening for death anxiety

and implementing targeted psychological and spiritual interventions in the care of patients during acute global health crises are essential. Professional capacity building for healthcare providers in identifying and managing this phenomenon should be prioritized in educational programs. Moreover, health policies should structurally incorporate mental health support as a core component of pandemic response strategies. Further research is recommended to develop and validate assessment instruments grounded in the present conceptual model.

This study has six key limitations affecting the generalizability of its findings. First, excluding grey literature limited insights into public discourse shaping death anxiety. Second, sampling only hospitals in Iran restricts transferability to non-Muslim or resource-limited settings. Third, retrospective interviews may introduce recall bias, idealizing reported spiritual experiences. Fourth, data collection during 2020–2021 captured acute-phase anxiety but not long-term trajectories. Fifth, cultural homogeneity in the Iranian sample may not reflect subcultural diversities, limiting transferability.

Sixth, the relatively small sample size (N=14) and the inclusion of only two nurses among the participants may limit the transferability of findings, particularly regarding healthcare workers' experiences. While data saturation was achieved, a larger and more occupationally diverse sample might have captured a broader range of perspectives, especially from other healthcare professions or patients with different clinical trajectories.

Conclusion

This hybrid concept analysis provides a comprehensive conceptual definition of death anxiety during COVID-19, clarifying its multidimensional attributes, antecedents, and dual consequences, ranging from psychological distress to transformative outcomes such as rebirth and spiritual integration.

The findings underscore the faith-anger struggle and cultural-spiritual dissonance as central features, informing culturally sensitive nursing interventions, future instrument development, and theory advancement in existential care.

Further empirical validation across diverse populations is needed to confirm the transferability of this conceptual model.

Ethical Considerations

Ethical approval was obtained from the Ethics Committee of Zanjan University of Medical Sciences (IR.ZUMS.REC.1400.398). Institutional permission was obtained from the relevant hospital administration.

Written informed consent was obtained from all participants before enrollment in this study. For illiterate participants, verbally informed consent and a thumbprint were obtained. Participants were assured of the confidentiality of their responses and their right to withdraw from the study at any time without affecting their care. All methods were carried out in accordance with the STROBE guidelines and the Declaration of Helsinki.

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Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Artificial Intelligence Utilization

Artificial intelligence–based tools were used solely for language editing purposes. Specifically, ChatGPT-4 (OpenAI) was employed to improve grammar, clarity, and sentence structure during the manuscript revision process. After using this tool, the authors carefully reviewed, verified, and edited all generated content and accept full responsibility for the integrity and accuracy of the final manuscript. AI tools were not used for data analysis, interpretation, or generation of results.

Data Availability Statement

The datasets generated and/or analyzed during the current study contain sensitive information related to patients and cannot be made publicly available to ensure confidentiality. However, anonymized data may be available from the corresponding author upon reasonable request. Access will be granted to qualified researchers who provide a methodologically sound proposal and sign a confidentiality agreement, subject to institutional ethics committee approval.

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Appendix 1. Selected Articles for Analysis from a Comprehensive Literature Search

ID	Aim	Sample	Study Design	Country	Author and Year
1	Explore the lived experiences of hospitalized patients with COVID-19 about Death and dying.	12 participants	Descriptive phenomenology	Iran	Firouzkouhi et al., 2024
2	Determine the role of predictive death anxiety in the job satisfaction of pre-hospital emergency personnel during the COVID-19 pandemic.	198 samples	Cross-sectional descriptive	Iran	Chegini et al., 2022
3	Investigate the extent to which self-compassion accounted for the association between psychological well-being and death anxiety in breast cancer survivors.	210 breast cancer patients	Cross-sectional	Iran	Yousefi Afrashteh and Masoumi, 2021
4	Explore death anxiety, moral courage, and resilience in nursing students caring for COVID-19 patients in the south of Iran.	420 senior nursing students	Cross-sectional	Iran	Mohammadi et al., 2022
5	Explain the experiences of intensive care unit (ICU) nurses in providing end-of-life care to patients with COVID-19.	14 ICU nurses	Qualitative content analysis	Iran	Asadi et al., 2025
6	Determine the mental health and death anxiety among dental staff and students in the School of Dentistry during the COVID-19 pandemic.	300 students and 60 staff	Cross-sectional	Iran	Jazaiery et al., 2022
7	Assess the prevalence of death anxiety and its associated factors in the population of eastern Iran.	515 participants	Cross-sectional	Iran	Bakhtiari-Dovvombaygi et al., 2024
8	Evaluate the structural modeling of the mediating role of perceived stress in the relationship between neuroticism and death anxiety among women during coronavirus infection.	130 people (women)	Correlational study	Iran	Joneghani and Sajjaian, 2023
9	The role of death anxiety as a mediator in the relationship between personality types and psychological well-being in people with COVID-19 disease.	220 people	Correlational study	Iran	Veisi et al., 2023
10	Examine the application of Terror Management Theory during the COVID-19 pandemic by investigating death anxiety and	478 participants from the general population	Cross-sectional	Pakistan	Shakil et al., 2022

	psychological distress in relation to participants' work status.				
11	Determine death anxiety in nurses working in intensive care units related to COVID-19.	110 nurses working in the intensive care units	Cross-sectional	Iran	Belash et al., 2021
12	Perceive psychological experiences in COVID-19 patients in Iran.	20 COVID-19 patients	Conventional content analysis	Iran	Heidaranlu et al., 2024
13	Determining the mediating role of death anxiety and corona anxiety in the relationship between resilience and hypochondriasis.	250 people	Descriptive study	Iran	Rasouli Magham and Salehi, 2023
14	Investigating the prediction of death anxiety based on personality characteristics and self-concept in patients with COVID-19.	205 people	Correlational	Iran	Noroziyan and Peyadekoohsar, 2022
15	Determine the relationship between fear of COVID-19 and death anxiety with the moderator role of self-regulation among the elderly residing in Qazvin.	430 elderly	Cross-sectional	Iran	Zarabadi Poor et al., 2022
16	Determine the effect of acceptance and commitment-based treatment on pathological worry and death anxiety in nurses with the experience of complicated grief caused by COVID-19.	40 nurses	Semi-experimental	Iran	Aghaei et al., 2024
17	Investigate the prediction of death anxiety based on expressed emotion, intolerance of uncertainty, and experiential avoidance in patients recovered from COVID-19 hospitalization.	190 people	Descriptive correlational	Iran	Gholami et al., 2024
18	Evaluate the program's effectiveness in reducing death anxiety and improving self-efficacy among female middle-aged teachers.	22 female middle-aged teachers	Experimental	Jordan	AlZaben and Al Adwan, 2024
19	Examining the relationship between death anxiety, religious coping, and spiritual well-being during the COVID-19 pandemic.	248 community-dwelling older adults	Descriptive study	Jordan	Rababa et al., 2021
20	Investigate the effect of coronavirus anxiety and death anxiety on the conflict between mothers and children aged 7 to 12 years in the home quarantine due to COVID-19.	160 mothers and primary school children	Descriptive-correlation	Iran	Ehsani et al., 2022
21	Existential therapy on worry and anxiety of nurses who experienced sorrow.	40 nurses	Semi-experimental	Iran	Aghaee et al., 2024
22	Examine the mediating role of psychological well-being in explaining the impact of a health-promoting lifestyle on death anxiety among seniors with COVID-19 experience in Tehran.	400 People	Correlational	Iran	Hamidi et al., 2024
23	Investigate the relationship between media involvement and death anxiety during self-quarantine in the COVID-19 outbreak, and to explore the potential mediating roles of empathy, sympathy, and affect in this relationship.	917 participants	Cross-sectional	China	Chen et al., 2022
24	Determine the relationship between loneliness, locus of control, and intolerance of ambiguity with death anxiety in the elderly during the COVID-19 era.	309 elderly people	Cross-sectional	Iran	Rostami et al., 2023
25	Determine the effectiveness of acceptance and commitment therapy based on compassion on death anxiety and perfectionism of nurses with obsessive-compulsive personality traits working in the Corona ward.	28 nurses working in the Corona Department	Quasi-experimental	Iran	Choobsaz et al., 2023
26	Assess the relationship between coronavirus-related anxiety, death anxiety, and emotional intelligence in nurses.	106 participants	Cross-sectional	Iran	Yarahmadi et al., 2024

27	Understand how men's feelings and emotions contribute to the COVID-19 framing in Brazil.	200 men resident in Brazil	Social-historical, qualitative study	Brazil	Sousa et al., 2020
28	Determine the relationship between death anxiety and COVID-19-related fear and anxiety in women with breast cancer.	140 women with breast cancer	Descriptive Correlational	Turkey	Kiyak and Turkben Polat, 2024
29	Predict mental health by religious orientation and the mediating role of death anxiety among nurses in the COVID-19 pandemic.	208 nurses	Cross-sectional	Iran	Farhadi et al., 2022
30	Examine the effect of positive thinking skills training on nurses' optimism and Death anxiety while caring for COVID-19 patients.	52 eligible nurses	Quasi-experimental	Iran	Doustinouri et al., 2024
31	Compare death anxiety and happiness in nurses of Corona wards with those of nurses in other wards in educational-medical centers of Shiraz, Iran, in 2020.	155 nurses working in Corona wards, and 155 nurses working in other wards	Cross-sectional	Iran	Parvin et al., 2022
32	Determining the proportion of death anxiety and its covariates during the COVID-19 pandemic in Shahroud city, Iran.	1215 participants	Cross-sectional	Iran	Mirhosseini et al., 2021
33	Assess fear related to the COVID-19 pandemic and its associated factors—including death anxiety—among adults in Lebanon.	1840 adult participants	Cross-sectional	Lebanon	Chalhoub et al., 2022
34	Investigate the severity of death anxiety among nurses working in intensive care units.	120 nurses working in ICU	Descriptive-correlational	Iran	Tavakkoli et al., 2021
35	Determine the effect of loneliness on death anxiety among the elderly during the COVID-19 pandemic.	354 elderly	Cross-sectional	Turkey	Guner et al., 2023
36	Predictors of Corona Anxiety in patients with COVID-19.	119 patients with COVID-19	Descriptive-analytical	Iran	Shahbazi et al., 2023
37	Determine the relationship of loneliness with death anxiety in the post-COVID-19 era among the Older People in Ilam Province in 2023.	384 older adults and women	Cross-sectional descriptive-analytical	Iran	Sepidnameh et al., 2024
38	Determine the levels of death anxiety and death-related depression in the elderly during the COVID-19 pandemic.	344 elderly	Correlational	Turkey	Erbesler and Demir, 2023
39	Determine the effect of positive psychology group therapy on resilience and Death anxiety among people suffering from COVID-19.	30 people (15 people in each group)	Semi-experimental	Iran	Akbari Balootbangan et al., 2024
40	To explore the lived experiences of these patients to help reduce their suffering.	15 participants	Qualitative	Iran	Rahmatinejad et al., 2020
41	Predicting death anxiety based on cognitive emotion regulation strategies in the COVID-19 epidemic.	200 people	Correlational	Iran	Mirzapour et al., 2022
42	Determine the relationship between COVID-19 anxiety, sleep quality, and death anxiety in the Zoroastrian elderly population in Yazd.	97 elderly Zoroastrians	Multivariate correlation	Iran	Farahifar et al., 2021
43	Investigate the relationship between aging perception and death anxiety among older adults in Eastern Iran during COVID-19.	300 older adults	Descriptive-analytical	Iran	Sadeghi et al., 2024
44	Investigate if death anxiety mediates the association between fear of COVID-19 and mental health outcomes.	86 undergraduate students	Longitudinal course evaluation	United States	Weisskirch and Crossman, 2024
45	Determine the prevalence and risk factors of death anxiety and fear of COVID-19 in Shiraz city, south of Iran.	982 participants	Cross-sectional	Iran	Mani et al., 2022
46	Determine the levels of anxiety about Death among social workers in Spain.	304 People	Cross-sectional	Spain	Martínez-López et al., 2021

47	Investigating death anxiety and its related factors in Chinese older people during COVID-19.	264 participants	Cross-sectional	China	Yang et al., 2025
48	Determine the relationship between depression, hopelessness, and life satisfaction with death anxiety and the determinants of death anxiety in individuals who have had COVID-19.	402 adult individuals	Descriptive and correlational	Turkey	Lok et al., 2023
49	Examine the association between perceived stress, death anxiety, psychological, and sociodemographic and clinical features in COVID-19 patients.	304 patients	Descriptive cross-sectional	Turkey	Eren et al., 2023
50	Examine the quality of life and illness acceptance among end-stage renal disease (ESRD) patients on hemodialysis, with a focus on the moderating role of death anxiety, especially during the COVID-19 pandemic.	240 ESRD patients on hemodialysis	Cross-sectional	Malaysia	Mushtaque et al., 2024
51	Determine the relationship between death anxiety and happiness during the COVID-19 pandemic among the undergraduate students of Zanjan University of Medical Sciences, Zanjan, Iran, in 2021.	395 undergraduate students	Correlational-descriptive	Iran	Fathian et al., 2023
52	Assess the DA and factors associated with it in nurses during the COVID-19 pandemic.	818 nurses were enrolled in four papers	A Systematic Review	Iran	Ghazanfari et al., 2022
53	Investigate the role of spiritual health and religious coping in predicting death anxiety among patients diagnosed with COVID-19.	200 patients diagnosed with COVID-19	Descriptive-correlational	Iran	Mirhosseini et al., 2020
54	Explore how terror management theory can illuminate public behavioral and emotional reactions to COVID-19; specifically, to highlight death anxiety as a transdiagnostic construct that influences COVID-related anxiety and broader mental health conditions.	-	Theoretical review / narrative synthesis	U. K	Menzies and Menzies, 2020
55	Estimate the pooled score of death anxiety during the COVID-19 pandemic.	9 articles	A Systematic Review	Cross-national	Patra et al., 2025
56	Identify the relationship of the degree of anxiety before Death with sociodemographic, health, and religious variables in Peruvian adults during the COVID-19 pandemic.	386 adults	Cross-sectional and descriptive study	Peru	Canales and Huamán, 2020
57	Identify working conditions and their effects on nursing professionals' health during the COVID-19 pandemic.	15 nursing professionals	Descriptive, exploratory, and qualitative approach	Brazil	Galon et al., 2022
58	Identify working conditions and their effects on nursing professionals' health during the COVID-19 pandemic.	(n=15,132)- health professionals; (n=21,480)- invisible health workers	Cross-sectional study	Brazil	Machado et al., 2023
59	Explore the experience of fathers who had their babies hospitalized in the Neonatal Unit while their partner was hospitalized due to worsening of COVID-19.	4 fathers	Phenomenological (qualitative research)	Chile	Mena et al., 2024
60	Analyze the social representation of COVID-19 among the general population of a small-sized city in the State of Rio de Janeiro.	One hundred healthcare service users participated.	Qualitative study, based on the structural ap		