REVIEW ARTICLE

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Expert Consensus In Developing A Resilience Model For Critical Care Nurses In The Post-Pandemic Era: A Concept Paper

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ABSTRACT

Background: The COVID-19 pandemic has had a lasting and profound impact on the mental health and emotional well-being of critical care nurses, exacerbating burnout, anxiety, and moral distress. This concept paper aims to develop a comprehensive and context-specific resilience model, designed to address the unique stressors and challenges critical care nurses continue to face in the post-pandemic era.
Methods: Using a modified Delphi method, the study will engage a multidisciplinary panel of experts, including senior critical care nurses, researchers, nurse educators, mental health professionals, and healthcare leaders. To clarify the novelty of the study, the Delphi process will involve multiple iterative rounds of expert feedback and refinement, supported by AI-assisted thematic analysis to enhance thematic accuracy and ensure emerging patterns are captured.
Results: The resulting model will holistically integrate individual coping strategies, interpersonal support mechanisms, and organizational-level factors, reflecting a dynamic resilience ecosystem tailored to critical care settings. By embedding co-design principles, the model will reflect real-world experiences and ensure practical applicability.
Conclusion: Findings from this study have the potential to guide the development of targeted interventions, including stress management programs, peer support networks, leadership training, and organizational policy changes. Ultimately, the study aims to contribute to sustainable workforce strategies, enhancing nurse well-being, improving patient care quality, and strengthening long-term workforce resilience in critical care nursing.

Keywords: Critical care nursing; Nurse resilience; Modified Delphi method; Post-pandemic

INTRODUCTION

The COVID-19 pandemic has had a profound and multifaceted impact on critical care nurses. The experiences exposing them to unprecedented physical, psychological, and emotional challenges (1). These nurses found themselves at the frontline of care, bearing the inevitable burden of safeguarding patient lives, but at the same time, facing risks to their own health and well-being. Physically, critical care nurses endured increased and overwhelmed workloads caused by severe staffing shortages and the relentless influx of critically ill patients (2). For instance, prolonged shifts, compounded by the constant use of personal protective equipment (PPE), contributed to physical exhaustion and occupational strain (3). This relentless physical toll fueled burnout, especially in settings where resources were stretched beyond capacity (4).

Combined with physical strain, the psychological impact was equally profound overwhelming. Numerous studies have documented high levels of stress, anxiety, depression, and post-traumatic stress disorder (PTSD) among critical care nurses (5). Moral distress, is the internal conflict caused by witnessing unprecedented death rates, resource rationing, and difficult ethical decisions. All these are added as a unique psychological burden to their professional roles (6). Furthermore, fear of infection and concerns about the health of their families only heightened their sense of vulnerability (7,8).

At the same time, the emotional toll was just as devastating. Critical care nurses carried the weight of deep grief and helplessness, watching patients deteriorate rapidly despite their tireless efforts to save them (9,10). Many described feeling completely drained, trying to offer compassionate care to others while quietly battling their own fears and uncertainties about the virus and their own safety (11,12). To make matters worse, social distancing measures, a lack of peer support, and restricted contact with family left many nurses feeling profoundly isolated. Without a strong sense of connection, their emotional resilience was stretched to the breaking point (13).

In this context, looking back to 2021, during the peak of COVID-19, it is impossible to ignore how resilience became more than just a buzzword. In fact, the phenomenon had became a lifeline for critical care nurses. It was what helped them keep going despite the fear, exhaustion, and heartbreak they faced every single day (14). However, resilience is not an innate characteristic and may vary among individuals. Nevertheless, resilience is something that grows and evolves depending on how well the critical care nurses were supported, the coping strategies they develop, and the environment the nurses work (15). As the researcher started exploring the research on resilience, one thing stood out: most of the existing models were created long before the pandemic even existed. This is a new challenge for all critical care nurses to rely on because these older models just did not capture what critical care nurses actually went through during COVID-19. For instance, things like the crushing moral distress of making impossible decisions, the emotional numbness that comes from witnessing loss after loss, and the deep uncertainty about what each day would bring. Resilience during a crisis like this is not the same as resilience in normal times, and that is exactly why we need to rethink how we understand and support it.

Moreover, many traditional models tend to focus heavily on individual resilience traits, potentially overlooking the crucial roles of team support, leadership, and institutional policies in shaping resilience within high-intensity environments like critical care units. As the healthcare system moves into the post-pandemic era, there is an urgent need for a context-specific, multidimensional resilience model tailored to the real-world experiences and evolving needs of critical care nurses. Hence, this study seeks to fill that gap by proposing a comprehensive, post-pandemic resilience model for critical care nurses, informed by expert consensus, AI-assisted thematic analysis, and a co-design approach. By developing a model that reflects the full spectrum of individual, interpersonal, and organizational resilience factors, this work aims to equip healthcare systems with evidence-based strategies to support and sustain the critical care nursing workforce in the years ahead.

Problem Statement

The COVID-19 pandemic did not just change the workday for critical care nurses, but it resulted in substantial emotional and psychosocial disruption, both at work and at

home. These nurses were not just doing their daily jobs. But, they were fighting to keep people alive in the middle of a crisis unlike anything they had ever faced. And along the way, they saw more suffering and death than anyone should have to witness (1). It is no surprise that studies show burnout, anxiety, depression, and even symptoms of post-traumatic stress have become part of their reality. For a long time, resilience has been seen as something that helps nurses handle stress, both critical and non-critical care nurses. It is a kind of inner strength that keeps them going when the job gets tougher. However, the existing resilience models were built before the pandemic. It was before nurses were asked to hold the line during a global emergency that pushed them far beyond normal workplace stress (4). These older models do not fully capture what it feels like to show up day after day, making impossible ethical decisions, carrying the weight of loss, and living with the fear of bringing a deadly virus home to the people they love.

This paper aims to bridge that critical gap by developing a comprehensive resilience model, specifically tailored to the lived experiences and evolving challenges of critical care nurses in the post-pandemic era. This proposed model will do the following:

i. Acknowledge and capture the unique stressors that continue to shape the well-being of critical care nurses, including but not limited to:
   - Prolonged exposure to high-stress environments: Long shifts, chronic understaffing, and the constant pressure to maintain high-quality care create a state of ongoing, cumulative stress (16,17).
   - Moral distress: Critical care nurses often witness profound suffering and face difficult end-of-life decisions, particularly when resources are scarce. These ethical dilemmas leave a psychological imprint long after the immediate crisis passes (18).
   - Long-term psychological impacts: Beyond day-to-day stress, many nurses carry the weight of trauma, having personally experienced loss, fear of infection, or the death of colleagues and patients (19).

ii. Identify the key factors that foster resilience in this population, recognising that resilience is not solely about individual strength, but about a complex web of supports operating at different levels:
   - Individual factors, such as personality traits, adaptive coping mechanisms, self-care habits, and personal sense of purpose (15,40).
   - Interpersonal factors, including peer support, mentorship, and strong team cohesion (21).
   - Organisational factors, such as supportive leadership, access to mental health services, positive work environments, and policies that prioritize staff well-being (21).

This study will explore how these individual, interpersonal, and organizational factors interact, forming a resilience ecosystem that directly influences nurse well-being and their ability to sustain compassionate, high-quality care in critical care settings. Ultimately, the goal is to co-create a practical, evidence-based model that can guide the development of meaningful interventions to strengthen resilience among critical care nurses. These interventions may include: firstly, education and training programs that equip nurses with tools for stress management, emotional regulation, and self-care (22). Secondly, organisational initiatives aimed at building a culture of psychological safety, improving access to mental health support, and ensuring that nurse well-being is embedded into leadership priorities (23). Thirdly, peer support programs that foster safe spaces for open conversations, shared experiences, and mutual emotional support (24).

By developing a comprehensive and context-sensitive resilience model, this study seeks to support the well-being of critical care nurses, enhance patient care outcomes, and contribute to a more sustainable critical care workforce in the uncertain and demanding healthcare landscape of the post-pandemic era. The objectives of this concept paper are to identify the key factors contributing to resilience among critical care nurses, to examine the relationships between these factors, and to develop a consensus-based model of resilience for critical care nurses.

Literature Review

Resilience is the capacity to adapt, grow, and continue to thrive, even when faced with relentless challenges. For critical care nurses,

building resilience is essential. It is not only for their own well-being, but also for the quality and safety of care they provide to patients in critical and often life-threatening conditions. Strategies of building resilience could be at critical care nurses' individual level and also organisational level.

At Individual-Level Strategies, mindfulness and stress management techniques: Mindfulness practices, such as meditation and deep breathing exercises, can help nurses cultivate present-moment awareness and reduce stress (25). Many scholars reported benefits of cognitive behavioral therapy (CBT) techniques, such as cognitive reframing and problem-solving strategies, can help nurses challenge negative thought patterns and develop effective coping mechanisms (26). Prioritizing physical health through regular exercise, healthy nutrition, and sufficient sleep is crucial for stress management and overall well-being (60). Engaging in activities that promote emotional well-being, such as spending time in nature, pursuing hobbies, and connecting with loved ones, can help nurses recharge and maintain emotional balance. Connecting with the inherent value of their work and finding meaning in their contributions to patient care can provide nurses with a sense of purpose and motivation (27). Engaging in reflective practices, such as journaling or debriefing sessions, can help nurses process their experiences and find meaning in challenging situations.

Whereas, at Organizational-Level Strategies, few factors attribute to the strategies. Supportive Work Environments: Creating a supportive and compassionate work environment is essential for fostering resilience. This includes fostering open communication, valuing teamwork, and promoting a culture of respect and appreciation. Implementing flexible work schedules and providing adequate staffing levels can help reduce workload stress and improve work-life balance (28). Access to Resources and Support: Providing access to mental health services, such as counselling and peer support programs, is crucial for addressing the emotional and psychological needs of nurses (29). Offering access to wellness programs, such as yoga classes, mindfulness workshops, and stress management training, can equip nurses with valuable tools for self-care (30). Leadership and Management Support: Strong leadership and management support are essential for creating a resilient workforce. Leaders should prioritise the well-being of their staff, actively listen to their concerns, and address workplace stressors proactively (31). Recognizing and acknowledging the contributions of nurses and celebrating their successes can boost morale and enhance their sense of value (32). Hence, the researcher would like to emphasise here, that fostering resilience in critical care nurses requires a multifaceted approach that addresses both individual and organisational factors. By implementing a combination of individual self-care strategies and organisational supports, healthcare institutions can create a more resilient and sustainable workforce, ensuring that nurses can continue to provide high-quality care while maintaining their own well-being.

Unique Challenges and Stressors in Critical Care Nursing

The following discussion will highlight the unique challenges and stressors faced by critical care nurses. Due to certain limitations, this concept paper will highlight a few examples, high patient acuity, ethical dilemmas, and emotional labor.

Critical care nursing presents unique and multifaceted challenges that contribute to significant stress and burnout among healthcare professionals. Critical care units often manage patients with high patient acuity with life-threatening conditions, requiring constant vigilance, rapid decision-making, and complex interventions (33). This constant exposure to critically ill patients and the associated uncertainty can lead to high levels of stress and anxiety (17,34). Critical care nurses frequently encounter complex ethical dilemmas, such as end-of-life care decisions, resource allocation, and the use of life-sustaining technologies (35). Navigating these ethical complexities can lead to moral distress, guilt, and emotional exhaustion (36). Critical care nursing demands significant emotional labor, requiring nurses to manage their own emotions while providing compassionate and supportive care to patients and their families (35). This emotional labor can be emotionally draining, particularly when dealing with patient suffering, loss, and family grief (37). High patient-to-nurse ratios, long working hours, and unpredictable schedules can contribute to increased workload stress and burnout (38). Exposing to trauma and

witnessing patient suffering, death, and dying can have a significant psychological impact on nurses, potentially leading to post-traumatic stress disorder (PTSD) and other mental health challenges (39).

In the next paragraphs, the researcher will revisit the definitions and conceptualisations of nurse resilience. Resilience in nursing has emerged as a critical area of research, recognizing the demanding nature of the profession and the need for nurses to effectively cope with stressors.

There are many definitions of nurse resilience. Southwick et al. (15) define resilience as "the ability to bounce back from adversity, adapt to challenges, and thrive in the face of stress." Ungar (46) emphasizes resilience as "the capacity of individuals, families, and communities to cope with adversity and to bounce back from traumatic stress." In the context of nursing in this concept paper, resilience can be defined as the ability of nurses to effectively cope with the stressors inherent in their profession, maintain their well-being, and continue to provide high-quality patient care despite adversity (e.g., high patient acuity, emotional labor, workplace stress) (40).

One wonders what attributes to this. Key attributes of nurse resilience that the researcher obtained from a few scholars are: Self-efficacy: Belief in one's ability to cope with challenges and overcome obstacles (41). Optimism: A positive outlook and a tendency to expect positive outcomes (42). Social support: The presence of strong social networks and supportive relationships (43). Self-care: Engaging in healthy behaviors that promote physical and emotional well-being, such as exercise, nutrition, and relaxation techniques (44). Meaning-making: Finding meaning and purpose in one's work and life (45).

On the other hand, when conceptualising resilience in nursing, one should examine the trait-based and process-based. In trait-based, some conceptualizations view resilience as a stable personality trait, such as hardiness, optimism, and self-efficacy (15). This perspective suggests that resilient individuals possess inherent characteristics that enable them to withstand adversity. In process-based, other conceptualizations emphasize resilience as a dynamic process involving a complex interplay of personal, social, and environmental factors [46]. This perspective highlights the importance of adaptive coping mechanisms, social support networks, and access to resources in fostering resilience.

Resilience Models in Nursing

Next few paragraphs will be the pivotal points of this concept paper when the researcher discusses the existing resilience models in nursing. Ironically, the researcher also highlights the limitations in addressing the specific needs of critical care nurses in the post-pandemic era. Several resilience models have been proposed in nursing, often drawing upon broader psychological frameworks. Some prominent examples include the following paragraphs.

The Hardiness Model by Kobasa emphasizes three key personality traits: commitment, control, and challenge (47). Kobasa (47) believed that individuals high in hardiness are believed to be more resilient in the face of stress. This model has its own limitations. The Hardiness Model may not fully capture the complexities of the emotional and psychological demands faced by critical care nurses, particularly in the post-pandemic era. Thus, it is timely to revisit new model in this concept paper.

Whereas, the Social-Ecological Model (48) emphasizes the interconnectedness of individual, interpersonal, and environmental factors in influencing human development and well-being. Although it is valuable knowledge in human development, it has its limitations to be addressed. In researcher’s opinion, Social-Ecological Model may not adequately address the specific stressors and challenges unique to the critical care environment, such as moral distress, exposure to trauma, and the impact of prolonged high-stress situations. Therefore, as aforementioned, this concept paper will serve as a new avenue for new model that suites resilience among critical care nursing post pandemic.

Few decades later, the Sense of Coherence Model (49) proposes that individuals with a strong sense of coherence, characterized by a comprehensible, manageable, and meaningful perception of their environment, are more likely to cope effectively with stress. However, it has the limitations to be highlighted. While relevant, the Sense of Coherence Model may not fully account for the profound and enduring impact of the COVID-19 pandemic on

nurses' sense of meaning and purpose, particularly in the context of high mortality rates and ethical dilemmas.

The Self-Determination Theory (SDT) by Ryan and Deci (41), on the other hand, emphasizes the importance of autonomy, competence, and relatedness in human motivation and well-being. Again, the SDT possesses its own limitations. Of all theories and models, although SDT is considered mostly relevant to the nursing context, however, SDT may not adequately address the specific challenges faced by critical care nurses in the post-pandemic era. For example, such as the impact of moral distress on autonomy and the challenges of maintaining work-life balance in demanding environments.

Hence, what are the main limitations of existing models? As highlighted in the discussion above, existing models are limited in their focus to pandemic-specific stressors. Many existing models may not adequately address the unique and enduring challenges faced by critical care nurses in the post-pandemic era, such as prolonged exposure to high-stress environments, moral distress, and the long-term psychological effects of witnessing significant patient suffering and mortality. Also, some models may not sufficiently emphasize the critical role of organizational factors, such as supportive work environments, adequate staffing levels, and access to mental health resources, in fostering nurse resilience. Similarly, many models provide a conceptual framework for understanding resilience but may not offer specific guidance for developing and implementing interventions to enhance resilience in critical care nurses. To address the above issues, the researcher proposes a modified Delphi method in this concept paper to answer the research objectives.

METHODS

Study Design

The Modified Delphi Method will be employed in this study. The modified Delphi method is a systematic and iterative process for achieving consensus among a group of experts on a particular topic. It builds upon the traditional Delphi method by incorporating modifications to enhance its effectiveness and address potential limitations. The Delphi method is particularly well-suited for this study due to several key advantages. Firstly, obtaining expert consensus: The primary objective of this study is to develop a consensus-based resilience model for critical care nurses. The Delphi method is specifically designed to achieve consensus among a panel of experts through an iterative process of feedback and refinement (50). Secondly, minimising groupthink: By allowing experts to express their opinions anonymously in multiple rounds, the Delphi method minimizes the influence of dominant personalities, groupthink, and social pressures that can occur in traditional group discussions (50). This fosters a more objective and independent expression of expert opinions. Thirdly, facilitating knowledge sharing: The iterative process allows experts to learn from each other's perspectives and refine their own views based on the collective feedback of the panel (50,51). This facilitates knowledge sharing and promotes a deeper understanding of the complex issues surrounding nurse resilience.

Subsequently, flexibility and adaptability: The Delphi method can be adapted to address a wide range of research questions and can be modified to suit the specific needs of the study. For example, the number of rounds, the composition of the expert panel, and the specific data collection and analysis methods can be tailored to the research objectives. Fifthly, achieving consensus: The iterative process of feedback and refinement can effectively guide the panel towards a consensus on key issues and facilitate the development of a shared understanding (51). Sixthly, minimising bias: Anonymity can minimize the influence of social pressures and dominant personalities, reducing the risk of bias in expert opinions (52). Lastly, cost-effective: Compared to face-to-face meetings, the Delphi method can be more cost-effective and time-efficient, as it can be conducted remotely (53).

Nevertheless, the researcher acknowledges the limitations of the Delphi method possess. For instance:
(a) Potential for low response rates: maintaining high response rates across multiple rounds can be challenging, which can impact the representativeness of the final results (51).
(b) Dependence on expert participation: the quality of the results depends heavily on the expertise, motivation, and engagement of the panel members (51).

(c) Potential for bias in questionnaire design: the design of the Delphi questionnaires can introduce bias if not carefully considered (54). (d) Difficulties in analysing qualitative data: analysing qualitative data from multiple rounds of Delphi can be time-consuming and complex (51).

Participants and Recruitment

A purposive sampling technique will be used to select a panel of 20-30 experts in critical care nursing, resilience research, and healthcare management. The experts will include: Senior critical care nurses with at least 10 years of experience. Researchers specialising in resilience and mental health in healthcare settings. Healthcare managers with experience in policy-making and implementation.

Data Collection

The data collection process will be conducted in three rounds; Round 1: Open-Ended Questionnaire - The initial questionnaire will solicit open-ended responses from the experts regarding key factors and strategies that contribute to resilience among critical care nurses. This will provide a broad spectrum of insights and generate a comprehensive list of potential model components; Round 2: Rating and Ranking- Based on the responses from Round 1, a structured questionnaire will be developed by the researcher. Experts will be asked to rate and rank the importance of each identified factor and strategy on a Likert scale. This round aims to prioritise the elements based on expert consensus; and in Round 3: Consensus Building- The final round will involve a refined questionnaire incorporating feedback from Round 2. Experts will review the aggregated results and provide their final ratings, aiming to achieve consensus on the critical components of the resilience model.

Data Analysis

In order to clarify the novelty of the proposed study, AI-driven data analysis will be employed. Traditional Delphi studies often rely heavily on manual coding, which is time-intensive and prone to researcher bias (51). By integrating AI-powered natural language processing, this study brings a more objective, data-driven lens to the pattern identification process, while still valuing human expertise in final interpretation. This human-AI collaboration not only enhances the analytical rigor, but also allows the research team to handle richer, more complex data sets, capturing the full emotional and operational complexity of resilience in post-pandemic critical care.

By enhanced with AI-driven data analysis, this study is sought to develop a comprehensive, consensus-based resilience model tailored to the unique needs of critical care nurses in the post-pandemic era. The modified Delphi method is well-suited for gathering expert consensus, particularly in areas where evidence is evolving and real-world experience plays a critical role in shaping practical solutions (51). By incorporating AI-assisted qualitative analysis, this study aims to enhance thematic synthesis, identify hidden patterns, and minimize researcher bias during the interpretation of expert feedback (54).

Here are steps will be taken to conduct the data analysis:

Step 1: Expert Panel Recruitment

At this first step, a multidisciplinary panel will be recruited, including: senior critical care nurses with direct experience of COVID-19 caregiving; nursing educators and resilience researchers who specialize in workforce well-being; mental health professionals familiar with supporting healthcare workers; and healthcare leaders and policymakers who influence institutional strategies related to resilience and well-being.

Step 2: Initial Round

In the first Delphi round, the researcher will identify and invite the Core Themes panellists to identify and describe key factors they believe contribute to or hinder resilience among critical care nurses post-pandemic. This round will include open-ended questions, allowing panellists to draw from their personal experience, professional expertise, and observations.

Step 3: AI-Driven Thematic Analysis

In step 3, all responses will be transcribed and imported into AI-assisted qualitative data analysis software. This AI tool will assist in different ways. Firstly, clustering similar responses into themes using natural language processing (NLP). Secondly, detecting subtle or emerging patterns, such as underlying emotional stressors, system-level frustrations,

or coping innovations. All these that might be missed in manual analysis (54). Thirdly, visualising relationships between factors, helping to map the interplay between personal coping mechanisms, team dynamics, and organizational culture (55). This AI-enhanced process ensures that both explicit feedback and implicit or subtle connections within the data are captured, enhancing thematic depth and reducing human coding bias. This is the step that will clarify the novelty of this study.

Step 4: Iterative Rounds

In this subsequent Delphi rounds, it is also known as Refining and Prioritizing Factors, the panellists will review the emerging themes and factor map generated through AI analysis. They will be asked to prioritise factors, validate interpretations, and suggest refinements. Each round will progressively narrow the focus, moving toward a refined, expert-validated resilience framework.

Step 5: Model Development and Validation

Once consensus is achieved, the final resilience model will be developed. The model will serve different purposes. Firstly, it will illustrate the dynamic relationships between individual, interpersonal, and organizational resilience factors. Secondly, it will highlight priority intervention areas, such as stress management education, peer support, leadership training, and organizational policy changes. Lastly, it will acknowledge the unique, pandemic-specific stressors that shape resilience in today's critical care environment.

Addressing AI Methodology Setbacks and Strategies to Mitigate

Nevertheless, while AI-driven data analysis contributes to the novelty of the proposed study, consideration of methodological limitations and strategies to overcome these challenges remains essential.

AI-generated outputs were verified using a human-in-the-loop approach, supplemented by systematic fact-checking and expert review, in line with established recommendations for mitigating hallucinations and ensuring reliability in generative AI systems (56-58). Bender et al. (57) in their argument clearly articulate and support the need for human oversight, transparency, and critical evaluation of AI outputs. Ji and colleagues' (56) work provides a key reference on AI hallucinations and the importance of fact-checking and verification. On the other hand, Mitchell et al.'s (58) study provides a framework for documentation, transparency, and validation of AI systems.

To ensure participant privacy in the AI-driven methodology, all data will be de-identified prior to analysis, with both direct and indirect identifiers removed or generalised to minimise the risk of re-identification (58,61). Data will be processed using secure, access-restricted systems, and no identifiable information will be entered into publicly accessible or consumer-grade AI platforms, in accordance with recommended safeguards against unintended data retention and secondary use (57). AI analysis will be conducted on institutionally approved or locally hosted systems that do not retain, reuse, or further train on input data, thereby ensuring compliance with responsible data governance and ethical AI practices (58, 62). Human-in-the-loop oversight will be maintained throughout the analytical process to review AI outputs and prevent the generation or inference of sensitive information, consistent with established ethical frameworks addressing AI limitations and hallucination risks (56, 62).

Ethical Considerations

Ethical approval will be obtained from a selected hospitals' Ethical Review Board. Informed consent will be sought from all participants, ensuring their anonymity and the confidentiality of their responses. Participation will be voluntary, and experts can withdraw from the study at any stage without any consequences.

Expected Outcomes

The Delphi method is anticipated to result in a validated resilience model that highlights key factors and strategies to support critical care nurses in the post-pandemic era. The model will provide practical guidelines for healthcare institutions to enhance nurse resilience, reduce burnout, and improve overall well-being and job satisfaction.

Significance and Implications

This research has the potential to significantly impact the well-being and resilience of critical care nurses. By developing a comprehensive and contextually relevant resilience model,

this study would provide few benefits. Firstly, improve nurse well-being. The model can inform the development and implementation of targeted interventions to enhance resilience, such as stress management training, mindfulness programs, and peer support initiatives (15). By addressing the unique challenges faced by critical care nurses, these interventions can help to reduce burnout, anxiety, and depression, and improve overall mental health and well-being. Secondly, enhance patient care outcomes. Resilient nurses are better equipped to provide high-quality, compassionate care. By improving nurse well-being and resilience, this research can indirectly contribute to improved patient outcomes, such as reduced patient mortality and improved patient satisfaction (59). Thirdly, broader body of knowledge. This study will contribute to the growing body of knowledge on nurse resilience by providing a deeper understanding of the factors that contribute to resilience in the critical care setting, particularly in the context of the COVID-19 pandemic. The findings of this study can inform future research on resilience in other healthcare settings and contribute to the development of evidence-based interventions to support the well-being of healthcare professionals.

On the other hand, the findings of this study have significant implications for nursing practice, education, and policy. In nursing practice, the developed resilience model can be used to guide the development of clinical practice guidelines and best practices for supporting the well-being of critical care nurses. In nursing education, the findings can be integrated into nursing curricula to educate future nurses about resilience, stress management, and self-care strategies. Whereas, in policy development, the findings can inform the development of policies that support nurse well-being, such as improved staffing ratios, access to mental health services, and flexible work arrangements.

CONCLUSION

In conclusion, developing a resilience model for critical care nurses in the post-pandemic era is crucial for ensuring their well-being and effectiveness in high-stress healthcare environments. The expert consensus approach used in this study has provided valuable insights into the key factors and strategies that contribute to building resilience among critical care nurses. The resulting model offers a comprehensive framework that can guide healthcare institutions in implementing targeted interventions to support nurses, reduce burnout, and enhance overall job satisfaction and organizational commitment. By prioritising resilience, healthcare systems can better equip their workforce to handle future challenges and maintain high standards of patient care.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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AUTHORS CONTRIBUTIONS

YBL: Conceptualisation, study design, manuscript preparation.

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